

AI-driven influencer marketing: Comparing the effects of virtual and human influencers on consumer perceptions

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AI-driven influencer marketing: Comparing the effects of virtual and human influencers on consumer perceptions

Abstract

Computer generated virtual influencers are currently one of the most important brand communication trends driven by artificial intelligence. While numerous studies on human social media influencers already exist, the field of virtual influencers is still largely unexplored, which is especially true regarding their impact on consumer perceptions. Against this background, the aim of this study is to empirically investigate consumer perceptions of virtual influencers in comparison to traditional social media influencers. We conduct an exploratory experiment to test the effect of virtual and human influencers on credibility, competence, likability, and purchase intentions. The results show no significant differences between virtual and human influencers, except for the variable likeability. Implications for management and future research are discussed.

Keywords

virtual influencers, cgi influencers, AI-driven influencers, social media influencers, SMI, influencer marketing, consumer perceptions, purchase intentions

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Introduction

The implementation of social media as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections”¹ in corporate and brand communication has become standard for companies in recent years^{2,3,4}. However, social media networks such as Instagram are often overloaded with content, making it increasingly difficult for brands to attract consumers' attention. In this context, the phenomenon of social media influencers (SMI) has developed. SMI can be understood as social media users who, due to their reach on social media networks, act as third-party endorsers for brands⁵.

In the context of influencer marketing, brands enter collaborations with SMI to improve the success of their brand communication. Once a niche movement, influencer marketing is estimated to be a \$16.4 billion industry in 2022, with more than 75% of advertisers intending to dedicate a budget to influencer marketing in 2023⁶. In 2019 approximately 50% of internet users followed at least one influencer account on social media and 40% indicated that they had bought a product after seeing it on Instagram or YouTube⁷.

However, influencer marketing is also subject to constant change. Since 2020, a new trend has been growing in the industry, which is different from the previous state of influencer marketing: The emergence of virtual influencers (VI), who operate on the basis of computer-generated imagery and artificial intelligence. Sands et al. define VI as "an entity - humanlike or not - that is autonomously controlled by artificial intelligence and visually presented as an interactive, real-time rendered being in a digital environment"⁸. Comparable to SMI, VI have already been used by brands in the context of (virtual) influencer marketing. For example one of the largest VI Miquela Sousa (@lilmiquela) has already worked with several different fashion brands or tech brands like Samsung where she resembled the embodiment of the campaign's slogan “Do What You Can't”⁹.

While a considerable body of research already exists on SMI⁷, VI can be considered as unexplored compared to their human equivalent¹⁰.

Within the literature in which VI are mentioned, they are often discussed on a theoretical or conceptual level. In addition, first empirical studies exist using e. g. the case

study approach, but so far there are only very few experimental studies that examine the effect of VI on variables that are relevant in the context of influencer marketing and brand communication. Consequently, the need for a more in-depth consideration of the emerging VI trend is high. In particular, comparing SMI and VI seems interesting, as companies always prefer the most efficient communication option and VI promises efficiency advantages in influencer marketing, e.g. through lower costs and easier handling of the influencers.

From this starting point, the objectives of this study can be derived. Since previous research has focused on SMI, this work aims to add value to VI research. The focus of the work is on the way influencers are perceived by consumers as relevant target groups of brands. The differences in how consumers view VI and SMI will be explored.

Literature review

Social media influencers as opinion leaders

Based on the findings of Lazarsfeld et al. in the "Peoples Choice" Katz & Lazarsfeld developed the concept of the "Two-Step-Flow of Communication" early on, which is presented in detail in their work "Personal Influencer"^{11,12}. According to the model, the dissemination of information through mass media takes place in two steps. First, opinion leaders receive the information from the mass media. In the second step, this information as well as the personal interpretation and opinion of the opinion leaders is disseminated to the population and the masses.

Building on this foundation, various other "flow of communication" models have been developed. These include the "One-Step-Flow of Communication" and also various "Multistep-Flow of Communication" models¹³.

