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# Determinants of Source Credibility in Terms of Herd Behaviour and the Anchoring Effect: The Case of Instagram Influencers

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Abstract: The objective of this paper is to explore the effects of herding and anchoring effects, two behavioural economics concepts, on perceived source credibility, which is commonly utilized in marketing research. These cognitive shortcuts that shape consumers' decisions reduce their perceived risk or help them make decisions under uncertainty. The literature contains a limited amount of research on the topic that addresses source credibility in terms of behavioural economics. Within this framework, the study is anticipated to enhance the body of literature through its chosen topic and methodology. When reviewing research undertaken within the marketing domain, the experimental design method has been used in very few studies. In this context, in the experimental designs created within the scope of the study, various scenarios were designed on the basis of follower number (high/low) to evaluate the impact of herd behaviour on the credibility of the source and on the substance of news about the influencer (positive/negative) to measure the anchoring effect. After the participants were shown one of the scenarios, they were given questionnaires with statements about source credibility to answer, and how the perception of source credibility differs according to herd behaviour and the anchoring effect was investigated. Instagram influencers were used in the experimental designs created in the study because Instagram application is increasingly preferred over other social media platforms, is more effective in terms of marketing communication, is increasingly included in the marketing strategies of businesses and is preferred by the young population. Within the framework of this research, data were gathered via an online survey administered to a total of 727 students enrolled in various departments across universities in Turkey. These data were subjected to one-way ANOVA via the SPSS program. Research findings indicate that herding behaviour significantly affects the perceptions of the source credibility, expertise, and attractiveness of social media influencers. Furthermore, anchoring significantly affects the source credibility perceptions and expertise, trustworthiness, and attractiveness subdimensions. However, in scenarios where the number of followers and anchors are identical, a statistically significant difference was not found in the perception of source credibility in relation to the gender of the influencer.

**Keywords:** anchoring effect; behavioural economics; experimental design; herding behaviour; influencer marketing; source credibility.

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1. **Introduction.** As technology has advanced, internet-based applications have become increasingly involved in the lives of human beings, and accordingly, the number of internet users has increased significantly. These developments have also changed the direction and form of communication between consumers and businesses. Thus, online social environments, which have replaced traditional mass media, have had more influence on consumption decisions (Kozinets, 2002). As a result of these developments, some individuals who are active on social platforms engage in the dissemination of content related to product evaluations, and brand interactions have begun to influence the thoughts, attitudes, and behaviours of other users with whom they communicate towards brands and products (Dwivedi et al., 2021). These people, who succeeded in influencing other users with the content they created, have gained an active position on social media platforms owing to their credibility, expertise, and attractiveness (Yuan & Lou, 2020). Businesses that want to keep up with these changes have started cooperating with people who have gained fame in social media environments and are called influencers in their promotion activities by moving their marketing communication practices to social media (Campbell & Farrell, 2020). With these changes in marketing communication, a new era called influencer marketing has started. Influencers who promote a brand's products to their followers by conducting product testing, organizing special events, or simply being paid for promotion and creating a brand image in this way are referred to as influencer marketing (De Veirman et al., 2017; Brown & Hayes, 2008).

As a matter of fact, businesses have started to work with influencers, who undeniably affect consumer decision-making processes, which has increased the importance of research in this field for both academic literature and businesses. A significant number of scientific studies related to influencer marketing have been conducted within the scope of source credibility theory, which is employed to describe the positive qualities of individuals conveying messages in marketing communication (Utz, 2010; Jin & Phua, 2014; Hill et al., 2020; Marques et al., 2021; De Veirman et al., 2017; Pozharliev et al., 2022). The source credibility model, one of the most commonly utilized models in marketing, comprises the extent of trustworthiness, expertise, and attractiveness. First, the trustworthiness subdimension refers to the receiver's degree of trust in the source and the message. In addition, it reflects the level of acceptance of the message conveyed by the sender (Ohanian, 1990). Consumers find information from reliable sources useful, adopt it, and reflect it on their purchasing behaviour (Ismagilova et al., 2020). The expertise subdimension, which refers to the sender being trained and skilled in his/her field, is also an important determinant in convincing or changing the attitudes of the receivers, and messages delivered by experts in their field are adopted more by the message recipients (Ohanian, 1990). The expertise of the source influences consumer preferences by reducing the perceived risk associated with the products it endorses, thus facilitating easier purchasing decisions (Langner et al., 2013). The attractiveness subdimension, which is an essential clue for the individual to form his/her first judgement about another person, refers to the characteristics of the source, such as being physically flashy, elegant, attractive, or stylish (Ohanian, 1990). Physically attractive individuals represent a normative profile that people aspire to be. Therefore, the use of attractive individuals in product and brand advertisements has substantial effects on the attitudes and behaviours of consumers toward the products promoted by these individuals. The products offered by sources perceived as attractive and elegant are associated with the personal characteristics of the source, causing the receivers to have a positive attitude toward these products (Wiedmann & Von Mettenheim, 2020).

