

Virtual Influencers: The Future of Social Media Marketing?

Barbara Šmehlíková, MSc.

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Tomas Bata University in Zlín
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Definujte cíle práce a použité metody zpracování práce.

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- Na základě dostupné literatury zpracujte teoretické poznatky vztahující se k vybranému tématu.

II. Praktická část

- Analyzujte, jak virtuální influenceři ovlivňují chování zákazníků.
- Zhodnoťte výhody a nevýhody používání virtuálních influencerů společnostmi.

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ALLAL-CHÉRIF, Oihab; PUERTAS, Rosa and CARRACEDO, Patricia. Intelligent influencer marketing: how AI-powered virtual influencers outperform human influencers. Online. *Technological Forecasting and Social Change*. 2024, vol. 200, article 123113. Available at: <https://doi.org/10.1016/j.techfore.2023.123113>.
ANGMO, Padma and MAHAJAN, Rachna. Virtual influencer marketing: a study of millennials and gen Z consumer behaviour. Online. *Qualitative Market Research*. 2024, vol. 27, issue 2, p. 280-300. Available at: <https://www.scopus.com/record/display.uri?eid=2->.
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SANDS, Sean; FERRARO, Carla; DEMSAR, Vlad and CHANDLER, Garreth. False idols: Unpacking the opportunities and challenges of falsity in the context of virtual influencers. Online. *Business Horizons*. 2022a, vol. 65, issue 6, p. 777-788. Available at: <https://doi.org/10.1016/j.bushor.2022.08.002>.

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L.S.

doc. Ing. Michal Pilík, Ph.D.
děkan

doc. Ing. Michal Pilík, Ph.D.
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ABSTRAKT

Tento projekt se zabývá fenoménem virtuálních influencerů a jejich vlivem na chování zákazníků. Studie na toto téma byla provedena na základě analýzy existující literatury, která pomohla k hlubšímu pochopení tohoto trendu na sociálních sítích. Výzkum ukazuje, že virtuální influenceři mají pozitivní i negativní vliv na chování zákazníků, neboť je mohou například zaujmout, inspirovat a nadchnout, ale také zklamat, zmást a vyděsit. Zjistilo se také, že virtuální influenceři představují pro podniky nový, zajímavý a inovativní přístup k marketingu, jehož prostřednictvím mohou zvýšit povědomí o své značce a přímo se spojit se svými zákazníky po celém světě. Jejich použití má několik výhod, jako je úplná kontrola nad jejich sdíleným obsahem a možnost přizpůsobení, ale také nevýhody, jako je nedostatečná autentičnost, nízká transparentnost a finanční náročnost. Stručně řečeno, tento literární přehled seznamuje s problematikou virtuálních influencerů a jejich využíváním na sociálních sítích.

Klíčová slova: influencer marketing, influencer, virtualní influencer

ABSTRACT

This project deals with the phenomenon of virtual influencers and their effect on customer behaviour. The study on this topic was conducted based on an analysis of existing literature, which helped to gain a deeper understanding of this trend on social media. The research reveals that virtual influencers have both positive and negative effects on customer behaviour, as they can, for example, engage, inspire and excite them, but they can also disappoint, confuse and frighten them. It is also found that virtual influencers represent a new, interesting and innovative approach to marketing for businesses, through which they can increase their brand awareness and directly connect with their customers around the world. Their use has several advantages such as complete control over their shared content and the possibility of customisation, but also disadvantages such as insufficient authenticity, low transparency and financial demands. In summary, this literature review introduces the issue of virtual influencers and their use on social media.

Keywords: influencer marketing, influencer, virtual influencer

I would like to deeply thank Professor John R Anchor PhD for his professional guidance of my final project. Of course, I would also like to thank my family, especially my parents, who have been an incredible support to me throughout my studies.

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INTRODUCTION

Social media are one of the most important communication tools of today that enable the connection of people in the present time and anywhere in the world in a digital environment (Appel et al., 2019; Li et al., 2020). However, despite their digital nature, social media are tightly connected to the real world (Davis, 2016). Their existence is beneficial, for example, for socialising, building romantic relationships, interacting with businesses and creating employment networks (Aichner et al., 2021). The three most popular reasons for using social media are keeping in touch with family and friends, filling free time and searching for news (Dixon, 2024a). Users of social media have different types of interactions, including one-on-one, in pairs, or in groups (Davis, 2016). The first social media began to appear on the Internet at the end of the twentieth century, but the biggest turning point occurred in 2004, when platforms like those we use today began to emerge. A milestone was the year 2006, when Facebook appeared on the market and quickly became the most popular social media platform of that time (Jones, 2024; Ortiz-Ospina, 2019). Even today, many years later, Facebook is one of the biggest platforms together with YouTube, Instagram, and TikTok (Dixon, 2024b). These platforms share the same basic characteristics, but their nature is different and each focus on different content, have different rules, and target different types of users (Davis, 2016). There were 5.17 billion social media users recorded in 2024 and this number is predicted to reach 6.05 billion within the next three years (Dixon, 2024c). In particular, users aged 18 to 24 are the most active on social media, whilst users aged 65 and over show the least engagement. However, the age composition of each social media platform's users varies considerably. For example, Snapchat is most popular with the youngest group from 18 to 24 years old, YouTube has more users between the ages of 25 and 29, and Facebook is the platform with the largest number of users over 65 years old (Ortiz-Ospina, 2019). Social media are not defined by the technologies that created them, but by the users based on their behaviour. Thanks to them and technological progress, social media are constantly changing and continually offer new functions and opportunities (Appel et al., 2019). According to statistics, users of social media spend more than two hours a day on them and consider them as their main source of information. This is particularly important for companies who seek to profit from consumers' use of digital technologies (Dixon, 2024d).