The principle of opinion leadership identified by Lazarsfeld & Katz¹² can also be applied nowadays. Prominent influencers on Instagram can address many people due to their high reach and take on an important role in a networked and digitalised world. In this context, they often also act as role models. Accordingly, they can also influence opinions on brands and, for example, increase the intentions to buy products, provided the influencers are perceived as credible, competent and likeable by the recipients⁷.

In this context, influencer marketing represents the commercial use of the opinion leader concept by companies and brands. Leung et al. define influencer marketing as "a strategy in which a firm selects and incentivizes online influencers to engage their followers on social media in an attempt to leverage these influencers' unique resources to promote the firm's offerings, with the ultimate goal of enhancing firm performance"¹⁴.

The main goals of influencer marketing activities in a commercial context are to increase the value of brand messages and to ultimately influence the purchase behaviour of consumers⁷.

Differentiation of influencers

Within the influencer market, various types of influencers can be identified. The current state of research provides different approaches for this. E. g. one way of differentiating influencers is the size of their reach. Influencers can be assigned to three different reach sizes: Nano, Micro and Mega-influencers¹⁵.

Nano-influencers are the smallest category and have only a few hundred followers. Compared to the other types, they often have a high level of personal identification and interaction with their followers and, accordingly, a high level of credibility. Micro-influencers have a following in the four- to five-figure range. This type of influencers is usually an expert in a niche or has a local connection. Consequently, they are of high interest for small or medium-sized companies, for example, and still have a high level of credibility. Mega-influencers have followers of several hundred thousand or even millions of people. Accordingly, they reach a broad and often diverse target group. Compared to the smaller influencer types, however, they have a lower interaction rate and credibility due to their reach.

In addition to reach size, influencers can also be divided into different thematic categories, depending on which product category they promote particularly intensively. Furthermore, there are numerous other typologies that take into account, among other things, the communication behaviour of influencers with their followers¹⁶. At the same time, it becomes clear that the state of research to date relates almost exclusively to SMI. The current development of VI has so far received little to no attention in the literature, also with regard to the differentiation of influencers. In the following, therefore, a differentiation of SMI and VI is given on the basis of the literature to date.

Virtual influencers

Sands et al. emphasise that VI are autonomously controlled by artificial intelligence and visually presented as an interactive, real-time rendered being in a digital environment⁸. From other authors, they are also coined as computer generated imagery-influencers. The

term computer generated imagery originates from the film industry and signifies 3D computer animations¹⁰.

Accordingly, a VI is not a real person like a SMI. A VI is a purely virtual entity that has been designed and created by agencies. Here, designers, social media managers and programmers work together and give the VI attributes and character traits that are more or less similar to a real person. Comparable to SMI, VI appear on social media platforms such as Instagram and collaborate with brands there, report on their “lives” or communicate opinions and recommendations on current topics¹⁰.

Contributions published by VI are controlled to varying degrees by algorithms. The entire background story of the VI is fictitious and can be deliberately crafted to appeal to a specific target group¹⁷. Thus, VI can also appear activist and, for example, advocate for the "Black Lives Matter" movement or embody different lifestyles such as veganism. An example of this behaviour is the VI @noonoouri which dedicated a whole Instagram Story Series to the Pride Month¹⁸.

In terms of influencer marketing, VI offer several advantages over SMI. For example, they speed up the entire creative process of content creation¹⁷. In addition, CGI influencers cannot get sick, they do not age and they do not have to be elaborately made up before a shoot. Nor are their appearances or shoots linked to external circumstances such as the weather. They are available at any time and can be a good presentation for advertising brands¹⁷.

VI can be divided into two different categories. Category 1 is made up of VI that are modelled on human likeness. They try to imitate the human appearance very closely and are sometimes hardly distinguishable from a human influencers at first glance. Miquaela Sousa is one of the most popular VI of this kind and has already worked with many different brands such as Samsung or Calvin Klein.