Traditional microeconomic theory assumes that individuals behave rationally in decision-making processes and make choices that maximize their utility. According to this assumption, individuals have perfect information about all alternatives and the consequences of these alternatives in their decision-making processes (Camerer & Loewenstein, 2004). However, today, the abundance of options and the exposure of consumers to a large number of marketing messages make it difficult to perceive fully, keep in mind, and evaluate these messages. Studies examining decision-making processes have revealed that individuals make decisions that the rational behaviour model cannot explain or completely violates the rational behaviour model. The behavioural economics approach, which aims to explain these behaviours that cannot be explained by rational choice theory by using principles developed in different sciences, such as psychology, sociology, and anthropology, focuses on the psychological factors that affect individuals make decisions (Just, 2014).

The present study investigates the factors influencing source credibility through the lens of behavioural economics with respect to social media influencers. The current study examines the determinants of source credibility in terms of behavioural economics in the context of social media influencers. The main purpose of

this study is to examine how consumers who are exposed to different scenarios of the same influencer anchor move away from rationality.

On the basis of the literature review, two behavioural economics approaches that may be determinants of source credibility were identified. These approaches involve herd behaviour and anchoring effects. Herd behaviour refers to individuals being influenced by the behaviour of others, often driven by motivations such as reducing uncertainty or risk, whereas the anchoring effect refers to individuals focusing on a reference point in their decision-making processes (Wilkinson & Klaes, 2018). First impressions, predictions, evaluations made by others, or even a report in the daily newspaper can serve as anchors that affect individuals' subsequent thoughts and judgments (Hammond et al., 1998). In this context, this study problematizes how herding behaviour and anchoring affect source credibility. The study utilized an experimental design method, creating eight distinct scenarios to examine the effects of herd behaviour and anchoring. The source credibility was subsequently examined to determine whether it differed according to the designed scenarios. To determine how consumers deviate from rationality, the behavioural economics approaches mentioned above were used, and how consumers deviate from rationality was examined by creating scenarios where the number of followers (high/low) and anchor quality (positive/negative) of the same influencer were different.

In this study, Instagram influencers were preferred when addressing the notion of source credibility. In contrast to traditional celebrities, which are perceived as more challenging to reach, consumers exhibit more favourable attitudes toward the products and brands endorsed by influencers as approachable and reliable (Jin et al., 2019). In addition, another reason for the use of Instagram influencers in this study is that Instagram is increasingly preferred over other social media platforms, is more effective in terms of marketing communication, and has a greater role in the marketing strategies of businesses (De Veirman et al., 2017; Feldman, 2019).

The source credibility model is one of the oldest and most widely used models for collaboration with celebrities and public figures in advertising. However, the use of social media platforms in marketing and influencer marketing practices is not very old. In this respect, this study, which examines the source credibility model in the context of social media influencers, is considered to be of original value. On the other hand, the fact that Instagram users will reach over 1.5 billion people by 2022, that advertising and promotional activities through the application cover almost all (96.6%) of the active user base, and that influencer marketing is increasingly being used by businesses around the world increases the importance of studies on the subject for businesses.