Promotion of companies using social media can also be called social media marketing (Bartoloni and Ancillai, 2024). Because of social media, the style of communication between businesses and customers has completely changed, and these interactions can be considered a strategic advantage for every company (Li et al., 2020; Aichner et al., 2021). With the help of social media platforms, companies can directly connect with their customers around the world and thus create a closer relationship and brand loyalty with them. These platforms also serve as a means of analysing customer behaviour, as thanks to them, companies know what customers are interested in based on analytical functions and can set up future marketing campaigns based on this information. The more personalised the ad is, the more attention it will receive from the users, as it is related to their interests. Companies can receive two types of benefit from customer engagement on social media – tangible in the form of higher sales and income and intangible in the form of feedback on the improvement of promoted products (Li et al., 2020). Increased sales are related to shopping on social media, which has become very popular in recent years and is referred to as social shopping. Many platforms already offer special features that allow the customer to purchase the promoted product without having to leave the platform, which saves them a lot of time and does not interrupt the fun of scrolling. This sales style helps to get close to customers in the environment where they spend most of their time and where they look for inspiration and new trends (Mileva, 2023). Social shopping is growing rapidly every year. In 2023, revenues from this type of sales were recorded in the amount of 570.7 billion US dollars and it is predicted that this number will grow in the future (Statista Research Department, 2024). The younger generation of social media users most often make purchases on platforms such as Instagram and TikTok, while older generation like millennials turns to Facebook (Mileva, 2023).

In recent years, the effectiveness of classic ads on social media has been decreasing, which has forced companies to look for new ways of promotion, such as influencer marketing, which has proven itself successful (Tafesse and Wood, 2021). Influencers are considered as opinion leaders as well as social media experts that can impact the behaviour of their followers as they connect with them by sharing parts of their lives that they can relate to. The advantage of influencers is that they have a certain relationship with their followers based on which the followers trust them and thus the probability of influencing them increases (Harrigan et al., 2021; Tafesse and Wood, 2021; Sands et al., 2022b). These creators can affect their followers in terms of their opinions, habits, lifestyle, and what things they buy and use (de Castro et al., 2021). This is very attractive for companies promoting

their brands as influencers are a tool for transmitting information about their products and services (Harrigan et al., 2021). Businesses thus have a pattern of sending their products to influencers before they go on the market, so that the influencers can try them out and then evaluate and possibly recommend them to their followers, who can buy them immediately after the launch (Tafesse and Wood, 2021). The value of the global influencer marketing market is growing rapidly every year. In 2023, this market reached a value of up to 21.1 billion US dollars, which is a more than double compared to 2020 with a value of 9.7 billion US dollars (Dencheva, 2024c). For a long time, these influencers were only regular people or celebrities, but dynamic marketing and technological developments have led to the introduction of a new type of digital influencers. So-called virtual influencers are characters created using computer technology together with artificial intelligence and advanced graphic design, who can imitate what human influencers do on social media (Conti et al., 2022). Virtual influencers achieved their first full popularity in 2016, when companies also noticed the potential for their use. Their biggest benefit is the possibility of their flexible visual and character adaptation and full control over their activities on social media (Audrezet and Koles, 2023).

1 OBJECTIVES AND METHODS OF THESIS DEVELOPMENT

1.1 Research question and objectives

This literature review focuses on the issue of influencer marketing and its latest trend of virtual influencers. The main research question of this review is "How do virtual influencers affect customer behaviour?" and the objectives of this research are to analyse customer perception of virtual influencers, identify the advantages and disadvantages of their corporate use, as well as general deepening of knowledge on the topic of virtual influencers. This research will help to summarize the existing literature and create a simple overview related to this topic.

2 METHODOLOGY

2.1 Research approach

A literature review is defined as a summary of literature on a certain topic based on the collection and subjective analysis of existing literature. A systematic literature review is very similar, but its main difference is that it has fixed rules of methodology regarding the collection and analysis of data, which is very objective (Tranfield et al., 2003). Along with these research methods, it is also possible to choose from two research approaches – qualitative and quantitative. Qualitative research examines data in the form of words and texts, looking for connections in themes to gain a deeper understanding of a particular topic. In contrast, quantitative research examines numerical data in the form of statistics to find relationships between certain facts (Allwood, 2011). In this study, the author chose the method of a systematic literature review with a qualitative approach to literature synthesis to investigate the position of customers towards virtual influencers on social media.

2.2 Literature search strategy

For the purposes of this research, two large databases, Scopus and Statista, were chosen due to their advanced search function together with the offer of quality and reliable data. However, these two databases have different search engines and therefore it was necessary to determine the search strategy separately for each database.

In the initial phase of the research in the Scopus database, keywords were identified that, together with Boolean operators, created the search command "ai" OR "artificial intelligence" AND "influencer" OR "virtual influencer", based on which the database generated 308 results. At the beginning of the research, it was decided that only data published after 2016 would be used, as this is the year in which the popularity of virtual influencers and the interest in exploring and analysing them increased. Older literature was therefore discarded, leaving 293 results. Then a second criterion was applied, which selected only sources that were content related to the field of "Business, Management and Accounting" and which showed 99 relevant results. This step helped to eliminate results that were related to irrelevant fields such as art, engineering, physics, healthcare and more. Afterwards, the database was ordered to exclude literature that is not written in the form of a scientific article, as other types of literature such as news, book reviews, discussions, conference records and more may not always be reliable. This command reduced the number

of generated relevant results to 64. The last chosen criterion was the exclusion of one non-English written source that could cause problems with the language barrier in their analysis, which narrowed down the number of appropriate sources to 63. These 63 generated articles were subsequently evaluated according to their titles and abstracts, which outlined their content. As part of the screening, it was found that the content of 34 articles did not relate to the topic of virtual influencers, but focused for example, only on virtual reality, artificial intelligence or classic influencer marketing. This resulted in 29 articles that seemed relevant and beneficial to the planned research and to answering the research question.

For the purposes of the Statista database, "virtual influencer" was chosen as the only keyword to search for applicable data, as its search engine does not allow searches under multiple keywords. Using this keyword, 386 results were found, which then had to be narrowed down using an advanced search. To empirically support various theories with data, the type of content in the search was limited to statistics only, leaving 299 sources in the database results. Another elimination criterion was the removal of statistics older than 2022, so that only the most up-to-date data was used since older data may not reflect the current situation of the given issue because of trends and technological developments which are changing rapidly. This step reduced the quantity of offered results to 155. As the research does not focus on a specific country, the last search criterion was to find only statistics that were conducted with worldwide data. After using all the elimination criteria, 24 sources remained, which were then exposed to a screening according to their content, within which only 3 relevant statistics were identified that were suitable for the purpose of the research.

Both databases together initially generated 694 results which were then narrowed down based on exclusion criteria and screening of their titles and abstracts. After this whole process, 32 relevant sources remained, which focused on the issue of virtual influencers and their impact on customers. Furthermore, the snowballing method was also used, which added one more article regarding the use of virtual influencers to promote sustainability. So, the total number of sources used for research purposes was 33.

