



The effects of advertisement disclosure on heavy and light Instagram users

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Abstract

The present study investigates the moderating effect of usage intensity of the social networking site (SNS) Instagram (IG) on the influence of advertisement disclosure types on advertising performance. A national sample (N = 566) participated in a randomized online experiment including a real influencer and followers in order to investigate how different advertisement disclosure types affect advertising performance and how usage intensity moderates this effect. We find that disclosing an influencer's postings with "#ad" increases the trustworthiness of the influencer and the general credibility of the posting for heavy users, but not for light users. Followership of a user has been found to strongly improve all researched variables (attitude toward product placement, trustworthiness of the spokesperson and general credibility of the posting). This study adds to literature the first distinction on heavy and light usage intensity, and on followership of an IG user when regarding the effects of advertisement disclosure types on advertising performance. To conclude, we present a number of recommendations regarding how advertisers, influencers, and SNS providers should develop strategies for monitoring, understanding, and responding to different social media users, e.g., to closely monitor an influencer's audience to identify heavy users and optimally target them.

Keywords Advertisement disclosure · Heavy and light users · Usage intensity · Social networking site · Influencer marketing · Advertising performance

JEL Classification C21 · C83 · C90 · D18 · D82 · K21 · M37 · Z18

Introduction

Over the past decade, social networking sites (SNSs) have not only attracted individuals but also advertising companies, creating an entirely new way of marketing and communication (Boujena et al., 2021; Stubb et al., 2019). Whereas traditional media usage is declining, 2.4 billion people

regularly use SNSs (Newberry, 2019). SNSs democratized corporate communication; the power has been taken from those in public relations by the users that create, share, and consume posts, tweets, pictures, movies, etc. (Kietzmann et al., 2011; Weeks et al., 2017). As the user-generated content is thought to be neutral, other users accept these evaluations as credible and authentic (Bruhn et al. 2012). Thus, marketers have recognized this potential, adapted their marketing techniques and started to harness the new possibilities. Influencer marketing is one of these newer methods where influential SNS users – so-called influencers – receive compensation from advertising companies for reviewing, recommending and advertising the focal products to their followers.

Influencer marketing has rapidly grown over the past years and is expected to be worth \$15 billion by 2022, starting from \$8 billion in 2019 (Insider Intelligence, 2021). As there are numerous SNSs with different characteristics, we follow Voorveld et al. (2018) in their suggestion to inspect

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a single platform, instead of “Social Media” as a whole, as they found great differences in usage patterns and the impact on advertising performance across platforms. The paper at hand focuses on Instagram (IG), which is one of the large platforms operated by industry giant Meta Platforms (Voorveld, 2019). Because of its high engagement potential for brands and consumers (Lou & Yuan, 2019), it is arguably the most promising SNS for advertisers right now, especially when trying to reach younger users. 92% of IG users have followed a brand, visited their website or purchased a product after seeing it on IG (Cooper, 2020) and 73% of American teenagers see IG as the best way for brands to inform them about products (Newberry, 2019). SNS influencers are opinion leaders who communicate with a sizeable social network of people following them (De Veirman et al., 2017; Uzunoğlu & Kip, 2014).

With this new model of marketing on SNSs, users are exposed to a mix of editorial and commercial content (Dahlen & Rosengren, 2016), leading to a situation with asymmetrical information between the user and the SNS influencer, as users might not recognize the true nature of a post. Recently, the lack of transparency of these sponsored posts has been increasingly criticized by public policy, as the user is no longer able to distinguish whether a product recommendation is genuine or results from a paid collaboration with a brand (Evans et al., 2017; FTC, 2017b). With this, advertisement disclosure types such as “ad”, “sponsored” or “not sponsored” emerged, which might help to reduce the information asymmetries between users and SNS influencers. Due to the plethora of different advertisement disclosure types, users might feel deceived and confused about the ambiguity of them (FTC, 2017a, 2017b). A large body of literature has examined the impact of such disclosure types on consumer response (Boerman et al., 2014, 2017; De Cicco et al., 2021; De Veirman et al., 2017; Evans et al., 2017; Jing Wen et al., 2020; Lee & Kim, 2020; Van Reijmersdal et al., 2016; Wojdyski & Evans, 2016).

Despite the growing number of studies on the disclosure of influencer advertising and its effects on brand and influencer evaluation, there are several limitations to this body of work. Firstly, virtually all of these papers are limited in terms of the experimental design since they used fictional posts and fictional influencers' or bloggers' profile accounts (Carr & Hayes, 2014; De Veirman & Hudders, 2020; Lou & Yuan, 2019). Secondly, as a result, none of these investigations consider the opinion and outcome performance of real followers of the influencer. It is thus imperative to integrate actual followers in the study sample, because individuals generally trust friends and acquaintances more than strangers (Zacharia & Maes, 2000). Moreover, according to the parasocial interaction theory (Horton & Wohl, 1956) it is known that following a person enables the follower to get to know the followee, interact and develop attitudes toward

them, or even experience feelings of intimacy (Boerman, 2020). Thirdly, considering that the practice to use the disclosure “non-paid advertisement” is relatively new, there is little prior research on the subject of explicitly disclosing sponsorship in Social Media posts (De Veirman & Hudders, 2020; Stubb & Colliander, 2019). Most studies have focused on either the position (Krouwer et al., 2017; Wojdyski & Evans, 2016), duration (Boerman et al., 2012) or the simple effect of disclosure versus no disclosure (Boerman et al., 2017; Hwang & Jeong, 2016). Fourthly, our study extends previous research by taking into consideration the moderating effect of IG usage intensity on the influence of advertisement disclosure types on advertising performance. So far, researchers have only taken a deeper look at determinants of SNS usage intensity (Buettner, 2017a; Huang & Su, 2018; Kircaburun et al., 2020; Tsai & Men, 2013) and effects of SNS usage intensity (Boer et al., 2021; Florenthal, 2015; Kalpidou et al., 2011; Kim et al., 2014; Vitak et al., 2011; Woo Yoo & Gil de Zúñiga, 2014), while others considered usage intensity in regard to advertising performance (Wirtz et al., 2017). To the best of our knowledge, there is no paper examining the moderating effect of IG usage intensity on the effect of different advertisement disclosure types on different dimensions of advertising performance in a randomized online experiment that examines the interplay between a real influencer and his/her followers. We address this gap in the literature with the study at hand.

As SNSs are widespread among the population, there is a large variance of usage intensity. While some users are considered to be so-called “heavy users”, others rarely use the platform at all. Antecedents of heavy SNS usage include the desire to document important events (Huang & Su, 2018). Regarding effects of different SNS usage intensity, e.g., Kalpidou et al. (2011) researched how time spent on Facebook and the friend count affected self-esteem and college adjustment. They found heavy SNS usage intensity to have different outcomes depending on whether they looked at first-year or upper-class students. Vitak et al. (2011) found a link between SNS usage intensity in general and political activity on SNS, which itself leads to political participation offline. But so far, no one looked at the moderating effect of usage intensity on advertisement disclosure types. Thus, in the paper at hand, we focus on the moderating effect of IG usage intensity on the influence of advertisement disclosure types on advertising performance. Studying moderating effects allows us to obtain a more thorough understanding of the inner mechanisms of users' responses, attitudes and behaviours. The overarching research question we try to answer in this paper, is as follows: “How do different advertisement disclosure types and followership affect advertising performance and how does usage intensity moderate these effects?”. We distinguish heavy and light IG users by performing a mean split derived from our data. Weekly usage

of IG by ten hours or more indicates heavy users. The opposite, weekly usage of IG of less than ten hours stands for light users. We then research both groups individually, to determine whether they respond in different manners to different disclosure types measured by the dependent variables attitude toward product placement, trustworthiness of the spokesperson and general credibility of the posting.

This paper is organized as follows. The following two sections give an overview of current relevant theoretical and empirical research done in the fields of disclosure types, and heavy and light users leading to our hypotheses. The next section introduces the methodology we used, including the experimental design, stimulus material, the surveyed participants, taken measures and preliminary analysis. Afterward, we report our results. The last section comprises a general discussion and conclusion of our results, theoretical and managerial implications of our findings, especially for the three key entities involved in influencer marketing (advertisers, influencers, and SNS providers), and the study's limitations including fruitful avenues for future research.

Related literature

Advertisement disclosure types in sponsored posts

Nowadays, SNSs have facilitated a new way for brands to address and interact with consumers. Discussions about the lack of transparency for users occurred, as followers often cannot distinguish between a sponsored post and a personal recommendation anymore (Sammis et al. 2015). In particular, several legal proceedings about hidden advertisements on IG and YouTube have attracted high media attention in the past years. The Federal Trade Commission (FTC) has been trying for years to crack down on unclearly and inconspicuously disclosed influencers' relationships to brands, e.g., by sending letters to influencers that instruct them to clearly disclose their sponsored content (FTC, 2017a). Mega-influencers (Maheshwari, 2018), including Kylie Jenner or Kim Kardashian, already had issues regarding deceptive advertising complaints that come to the FTC (Kilkenny, 2017). It is thus not surprising that nano- and micro-influencers also have difficulties to properly disclose sponsored content. For example, in case of the German influencer Vreni Frost the district court of Berlin ruled that, as a person with a follower number of more than 50,000 on IG, by tagging the brand in her post, she raises awareness about this brand and thus has to disclose it as advertising (Landgericht Berlin, Urt. v. 24.05.2018—52 O 101/18). Similarly, the district court of Karlsruhe (Germany) argued in the case of Pamela Reif, who refused to accept the warning letter accusing her of hidden advertising that even self-paid product recommendations of some posts or the fact that the defendant is