Although the positive effect of marketing products through well-known people on consumer behaviour has been proven by studies, it is important to investigate the factors that should be considered in the selection of these people in marketing communication more comprehensively. This situation requires different approaches to address the determinants of source credibility. The behavioural economics approach, which examines the psychological basis of decision-making processes, uses principles developed in different disciplines, such as sociology and anthropology, along with psychology, to better understand the choices made by individuals. In this context, addressing the determinants of source credibility in terms of behavioural economics in the current study contributes to the source reliability literature. In addition, studies evaluating the fields of behavioural economics and marketing, which examine decision-making processes from a holistic perspective, are expected to contribute to the synthesist approaches in the literature.

When the studies in the literature are examined, while there are studies that address source credibility in influencer marketing in terms of herd behaviour, there are no studies that address source credibility in the context of the anchoring effect. In addition, a limited number of studies have used nonnumerical anchors in the marketing literature. In this context, both the use of nonnumerical anchors and the examination of source credibility in the context of the anchoring effect in the current study make the research unique. In studies on influencer marketing, a limited number of studies have investigated the effect of the gender of the collaborative influencer on the effectiveness of the advertisement. In this context, both male and female influencers were included in the experimental designs created in the study, and the effect of the gender of the influencer on the decision-making process was examined. In this respect, the study is considered to have an original value.

In this study, the experimental design method was used to test the research model developed. Owing to the experimental design method, which allows researchers to create different scenarios in their studies, participants' perspectives on different scenarios in the same study can be revealed more clearly. Creating control and experimental groups while examining the relationships among the variables under investigation allows more concrete results to be obtained than survey research based only on self-report criteria (Viglia &

Dolnicar, 2020). When studies conducted in the field of marketing are examined, the experimental design method has been used in very few studies, but the number of studies using this method has increased rapidly in recent years. It is thought that the study will contribute to the literature in terms of the method used.

# 2. Literature Review.

# 2.1. Herd behaviour

When making purchasing decisions, consumers frequently lack the opportunity to thoroughly evaluate all available options concerning the products or services they intend to purchase (Häubl & Trifts, 2000). In such cases, consumers pick up information from diverse channels, such as websites, consumer ratings, product reviews, and suggestions from acquaintances and family members (Chen et al., 2004). One of the primary reasons why consumers consult these sources in their purchase decisions is that the experiences and comments of other consumers who have tried the product they are considering purchasing reduce uncertainty about product quality. Another reason is that the recommendations of consumers with similar product preferences reduce the search costs of finding suitable products (Pathak et al., 2010). In this way, consumers can make confident decisions in their purchasing process by reducing the number of products to be examined among alternatives and the time required for decision-making (Metzger et al., 2010; Hostler et al., 2005; Häubl & Trifts, 2000). The fact that individuals' resort to heuristics instead of evaluating all alternatives in decision-making processes makes consumers more prone to herd behaviour (Ali et al., 2021).

Herd behaviour is an important mental shortcut (heuristic) that affects trustworthiness in terms of popular and majority-accepted content. Collaborative filtering and technological advancements have greatly streamlined the process of dynamically gathering and presenting information regarding actions, conversations, media consumption, readings, and opinions of others in the digital realm. This has made it very easy to access information such as the most downloaded songs, the most read books, etc. Given their desire to stay current with the latest trends, tendency to align with their peers, and overall inclination to conform socially, this information particularly motivates young individuals to engage in herd behaviour (Sundar, 2008).

As the internet and social media have become prevalent, individuals can access a vast amount of information within a short period and at minimal cost. However, the affluence and diversity of information challenge consumers to determine which information to trust. As stated in the theory of bounded rationality, this situation leads consumers with limited capacity to process and assess available information to employ mental shortcuts and heuristics (De Veirman et al., 2017).

When studies on source credibility are examined, one of the most significant factors influencing social media users' perceptions of source credibility is online popularity (Scott, 2014; Jin & Phua, 2014). The most important indicator of online popularity, which is used in different meanings, such as "being accepted by a group of friends" (Bukowski & Hoza, 1989) or "social dominance" (Parkrust & Hopmeyer, 1998), is the number of social media users' followers (Utz, 2010). When studies on this subject are considered, the number of friends (Scott, 2014; Tong et al, 2008), the number of followers (Utz, 2010; Antheunis & Schouten, 2011; Lee & Sundar, 2013; Jin & Phua, 2014; Van Der Heide & Lim, 2016; De Veirman et al., 2017; Hill et al., 2020; Marques et al., 2021; Pozharliev et al., 2022; Janssen et al., 2022; Ladhari et al., 2020) and the ratio of likes to followers (De Vries, 2019) affect source credibility. However, some studies conclude that credibility is not affected by the number of followers (Antheunis & Schouten, 2011; Tong et al., 2008; Cox, 2020; Boerman, 2020).