The second category of VI are the "unique" VI. These do not aim to imitate the human appearance, but represent a unique, virtual character. On the one hand, this can be human-like, but on the other hand, it can also be a non-human avatar. One of the best-known examples is @noonoouri on Instagram, which was conceived and created by the German graphic designer Joerg Zuber in cooperation with his creative agency Opium Effect in

Munich. In the course of her career as an influencer, she has also worked with brands such as Dior and Versace and is considered one of Germany's most famous VI.

Success factors of SMI

Based on the literature review, several success factors can be identified that positively influence the impact of SMI in marketing and brand communication. According to the current state of research, the variables perceived credibility, expertise and likeability are decisive for the success of influencers⁷. These variables are briefly explained in the following.

The concept of *credibility* has played a crucial role in persuasion research and particularly in research on the effects of SMI¹⁹. Central to the attribution of credibility is the extent to which the communicator provides the correct and relevant information on a subject matter from the perspective of the recipients. Furthermore, trustworthiness is part of the construct of credibility¹⁹.

Another important variable is *expertise*. Expertise describes the knowledge and intellectual abilities of individuals whose performance in a particular field is considered to be above average²⁰. In the context of this study, it can be assumed that SMI can exert influence on their recipients, which is reinforced by their status as an expert. Therefore, one aspect that determines the influence of SMI is their expert status.

Furthermore, *likeability* describes a positive emotional attitude towards another person, which prevails due to certain similarities or affinities²¹. Consequently, likeability towards influencers is largely determined by the recipient's identification with the influencers. In case of asymmetrical proximity, this is also referred to as parasocial interaction¹⁰. For credibility, likeability also plays a decisive role²².

Against this background, the following research questions can be formulated:

RQ1: How does consumer's perception of credibility differ between VI and SMI?

RQ2: How does consumer's perception as an expert differ between VI and SMI?

RQ3: How does consumer's perception of likeability differ between VI and SMI?

As the state of research shows, consumers' purchase intentions are also positively influenced by SMI²³. Since increasing purchasing intentions is at the same time an important goal of brands' influencer marketing activities, this study also compares the

effect of VI and SMI regarding this variable. Therefore, the following research question can be formulated:

RQ4: How does the influence on consumer's purchase intentions differ between VI and SMI?

Empirical study

Study design

To investigate the effects of VI and SMI a laboratory experiment was conducted. In preparation for the laboratory experiment, the different experimental groups were first defined. Since the influence of the influencer type on the recipient's perceptions is to be examined, the influencer type was defined as an independent variable. Consequently, the effect of the influencer type on the following dependent variables is examined: Credibility, expertise, likeability and purchase intentions.

The experimental groups were designed so that each experimental group was shown only one influencer type. Consequently, experimental group 1 evaluated their perception of VI and experimental group 2 their perception of SMI. By limiting the number of influencer types to one per experimental group, confounding factors were reduced. For example, a possible confounding factor when showing influencer types in both experimental groups would be the order in which the two types are shown.

To measure the evaluation of dependent variables by the test persons, an online questionnaire, incl. 5-point Likert scales, was created. Items were developed based on the literature review.

Study participants were recruited via convenience sampling. To ensure the validity of the results, participants were randomly distributed to the different groups. A total of 63 subjects participated in the experiment.

Treatment

Image and video posts by influencers of the two influencer types were chosen as stimuli. These were presented to the test group. The structure of the presentation was completely standardised. After an introduction to the research topic, the test groups were shown one male and one female influencer of the specific influencer type. A differentiation of the gender of the influencer was made in order to determine any effects of the gender of the

influencer on the perception of the recipients and to prevent a possible bias of the results due to an unequal gender of the influencer.

Each chosen influencer was introduced with a short intro text about him or herself and presented with three images and three videos, which were taken from the respective Instagram profile. It should be noted that it was not communicated during the presentation of the VI that they were virtual persons. This procedure is intended to prevent biasing participants' reaction to the stimulus.