not compensated for all posts do not prevent from misleading the follower (Landgericht Karlsruhe, Urt. v. 21.03.2019 – 13 O 38/18 KfH). According to § 5a UWG (Gesetz gegen den unlauteren Wettbewerb, *Law against unfair competition*), § 6 TMG (Telemediengesetz, *Telemedia Act*) and § 58 RStV (Rundfunkstaatsvertrag, *Interstate Broadcasting Agreement*), the promotional background of a posting must be recognizable for SNS users. Conversely, the district court of Munich (Germany) dismissed a case against Catherine Hummels, who was accused of surreptitious advertising, claiming that the commercial nature of Catherine Hummels' account is visible to her followers, and therefore she is not obliged to disclose unpaid advertising (Landgericht München Urt. v. 29.04.2019, Az. 4 HK O 4985/18). A recent draft law by the German federal government tries to settle this issue by clarifying that posts featuring a brand have to be disclosed, only if there is compensation by the brand (Bundesregierung, 2021). This would supersede disclosure types such as "unpaid_advert", which will be explained later on. Currently, either "Anzeige" or "Werbung" (both meaning advertisement, similar to "ad" and "commercial") at the beginning or clearly visible in the post description are considered as legally correct in Germany (Kiel & Solf, 2019). Likewise, in the US, the FTC suggests using hashtags such as "#ad", "#sponsored", or "#paid" in sponsored posts (FTC, 2017b). However, for now, the guidelines are rather advisory than binding and leave room for interpretation as well as different implementations (Krouwer et al., 2017). There is a broad range of forms and appearances of disclosure types that differ for example in language, position and colour and such design characteristics have been found to affect consumers' advertising recognition (Wojdyski & Evans, 2016). With the employed practices consumers often do not understand the meaning of advertisement disclosure types and what the term conveys about the relationship between brand and influencer (Kim & Kim, 2021; Wojdyski et al., 2017). Consequently, in fear of warnings and lawsuits, many influencers started to label all posts as sponsorship; or add new forms of disclosing like "unpaid_advert", which lead to more confusion among SNS users since one is not able to distinguish editorial from commercial content anymore (Hwang & Jeong, 2016). Labelling brand deals has already become a big part of SNS. This raises the question of how advertisement disclosure types in influencer marketing will affect the user, their perception and engagement.

Effects of different advertisement disclosure types

Influencer marketing is a form of advertising, where the sponsored nature of posts is often inconspicuous or ambiguous. The strategy has many benefits for brands and some consumers perceive the practice as acceptable because they understand that this is how influencers generate income to

create their content (Van Dam & Van Reijmersdal, 2019). However, it is also the target of a lot of criticism because sponsored content is often made to look like ordinary, uncompensated posts (Evans et al., 2017). This information asymmetry and lack of transparency make it very hard for users to distinguish between sponsored and not sponsored content (Boerman et al., 2017; De Cicco et al., 2021), so the commercial nature may be unclear and it may seem like the influencer's statements are their own, unbiased opinions, when in reality they are not (Evans et al., 2017). To help users identify native advertising, several regulatory parties (EASA, 2018; FTC, 2017a) recommend using disclosure for sponsored posts.

Thus, numerous studies investigated the effects of advertisement disclosure types and advertisement recognition but led to partly contradictory results. Some studies revealed that there are negative effects of advertising disclosure with regard to consumer behavioural outcomes. Boerman et al. (2012) showed that after an advertisement disclosure has activated conceptual persuasion knowledge, this results in higher attitudinal persuasion knowledge, i.e., critical beliefs and distrust in the sponsored content. In the same vein, De Veirman and Hudders (2020) indicated that a sponsorship disclosure negatively affected brand attitude through increased advertisement recognition, which induces ad skepticism, which lowers influencers' credibility. However, other studies have found positive consequences of an advertising disclosure on user behavioural outcomes as higher purchase likelihood (Kay et al., 2020), increased brand recall, and enhanced intention to engage with the influencer's content (Boerman, 2020).

Moreover, in addition to mixed results of previous research with regard to the effects of sponsorship disclosure in Social Media influencer marketing on users' responses, there are a number of limitations to this body of work. Firstly, virtually all of these papers exploited mostly fictional posts and influencers' or bloggers' profile accounts (Carr & Hayes, 2014; De Veirman & Hudders, 2020; Lou & Yuan, 2019), which makes it impossible to investigate the behavioural outcomes of real followers of the influencers, who know and follow their favourite content creator. Secondly, many of these studies are centrally focussed on examining the effect of disclosure versus non-disclosure rather than impartial advertisement disclosure. The impartial disclosure describes a situation where the influencer is not paid to recommend the product or service. They might be affiliated with the company in other ways, or not at all. Influencers recently started to use declarations such as #nonsponsored or "This post is not sponsored" to highlight to their followers that they were not paid for this recommendation. To date, only two studies have investigated the effect of such disclosures with similar

findings, using genuine and impartial disclosures lead to a more favourable response, not only of the influencer but also of the brand (De Veirman & Hudders, 2020; Stubb & Colliander, 2019). Thirdly, the majority of the previous research is based on surveys and observational data, which suffer from endogeneity biases, which, in turn, leads to biased and inaccurate results, and poses the risk of drawing incorrect conclusions about cause and effect relationships between concepts of interest (Zaefarian et al., 2017). Finally, none of the studies investigates moderating effect of the SNS usage intensity in regard to the effects of advertising disclosure on users' behavioural effects. Through presenting data from a study designed on a real IG post with four different disclosing options, which considers the followers' and non-followers' different points of view on influencer content and investigating the moderating effect of the usage intensity, this paper addresses all of these gaps in knowledge.

Persuasion Knowledge Model

The Persuasion Knowledge Model (PKM) (Friestad & Wright, 1994) provides an appropriate framework for interpreting and understanding how consumers recognize and evaluate such covert persuasion tactics (Ham & Nelson, 2016; Verlegh et al., 2015). The PKM describes how people develop general knowledge about persuasion and how people use this knowledge to interpret, evaluate, and respond to persuasion attempts (Friestad & Wright, 1994). The PKM model consists of "a target" – i.e., the party who is attempted to be persuaded, "an agent" who tries to persuade the target, and three types of knowledge on both sides: topic knowledge, agent knowledge, and persuasion knowledge. From the targets' (i.e., consumers) perspective, topic knowledge refers to beliefs about the topic or advertisement subject. Persuasion knowledge adheres to beliefs about the marketers' motives and strategies. Finally, agent knowledge refers to beliefs and perceptions of the agent's (i.e., influencer's) traits, abilities and goals. Transferring the PKM to the influencer marketing context, the influencer is acting as an agent, and the target is the social media user exposed to the agent's advertising post. Thus the paid posting on social media can be considered a persuasion attempt (Kim & Song, 2018). The response to a persuasion attempt is based on these three types of knowledge and results in the target's personal persuasion coping behaviour (Kirmani & Campbell, 2009). Although marketing literature acknowledges several different strategies that consumers can use to respond to persuasion attempts (Kirmani & Campbell, 2009), in this study – for the sake of simplicity – we classify consumers' coping behaviour into resistance or compliance with the agents' request.

Drawing upon this model, a growing number of studies have examined how consumers process and respond to advertising in the digital media landscape (Ham & Nelson, 2016; Lee et al., 2016). The Persuasion Knowledge Model is widely used in the literature to describe the effects of advertisement disclosure types and consumers' advertisement recognition in both traditional communication media as well as Social Media; in a television context (Boerman et al., 2012), in radio shows (Wei et al., 2008), in the context of advergames (Van Reijmersdal et al., 2015), blogs (Campbell et al., 2013; Carr & Hayes, 2014; Hwang & Jeong, 2016), Facebook posts (Boerman et al., 2017; Hughes et al., 2019), tweets on Twitter (Hayes et al., 2020), YouTube videos (Evans et al., 2018; Stubb & Colliander, 2019), and in the context of IG posts (Boerman, 2020; De Veirman & Hudders, 2020; Evans et al., 2017; Kay et al., 2020; Kim & Kim, 2021; Lee & Kim, 2020; Lou et al. 2019). In these studies, recognizing hidden persuasion intents activated a significant degree of persuasion knowledge, which led consumers to resist the agent's persuasion attempt.

Persuasion knowledge refers to consumers' knowledge and beliefs that allow them to notice, process, evaluate and remember persuasion attempts as well as to their coping strategies to defend against these tactics, which include doubting, resisting, and counter-arguing (Friestad & Wright, 1994). This awareness of persuasive intents is formed by experience with persuasion communication and continues to develop over time (Friestad & Wright, 1994). By applying their persuasion knowledge, viewers draw conclusions about the advertiser's motives and consequently critically refine their attitude toward the content and the advertiser as well as their behavioural intentions (Rozendaal et al., 2011; Wojdyski & Evans, 2016). However, in native advertising and, in particular, in influencer marketing the boundaries between commercial and editorial content are blurred and persuasion attempts may be very subtle and not immediately recognizable (Boerman et al., 2017). Consumers will only notice a persuasive attempt in an advertisement (here Instagram post) when cues of any kind lead them to that conclusion and as such elements of the communication, like advertisement disclosure types, can be a means to help people access their persuasion knowledge (Boerman et al., 2014; Evans & Park, 2015).

Heavy and light online media users

Numerous examples research heavy and light usage intensity of media, including TV (Kwak et al., 2002), online media in general (McClung & Johnson, 2010; Sundar, 2012; Teng et al. 2018; Twenge & Campbell, 2019) and SNSs in particular (Buettner, 2017b; Huang & Su, 2018; Kalpidou

et al., 2011; Kircaburun et al., 2020; Vitak et al., 2011), leading to heterogenous outcomes for the user groups.

The level of a user's interaction with online media impacts the perception of the mediated communication, e.g., its source, modality and message (Sundar, 2012). According to a summary of ten articles by Calder et al. (2009), the baseline is that higher engagement with a media leads to higher responsiveness for advertising. Additionally, they report a study, researching whether website engagement affects advertising effectiveness. They link engagement to usage frequency and find that social-interactive engagement (e.g., commenting) affects reactions to advertisements (Calder et al., 2009).

Teng et al. (2018) take a closer look on 342 internet users with online shopping experience. They find purchase intentions of heavy and light users impartially influenced. While heavy users reacted strongest to interactivity, light users were only affected by aesthetic appeal. Further, Twenge and Campbell (2019) link the digital media usage intensity to psychological well-being. They found light users (less than one hour per day) to have higher psychological well-being than heavy users (over five hours per day). Interestingly, they found light users to be highest in well-being, even compared to moderate or non-users.