De Vierman et al. (2017) conducted a study on Instagram users to measure the impact of the number of followers in influencer marketing. In the study of 320 people, 4 different situations were designed experimentally, and the opinions of Instagram users about influencers with low and high follower numbers were examined. According to the results of the study, influencers with a high number of followers attracted more attention from Instagram users because they were thought to be popular. However, the fact that influencers follow few people can be perceived negatively by Instagram users (De Veirman et al., 2017). Another study, which was conducted on 76 Twitter users via the experimental design method and investigated herding behaviour in determining the reliability of health messages, concluded that the information shared by people who are experts in the field of health and have a high number of followers. On the other hand, the information shared by people who are not experts in their field and have a high number of followers is perceived as less reliable than the messages shared by people who are not experts in the field of health and have a low number of followers. On the other hand, the information shared by people who are not experts in their field and have a high number of followers is perceived as less reliable than the messages shared by people who are not experts in the field of health and have a low number of followers. Use & Sundar, 2013). In another study conducted on 240 Twitter users via an experimental design method, the effects of the number of followers on the credibility, product interest and electronic word-of-mouth of celebrities using Twitter were investigated. According to the

results of the study, celebrities with a high number of followers are perceived as more trustworthy, more competent and more physically attractive than celebrities with a low number of followers. In addition, the products recommended by users with a high number of followers attract more attention from their followers and positively affect consumers' behaviour toward that brand or product and brand loyalty (Jin & Phua, 2014). A study investigating how online popularity is perceived by Facebook users was conducted with 102 student participants via an experimental design method. In this study, popular/unpopular female and male profiles were designed, and Facebook users' perceptions were measured. According to the results of the study, popular users were perceived as more socially and physically attractive, outgoing and approachable than unpopular users were (Scott, 2014). De Vires (2019) investigated the effect of the ratio of the number of post likes to the number of followers on the credibility of the account that made the post in social media marketing activity. In the study conducted on 300 participants with the experimental design method, a post with 5, 50 and 250 likes, respectively, of an account with 300 followers was designed, and these posts were shown to the participants. According to the results of the study, participants also consider the ratio of likes and followers in their decision-making process. The participants, who were aware that buying likes on Instagram is widespread, were skeptical of posts with highly liked (250) followers. Analyses revealed that a post with a moderate like/follower ratio (50) had greater social media marketing effectiveness than did posts with low and high likes (De Vries, 2019). Ladhari et al. (2020) investigated how emotional attachment and trustworthiness affect influencers' perceptions of popularity and the impact of popularity on consumer purchase behaviour. The study was conducted with 501 female participants via a survey method for beauty products. According to previous studies, influencers with a high number of followers who are perceived as popular have a significant and positive effect on consumer purchase intention (Ladhari et al., 2020). In another study examining the advertising posts of Instagram influencers with low and high followers in the context of source credibility, an online survey was conducted with 192 Instagram users, and the brain waves of 112 Instagram users who were shown the posts of Instagram influencers were measured with an electroencephalography (EEG) device. According to the results of the study, influencers with between 10 thousand and 1 million followers (meso) are perceived as more trustworthy than influencers with fewer than 10 thousand followers (micro) when they support the products they promote with strong arguments (Pozharliev et al., 2022). Jansen et al. (2022), on the other hand, investigated the credibility of Instagram influencers who post about health and fitness through an experimental survey with 432 participants. According to the results of the study, influencers with a high number of followers are perceived as more trustworthy than influencers with a low number of followers are, and the products and advertisements shared by these influencers are perceived more favourably by consumers. In addition, consumers are more likely to purchase products with a high number of followers that are recommended by influencers (Janssen et al., 2022). Another study with 541 participants investigated how herd psychology influences consumers' online purchasing behaviour. The study tested the direct and indirect effects of herd cues such as consumer reviews and sales volume on consumer behaviour. In addition, the moderating effects of perceived price, product knowledge and uncertainty on this effect are examined. The findings of the study suggest that herding cues significantly influence consumer behaviour, and that perceived quality reinforces this relationship as a mediator (Ali & Amir, 2024). Another study examining the role of herding behaviour and influencers in millennial investment decisions examines the similarities and differences between herding behaviour and influencers by gender. According to the results of the study, both male and female millennials generally exhibit similar herding behaviour in their investment decisions (Gupta & Goyal, 2024).