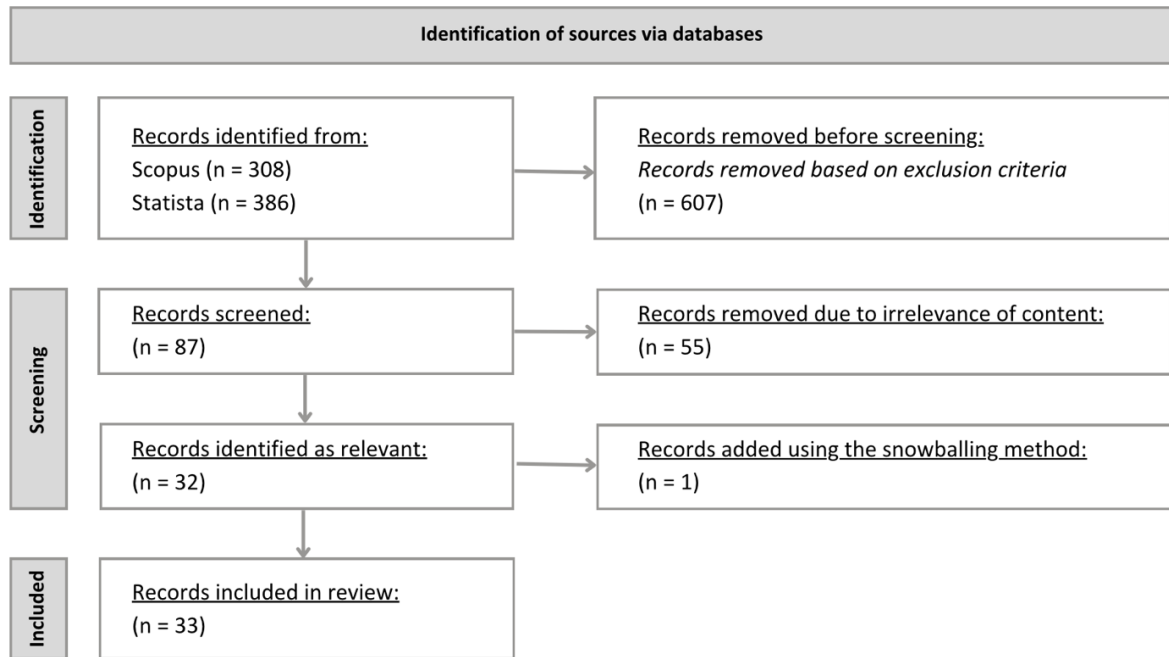


Diagram 1: Literature identification procedure

(source: own elaboration)

2.3 Analysis and synthesis

As part of the research strategy, it was determined that the articles would be analysed separately and only then the data from statistics were added to the finished synthesized text where empirical evidence was appropriate. First, for better clarity each of the 30 articles were downloaded in PDF document format and saved to the author's device. After reading each source, the author filled in the characteristics of the article such as its title, name of the authors, year of publication, name of the journal in which it was published, focus and findings in a pre-prepared table in MS Excel. Such an arrangement of the literature made it easier and faster to find information in the selected articles (Younas and Ali, 2021). For the purposes of comparing and synthesizing articles, it was especially important to classify them according to the focus of their content. As part of the analysis, five basic themes of the articles were determined based on the repetition technique, which consists in searching for recurring topics and concepts in the text (Ryan and Bernard, 2003). The largest number of articles explored the impact of virtual influencers on customer behaviour, 16 to be exact. After that, six articles focused on the effectiveness of virtual influencers in marketing, five articles on the comparison of virtual and human influencers, one on virtual influencers end ethics and two on virtual influencers and sustainability.

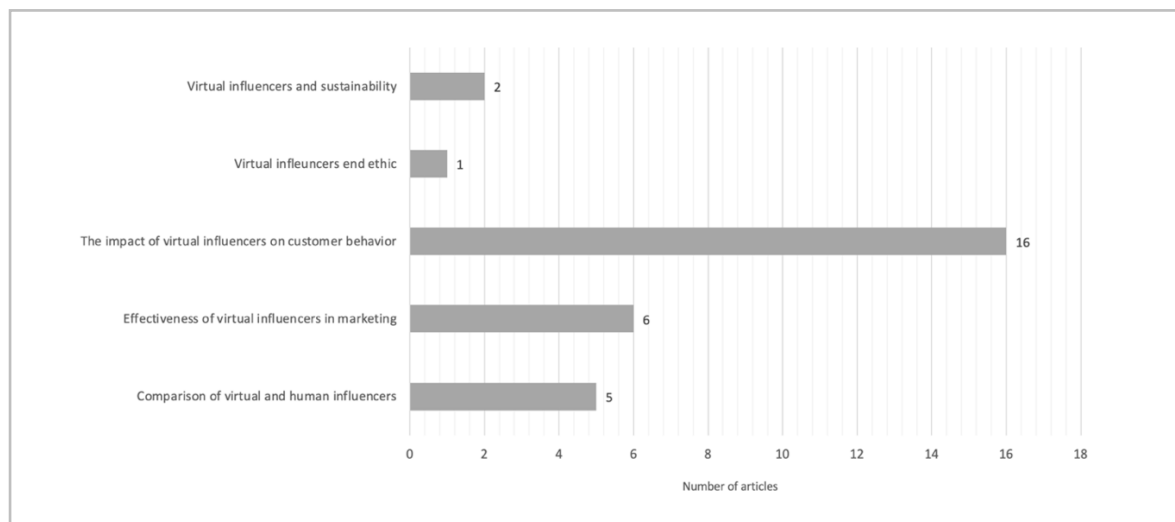


Figure 1: Classification of literature by focus

(source: own elaboration)

When analysing articles by date of publication, it was found that although it was possible to search for articles published since 2016 within the literature search command, the oldest two articles of the relevant literature were published in 2020. There is also one article in the relevant literature from 2021, four from 2022 and eight from 2023. However, half of the articles were published in 2024, which shows a gradual annual growth of attention for virtual influencers. This is probably mainly due to the development of technology and the popularity of social media and influencer marketing (Chan et al., 2023; Alboqami, 2023; Sands et al., 2022b).