Influencers were selected for the stimulus presentation according to defined criteria based on the literature review. Care was taken to ensure that the influencers were comparable. For this purpose, the types of influencers presented in the course of the literature review were used as selection criteria. Accordingly, influencers with comparable reach were sought in order to obtain reliable results. The classification into nano-, micro- and mega-influencers was used for this purpose.

Since VI are a comparatively new development in influencer marketing, there are only a few areas in which they are active. VI are primarily active in the fashion/lifestyle sector. For this reason, only influencers from this area were selected for the stimulus presentation. In addition, the portfolio of integrated influencers consists exclusively of mega-influencers. Table I shows a list of the influencers integrated in the experiment.

[Insert Table I around here]

Pretest

In order to test the quality of the measurement and the feasibility of the experiment, a pre-test was conducted before the data collection. For the pre-test, the procedure of the experiment was run through with five participants, recruited via convenience sampling. Minor adjustments in the procedure of the experiment, which were remarked by the participants of the pre-test, resulted. The suitability of the questionnaire was confirmed.

Results

Table II gives an overview of the descriptive results of the study. In addition, independent t-tests were conducted to measure whether significant differences exist between the experimental groups regarding their perception of the different types of influencers.

[Insert Table II around here]

Credibility

The variable credibility consists of three items. Due to the alpha value, the respondents' statements for the three items were examined together (see Table II).

With regard to the distribution of responses, it can be observed that subjects of the VI group (32%) and the SMI group (33%) similarly often indicated a value of < 3 for the three items. However, differences were observed in the extent of the positive evaluation. While 14% of the test persons of the VI group gave a rating of 5, only 4% of the test persons of the SMI group rated this statement as 5. Both groups similarly often gave a value of 4 (VI=34%, SMI=30%) and a value of 3 (VI=29%, SMI=22%).

For further analyses, the data were summarised into a mean score. Subsequently, the t- test revealed a p-value of .182. With regard to the significance level (0.05), it can therefore be concluded that the determined p-value is above the defined significance level ($0.182 > 0.05$). Consequently, no significant differences can be found between the mean values of the VI group ($M=3.026$) and the SMI group ($M=3.188$). The t-value is -0.91 with a degree of freedom of $df=113$.

Expertise

The variable expertise also consists of three items that can be considered together due to the alpha value (see Table II). For the examination of the dependent variable, the data was also combined into a mean score.

When looking at the distribution of answers of the test persons, it can be observed that a large part of the VI group (37%) rated the influencer with a value of 3. In comparison, only 19% of the respondents in the SMI group gave a value of 3. Respondents in the VI group tended to give a more negative rating. 30% of the SMI group gave a value < 3 . In the VI group, only 20% gave a value < 3 . With regard to the more positive evaluation, 34% of the VI group and 28% of the SMI group rated the influencer with a value of 4. The high proportion of test persons in SMI group who gave a value of 5 (19%) is also striking.

The variable expertise was also tested for significant differences using the one-sided t-test for independent samples. A p-value of .369 resulted. The significance level here is below the determined threshold ($0.369 > 0.05$). Consequently, no significant

differences can be found between the mean values of the VI ($M=3.34$) and the SMI group ($M=3.4$). The t-value is -0.34 with a degree of freedom of $df=111$.

Likeability

The dependent variable likeability also consists of three items. The calculation of the dependent variable is also based on the mean scores determined (see Table II).

In terms of response distribution, 55% of the VI group gave the influencers a score of < 3 . In the SMI group, 46% of responses accounted for a score of < 3 . In addition, 24% of the SMI group subjects gave a score of 4. In comparison, only 15% of the VI group gave a score of 4.