However, other studies conclude that the number of followers does not affect trustworthiness. Utz (2010), in his experimental design with 124 social media users, concluded that the number of followers positively affects the perception of popularity, but social media users with a high number of followers are not perceived as more socially attractive (Utz, 2010). In a study conducted with 153 undergraduate students at Midwesten University via an experimental design, it was concluded that Facebook users with a high number of followers were more socially attractive and outgoing than users with a low number of followers. However, according to previous studies, no significant relationship was found between the number of followers and physical attractiveness (Tong et al. 2008). Antheunis & Schouten (2011), in an experimental design with 497 high school students, concluded that the designed accounts with high numbers of followers did not affect attractiveness but did affect perceived extroversion. According to previous studies, accounts with attractive friends and positive posts are perceived as more attractive by young users (Antheunis & Schouten, 2011). Another study investigating the effects of descriptions in advertisements and the number of influencer followers on the perception of source credibility was conducted on 131 undergraduate students via an

experimental design. According to the results of the study, no significant difference was found in the participants' perceptions of the source credibility of influencers with high and low followers (Cox, 2020). In an experimental design with 192 participants, Boerman (2020) investigated how the Instagram posts of influencers with between 10 thousand and 1 million (meso) followers and influencers with fewer than 10 thousand followers (micro) were accepted by the participants. According to previous studies, the number of followers did not have a significant effect on participants' adoption of advertisements or purchase intentions (Boerman, 2020). An experimental study of 500 adults in China investigated whether consumers are influenced by herd behaviour in their food choices. A previous study revealed that consumers are not influenced by herd behaviour when faced with healthier dietary choices (Begho & Liu, 2024).

The literature review did not reveal any studies addressing whether the perception of source credibility towards the influencer varies significantly depending on the gender of the influencer when the number of followers is equal. The experimental designs created in this context were designed to contribute to the literature by creating female and male influencers with an equal number of followers for each of the accounts, both with low and high follower counts. In this context, the following hypotheses were formulated.

H1: Influencers who have a high number of followers are regarded as more credible sources than influencers who have a low number of followers in terms of source credibility.

H1a: Influencers who have a high number of followers are regarded as more experts in their field than influencers who have a low number of followers.

H1b: Influencers who have a high number of followers are considered more trustworthy than influencers who have a low number of followers.

H1c: Influencers who have a high number of followers are regarded as more attractive than influencers who have a low number of followers.

H2: When the number of followers is identical, source credibility perceptions towards influencers do not significantly differ on the basis of influencer gender.

H2a: When the number of followers is identical, perceptions of expertise toward influencers do not significantly differ on the basis of influencer gender.

H2b: When the number of followers is identical, the perception of trustworthiness toward influencers does not significantly differ on the basis of influencer gender.

H2c: When the number of followers is identical, the perception of influencer attractiveness does not significantly differ according to influencer gender.