Heavy and light SNS users

When looking at SNSs, we find studies dealing with determinants of engagement with SNSs (Buettner, 2016; Huang & Su, 2018; Kircaburun et al., 2020; Tsai & Men, 2013), next to others researching the effects of heavy and light usage intensity of SNSs on e.g., political participation (Vitak et al., 2011; Woo Yoo & Gil de Zúñiga, 2014), information gathering (Kim et al., 2014), college students (Florenthal, 2015; Kalpidou et al., 2011), brand equity (Stojanovic et al., 2018) and mental health (Boer et al., 2021). Some consider determinants and effects simultaneously (Wirtz et al., 2017). Although dealing with various effects of SNS usage intensity, so far, none of these studies has dealt with the heterogeneous treatment effects of advertisement disclosure on heavy and light users of SNSs. Considering the multiple effects usage intensity has on the above-mentioned variables, it might also moderate the relationship between advertisement disclosure types and advertising performance. The aforementioned authors research antecedents and/or effects of SNS usage intensity, partially with focus on advertising performance, but completely dismiss advertisement disclosure types. To the best of our knowledge, there are no papers out there, researching the moderating effect of IG usage intensity on the effect of advertisement disclosure types on different dimensions of advertising performance, which is the focus of this paper.

Development of hypotheses and conceptual model

Hypotheses

Influencer marketing may suffer from its posts' sponsored nature, which often is inconspicuous or ambiguous. The strategy has many benefits for brands and some consumers perceive the practice as acceptable because they understand that this is how influencers generate income to create their content (Van Dam & Van Reijmersdal, 2019). However, it is also the target of a lot of criticism because influencers often design their sponsored content to look like ordinary, uncompensated posts (Evans et al., 2017). The lack of transparency makes it very hard for users to distinguish between sponsored and not sponsored content (Boerman et al., 2017), so the resemble and blend with non-commercial nature may be unclear and it may seem like the influencer's statements are their own, unbiased opinions, when in reality they are not (Evans et al., 2017). To be able to interpret, and evaluate persuasive messages, people develop general knowledge about how, why, and when a message intends to influence them. Experience forms this persuasion knowledge, which continues to develop over time (Friestad & Wright, 1994). Individuals can access their persuasion knowledge whenever they want to understand what is going on as they see a persuasive message (Friestad & Wright, 1994). When people recognize a persuasion attempt, they can retrieve and apply their persuasion knowledge to cope with the attempt. However, because sponsored content on Instagram blurs the boundaries between editorial and commercial content, the persuasion attempt may not be obvious, and users may not access their persuasion knowledge. In this situation, followers are not able to identify the intention of the influencer and cannot distinguish commercial from editorial content, leading to information asymmetries. Regulators all over the world thus try to address this problem with appropriate legislation. In other words, sponsorship disclosure aims at helping users to access their persuasion knowledge by making it easier for them to distinguish commercial from editorial content.

Distinguishing between heavy and light users of a product has a long-lasting tradition in marketing and advertising (Iyengar et al. 2011; Jewell & Unnava, 2004). Similarly, there is plenty of research on heavy and light users of media itself (Buettner, 2017a; Merikivi et al., 2018; Sundar, 2012; Twenge & Campbell, 2019).

When looking at SNSs, we find multiple studies dealing with either determinants or effects of engagement with SNSs, while some consider them simultaneously. Huang and Su (2018) report in their study that users engage more in SNSs if they seek to document important events. As

Kircaburun et al. (2020) found, IG usage is significantly related to motives of presenting a more popular self, passing time, and entertainment. Next to that, Tsai and Men (2013) researched how SNS users engage on Facebook brand pages. In a web survey among 280 participants, they find a link between remuneration and information motives of users and their Facebook brand page visits. Buettner (2017a) discovered a negative relationship between SNS usage intensity and the personality trait neuroticism. These authors look at antecedents of SNS usage intensity without considering advertisement disclosure types and advertising performance.

Wu (2016) sheds light on the impact of heavy and light usage intensity of SNSs on the perception of advertising value and the advertising acceptance, and finds significant improvement of the former, for heavy users. As the study by Boer et al. (2021) shows, there is no direct or indirect, mediated association between SNS usage intensity and mental health, although the authors report studies with opposite conclusions. Vitak et al. (2011) find that a higher intensity of Facebook use relates to political activity on Facebook, but decreases general political participation, while Woo Yoo and Gil de Zúñiga (2014) were able to discover that the former is associated with increased gaps in political knowledge. The findings of Kim et al. (2014) include that users differ in their usage behaviour of different SNSs, e.g., by gender. Males used video sharing sites like YouTube more often than females. Further, Voorveld et al. (2018) research SNS usage and propose that there is an effect from SNS engagement on the performance of advertisements. They found greatly varying usage patterns across SNSs, but only small support for SNS engagement influencing advertising performance, heavily depending on the platform. Additionally, Voorveld et al. (2018) report SNS advertisement engagement influencing advertisement performance. Florenthal (2015) finds that heavy users use more features of an SNS to a greater extent to position themselves on the job market.

Wirtz et al. (2017) research the effects of SNS usage intensity on personalized advertisements, while Stojanovic et al. (2018) focus on effects of SNS usage intensity on brand equity. Wirtz et al. (2017) were able to show, that, e.g., users' need for social self-portrayal stimulates users' SNS usage intensity. Further, their SNS usage intensity improves their approval of personalized Facebook ads and word-of-mouth intention. As this is a very broad perspective to advertising performance, our study follows the authors' suggestion and conducts a similar experiment on a different platform with a more detailed concept of advertising performance (Wirtz et al., 2017). Additionally, we enlarge the researched population by acquiring participants via the spokesperson, thus including people other than university students. Next to that, Stojanovic et al. (2018) found that SNS usage intensity influences multiple aspects of brand equity in

tourist destinations, e.g., it enhances brand awareness. Differentiating from this study, we focus on advertising performance regarding specific products instead of services or brands in general, additionally including advertisement disclosure types. Furthermore, we conducted our structured questionnaire online as opposed to Stojanovic et al. (2018) with their offline field research in youth hostels. We propose, that heavy users are more experienced with SNSs and advertisement disclosure language than light users. Additionally, heavy users' persuasion knowledge might be improved, which leads to different behavioral outcomes regarding advertising performance. Our research is the first performing a randomized online experiment including a real influencer and real followers on the moderating effect of IG usage intensity regarding the effects of advertisement disclosure types on advertising performance. We expect to find a heterogeneous treatment effect of different advertisement disclosure types on sponsored content advertising performance, regarding the usage intensity. This would greatly benefit advertisers, influencers, and SNS providers of effective influencer marketing practices and knowledge, as they are informed of the moderating effect of usage intensity.

Based on our reviewed literature from the fields of advertisement disclosure and SNSs usage intensity we derived the following hypotheses. As Calder et al. (2009) and Wu (2016) suggest, we research IG in order to link users' usage intensity on the platform to the performance of advertisement communication. The considered dimensions related to the platform (attitude toward product placement), person (trustworthiness of the spokesperson) and posting (general credibility of the posting).

First, we focus on a broader approach to advertising performance (Kwak et al., 2002; Voorveld et al., 2018; Wu, 2016) by looking at the attitude toward product placement. Thus, we focus on the platform.

H1: Usage intensity moderates the effects of advertisement disclosure types on the attitude toward product placement.

Second, we follow the idea of Kwak et al. (2002) not to stop at the broad approach, but to specify different aspects, e.g. looking at the spokesperson. Following the suggestion of Voorveld (2019), we focus our research on influencers as spokespersons and how they are perceived by IG users in terms of trustworthiness. There might be a different effect when we focus on the spokesperson in the advertisement as opposed to focusing on the platform or the posting. In this case, we want to take a closer look at the trustworthiness of the spokesperson.

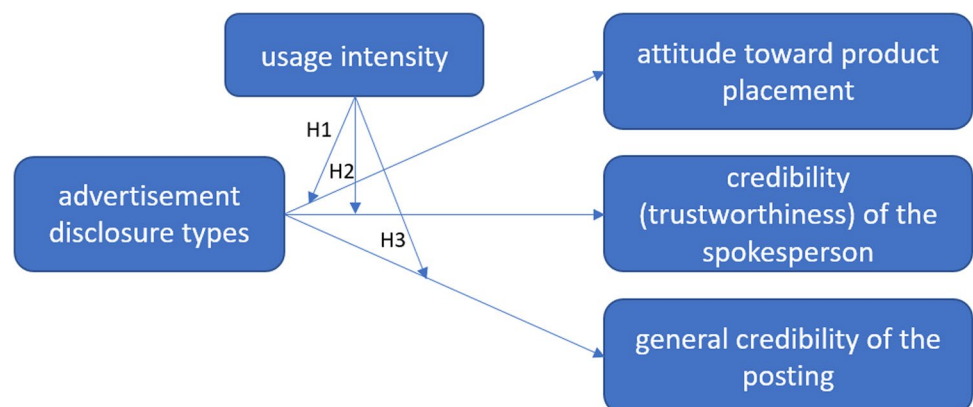
H2: Usage intensity moderates the effects of advertisement disclosure types on the trustworthiness of the spokesperson.

Additionally, we focus on the general credibility of a posting. Herein, we once again follow the idea of Kwak et al. (2002), by looking at the advertisement stimulus in particular. We evaluate the user's perception of this advertisement stimulus, apart from the person delivering the stimulus and the user's general perception of advertisements on the platform. Thus, we research the advertisement disclosure type's effects by different usage intensities and focus on the user's perception of the general credibility of the posting.

H3: Usage intensity moderates the effects of advertisement disclosure types on the general credibility of a posting.

Following, we provide a visualization of the hypotheses working mechanism in Fig. 1. While different advertisement disclosure types influence the above-mentioned outcome variables attitude toward product placement, credibility of the spokesperson and general credibility of the posting, usage intensity acts as a moderator on the relationship between advertisement disclosure type and each of the outcome variables.

Fig. 1 Visualization of the research model's hypotheses



Operationalization of heavy and light users

As Pleshko and Al-Houti (2012) note, there is no clear cut definition for heavy and light users of a product so far. There are multiple approaches to this issue. Buettner (2017b) asked his survey participants how often they use IG on a 7-point scale from “never” to “daily” for specific purposes. Vitak et al. (2011) use the amount of time spent on Facebook, amongst other items, to measure Facebook usage intensity. Kalpidou et al. (2011) use a similar scale of daily time spent on Facebook, amongst others, which they derived from Ellison et al. (2007). This 5-point scale ranges from “less than ten minutes” to “more than 3 h”. Zhao (2006) distinguished heavy and light users by spending more or less than three hours online. Florenthal (2015) separates by the frequency (number) of accesses of the SNSs. Thus, we will research SNS engagement emphasizing usage intensity. Similar to Wirtz et al. (2017) we look at the weekly usage time. We distinguish between heavy (ten hours or above) and light (below ten hours) IG users, by performing a mean split derived from our data. In line with Zhao (2006), this threshold was derived from the data with the mean being between the option “from five to ten hours” and “from ten to fifteen hours” (see Appendix 2, Table 4). As we focus on the SNS IG, we only considered time spent on this SNS. Our data shows 63.8% (361) of the participants being classified as light IG users and 36.2% (205) as heavy users, with the option “from five to ten hours” being the mode with 27.9% (158) of the participants.