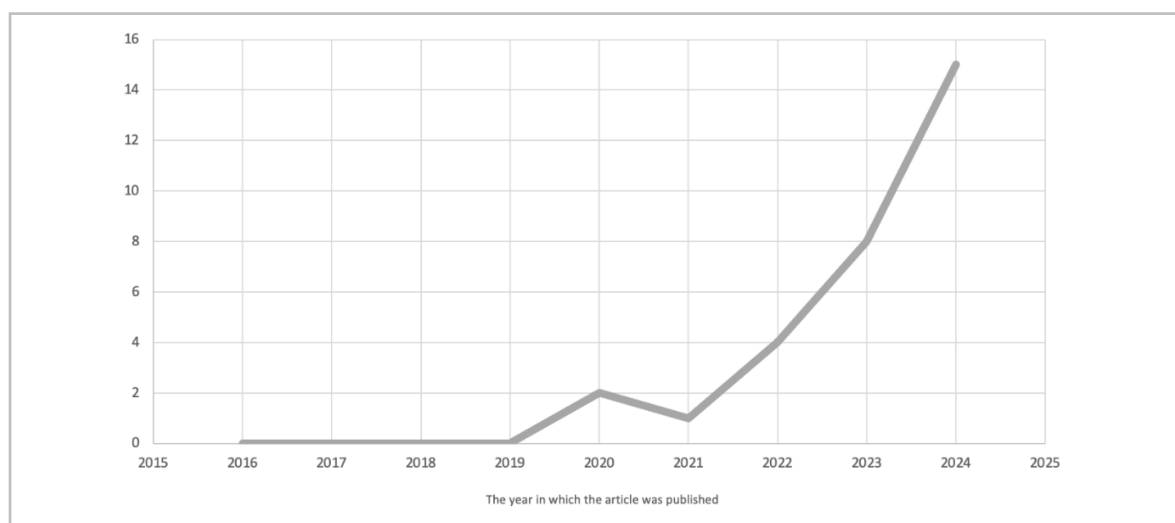


Figure 2: Classification of literature by date of publication

(source: own elaboration)

It was also possible to sort the literature according to the journals in which the article was published. Articles were found in a total of 15 different journals mainly dealing with business and marketing. There were 30 articles in total, of which seven were published in the Journal of Retailing and Consumer Services. Many articles were also published in the Journal of Interactive Advertising and Journal of Advertising.

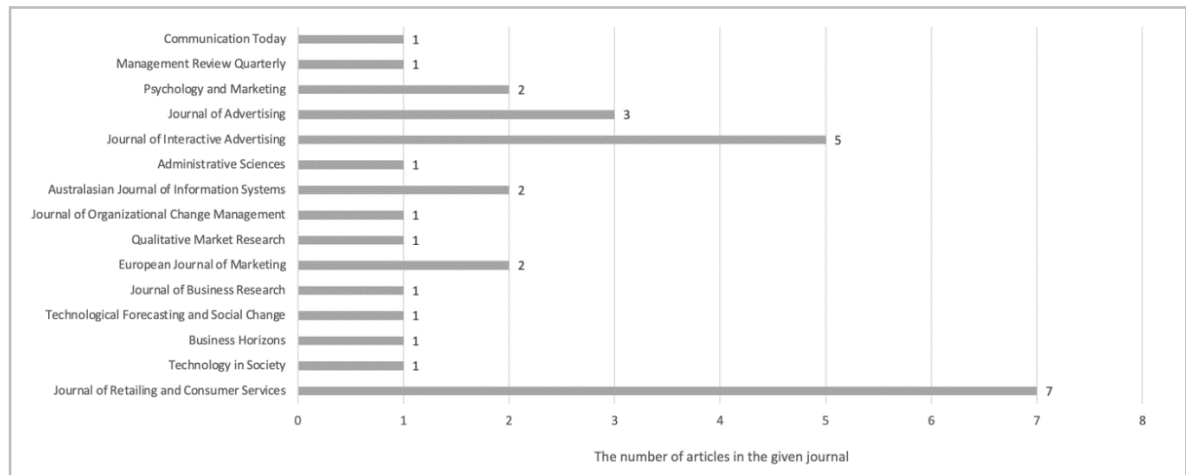


Figure 3: Classification of literature by journal

(source: own elaboration)

2.4 Principles of ethics and responsibility

Ethics and responsibility principles were followed throughout the systematic literature review to support the credibility of the study. Throughout the research, the author adhered to a predetermined search strategy and was transparent about her literature search and the origin of the sources. This is also related to the observance of the principle of careful citation of this literature, which prevents plagiarism. The author also tried to be as unbiased as possible when analysing literary sources. Therefore, she not only used sources from authors whose opinion she agreed with, but also sources that had a different view on the given topic, so that the research would be sufficiently critical (Sage Research Methods Community, 2019).

I. THEORETICAL PART

3 STRUCTURED LITERATURE REVIEW

3.1 Influencer marketing

Influencer marketing is an advertising strategy in which companies use influential personalities to promote their products, services or the brand itself (Allal-Chérif et al., 2024). Alboqami (2023) describes this marketing method as a multi-layered relationship between an influential person, a company and customers who bring some value to each other. Influencer marketing has become a major trend in promotion in recent years, especially due to technological advances and the COVID 19 pandemic, which forced people to move to a digital environment where they spent most of their time (Chan et al., 2023; Alboqami, 2023; Sands et al., 2022b). Deng et al. (2024) and Allal-Chérif et al. (2024) agree that this fact has also helped the growth of social media platforms such as Instagram, TikTok, YouTube and Twitter.

Influential people with whom companies cooperate are called influencers, which can be defined as well-known personalities on social media who connect the company with customers and have a certain power to influence their followers (Robinson, 2020; Allal-Chérif et al., 2024). Sands et al. (2022b) specifies that influencers do not have to be just celebrities like actors, singers, and athletes, but can also be regular people who have managed to build a loyal following on social media that trusts them and looks up to them. He further explained that their trust is built on mutually beneficial interactions, where the influencers offer the followers attractive and entertaining content, and the followers like, comment and share their post, thereby intensifying its reach. The more activity a post gets from followers, the more it is then prioritised by the platform's algorithm, which will then show it to more users (Shao, 2024; Yu et al., 2024). Each influencer specialises in different fields such as fashion, beauty, cooking, art, lifestyle, travel, and more (Li et al., 2023; Yang et al., 2024; Looi and Kahlor, 2024; Gutuleac et al., 2024). Angmo and Mahajan (2024) and Sands et al. (2022b) say that based on this the followers also decide whether a creator's content is remarkable to them according to their shared interests. When influencers prove to their followers that they are experts in their field of interest, people will also trust them more (Gerlich, 2023).