2.2. Anchoring Effect

Businesses promote their brands or products to large audiences by collaborating with trusted sources. The emergence of negative information or situations about celebrities or influencers with whom businesses work can have negative effects on their brands and products (Erdogan & Baker, 2000; Louie & Obermiller, 2002). As per a study released by Carnegie Mellon's Tepper School of Business, Tiger Woods, with whom the Nike brand worked, came to the forefront with a scandal in 2009, causing the Nike brand to lose approximately 105,000 customers and lose 1.7 million dollars (Chung et al., 2013). Similarly, McDonald's company parted with Kobe Byrant, who was promoting the brand to save its image but came to the forefront with sexual harassment accusations. White et al. (2009) reported that such negative information about celebrities or influencers representing a brand negatively affects brands (White et al., 2009). Louie et al. (2001) reported that businesses that work with celebrities or influencers who act against social norms and values negatively affect stock market value (Louie et al., 2001). In their research, Jin & Phua (2014) demonstrated that individuals who encounter a positive news article featuring a celebrity tend to perceive that the celebrity is more trustworthy in terms of source credibility, whereas individuals who read a negative news article find that the celebrity is less reliable in terms of source credibility. In this study, the researchers created an imaginary celebrity page and conducted research on two groups. The first group read a negative news article about the fictitious celebrity, and the second group read a positive news article about the fictitious celebrity. According to the results of the study, consumers evaluated celebrities according to the content of the news they read. Those who read positive news about the celebrity found the celebrity more credible regarding source reliability than those who read negative news (Jin & Phua, 2014).

This is referred to as the anchoring effect in behavioural economics. According to the anchoring effect, individuals focus on a reference point they have determined while making decisions (Wilkinson & Klaes, 2018; Hayta, 2014). In the decision-making process, the mind assigns extraordinary importance to the initial information or data it receives. First impressions or predictions serve as anchors for subsequent thoughts and judgments. Anchors can come in different forms; an evaluation by an expert or even a news article in a daily

newspaper can be given as examples of anchors (Hammond et al., 1998). The anchoring effect is one of the basic heuristics that people frequently use in the decision-making process (Tversky & Kahneman, 1974). While some studies address source credibility in influencer marketing in terms of herd behaviour, very few studies address source credibility in the context of the anchoring effect. Furthermore, few studies have used nonnumerical anchors in the marketing literature. In this sense, both the use of nonnumerical anchors and the examination of source credibility within the scope of the anchoring effect in the present study are predicted to promote the literature. As such, the following hypotheses were formed.

H3: Influencers about whom positive news is read are perceived as more reliable in terms of source credibility than influencers about whom a negative story is read.

H3a: Influencers about whom positive news is read are perceived as more expert in their field than influencers about whom negative news is read.

H3b: Influencers about whom positive news is read are perceived as more trustworthy than influencers about whom negative news is read.

H3c: Influencers about whom positive news is read are perceived as more attractive than influencers about whom negative news is read.

H4: When the content of the news is identical, source credibility perceptions towards the influencer do not significantly differ on the basis of the influencer's gender.

H4a: When the content of the news is identical, perceptions of expertise toward the influencer do not significantly differ on the basis of the influencer's gender.

H4b: When the content of the news is identical, the perception of trustworthiness towards the influencer does not significantly differ on the basis of the influencer's gender.

H4c: When the content of the news is identical, the perception of attractiveness to the influencer does not significantly differ on the basis of the influencer's gender.

# 3. Methodology and research methods.

# 3.1. Population and Sample

Primary data were collected to assess the hypotheses developed within the framework of the research model. Within the framework of this research, data were collected by applying an online survey to a total of 727 students studying in different departments of universities in Erzurum, Turkey. Ethics Committee approval was obtained from Erzurum Technical University before the study (2022-9-3). The sample size that can adequately represent the population of the research can be calculated in different ways. According to one of these calculation methods, a main mass of one million or more can be represented with 384 data points at the 95% confidence interval (Malhotra, 2020). According to another method, 15 data points should be obtained for each independent variable (Pituch & Stevens, 2016). There is also another method where the minimum sample size (N) is calculated according to the number of independent variables (M) with the formula N > 50 + 8 \* M (Tabachnick & Fidell, 2015). In the experimental design method, at least 30 participants are desired for each scenario (Keppel & Wickens, 2004; Simmons et al., 2011). The 727 data points obtained from university students who are Instagram users are above the minimum sample size limits required according to different methods.

#### 3.2. Data collection instruments

In this study, a total of 8 different scenarios were created to measure herding behaviour, including four scenarios in which female and male influencers have high and low followers (female/male influencer × high/low number of followers) and four scenarios in which participants read a positive news story and a negative news story (female/male influencer × positive/negative news story) for female and male influencers to measure the anchoring effect. Prior to answering the questionnaire, the participants were asked to review one of the scenarios designed to measure online herd behaviour and the anchoring effect. After the scenarios were examined, the participants answered the source credibility scale questions online. The source credibility scale, as developed by Ohanian (1990) and utilized in the study conducted by Yuan & Lou (2020), was employed to measure source credibility. Each subdimension of the scale, comprising expertise, trustworthiness, and attractiveness, was measured via five statements. In the prepared questionnaire, the source credibility scale was based on a 7-point Likert scale.