Method

Experimental design and procedure

To test our hypothesis, we conducted an experiment using a one-factor (disclosure type) between-subjects (usage intensity) design. We performed this randomized online experiment with a real influencer and real followers. Using a real influencer and a real posting separates us from artificial settings of previous studies, as we can draw from real followership and past experiences with the influencer. This also increases the authenticity of the posting. Working with actual platform users, being real followers and non-followers, allows us to distinguish IG usage intensity of the participants and benefit from their actual parasocial relationship with the influencer. The experiment comprised four conditions: stimulus 1 without any disclosure (control condition) (see Appendix 1, Fig. 3), stimulus 2 advertisement disclosure “Werbung” (Advertising) (see Appendix 1, Fig. 4), stimulus 3 explicitly disclosing non-sponsorship “#unbezahlte_Werbung” (#unpaid_Advert) (see Appendix

1, Fig. 5), and stimulus 4 inconspicuous advertisement disclosure “#ad” (see Appendix 1, Fig. 6). According to the German Agency to Combat Unfair Competition (GACUC), sponsored posts have to be disclosed clearly, at the beginning of the post (Kiel & Solf, 2019). To date, there are no unambiguous principles whether the disclosure “#ad” is allowed as an advertisement disclosure, or not (Kiel & Solf, 2019). However, there are some recommendations from the State Media Authorities to avoid the “#ad” because the English hashtag “#ad” is not familiar to everyone in Germany and therefore not transparent enough (die medienanstalten, 2018; Schnor, 2018). For these reasons, besides including conspicuous disclosure, like “Werbung”, we decided to include the inconspicuous advertisement disclosure “#ad” in our study. According to the recent FTC, EASA and GACUC guidance (EASA, 2018; FTC, 2017b; Kiel & Solf, 2019) on disclosures in SNS advertising, as well as current practices, we placed disclosures used in the study at the top of the post description, except for the above mentioned, neglected exception, in a different colour than the rest of the text and paired them with a hashtag (#).

Participants received a link to the online survey on the platform LimeSurvey. The study was presented as a study about *Users’ responses to IG content* and was conducted in German. It took about ten minutes to complete the questionnaire and we raffled ten Amazon vouchers (20 EUR ~ 25 USD) amongst the participants. Once a participant started the survey, we asked them whether they had an IG account and if so, some follow up questions regarding their personal IG use (number of followers and subscriptions, the intensity of their IG usage, what kind of accounts they follow etc.) succeeded. After that, we randomly assigned them to one of the four experimental conditions (see Appendix 1, Fig. 3–6). We asked participants to imagine they were scrolling through their IG feed and came across a post of the influencer. We further requested them to have a good look at the post and mark an option, which stated “I have carefully considered the posting”, to continue. Participants could look at the post as long as they wanted, and afterwards, they completed the survey. The questionnaire continued with different latent constructs: attitude toward product placement, trustworthiness of the influencer and general credibility of the posting (Bruner, 2016). Hereafter, we included the attention and manipulation checks, followed by the closing demographics questions. This order of questions made sure that responses regarding post and influencer were not primed by the advertising recognition questions and manipulation checks, that reveal the advertisement disclosure intention of the survey. A complete version of the survey may be found in the electronic supplementary material.

Stimulus material

The advertising stimulus used in this study is an original IG post from the 30-year-old German influencer Anastasija David with the username @nastiinkaaa_. She runs an IG profile with parenting and lifestyle content (Holiday et al., 2021) for a few years now (see Fig. 2). The mother of two shares on her SNSs (IG, TikTok, Pinterest) and blog (nastiinkaaa.de) insights into her daily life as a mom of two girls, life hacks, recipes and DIY (do it yourself) tutorials. IG is the platform where she is most active, she already published around 1,000 posts and has more than 92,000 followers (status as of August 2021). Due to her follower number, we classified her as a micro-influencer. Derived from these characteristics, we view this influencer to be representative of micro-influencers (Campbell & Farrell, 2020; Foxwell, 2020). Using a real influencer is of advantage as we were able to observe effects of the participants being either followers or not. This is not possible when operating with made-up influencers. The post used in our experiment was published on 9th October 2019, received 1,534 likes and 57

comments. It is a post with a product recommendation for a sparkling water maker of the brand SodaStream; an everyday object that can be categorized as a gender-neutral product that appeals to a broad audience. Therefore, we regard our expected findings to be generalizable. In the photo, we can see the influencer and her daughter in the kitchen using the sparkling water maker together.

Because the photo is taken from the profile of the woman and her child, the survey participants have the impression to take a look into their private life. In the description of the post (see Table 1) the influencer shares her experiences of using the device and recommends this product. She shows off its environmental and practical benefits, indicating that since the machine found a place in her home, she does not have to carry the bottles of water from the grocery and could significantly reduce superfluous packaging in her household. To use the post for the survey, we shorted the original description of the post to 79 words (the original description contained 275 words). Moreover, to provide more credibility to the stimuli and to give all participants, who do not know the influencer, an impression of the content

Fig. 2 The influencer Anastasija David (“@nastiinkaaa_”)

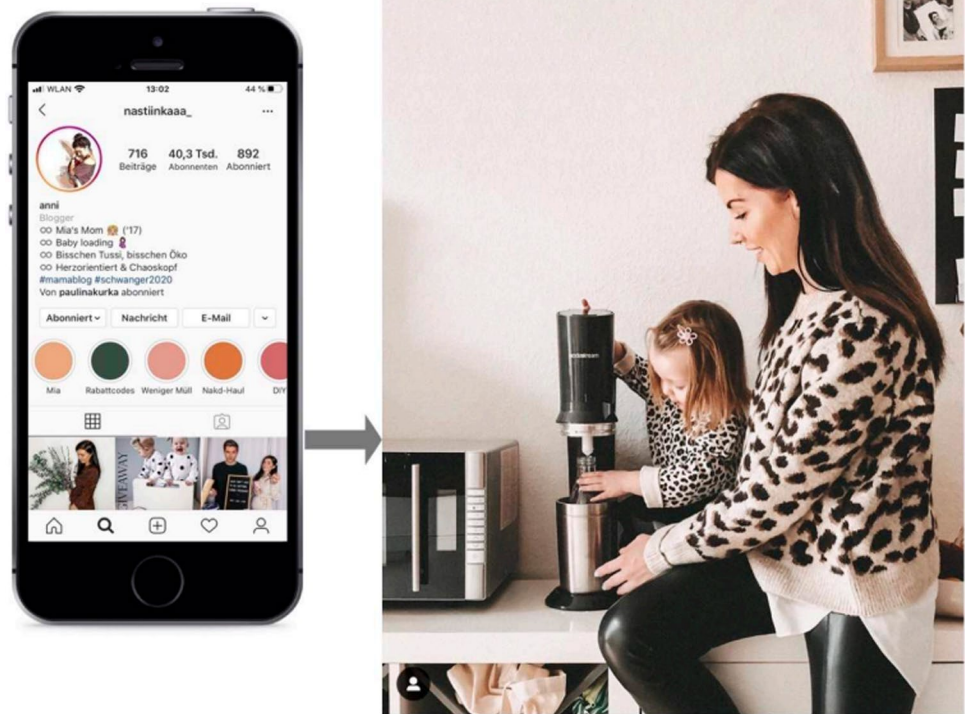


Table 1 The advertising stimulus—description of the post (translated from German)

“Step by step we are trying to reduce superfluous packaging in the kitchen and purchase more sustainably. This also includes drinks, so instead of buying water in plastic bottles, we started to use the Crystal 2.0 from @sodastreamde. It is a great help; because we avoid not only rubbish, but also the annoying carrying of the bottles after shopping. And I'm really proud of us, because the packaging waste in the kitchen has been extremely reduced within 3 weeks.”

that @nastiinkaa_ creates, we enclose the screenshot of the first page of her IG profile in the form of a smartphone (see Appendix 1, Fig. 3–6) in the survey.

Participants

The link to the study was circulated both among the followers of the influencer, as well as non-followers, to receive answers from a broad group of IG users, who did not necessarily have an attachment to the influencer and therefore might react differently to the post and the advertisement disclosure types. To obtain followers of the influencer as participants for the study, influencer @nastiinkaa_ posted the link of the online survey in her IG story, encouraging her followers to participate in answering this online questionnaire. Moreover, we sent invitations for participation through IG to spread the questionnaire as widely as possible.

We collected a total of 1,075 responses, of which 711 were complete, which means that the respondent reached the last page of the survey. To further filter our sample, we implemented some control procedures. On the one hand, we included some attention check questions. On the other hand, a hidden timer measured the time duration contestants spend answering the questionnaire. As previous research indicates that finishing a survey significantly faster or slower affects the results (Greszki et al., 2015; Malhotra, 2008; Tourangeau et al., 2000), we decided to extend the median completion time (715.49 seconds) in both directions by one standard deviation (411.33 seconds). We rounded the resulting interval [304.16 seconds; 1126.82 seconds] for convenience purposes. All those who fulfilled the survey significantly faster (in less than 5 min) or significantly slower (in more than 20 min) than expected were discarded from the sample. To add further robustness to our results, we also performed the analysis with the sample without time restriction ($N=615$). However, most of the significant effects keep their significance, direction, order of magnitude and effect size when compared to the results with the sanitized sample ($N=566$).¹

Participants without an IG account were excluded as well as those knowing, but not following the influencer. Finally, the researched sample size was reduced by 145 participants

¹ There is a small shift in significance for age for heavy users and credibility (trustworthiness) of the spokesperson, which gets slightly less statistically significant (from $p<0.05$ to $p<0.1$). Regarding the gender effect for heavy users on credibility (trustworthiness) of the spokesperson ($\Delta=1.059$, $p<0.05$), we cannot find significance anymore ($\Delta=0.647$, $p=0.2$). Additionally, for age regarding light users and credibility (trustworthiness) of the spokesperson, with the extended sample we find a slightly negative, weakly statistically significant effect ($\Delta=-0.018$, $p<0.1$), which we did not find before ($\Delta=-0.016$, $p=0.247$). If we consider heavy users and attitude toward product placement for stimulus 2 (#advertisement), we can see that the weakly statistically significant effect ($\Delta=-0.306$, $p<0.1$) renders insignificant ($\Delta=-0.202$, $p=0.216$).

that did not comply with our procedures, which leads to the final sample of $N=566$.