A one-sided t-test for independent samples was also carried out for the variable likeability. A p-value of .0499 resulted. Accordingly, a significant difference between the mean values of VI group ($M=2.46$) and the SMI group ($M=2.76$) was found. The t-value is -1.66 with a degree of freedom of $df=118$. Due to the significant result, Cohen's d was calculated. This resulted in a value of $d=0.3$.

Purchase intentions

The last dependent variable considered consumer's purchase intentions. In response to the statement "I can imagine buying products advertised by the influencer if they are relevant to me". The SMI group respondents gave a value > 3 more often (31%) than the VI group respondents (20%). A large proportion of the VI group respondents (31%) rated the statement as 3. The SMI group respondents rated the statement as 1 more often than the VI group respondents (27% $>$ 21%).

The comparison of the test groups displays a p-value of .41. The determined p-value is outside the significance level ($0.41 > 0.05$). For this reason, it can be assumed that there are no significant differences between the mean values of the VI group ($M=2.55$) and the SMI group ($M=2.6$). The t-value is -0.23 with a degree of freedom of $df=124$.

Discussion

This study expands the research in the field of influencer marketing. There has been little research on VI to date, therefore this study contributes to a better understanding of this emerging trend. Overall, it can be observed that the mean values of the VI group tend to be slightly lower than the mean values of the SMI group. Accordingly, VI tended to be assessed more negatively overall than SMI. However, the differences are not significant

except for the variable likeability. Therefore, the results confirm Ahn et al. and Stein et al. who also didn't find significant differences in the perception of VI and SMI^{10,24}.

Regarding RQ1, no significant differences could be found for the variable credibility. A closer look at the mean values also shows that the differences between the two experimental groups is minimal. For the VI group a mean of 3.03 was found (SMI group: mean = 3.19). If one compares the distributions of the answers, only minor differences in the positive evaluations can also be found. Due to the small difference in the mean values and the marginal differences in the distribution of responses, it can be assumed that there are no differences between the two experimental groups with regard to the dependent variable credibility.

Regarding RQ2, no significant differences could be found either. A closer look at the mean values of the two experimental groups also shows that they are very close to each other. The VI group has a mean value of 3.34, while the SMI group has a mean value of 3.4. Accordingly, no difference can be observed between the two experimental groups regarding the dependent variable expertise. Consequently, it can be assumed that VI and SMI are frequently and similarly perceived as experts.

When examining the dependent variable likeability (RQ3), on the other hand, a significant difference was found between the groups. The calculation of the effect strength using Cohen's d resulted in a value of $d=0.3$, which indicates that the effect strength is rather weak. Nevertheless, it can be stated that there are clear differences between the test groups with regard to the perception of likeability. Since the mean value of the VI group (2.46) is lower than that of the SMI group (2.76), it can be deduced that VI are perceived as likeable less often and less strongly than SMI. In other words, in terms of likeability, VI are perceived significantly more negatively than SMI.

Finally, with regard to the dependent variable purchase intentions (RQ4), again no significant differences could be found between the groups. Here too, the mean values of the VI group (2.55) and SMI group (2.6) are very close to each other. When looking at the distribution of the answers, no relevant differences could be found either. Overall, however, it can be observed that purchase intentions were rated generally low in both groups.

Managerial implications

All in all, given that respondents didn't perceive significant differences between VI and SMI (except for the variable likeability), the potential of VI for brand communication can be approved. Therefore, it can be proposed that the technological innovation of Ai-driven

VI represents a trend that will probably not lose its relevance and will be increasingly implemented by influencer marketing campaigns in the future.

It can also be expected that concepts such as virtual reality, augmented reality will make VI even more relevant. This is especially true against the backdrop of the metaverse, which supposedly represents a completely new way of digital life and digital communication. VI may gain in importance, as SMI would also have to adopt an avatar in the digital metaverse. Therefore, further research and investigations will be necessary to be able to consider the subject of VI comprehensively and to place them in the context of future studies.