Some preliminary studies were carried out to verify that the experimental designs and questionnaire statements used in the research were understandable. After the preliminary assessment of the experimental design, the follower count given in the scenarios underwent rearrangement, and the blue tick, which is given to some users by the Instagram application and represents trust, was added to the scenarios with high followers. In addition, the number of followers in the high-follower scenarios was revised on the basis of the

most popular Instagram influencers in Turkey. In the scenarios where participants read news about influencers, the news created was shortened and transformed into a format that participants could read more easily. To examine the hypotheses established within the framework of the model derived from the research question, the collected data were subjected to reliability and exploratory factor analyses. A one-way ANOVA was subsequently performed to test the research hypotheses.

#### 3.3. Experimental Design Method

One of the primary objectives of marketing research is to enhance scientific understanding by investigating the relationships between the constructs within the research scope. These relationships between constructs can be examined from three different perspectives: exploratory, relational, and causal (Bagozzi, 1994; Hunt, 2014; Keppel & Wickens, 2004). While exploratory research reveals descriptive results on any marketing concept, relational research reveals the relationships between marketing concepts. Causal research, on the other hand, addresses the causal relationships between the constructs examined in the scope of the research. The experimental design method is included in the scope of causal research (Keppel & Wickens, 2004). For a study to be examined within the scope of causality, some assumptions must be made. These assumptions are the realization of the cause before the effect, the existence of a relationship between cause and effect, and the elimination of alternative explanations to which causality between cause and effect can be attributed (Cook & Campbell, 2007).

In the experimental design method, the participants involved in the research are randomly assigned to different conditions. Random assignment, which is one of the main elements that distinguishes experimental design from other research methods, refers to the effort to ensure the most equal distribution possible among the experimental conditions by randomly (chance-based) assigning participants to the experimental conditions. At this point, the conditions to which participants are assigned represent various conditions of the independent variable of the research. By assigning participants to different conditions, the study examines whether the independent variable is the cause of the dependent variable by contrasting the experimental condition, which undergoes specific manipulations, with the control condition without manipulation (Cook & Campbell, 2007; Kumar et al., 2018). To illustrate with an example, in the experimental designs created to test whether herd behaviour is a determinant of source credibility in the current research, participants were randomly presented with one of two identical Instagram profiles, differing only in the number of followers, after which their perceptions of source credibility were assessed. Here, herd behaviour refers to the independent variable, whereas source credibility refers to the dependent variable. In this study, showing an influencer profile to the participants before their perceptions of source credibility are measured provides the condition of the cause-preceding effect. However, the reason for creating two scenarios in which all other information (influencer's name, pictures, bio, etc.) except the number of followers are the same is to exclude alternative explanations to which causality can be attributed. This shows that randomization and experimental control, which are the requirements of experimental design, were provided in the study (Cook & Campbell, 2007). The notion of experimental control refers to the existence of a control group that is not subjected to manipulation in experimental designs. Nevertheless, the existence of a control condition is not seen as a necessity for experimental design (Campbell & Stanley, 1966). In fact, in most of the studies conducted in fields such as psychology and social psychology, there is no control condition; only experiments are designed for conditions related to various conditions of the independent variable (Reis & Judd, 2000). In the current study, although there is no control group for herd behaviour and anchoring effects, conditions were designed for different levels of these two behavioural economics approaches (high/low followers for herd behaviour, positive/negative news content for the anchoring effect). In the present study, a between-subjects experimental design was used to research the relationship between behavioural economics approaches and source credibility. In the experimental design method, the experimental process should evoke the usual reality to the maximum extent possible to minimize the elements of systematic error. Therefore, in the experimental design, Instagram pages created for influencers were presented to the participants online. In the experimental design method, at least 30 participants are desired for each created scenario (Keppel & Wickens, 2004; Simmons et al., 2011). With respect to the number of participants, the experiments met the necessary criteria.