Measures

Participants' *attitude toward product placement* was asked using a nine 7-point Likert scale extracted from Russell (2002), examples: "I hate seeing brand name products on IG if they are placed for commercial purposes", "I do not mind if IG influencers receive compensation from manufacturers for placing their brands in their posts", "It is highly unethical to influence a follower by using brand name products in IG posts", ($M=4.35$, $SD=0.90$, $\alpha=0.793$).

This study measured the aspects of honesty and sincerity of the influencer using a scale *credibility (Trustworthiness)* adapted from Lohse and Rosen (2001). We shortened the original scale to include five 7-point-semantic differential scales: "insincere / sincere", "dishonest / honest", "not trustworthy / trustworthy", "not credible / credible", "not believable / believable", ($M=5.41$, $SD=1.33$, $\alpha=.967$).

The general perceived *credibility of the post* is measured with three items, 7-point Likert scale from Williams and Drolet (2005): "This post is believable", "This post is credible", "This post is realistic", ($M=5.21$, $SD=1.34$, $\alpha=0.916$).

To measure *usage intensity*, we asked the participants for their weekly time spent on IG. We used an eight-point scale ranging from "less than 1 h" (0) to more than thirty hours (7), ($M=3.06$, $SD=1.43$). Our scale is similar to the five-point scale ranging from "less than ten minutes" to "more than 3 h" for daily Facebook use given by Ellison et al. (2007).

Finally, we consider the *parasocial relationship* between the user and the influencer. To do so, we ask the participants whether they know and follow the influencer, ($M=0.625$).

Preliminary analysis

Randomization checks

When performing Kruskal-Willis equality-of-populations rank test and oneway ANOVA to check for randomization, results show that the stimuli samples are equal with respect to gender ($\chi(3)=4.02$, $p=0.259$), age ($F(3, 562)=0.33$, $p=0.800$), education level ($\chi(3)=3.93$, $p=0.269$), weekly usage ($\chi(3)=4.71$, $p=0.194$), followership ($\chi(3)=1.49$, $p=0.683$), number of followers ($F(3, 560)=1.19$, $p=0.312$) and number of subscriptions ($F(3, 560)=1.00$, $p=0.393$). Thus, the randomization was successful.

Common method bias

Self-reported data may create common method biases, such as consistency motifs or social desirability concerns (Podsakoff et al. 2003). We performed statistical analyses to assess

the severity of common method bias. The Common Latent Factor (CLF) approach proposed by Liang et al. (2007) is one of the most popular statistical approaches to address common method bias during the last years. Although the method of Liang et al. (2007) quickly became popular, the CLF approach received criticism regarding its ability to detect and control for common method variance (Chin et al., 2012; Rönkkö & Ylitalo, 2011). Due to this criticism, we decided to apply another well-known approach: Harman's one-factor test (Podsakoff et al., 2003; Tehseen et al., 2017).

We performed Harman's one-factor test with principal axis factoring and principal component factoring and found that in both cases more than one factor emerged. For principal axis factoring the largest factor explained 46.73% of the variance. For principal component factoring, 29.18% of the variance were explained by the largest factor. Both results are below the critical value of 50 percent (Podsakoff et al., 2003). These results indicate that a common method bias is unlikely to distort the results of our study.

Results

We provide descriptive statistics of the dataset in Table 2. Considering the demographics of the sample, one can notice the following. 89.2% (505) of the participants were female. The mean age was 26.8 years (median 26 years). Looking at the highest degree achieved, which was measured in a nine-step scale, 27.0% (153) achieved a high-school diploma, 33.2% (188) were below that, while 35.0% (198) had a university degree. 4.8% (27) reported other education.

Of the sample population, all had an IG profile per definition and due to the preselection described above. Out of these 83.6% (473) post pictures. 94.9% (537) react to photos by likes and 60.2% (341) do so by comments. 36.2% (205) of the participants reported weekly usage of IG of ten hours or more and 74.9% (424) have been registered to the platform for two years or more. Weekly usage of IG was measured by an eight-step-scale, ranging from "less than 1 h" (0) to "more than 30 h" (7), while time since registration was measured by a six-step scale, ranging from "less than one month" (0) to "more than five years" (5).

564 participants reported their approx. number of followers ($M = 356$, $SD = 683$) ranging from 0 to 8,100 and 564 participants gave information about their approx. number of subscriptions ($M = 325$, $SD = 281$) ranging from 1 to 3,130.

Participants were asked about the kind of accounts they are following, including categories "friends/acquaintances", "fitness" and "fashion". Participants were able to choose multiple categories. Among the 15 given categories, "friends/acquaintances" was by far the most popular one, reported by 96.8% (548), followed by "VIPs" with 63.1%

Table 2 Descriptive statistics of the dataset

| Variable | n | Mean | Standard Deviation | Minimum | Maximum |
|-------------------------|-----|--------|--------------------|---------|---------|
| female | 566 | 0.892 | 0.310 | | |
| age | 566 | 26.8 | 5.16 | 14 | 57 |
| education level | 566 | 5.042 | 1.632 | 1 | 9 |
| IG profile | 566 | 1 | 0 | | |
| posting | 566 | 0.836 | 0.371 | | |
| liking | 566 | 0.949 | 0.221 | | |
| commenting | 566 | 0.602 | 0.490 | | |
| weekly usage | 566 | 3.06 | 1.427 | 0 | 7 |
| time since registration | 566 | 3.93 | 0.881 | 0 | 5 |
| followers | 564 | 355.88 | 683.26 | 0 | 8,100 |
| subscriptions | 564 | 324.99 | 281.70 | 1 | 3,130 |
| followership | 566 | 0.625 | 0.484 | | |
| Interests | | | | | |
| friends/acquaintances | 566 | 0.968 | 0.176 | | |
| VIPs | 566 | 0.631 | 0.483 | | |
| brands | 566 | 0.334 | 0.472 | | |
| traveling & lifestyle | 566 | 0.383 | 0.487 | | |
| fashion | 566 | 0.339 | 0.474 | | |
| fitness | 566 | 0.314 | 0.465 | | |
| beauty | 566 | 0.267 | 0.443 | | |
| food | 566 | 0.394 | 0.489 | | |
| athletes | 566 | 0.163 | 0.369 | | |
| memes/entertainment | 566 | 0.330 | 0.471 | | |
| gaming | 566 | 0.032 | 0.176 | | |
| politics | 566 | 0.177 | 0.382 | | |
| decoration | 566 | 0.297 | 0.457 | | |
| youtuber | 566 | 0.302 | 0.460 | | |
| quotes | 566 | 0.163 | 0.369 | | |

(357) and "food" 39.4% (223). The least popular category was "gaming" with accounts followed by only 3.2% (18).

Out of the 566 participants, 62.5% (354) follow the influencer. Accordingly, 37.5% (212) do not follow the influencer. When asked about whether they perceive the given posting as non-commercial communication, only 33.4% (189) agreed. In a follow-up question shown only to those denying the preceding question, 97.4% (367 out of 377) perceived the posting as an advertisement.

The participants saw one of the four specified stimuli from 1 to 4. The subsample sizes are $n = 136$ (stimulus 1), $n = 143$ (stimulus 2), $n = 128$ (stimulus 3) and $n = 159$ (stimulus 4).

We estimated OLS regressions and included the independent stimulus variables and followership next to numerous control variables capturing gender, age, education, interests, and posting, like and comment behaviour. The

baseline is stimulus 1 (no disclosure) and is thus omitted in the regressions. Table 3 shows the results.

From the regressions, we can see that the stimuli have a significant influence on the observed dependent variables.

1. When looking at the attitude toward product placement, we can see that for heavy users with a weekly usage of ten hours or more, stimulus 2 (#advertisement) significantly decreases it ($\Delta = -0.306$, $p < 0.1$) compared to stimulus 1 (no disclosure). The other stimuli have no significant effect on this dependent variable. When looking at light users with a weekly usage of below ten hours, we can see that when presented with stimulus 3 (#unpaid_advertisement), participants have a significantly higher attitude toward product placement ($\Delta = 0.367$, $p < 0.01$) compared to the baseline of no disclosure. Thus, we find support for H1.
2. Considering the trustworthiness of the spokesperson ($\Delta = 0.443$, $p < 0.05$) for heavy users, there is a significant improvement when stimulus 4 (#ad) is shown compared to the baseline of no disclosure. The other stimuli have no significant effect. When looking at light users with a weekly usage of below ten hours, we can see that there is no significant effect for this dependent variable. Thus, we find support for H2.
3. Looking at the general credibility of the advertisement we find significant effects for stimulus 2 (#advertisement) ($\Delta = 0.385$, $p < 0.1$) and stimulus 4 (#ad) ($\Delta = 0.664$, $p < 0.01$). Stimulus 3 (#unpaid_advertisement) has no significant effect. When looking at light users with a weekly usage of below ten hours, all stimuli have no significant effect on these dependent variables. Thus, we find support for H3.
4. Overall, there is a robust effect of followership of the influencer on all of the considered dimensions of advertising performance. Heavy users have a significantly higher attitude toward product placement ($\Delta = 0.572$, $p < 0.01$), and perceive trustworthiness of the spokesperson ($\Delta = 1.909$, $p < 0.01$) and the general credibility of the posting ($\Delta = 1.229$, $p < 0.01$) higher. The same holds true for light users for attitude toward product placement ($\Delta = 0.811$, $p < 0.01$), the trustworthiness of the spokesperson ($\Delta = 1.861$, $p < 0.01$) and the general credibility of the posting ($\Delta = 1.305$, $p < 0.01$).
5. We controlled for various variables, among those we want to stress the effect of gender and age. When looking at the trustworthiness of the spokesperson, we find a significant effect of both gender ($\Delta = 1.059$, $p < 0.05$) and age ($\Delta = -0.032$, $p < 0.05$) for heavy users only. However, when considering the attitude toward product placement, there is a significant effect for gender ($\Delta = -0.298$, $p < 0.1$) for light users only. We ran some further regressions to investigate interaction effects

between age and gender on the one hand and the stimuli or usage intensity on the other hand. Nevertheless, we could not find any interaction effects (age*stimulus, gender*stimulus, age*usage_intensity, gender*usage_intensity) but one interaction effect for female respondents when shown stimulus 4 (#ad) regarding trustworthiness of the spokesperson ($\Delta = -0.694$, $p < 0.1$).