Influencers are becoming increasingly popular every year for the advertising purposes of companies, as they can increase the awareness of their brand and affect customer purchase behaviour (Wan et al., 2024). Promotion with the help of an influencer is, according to

Abloqami (2023), far more effective than promotion directly by the company itself. Deng et al. (2024) explain this by the fact that customers tend to evaluate companies' advertising content on social media negatively because they feel pressured to make a purchase. On the other hand, for influencers, the advertising content they share is usually very similar to regular content, so it is very easy for customers to overlook it, which increases the chances of customers being influenced by the advertisement. He also added that this is why companies increase their budgets for this type of marketing every year. But it is important to mention that it is more effective for companies to work with smaller influencers instead of worldwide famous celebrities because, according to Angmo and Mahajan (2024) and Sands et al. (2022b), customers can relate to them more easily and this supports their feeling of trust. This is also confirmed by statistics from 2023, which show that most companies plan to invest in collaboration with micro influencers or mid-tier influencers who have a maximum of 500,000 followers (Dencheva, 2024b). Successful product recommendations are another element highlighted by Looi and Kahlor (2024) that earn customer trust. When a customer buys a product that a social media influencer has recommended and is satisfied with it, they are more likely to trust that influencer with other recommendations as part of their future purchase. However, they also point out that for effective cooperation it is important for companies to choose an influencer in their field of business and for the influencer to share certain values and interests with the company.

3.2 Virtual influencers

With the development of technology, a new type of influencers appeared on social media – virtual influencers (Deng et al., 2024). Virtual influencers are artificially created digital characters that mimic human appearance and behaviour on social media platforms (Chan et al., 2023; Shao, 2024; Kim et al., 2024). Other authors like Sands et al. (2022a) and Deng et al. (2024) define virtual influencers as computer-generated characters who may or may not imitate humans. Virtual influencers act very much like real people online. They share content in the form of stories, videos, photos and collaborations with brands through which they present their personality, interests, opinions and even life stories to their followers. This way, they offer a certain form of entertainment, based on which they build a parasocial relationship with them (De Cicco et al., 2024; Kim et al., 2024; Allal-Chérif et al., 2024). Virtual influencers can be found on various social media platforms, but Instagram is the most popular probably due to its content nature (De Cicco et al., 2024). According to Chan et al.

(2023) and Sands et al. (2022a) virtual influencers on these platforms can get up to three times more follower engagement than human influencers can.

Virtual influencers are controlled by teams of experts in digital design, animation and artificial intelligence (Gerlich, 2023; Shao, 2024; Ferraro et al., 2024; Wan et al., 2024). This can lead to the perception that virtual influencers are not autonomous and that can reduce their credibility, especially when the followers do not know who really controls the virtual influencer (Lee and Ham, 2023). However, Robinson (2020) and da Silva Oliveira and Chimenti (2021) predict that in the future, virtual influencers will be able to operate completely autonomously with the help of artificial intelligence by collecting data from social media and learning new algorithms and languages.

Virtual influencers have been around for a while, but their big boom came in 2016 when Lil Miquela appeared on social media (Sands et al., 2022a). Lil Miquela presents herself as a young girl in her twenties who is dedicated to creating music. Several million people enjoy her content on her platforms, and in 2018 she was even mentioned by TIME magazine as one of the 25 most influential people (Allal-Chérif et al., 2024). Since then, she has collaborated on marketing campaigns with various luxury fashion brands such as Prada, Kenzo and Balenciaga, as well as technology brands such as Samsung (Li et al., 2023). She is also involved in activist actions such as the fight for women's rights and equality (Allal-Chérif et al., 2024; Robinson, 2020). Lil Miquela does not hide her digital existence from her followers and is very transparent about it, which Ahn et al. (2022) indicate as the reason for her authenticity.



Picture 1: Lil Miquela

(Pascun, 2022)

3.3 Customers' perception of virtual influencers

Thanks to the time we are currently in, which is characterised by high activity of people in the digital environment, customers are becoming more comfortable with virtual influencers (Sands et al., 2022a; Kim and Park, 2024). Angmo et al. (2024) claims that in general, technological development is the main element in the growth of the acceptance of digital characters. Customers are constantly looking for different news, trends and forms of entertainment, and this is exactly what virtual influencers represent. For them, they are a unique social experience associated with an escape from the real world (Angmo and Mahajan, 2024; Ferraro et al., 2024; De Cicco et al., 2024; Sands et al., 2022b; Lou et al. 2023). Feng et al. (2024) and Angmo and Mahajan (2024) further point to the fact that there are also customers who, on the contrary, are afraid of new technologies and do not understand them, which can cause resistance to interact with digital characters on social media. Plus, if customers had a negative experience with a new technology in the past, they would have doubts about its reliability in the future (Thomas and Fowler, 2021). But this mostly happens with older generations who did not grow up in an age full of technological inventions. The target group of virtual influencers is mainly generation Z and millennials, who are used to new technologies (Angmo and Mahajan, 2024; Robinson, 2020). Nevertheless, a study by Angmo and Mahajan (2024) showed that even they sometimes doubt whether they can trust virtual influencers, even though they perceive them as an interesting form of entertainment. However, de Boissieu and Baudier (2023) drew attention in their study to the fact that it is important to realise that the perception and acceptance of virtual influencers is individual and depends not only on age, but also on the personalities of the people and the place where they live. Their research showed that, for example, in France, people reject virtual influencers and do not believe them, but in China they are popular, and people appreciate the technology behind their creation. It follows that the culture and development of a given country significantly influences the customer behaviour in accepting and trusting virtual influencers.

Thomas and Fowler (2021) state that one of the key foundations of acceptance of virtual influencers is trust, which is influenced by two main elements on which customers judge them, namely attractiveness and anthropomorphism. Attractiveness represents not only the visual appearance of virtual influencers, but also the interest of their social personality and content (Ahn et al., 2022; Allal-Chérif et al., 2024; da Silva Oliveira and Chimenti, 2021). Ahn et al. (2022) found in their study that social attractiveness is even more important than

physical attractiveness for a customer's positive relationship with a virtual influencer. This fact is also supported by a study conducted by Shao (2024), who showed that if a virtual influencer offers more engaging and authentic content than a human influencer, people will prefer the virtual influencer regardless of whether it is a digital character. Anthropomorphism can be defined as the tendency of people to perceive inanimate objects as living (Gutuleac et al., 2024; Feng et al., 2024). In the case of virtual influencers, this means that customers tend to attribute human qualities to them (Li and Ma, 2024). Kim and Park (2024) describe it as an element that makes it easier for customers to form a positive parasocial relationship with them. That follows that the more similar the virtual influencer is to a human, the greater the customer's tendency towards anthropomorphism. These influencers can imitate people based on two main theories – form realism and behavioural realism (Li et al., 2023; Angmo et al., 2024).