Limitations and future research

With regard to the chosen methodology, there are certain limitations. For this research, a quantitative approach using an online laboratory experiment was chosen. The laboratory experiment takes place in an artificial space, which allows the researchers to keep variables of the experiment under control and to reduce potentially confounding factors. This results in a high internal validity. However, it should be noted that the creation of an artificial space limits the realism of the experiment. The laboratory experiment results in a lower external validity than, for example, a field experiment.

In our experiment, only a relatively small sample could be examined. As a result, the findings can only be applied to the general public to a limited extent. Likewise, only a total of four influencers could be studied. Here, too, only limited general statements can be made about reality. For a realistic representation, a renewed study with a higher number of influencers and a larger number of test subjects would make sense.

The focus of this study has been on influencers from the fashion and lifestyle sectors. Further research could be conducted here in greater depth by examining other influencers with the same methodology and comparing them with the findings of this work.

The research design of this paper investigated the extent to which SMI and VI are perceived differently. However, the extent to which knowledge about the type of influencer is a factor in the change in perception was not considered. Although VI were shown in the course of the experiment, it was not communicated to the test persons that the influencers shown were VI.

It would therefore be highly relevant to investigate in further studies to what extent knowledge about the type of influencer has an impact on the evaluation of the test persons. This insight could also be relevant for brand communication and the planning of

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influencer marketing activities, in order to be able to make more informed decisions about the appearance and presentation of the VI. For this purpose, further research in the design of the experiment could, for example, include a third test group that looks at identical VI, but is informed beforehand that they are virtual persons.

References

1. Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of computer-mediated Communication*, 13(1), 210-230. <https://doi.org/10.1111/j.1083-6101.2007.00393.x>
2. Rudeloff, C., Pakura, S., Eggers, F. et al. It takes two to tango: the interplay between decision logics, communication strategies and social media engagement in start-ups. *Rev Manag Sci* 16, 681–712 (2022). <https://doi.org/10.1007/s11846-021-00464-x>
3. Stefanie Pakura & Christian Rudeloff (2023) How entrepreneurs build brands and reputation with social media PR: empirical insights from start-ups in Germany, *Journal of Small Business & Entrepreneurship*, 35:2, 153-180, DOI: 10.1080/08276331.2020.1728490
4. Pakura, S., Rudeloff, C., Bekmeier-Feuerhahn, S., & Eggers, F. (2020). Communication management of start-up firms. An empirical analysis of entrepreneurs' communication and networking success on Facebook. *International Journal of Entrepreneurial Venturing*, 12(5), 459-489. <https://doi.org/10.1504/IJEV.2020.111538>
5. Ki, C.W.C. and Kim, Y.K. (2019), “The mechanism by which social media influencers persuade consumers: the role of consumers’ desire to mimic”, *Psychology and Marketing*, 36(10), 905-922, <https://doi.org/10.1002/mar.21244>
6. Influencermarketinghub (2022). The State of Influencer Marketing 2022: Benchmark Report. <https://influencermarketinghub.com/influencer-marketing-benchmark-report/>
7. Vrontis, D., Makrides, A., Christofi, M., & Thrassou, A. (2021). Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*, 45(4), 617-644.
8. Sands, S., Ferraro, C., Demsar, V., & Chandler, G. (2022). False idols: Unpacking the opportunities and challenges of falsity in the context of virtual influencers. *Business Horizons*.
9. Travers, C. (2020). 5 Notable Virtual Influencers + Brand Partnerships. <https://www.virtualhumans.org/article/5-notable-virtual-influencer-brand-partnerships>
10. Ahn, R. J., Cho, S. Y., & Sunny Tsai, W. (2022). Demystifying Computer-Generated Imagery (CGI) Influencers: The Effect of Perceived