If we were to convert the advertising performance variables' Likert scales into a percent scale to assess the magnitude of impact, we could derive the following insights: Light users' attitude toward product placement improves by 6.12% if the stimulus 3 (#unpaid_advertisement) is shown. Similarly, for heavy users attitude toward product placement decreases by 5.1% when presented with stimulus 2 (#advertisement) instead of stimulus 1 (a blank advertisement disclosure type). For heavy users, stimulus 4 (#ad) increases trustworthiness of the spokesperson by 7.38% and general credibility of the posting by 11.07%. Additionally, stimulus 2 (#advertisement) increases the latter, general credibility of the posting, by 6.42%. Taken together, these numbers underline the heterogeneous treatment effects of advertisement disclosure types on IG users with different usage intensity.

Our models explain 27.80% to 57.48% of variance in the specified outcome variables. Next to the aforementioned common method bias analysis, we figured our edit time limits could constitute a problem. Thus, we ran the regressions without the time restriction for the edit time. The results however indicated that the results are robust to this alternative specification.

Discussion

Influencer marketing on SNSs is gaining more and more attention from advertisers and consumers alike. It is a fast-growing source of revenue that is becoming increasingly popular just like the platform IG itself. Critics claim that its success is solely based on the fact that consumers are unaware of the commercial nature of the posts, which has led many previous studies to examine the effects of advertising recognition on consumers' attitudes and intentions (Boerman, 2020; Evans et al., 2017; Hwang & Jeong, 2016; Lou & Yuan, 2019; Stubb & Colliander, 2019; Stubb et al., 2019). This study provides further support for the findings of existing literature about the effects of advertising recognition in different media and extends their validity to the domain of influencer marketing on IG. Moreover, this work provides a more holistic understanding of the influence of advertisement disclosure types on users' attitudes toward advertising in influencer marketing moderated by the users' IG usage intensity.

In the light of many forms of disclosing sponsorship on IG and lack of clear and homogenous legal guidelines on

Table 3 Results of the OLS-regressions

| | | Weekly Usage | | | |
|--|---|-----------------------------|------------------|---|---|
| | | > = ten hours (heavy users) | | < ten hours (light users) | |
| Sample size | Dependent variables | n=205 | n=361 | | |
| Stimulus 1 (no disclosure) | attitude toward product placement (omitted) | (omitted) | (omitted) | credibility of the spokesperson (omitted) | credibility (trustworthiness) of the spokesperson (omitted) |
| Stimulus 2 (#advertisement) | -0.306* (0.164) | 0.305 (0.192) | 0.113 (0.127) | -0.141 (0.138) | -0.204 (0.173) |
| Stimulus 3 (#unpaid_advertisement) | 0.028 (0.154) | 0.107 (0.216) | 0.367*** (0.132) | 0.126 (0.150) | 0.259 (0.182) |
| Stimulus 4 (#ad) | -0.019 (0.170) | 0.443** (0.210) | 0.195 (0.124) | 0.004 (0.144) | 0.008 (0.163) |
| Followership | 0.572*** (0.169) | 1.909*** (0.194) | 0.811*** (0.128) | 1.861*** (0.134) | 1.305*** (0.161) |
| Control variables | | | | | |
| Gender (0 = male; 1 = female) | 0.303 (0.500) | 1.059** (0.464) | -0.298* (0.159) | 0.113 (0.195) | 0.419 (0.262) |
| Age | 0.002 (0.012) | -0.032** (0.015) | -0.005 (0.013) | -0.016 (0.014) | -0.017 (0.015) |
| <i>Further control variables (education level, interests, and posting, like and comment behaviour)</i> | | | | | |
| R ² | 0.2948 | 0.5648 | 0.3411 | 0.2780 | 0.5748 |
| RMSE | 0.7051 | 0.8889 | 1.1007 | 0.8373 | 0.9283 |

Numbers are given: coefficient (standard deviation). Significance levels are *p < 0.1; **p < 0.05; ***p < 0.01

advertisement disclosure, by many influencers arises the question: how should influencers disclose their postings? In this study, surveying 566 IG users, we researched the moderating effect of the user characteristic of heavy and light IG usage intensity on the influence of advertisement disclosure types on different dimensions of advertising performance. The considered dimensions related to the platform (attitude toward product placement), person (trustworthiness of the spokesperson) and posting (general credibility of the posting). In addition, we researched the effect of followership on the regarded dimensions of advertising performance. The results lead to the following four conclusions and to several implications for theory and practice, which will be reported below.

First, the findings indicate that heavy users respond to advertisement disclosure concerning the attitude toward product placement in a different manner than light users. We found heavy users to respond to stimulus 2 (#advertisement) in a weakly statistically significant, negative manner with respect to their attitude toward product placement. This might be attributed to heavy users being oversaturated with advertisements, as they spent a lot of time on the platform. When looking at light users, we find a strongly statistically significant, positive influence of stimulus 3 (#unpaid_advertisement) on attitude toward product placement. This is in contrast to Carr and Hayes (2014), who find no difference between our baseline stimulus 1 (no disclosure) and stimulus 3. Light users seem to believe the statement of stimulus 3 and thus be more comfortable with product placement on IG, while heavy users do not. Thus, we find (strong) support for H1. Additionally, these ambiguous results require further research.

Second, this study indicates those who are heavy users to respond to stimulus 4 (#ad) with statistically significant, increased perceived trustworthiness of the spokesperson and general credibility of the posting, while light users do not do so. Additionally, there is a weakly statistically significant positive influence from stimulus 2 (#advertisement) for the general credibility of the posting. There is also a positive influence from stimulus 3 (#unpaid_advertisement), but only the aforementioned show significance. Thus, we find (strong) support for H2 and H3, as heavy IG usage moderates the positive effect of disclosure type stimulus 4 (#ad) on trustworthiness of the spokesperson and general credibility of the posting. Therefore, our results are in line with Wu (2016), finding evidence for a positive influence of heavy SNS usage.

Third, we find a statistically significant positive influence of stimulus 3 (#unpaid_advertisement) on attitude toward product placement only for light users. Nevertheless, it is worth noting that stimulus 3 (#unpaid_advertisement) shows no significant effect for the perceived trustworthiness of the spokesperson or the general credibility of the posting, neither for light nor for heavy users. This counter-intuitive result concerning could, in fact, be explained by the distribution of this disclosure type, which appears to be not very

well known. Thus, users might be unable to attribute this statement to the person giving it (spokesperson) or the message disclosed by it (posting). Future research should focus on users' knowledge about and the effects of stimulus 3.

Fourth, considering all three dependent variables attitude toward product placement, trustworthiness of the spokesperson and general credibility of the posting, we find a strongly statistically significant positive influence of the followership of a user. Most SNS studies do not mention followership as an independent variable. Herein, there is no difference between heavy and light users. This influence is roughly two to three times bigger than the influence of the different disclosure types. This provides a strong argument to include followership as an additional independent variable when researching or working in influencer marketing. As this was not the focus of our paper, further research is needed in how the followership of users affect their evaluation of product placement, the influencer and the posting.

Finally, our results indicate, that gender and age mostly have no statistically significant effect on the dependent variables. There only was a significant effect for heavy users regarding gender and age and general credibility of the posting and female light users regarding attitude toward product placement. Compared with all of the aforementioned significant stimuli and followership effects, these effects are smaller. However, there is one exception for the effect size of female heavy users, who perceive the trustworthiness of the spokesperson higher than their male counterparts. Although we did not focus our research on heterogeneous demographical effects, we created some further regressions to investigate interaction effects between age and gender on the one hand and the stimuli or usage intensity on the other hand (age*stimulus, gender*stimulus, age*usage_intensity, gender*usage_intensity). We found only one interaction effect for female respondents when shown stimulus 4 (#ad) regarding trustworthiness of the spokesperson. This might be attributed due to the fact, that the spokesperson herself was female, which led heavy users to perceive her as more trustworthy if they were female themselves. However, we decided to leave this as a starting point for future research.

Implications

Our findings offer several of both theoretical and managerial implications for the effects of advertisement disclosure types on users' attitudes toward advertising moderated by the users' IG usage intensity in a growing form of native advertising: influencer marketing / advertising.

Theoretical implications

Our findings add to literature on advertisement disclosure types and SNS usage intensity and have theoretical implications

for researchers who wish to examine influencer marketing in SNSs. First and foremost, we contribute to literature by being the first research performing a randomized online experiment including a real influencer and real followers on the moderating effect of IG usage intensity on the effects of advertisement disclosure types on advertising performance. With this new methodical contribution, we are able to investigate clear causal effects without possible problems of observational data or highly artificial thought-experiment-like studies.

Additionally, in the field of advertisement disclosure types, we add a study comparing followers and non-followers of a real influencer. This study is the first to compare responses by followers and non-followers to sponsored content on IG. We were able to look at this parameter, as we used a real, instead of a made-up influencer, with an existing population of followers. Thus, we were able to find followership to be a strong contributor to all three researched dimensions of advertising performance focusing on the posting, the spokesperson and product placement on the platform.

Furthermore, to the best of our knowledge, we are the first to find a heterogeneous treatment effect of different advertisement disclosure types on sponsored content advertising performance, regarding the usage intensity. We find a moderating effect of IG usage intensity on the interplay between ad disclosure and several dependent variables, e.g., heavy users reacting to stimulus 4 (#ad) with a statistically significant increase in the perceived trustworthiness of the spokesperson and general credibility of the posting. This leads to the in literature unprecedented conclusion, that IG users may be separated into heterogeneous heavy and light user groups, which are differently affected by treatments of advertisement disclosure types. Although our study was conducted on IG, some implications might be applicable to other SNSs such as Facebook, YouTube, TikTok, and Snapchat or Social Media in general. Thus, the results make an important contribution to the further understanding of the inner workings of different advertisement disclosure types in sponsored Social Media posts as a type of native advertising.