3.3.1 Form realism

Form realism describes how virtual influencers look, how they move, and generally how visually human-like they are (Kim et al., 2024). Gerlich (2023) and Shao (2024) both indicate that the most positively received are virtual influencers who have a high degree of form realism and who are very similar to humans, because customers have a greater tendency to trust someone who is like them. However, Gutuleac et al. (2024) argue that in customers who are not fully comfortable with new technologies, it can, on the contrary, generate fear and confusion which prevents them from accepting them. Even though findings from study by Alboqami (2023) show that the physical appearance of virtual influencers plays an important role in their credibility, many authors like da Silva Oliveira and Chimenti (2021), Sands et al. (2022a) and Angmo et al. (2024) criticize them because they can represent an unrealistic standard of beauty, which can have a negative effect on the mental health of followers. But the same problem also occurs with human influencers, where this topic is much more sensitive as human influencers are aware of their behaviour and its consequences (Angmo et al., 2024). Mitigating this problem and increasing authenticity can help when the virtual influencer portrays some human flaws in their appearance such as wrinkles, acne, crooked teeth or scars. Sands et al. (2022a), explains that it adds humanity to the characters and makes followers feel more relatable to them. Similarly, diversity based on, for example, age, gender, disabilities and ethnicity works effectively as followers look for influencers who share comparable features with them (Ferraro et al., 2024; Alboqami, 2023; Kim and Park, 2024).

Virtual influencers with a low degree of form realism, on the other hand, are very far from resembling real humans. They can look like comic book or anime characters or even fairy tale characters and animals. Creators that are supposed to represent less realistic humans can have, for example, a head that is disproportionately large for the body, large eyes, fewer fingers on the hands, or an unusual skin colour. However, as mentioned above, virtual influencers who resemble humans are perceived as more authentic and trustworthy and have a greater tendency to influence customer behaviour (Li and Ma, 2024; Yang et al., 2024; Shao, 2024).



Picture 2: Virtual influencer Any Malu

(Johnson, 2020)

3.3.2 Behavioural realism

Behavioural realism describes how closely a virtual influencer's behaviour mimics a human one. Imitation involves the ability to interact with followers, speak and show emotions. This is very closely related to the effectiveness of the virtual influencer, as studies have disclosed that showing emotion supports follower engagement (Yu et al., 2024; Kim et al., 2024; Yang et al., 2024; De Cicco et al., 2024). In addition, de Boissieu and Baudier (2023) also claim, that showing emotions enhances customer trust, whether they are positive emotions like happiness or negative emotions like sadness. However, customers understand virtual influencers lack basic human senses and can therefore be sceptical about their credibility when promoting products that require, for example, taste and smell to try them (Li et al., 2023; Deng et al., 2024). Li et al. (2023) explains this as a reason why the use of virtual influencers for these products is less effective compared to human influencers.

Although Allal-Chérif et al. (2024) argue that it is perceived very positively by customers when a virtual influencer behaves like a real person, Sands et al. (2022a) mentions that there are certain limits to this behaviour. He suggests that virtual influencers must be careful about the balance between being human and being inhuman and that they should not share experiences that they could not have because of their digital nature. Lil Miquela made this mistake during her social media career when she shared a story of being sexually assaulted. She received a lot of negative feedback from her followers on this post because her story was fake and just a tool to create the impression of humanity. Nevertheless, it was also seen as an insult to real victims.

3.4 Corporate use of virtual influencers

With the popularity of virtual influencers, their use by companies is also gradually increasing even though they are generally considered more commercial by customers than human influencers. Today, they are used by dozens of global companies such as Prada, Porsche, Coca-Cola, Dior, McDonald's and more (de Boissieu and Baudier, 2023; Deng et al., 2024; Sands et al., 2022a; Sands et al., 2022b). Lou et al. (2023) and Deng et al. (2024) both agree that virtual influencers are an effective tool for these companies to build their brand and its awareness among customers and to support the reach of marketing campaigns. Plus, they are also a symbol of technological modernisation and progress of the company.



Picture 3: Virtual influencer Ayayi for Porsche

(Porsche, 2021)

Virtual influencers have several advantages for companies. The most fundamental one is full control over the behaviour and content of the virtual influencer on social media, which helps to significantly reduce the flaws of human influencers (Deng et al., 2024; Sands et al., 2022a). It is very common for human influencers to get caught up in controversies due to their inappropriate behaviour outside of social media, which can damage not only their reputation but also the brand's. If this happens, it is necessary to use teams of crisis management experts to diminish the damage caused (Allal-Chérif et al., 2024; Sands et al., 2022a). With virtual influencers, the chance of reputational damage is minimal, as they do not have a real life and their content can be closely monitored and planned (Robinson, 2020; De Cicco et al., 2024). Allal-Chérif et al. (2024) also point out that the non-existence of the real life of virtual influencers also contributes to the fact that there will never be a disagreement between them and the company, which would negatively affect their relationship and future cooperation. With full control, companies can also customize the influencer according to their needs in several ways like visual appearance, character and language, and maximize their full potential (Kim and Park, 2024; Wan et al., 2024). Feng et al. (2024) see within these possibilities the advantage that a company can adapt a virtual influencer to operate in several international markets at the same time. Due to their digital nature, virtual influencers do not age, they do not need to sleep, they never get tired and thus it is possible to use them anytime and anywhere without the need to pay for their activity on social media (Allal-Chérif et al., 2024). These influencers are not driven by the desire to make money, and this makes virtual influencers cheaper than human influencers in terms of operating costs, but their initial technological development is expensive (Sands et al., 2022a; De Cicco et al., 2024). However, the cost of a virtual influencer varies depending on whether the company creates it itself or whether it decides to use an external virtual influencer that already exists. If companies choose the second option, then they must pay for their advertising content, which can be high-priced. For example, Dencheva (2023) published a statistic from year 2022 that showed prices for virtual influencer content on social media, where virtual influencer Lu from Magal demanded up to 26,000 USD for one Instagram post. This made her the most expensive creator of this type at the time.