- Anthropomorphism and Social Presence on Brand Outcomes. *Journal of Interactive Advertising*, 1-9.
11. Lazarsfeld, P. F., Berelson, B. R. & Gaudet, H. (1944). *The People's Choice: How the Voter makes up his Mind in a Presidential Campaign*. Columbia University Press. New York.
 12. Katz, E. & Lazarsfeld, P. F. (1955). *Personal Influencer: The part played by the people in the flow of mass communications*. The Free Press. New York.
 13. Bennett, W. L. & Manheim, J. B. (2006). *The One-Step Flow of Communication*, in *The ANNALS of the American Academy of Political and Social Science* (1st ed. pp. 213-232). Vol. 608
 14. Leung, F.F., Gu, F.F. & Palmatier, R.W. Online influencer marketing. *J. of the Acad. Mark. Sci.* 50, 226-251 (2022). <https://doi.org/10.1007/s11747-021-00829-4>
 15. Park, J., Lee, J. M., Xiong, V. Y., Septianto, F., & Seo, Y. (2021). David and Goliath: when and why micro-influencers are more persuasive than mega-influencers. *Journal of Advertising*, 50(5), 584-602.
 16. Rundin, K., & Colliander, J. (2021). Multifaceted influencers: towards a new typology for influencer roles in advertising. *Journal of Advertising*, 50(5), 548-564.
 17. Yesiglou, S. & Costello, J. (2020). *Influencer Marketing: Building Brand Communities and Engagement*. Routledge. New York.
 18. noonouri [@noonouri] (2022, June 24). noonouri. [Instagram profile]. Instagram. Retrieved 2022-04-13 from <https://www.instagram.com/noonouri/>
 19. Lou, C., & Yuan, S. (2019). Influencer marketing: how message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*, 19(1), 58-73.
 20. Chekima, B., Chekima, F. Z., & Adis, A. A. A. (2020). Social media influencers in advertising: The role of attractiveness, expertise and trustworthiness. *Journal of Economics and Business*, 3(4).
 21. Myers, S. (2021). Instagram Source Effects: The Impact of Familiarity and Likeability on Influencer Outcomes. *Journal of Marketing Development and Competitiveness*, 15(3), 50-55.
 22. Janssen, L., Schouten, A. P., & Croes, E. A. (2022). Influencer advertising on Instagram: product-influencer fit and number of followers affect advertising

outcomes and influencer evaluations via credibility and identification. *International journal of advertising*, 41(1), 101-127.

23. Masuda, H., Han, S. H., & Lee, J. (2022). Impacts of influencer attributes on purchase intentions in social media influencer marketing: Mediating roles of characterizations. *Technological Forecasting and Social Change*, 174, 121246.
24. Stein, J. P., Linda Breves, P., & Anders, N. (2022). Parasocial interactions with real and virtual influencers: The role of perceived similarity and human-likeness. *New Media & Society*, 14614448221102900.

Tables

Table I:

Overview of influencers

	Influencer 1	Influencer 2	Influencer 3	Influencer 4
Name	Miquela Sousa	Blawko	Julia Marie	Marcel Floruss
Instagram Name	@lilmiquela	@blawko22	@xlaeta	@marcelfloruss
Follower	3.000.000	141.000	2.900.000	536.000
Topic	fashion/lifestyle	fashion/lifestyle	fashion/lifestyle	fashion/lifestyle
Category	mega influencer	mega influencer	mega influencer	mega influencer
Sex	Weiblich	Männlich	Weiblich	Männlich
Influencer Type	VI	VI	SMI	SMI

Note: Number of followers in September 2022

Table II*Group descriptives*

	Group	N	mean	SD	SE	a
<i>Credibility</i>	VI	32	3.03	0.85	0.150	0.88
	SMI	31	3.19	1.13	0.203	
<i>Expertise</i>	VI	32	3.34	0.89	0.157	0.88
	SMI	31	3.4	1.24	0.223	
<i>Likeability</i>	VI	32	2.46	0.92	0.163	0.87
	SMI	31	2.76	1.27	0.228	
<i>Purchase intentions</i>	VI	32	2.55	1.1	0.194	
	SMI	31	2.6	1.35	0.242	