Finally, due to the well-known heavily advertising character of Social Media like IG, our results, in line with the PKM, indicated that IG users seem to be well aware of advertising on IG. According to the PKM, consumers have some persuasion knowledge and they use it when they encounter persuasion attempts from ad or sales messages (Friestad & Wright, 1994). Our results show a high level of advertisement recognition among users (66.6%), even if we include the group who received the treatment without any advertisement disclosure type, confirming the idea that users have already developed persuasion knowledge regarding influencer marketing on IG. Taken together, all these findings provide richer understanding of contextual factors that influence and explain users' responses, attitudes, and behaviour in the case of influencer marketing,

Managerial implications

The present study's findings also inform advertisers, influencers and SNS providers of effective influencer marketing practices and knowledge. In line with Wu (2016), we recommend advertisers to cooperate with SNS providers to identify heavy users or influencers whose audience consists of heavy users. Thus, they can identify potential cooperation partners, in order to maximize advertisement outcomes. Moreover, advertisers are advised to emphasize disclosure transparency when collaborating with influencers for marketing campaigns, which may contribute to positive consumer perception. Practically, they could, complying with regulatory requirements, motivate their spokespersons to use stimulus 4 (#ad) to increase perceived general credibility of the posting. Thus, transparent authenticity should not be viewed as a risk, but as an opportunity to maintain trustworthy relationships with influencers and their followers. Since the results indicate a positive influence of stimulus 3 (#unpaid_advertisement) on attitude toward product placement, we advise advertisers to monitor the influencers who hashtagged the product or brand of their own accord and request them to label their post with stimulus 3 (#unpaid_advertisement). This is also supported by the findings of De Veirman and Hudders (2020) demonstrating that consumers appreciate a clear non-sponsorship disclosure. As such, advertisers, as well as influencers, can eliminate any suspicions that followers may have toward the post. Hence, a clear non-sponsorship disclosure offers followers more certainty about the sincerity of the post recommendation, as followers dislike the feeling of being misled (De Veirman & Hudders, 2020).

Additionally, as the findings show that the followership is strongly positively related to all three dependent variables attitude toward product placement, trustworthiness of the spokesperson and general credibility of the posting, brands should take into account the characteristics of the followers and values that are conveyed by the influencer (e.g., values related to the healthy life style), to appropriately converse with potential customers through sponsored content.

Influencers may learn from our study that different advertisement disclosure types influence their audience differently, depending on whether they are heavy or light users. Thus, they could use different advertisement disclosure types to target different user groups. Influencers may want to disclose their links to advertisers by stimulus 4 (#ad), complying with regulatory requirements, as this might increase their audience's perceived trustworthiness of themselves. Another takeaway is that users already following an influencer consider this influencer to be more trustworthy and their postings to be more credible. Influencers can consider this when creating posts dedicated specifically to (non-)followers. Essentially, when the product recommendation is sponsored, sponsorship information should always be included in the post. Since

regulatory requirements concerning advertising disclosure become more demanding, there is a stronger call for differentiating sponsored from non-sponsored IG content. Complying with expected transparency, systematically applying a disclosure policy, and explicitly claiming this in one's profile, rather than passively waiting for new advertising disclosure regulations to be enforced, should be the way to go for influencers. In such a manner, they can initiate proactive disclosure rules, hence building a trustworthy image (Audrezet et al. 2018).

SNS providers or system developers may also benefit from our study. Moreover, while we empirically focused on IG, the findings can be extended to other SNSs e.g., Facebook, YouTube, TikTok, and Snapchat and our results are of particular relevance in light of the increasing interest in virtual reality e.g., Metaverse. As platforms continue to grow and develop, the user intensity can help inform decisions on influencer marketing strategies. As SNS providers have full control of their platform, heavy and light usage intensity of users is easy for them to identify. They may use this classification to improve their feed functions, e.g., proposing to heavy users more posts containing advertisement disclosure than to light users and thus improving advertising performance. Additionally, regarding advertising disclosure, SNS providers or system developers may include the development of different standardized disclosure formats that incorporate non-sponsorship disclosure along with the sponsored-option that is already available on IG. In such a way, influencers can use standardised disclaimers to tag their posts whenever they make recommendations for a brand or a product that clearly states the nature of the post (Stubb & Colliander, 2019). How these implications may be generalizable to virtual reality environments such as the recently launched Metaverse by Facebook's renamed parent company Meta or Microsoft's Mesh remains upon future research.

Considering the almost non-existing effect of age and gender as moderators of the effect of advertisement disclosure language on advertising performance, we do not recommend separating audiences by age or gender regarding advertisement disclosure types. What seems to be more effective, is separating audiences by usage type. However, upon further research regarding female heavy users and trustworthiness of the spokesperson one might conclude differently.

Limitations and future research

The findings and implications of our experimental study need to be considered in light of its limitations. There is a broad range of forms and appearances of advertisement disclosure types that differ for example in language, position and colour and such design characteristics have been found to affect consumers' advertising recognition (Wojdyski & Evans, 2016). As we varied neither position nor colour of the advertisement disclosure types, this poses a potential limitation to our study, marking a starting point for future research. To the best

of the authors' knowledge, this is a first study to investigate the effect of advertisement disclosure types on the advertising performance moderated by IG usage intensity. However, this paper only reports one study on one type of sponsored IG post. Thus, more research is needed in this context to be able to unveil the mechanism behind advertisement disclosure types moderated by the users' SNS usage intensity and the impact of these on advertising performance. Hence, future studies may also explore other types of sponsored content like "stories". This is an IG tool introduced in 2016, which allows the user to publish a story in video or picture format that is only visible for 24 h and then deleted. "Stories" are more and more popular among IG influencers. We encourage future researchers to repeat our study in other platform contexts like YouTube or TikTok, since nowadays many SNS are becoming more multi-faceted and growing in their advertising activities. Other SNSs may or may not confirm the results of the IG study at hand. Moreover, for our experiment, we selected one particular influencer with one particular product, which may limit the generalizability of our results. Findings may be different for luxury products or more experimental products and services (e.g., travelling, restaurant visit, massage). Since these products may lead to envy feelings by followers and have negative effects when disclosing financial compensation. Therefore, future research should investigate how the product type impacts the effectiveness of advertisement disclosure types, and which role IG usage intensity, or SNS usage intensity in general, plays there. Distinguishing between search and experience goods could lead to interesting insights as well. Finally, SNS usage intensity might be measured more gradually, by considering more than two intensities. Although researching interaction effects between age and gender on the one hand and the stimuli or usage intensity on the other hand (age*stimulus, gender*stimulus, age*usage_intensity, gender*usage_intensity) showed almost no significant effect in our study, we highly recommend to further investigate demographical moderators to shed more light on this field.

Nowadays, consumers are increasingly relying on digital communication, where Social Media and influencer marketing have continued to grow and become key marketing strategies. Nevertheless, influencer marketing research is still in its infancy, and in this paper, we contribute to this field by regarding the moderating effect of usage intensity. Thus, this moderator adds a nuance to our understanding of the effects of different advertisement tactics and their outcomes in the influencer marketing context. We encourage future scholars to extend this line of investigation and examine other variables that may act as moderators between different advertisement disclosure types and marketing outcomes such as purchase intention in order to better explain consumer responses, attitudes, and behaviour. Thus, studying moderating variables allows us to obtain broader and more exhaustive understanding of influencer marketing and bring more light on this new phenomenon.

Appendix 1: Stimuli

Fig. 3 Stimulus 1 without any disclosure (control condition). Text of the post translated from German “Step by step we are trying to reduce superfluous packaging in the kitchen and purchase more sustainably. This also includes drinks, so instead of buying water in plastic bottles, we started to use the Crystal 2.0 from @sodastreamde. It is a great help; because we avoid not only rubbish, but also the annoying carrying of the bottles after shopping. And I'm really proud of us, because the packaging waste in the kitchen has been extremely reduced within 3 weeks.”