Virtual influencers with high behavioural realism can share content on social media that shows how they use the products they promote. Such content increases the chance of a customer making a future purchase as they can see how the product works. This was confirmed in study by Yang et al. (2024), whose results showed that a promotional strategy

using high realism in behaviour has a positive effect on the acceptance of virtual influencers by customers, as they tend to perceive them as human. However, Kim et al. (2024) argue that some customers are, on the contrary, very sceptical of virtual influencers, because they cannot really try the advertised product due to their digital nature which makes them unreliable.

Virtual influencers are most often used in the luxury fashion, cosmetics and electronics industries (Allal-Chérif et al., 2024; Sands et al., 2022a). In 2022, it was found that most virtual influencers on Instagram were used by the fashion industry with a figure of 33.9% (Dencheva, 2024a). Also contributing to this is a study by Li and Ma (2024) who found that customers show greater emotional involvement in advertising with hedonic or luxury products compared to utilitarian products. However, this is too simplistic, and further studies indicated that it is important for a company to choose an external virtual influencer whose personality and focus match their own (Deng et al., 2024). In fact, a poorly chosen strategy when selecting an influencer can significantly reduce their effectiveness and success (Wan et al., 2024).

When creating promotional content in collaboration with virtual influencers, companies must also pay attention to colour psychology in their social media posts, as it can strongly influence customer decision-making. This topic is addressed in the study by Chan et al. (2023), who found that it is beneficial to use warm and bright colours like yellow, orange or red, because they have a positive effect on the customer's emotions and perception. They can create a sense of trust and thus increase the chance that the customer will be interested in the product and consider purchasing it in the future. Conversely, cold colours such as blue, purple and green can be associated with aloofness and mistrust.

3.5 Virtual influencers and sustainability

Virtual influencers can be useful in promoting sustainability in which, according to Duong and Tran (2024), they most often choose two communication strategies when conveying information. The first strategy is based on educating the viewer about current global problems, and the second is based on presenting the beauty of the planet by sharing photos and videos from around the world, where the visual aspect of the content is very important. He also added that virtual influencers can inform followers of practically any branch of sustainability from the seventeen sustainable development goals created by the United Nations organisation. However, Wan et al. (2024) have shown that promoting less

financially demanding sustainable behaviour is more effective than promoting more financially demanding sustainable behaviour as customers are very sensitive to the topic of their spendings. It follows that, for example, promoting the sorting and recycling of waste can be more effective than promoting the purchase of an electric car or solar panels.

3.6 Ethics of virtual influencers

With the rapid development of technology, the degree of realism of virtual influencers is also increasing, which can create issues in distinguishing between digital and human influencers. Since this new type of influencer has been on the market for a relatively short time, there are currently no rules for their use, but Sands et al. (2022a) predict that this will change in the future to avoid misleading and confusing the customer on social media. Possible regulations include, for example, special labelling of virtual influencers on their social platforms, as well as increased mandatory transparency about who is their creator. Transparency about their inhumanity and about who is behind the virtual influencer is very important in gaining the trust of the customer (Deng et al., 2024; Angmo and Mahajan, 2024; Sands et al., 2022a). Robinson (2020) and Li et al. (2023) explain that when a customer does not know who created or controls a virtual influencer, they may question their intentions and responsibility.

II. PRACTICAL PART

4 DISCUSSION

The aim of this research was to find out how virtual influencers influence customer behaviour and what advantages and disadvantages they represent for companies in their use. From the content of the previous section, it follows that virtual influencers can have a positive or negative effect on customer behaviour.

4.1 Positive effects on customer behaviour

Relationship and trust are key elements influencing the customer's position towards the virtual influencer (Kim and Park, 2024). These elements are mainly influenced by the attractiveness of virtual influencers, which consists of their physical appearance and the interestingness of the shared content (Ahn et al., 2022; da Silva Oliveira and Chimenti, 2021; Allal-Chérif et al., 2024). The first thing that a customer notices about virtual influencers is their physical appearance, where they can look like a real human, or on the contrary, they can have a very digital form (Kim et al., 2024). Most studies show that followers are most responsive to virtual influencers with a high degree of realism, because they are more inclined to trust characters who share the same features as them (Li and Ma, 2024; Kim and Park, 2024). The fact that the customer is comfortable with how the virtual influencer looks is a cornerstone in building a relationship. A very important element of creating and maintaining this relationship is the ability of virtual influencers to engage their followers with their content. Due to their digital nature, virtual influencers can share creative content created by teams of graphic designers and artificial intelligence experts that can be perceived by followers as unusual and innovative. Such content can make followers interested and excited (Gerlich, 2023; Shao, 2024; Ferraro et al., 2024; Wan et al., 2024). The greater the emotional involvement of followers they manage to evoke, the closer the followers will feel to the creators (Sands et al., 2022a). The sense of closeness is also related to a sense of trust in virtual influencers, their opinions and advice. This is very important for companies and their marketing strategies as the reason for their collaborations with these influencers is to get closer to potential customers and increase awareness of their brand (Lou et al., 2023; Deng et al., 2024). The biggest advantage of virtual influencers is that companies have full control over their shared content, which can be adapted to the needs of companies within their marketing campaigns (Deng et al., 2024; Sands et al., 2022a). Creating relevant and relatable content is critical for getting customers' attention and positive interaction with the content and the brand itself, as customers tend to seek out and trust creators who are like

them and share the same interests (Gerlich, 2023; Shao, 2024). Virtual influencers are also a great tool to positively influence the purchasing behaviour of customers by sharing content displaying and using the promoted products. This visual presentation helps customers visualise how the product works and how they can use it in their lives, which increases the likelihood of their future purchase. If the virtual influencers inspire the customers so much that they buy the given product and are subsequently satisfied with the product, their loyalty increases not only to the given virtual influencer, but also to the brand (Yang et al., 2024).

4.2 Negative effects on customer behaviour

On the other hand, some customers have a very negative attitude towards virtual influencers. Their digital appearance can create fear in followers due to their discomfort with modern technology and a sense of replaceability. If a customer cannot tell whether a virtual influencer is a digital character or a real human, they may feel confused and thus reject mutual contact (Gutuleac et al., 2024). Customers are very often sceptical towards them due to the lack of transparency about who controls the virtual influencer and who is behind their activity. If virtual influencers are not honest about who is behind them, it can damage their authenticity as well as credibility, which weakens customer trust (Deng et al., 2024; Angmo and Mahajan, 2024; Sands et al., 2022a). This is related to the lack of human contact, which can cause the customer to be less engaged in their interaction and choose a human influencer instead (Alboqami, 2023). The use of virtual influencers also has certain disadvantages for companies. Customers generally perceive virtual influencers as an advertising tool, and this can lead them to think that they are being manipulated and forced to buy the promoted products. Sharing too much promotional content and too little content from the everyday life of a virtual influencer reduces the interest and engagement of followers as they do not always find this content entertaining. The lack of interest in the virtual influencer is then directly related to the weakening of the interest in the brand with which it collaborates (Sands et al., 2022a). Virtual influencers are also criticised for presenting overly perfect and therefore unrealistic content, which can leave customers feeling disappointed. If customers buy a product promoted by a virtual influencer and their expectations are not met based on the presentation on social media, their loyalty and likelihood of further purchase of the brand's products decreases as it damages its reputation (da Silva Oliveira and Chimenti, 2021; Sands et al., 2022a; Angmo et al., 2024). It is also necessary to point out that virtual influencers are also associated with technological demands regarding their development and maintenance. The teams of experts and creators behind virtual influencers represent high costs that can

deter very small businesses from using them instead of human influencers (Sands et al., 2022a).

CONCLUSION

Virtual influencers are the latest trend in social media promotion and marketing. These digital characters are created with the newest technologies and can replace human influencers on various platforms where they interact with their followers and evoke different emotions in them (Sands et al., 2022a; Allal-Chérif et al., 2024). In summary, it is possible to say that virtual influencers can influence customer behaviour positively in the form of excitement, involvement, inspiration and trust, but they can also influence it negatively in the form of confusion, disappointment, distrust, scepticism and even fear (Gerlich, 2023; Shao, 2024; Ferraro et al., 2024; Wan et al., 2024; Li and Ma, 2024; Kim and Park, 2024). However, it is necessary to add that the perception of virtual influencers by customers is an individual one and can be predisposed by, for example, the age of customers, their personality, comfort with modern technologies and the environment in which they live (Gutuleac et al., 2024; Deng et al., 2024; Angmo and Mahajan, 2024; Sands et al., 2022a; Alboqami, 2023).

The use of this new type of influencer offers companies a lot of advantages, but also disadvantages if they are used inappropriately. A great advantage of virtual influencers is the possibility of full control over their activity together with the possibility of arbitrary customisation of their appearance and behaviour (Deng et al., 2024; Sands et al., 2022a). The ability to adapt this digital character helps to better focus on target groups and to better advertising effectiveness, as it is possible to use the virtual influencer globally without cultural or language barriers. The customisation and flexibility of their presentation also allows companies to constantly adapt to the latest trends and the rapidly changing market. Virtual influencers are considered less controversial and more stable due to this control, as their use minimises the possibility of scandals caused by the influencer's behaviour in the real world (Kim et al., 2024). However, even creators of virtual influencers together with companies can make mistakes in the creation of marketing campaigns and in the programming of their behaviour and presentation on social media. Inappropriate activities can include, for example, sharing too much advertising content, commenting on controversial topics, low transparency, deceptive advertising, offensive content and more. If the customer reacts negatively to such posts, it can reduce their trust in the virtual influencer, as well as in the company itself, which harms its reputation (Robinson, 2020; de Boissieu and Baudier, 2023; Gerlich, 2023; Feng et al., 2024).

In conclusion, it can be said that virtual influencers are an interesting new marketing tool that has advanced social media promotion in recent years. These digital characters for companies represent technological progress together with new possibilities for more effective reach and impact of marketing campaigns (Lou et al., 2023; Deng et al., 2024). But it is important to find a balance between their personal authenticity and commercialism when managing virtual influencers, so that they can maintain the interest of their followers and their trust (Robinson, 2020).

LIMITATIONS AND FUTURE STUDIES

A limitation of this research can be considered the fact that the topic of virtual influencers is a new one and there are only a limited number of sources as a large amount of literature only deals with the topic of influencer marketing with human influencers. Nevertheless, for the purposes of this research, enough scientific sources were found directly related to the issue of virtual influencers and their presence on social media, from which it was possible to draw information. However, as part of the literature analysis, it was observed that most studies deal with which emotions virtual influencers evoke in their followers, regardless of their age category. Considering that age is one of the elements that influence the customer's position towards the virtual influencer, this topic should be explored more in future studies. Thanks to such studies, it would be possible to determine which age category of customers virtual influencers act on most effectively and, conversely, which age category is not very comfortable with these digital characters. This would help companies decide whether it is appropriate for them to implement this new type of influencer into their marketing strategies.

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APPENDICES

Appendix P I: Research ethical review form (E0)

APPENDIX P I: RESEARCH ETHICAL REVIEW FORM (E0)

STUDENT (UGT/PGT) PROJECT/DISSERTATION RESEARCH ETHICAL REVIEW FORM (E0)

APPLICABLE TO ALL UNDERGRADUATE AND TAUGHT POSTGRADUATE PROGRAMMES

Please complete and return to your Project / Dissertation Supervisor for approval.

SECTION A: APPLICANT(S) DETAILS

Before completing this section, students should consult their Course/Module handbook alongside appropriate ethical guidelines. The student's supervisor is responsible for advising the student on appropriate professional judgement in this review.

Student name	Bc. Barbara Šmehliková
Student number	2377854
Course the student is registered to	MSc International Business with Marketing
Names of Supervisor	Prof John R Anchor PhD
Title of research/project	Virtual Influencers: The Future of Social Media Marketing?
Brief overview of how the data will be collected	Data will be collected through a systematic literature review that includes searching and synthesizing the literature
Project start date	26.6.2024

SECTION B – STATEMENT BY APPLICANT

I, as the student undertaking this research, confirm that my proposed project does not involve:

- direct contact with human/animal participants
- access to identifiable personal data for living individuals not already in the public domain
- increased danger of physical or psychological harm for researcher(s) or subject(s)
- research into potentially sensitive areas
- joint responsibility for the project with researchers external to the University.
- this research will conform to the principles outlined in the University of Huddersfield and Huddersfield Business School research procedures,
- the information I have given in this form on ethical issues is correct.

Student's (i.e. applicant) Signature (Electronic is acceptable):

Date: 19.7.2024

Affirmation by Supervisor (where applicable)

In signing this Declaration I confirm that I have reviewed the proposed project and am satisfied that that it does not involve any specific ethics risk as defined by the school policy.

Main supervisor's signature (Electronic is acceptable):

Date: 21.07.2024