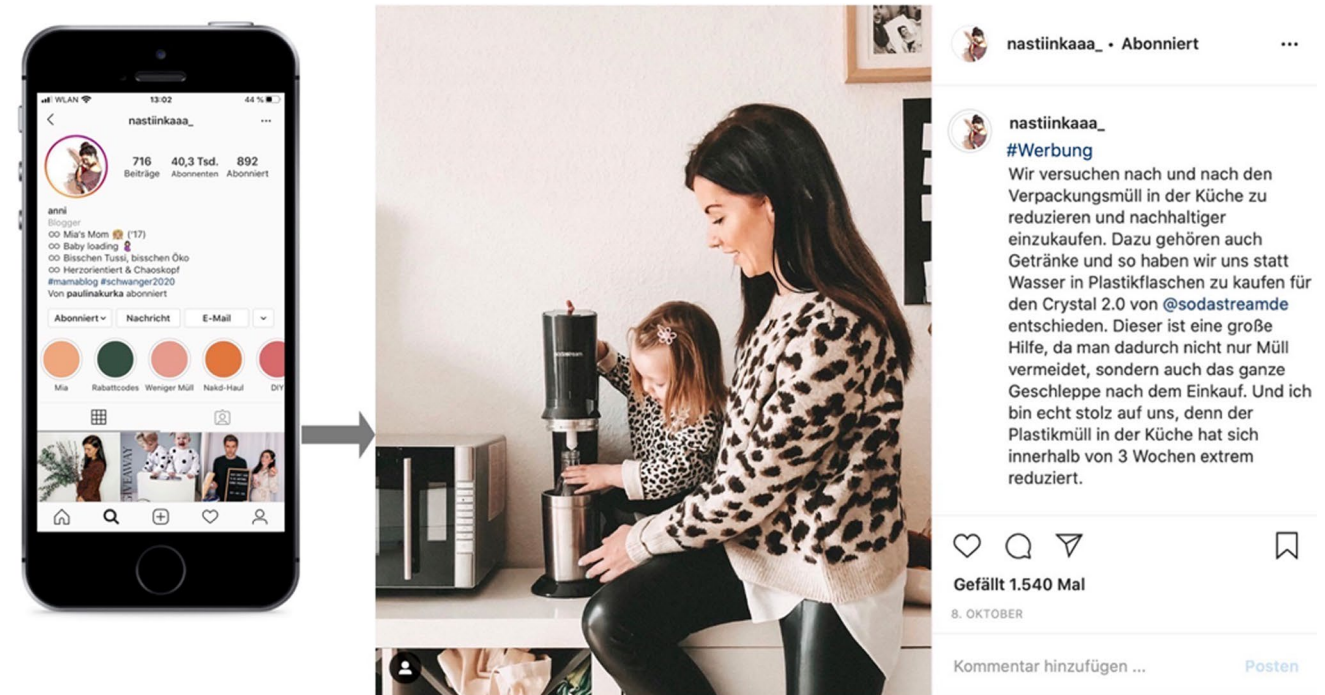
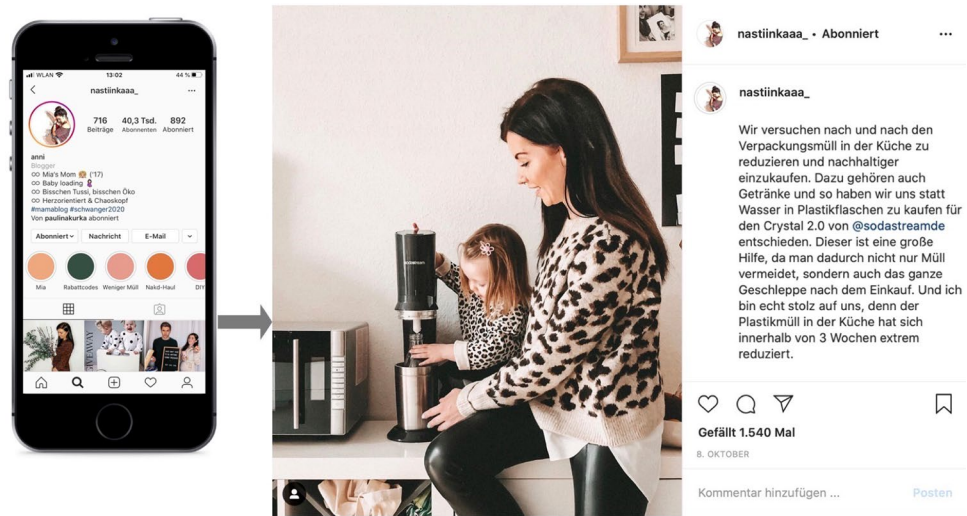


Fig. 4 Stimulus 2: sponsorship disclosure “#Werbung” (#advertisement). Text of the post translated from German “#advertisement Step by step we are trying to reduce superfluous packaging in the kitchen and purchase more sustainably. This also includes drinks, so instead of buying water in plastic bottles, we started to use the Crystal 2.0

from @sodastreamde. It is a great help; because we avoid not only rubbish, but also the annoying carrying of the bottles after shopping. And I'm really proud of us, because the packaging waste in the kitchen has been extremely reduced within 3 weeks.”

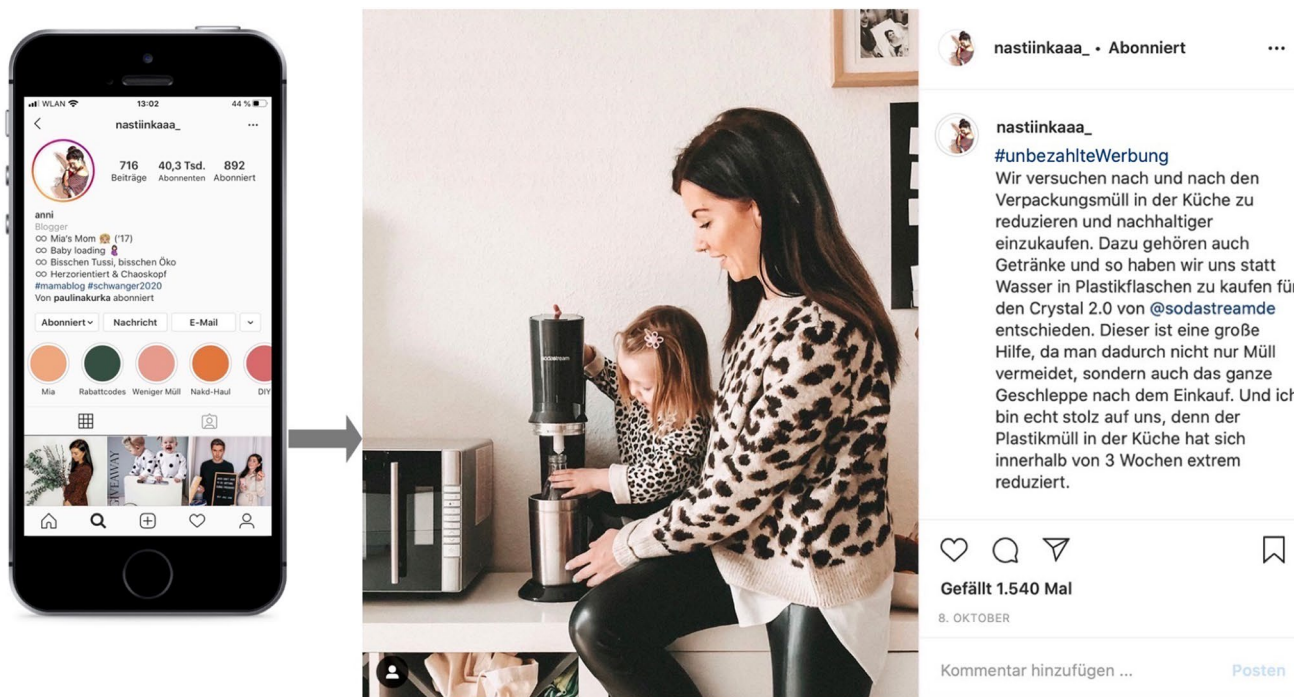


Fig. 5 Stimulus 3: disclosing non-sponsorship “#unbezahlteWerbung” (#unpaid_advertisement). Text of the post translated from German “#unpaid_advertisement Step by step we are trying to reduce superfluous packaging in the kitchen and purchase more sustainably. This also includes drinks, so instead of buying water in plastic bottles, we started

to use the Crystal 2.0 from @sodastreamde. It is a great help; because we avoid not only rubbish, but also the annoying carrying of the bottles after shopping. And I'm really proud of us, because the packaging waste in the kitchen has been extremely reduced within 3 weeks.”

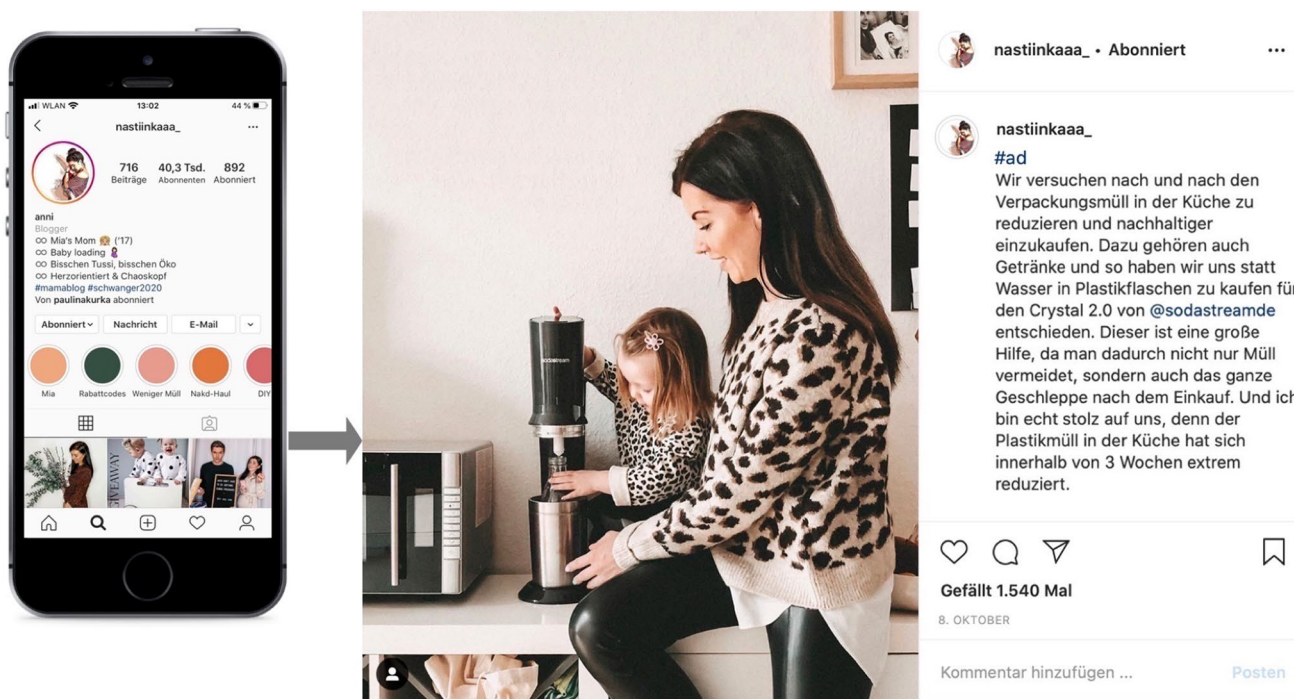


Fig. 6 Stimulus 4: inconspicuous sponsorship disclosure “#ad”. Text of the post translated from German “#ad Step by step we are trying to reduce superfluous packaging in the kitchen and purchase more sustainably. This also includes drinks, so instead of buying water in plastic bottles, we started to use the Crystal 2.0 from @sodastreamde.

It is a great help; because we avoid not only rubbish, but also the annoying carrying of the bottles after shopping. And I'm really proud of us, because the packaging waste in the kitchen has been extremely reduced within 3 weeks.”

Appendix 2

Table 4 Distribution of usage intensity

| coding | description | frequency |
|--------|---------------------------|-----------|
| 0 | less than one hour | 22 |
| 1 | from one to two hours | 46 |
| 2 | from two to five hours | 135 |
| 3 | from five to ten hours | 158 |
| 4 | from ten to fifteen hours | 116 |
| 5 | from fifteen to 20 h | 62 |
| 6 | from 20 to 30 h | 23 |
| 7 | more than 30 h | 4 |

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