**4. Results**. Among the 727 participants, 55% were female (400), and 45% were male (327). In terms of birth year, 29.4% of the participants were born in 2000 and before, 16.1% were born in 2001, 20.4% were born in 2002, 22.3% were born in 2003, and 11.8% were born in 2004 and after. In this context, the research is aimed at young people who use Instagram applications more. With respect to the time spent on Instagram daily, 34.5% of the participants spend 60 minutes or less, 31.9% spend 61–120 minutes, 18.3% spend 121–180 minutes, 7% spend 181–240 minutes, and 8.2% spend more than 241 minutes on Instagram. In addition,

59.7% of the participants followed fewer than 5 influencers on Instagram, while 22.4% followed between 5 and 9, 10.6% between 10 and 19, and 7.3% followed 20 or more influencers.

Characteristics	Group	n	%	Characteristics	Group	n	%
Candan	Female	400	55.03		60 min. or less	251	34.53
Gender Male	327	44.98	Deiler Time Sacat	61-120 min.	232	31.92	
Year of Birth	2000 and before	214	29.44	Daily Time Spent	121-180 min.	133	18.3
	2001	117	16.1	on Instagram	181-240 min.	51	7.02
	2002	148	20.36		241 min. or more	60	8.26
	2003	162	22.29		Less than 5	434	59.7
	2004 and later	86	11.83	Number of	5 to 9	163	22.43
				Influencers Followed	10 to 19	77	10.6
					20 or more	53	73

**Table 1.** Demographic characteristics of the participants

Note: n - frequency; % - percentage.

Sources: developed by the authors.

The participants were asked which influencers they followed according to their interests, and the frequencies of the influencers they followed according to these interests are presented in Table 2. While the participants mostly follow celebrities sharing in the fields of music, art, or sports, they follow influencers sharing in the fields of travel, music and events; fashion, sports and fitness; cosmetics or personal care products; art and design; gaming; lifestyle/healthy living; cooking/food and beverage; education; psychology; software; humour/entertainment; and technology. The fact that travel influencers were used in the experimental designs used in the research shows that the research design overlaps with the interests of the participants.

**Table 2.** Influencers followed by participants according to their interests

Interest	n %	Interest	n	%
Celebrities (Music, Art, Sports)	304 41.82	Art and Design	184	25.31
Travel	284 39.06	Game	168	23.11
Music and Events	283 38.93	Lifestyle/Healthy Living	162	22.28
Fashion	223 30.67	Cooking/Food, Beverage	150	20.63
Sports and Fitness	217 29.85	Other (Education, Science, Psychology,	40	5 5
Cosmetics or Personal Care Products	193 26.55	Software, Humour/Entertainment, Technology)	40	5.5

Note: n - frequency; % - percentage.

Sources: developed by the authors.

Prior to testing the research model, exploratory factor analysis (EFA) was performed to ascertain the factor structures of the source credibility scale used in the analysis. Before proceeding to factor analysis, manipulation statements were checked. For herding behaviour, the answers of the participants who answered no to the statements "travel magic have a large number of followers on Instagram", "I think the number of followers of the travel\_magic account is high" and "Based on the number of followers, travel\_magic is a popular person on Instagram" in the high-follower influencer scenarios and the answers of the participants who answered yes to the above manipulation statements in the low-follower influencer scenarios were not included in the analysis. For the anchoring effect, the answers of the participants who answered "neither positive nor negative (3)", "negative (2)" and "very negative (1)" to the statement "Please mark the number indicating your opinion about the content of the news you have read above." In the influencer scenarios where positive news was read, the answers of the participants who answered, "neither positive nor negative" (3), "positive" (4) and "very positive" (5) to the manipulation statement above in the influencer scenarios where negative news was read were not included in the analysis. After the elimination of the manipulation statements, the analyses were carried out with 168 data points belonging to the female scenario with many followers, 140 data points belonging to the female scenario with few followers, 132 data points belonging to the male scenario with many followers, 117 data points belonging to the male scenario with few followers, 136 data points belonging to the female influencer scenario about which positive news was read, 79 data points belonging to the female influencer scenario about which negative news was read, 141 data points belonging to the male influencer scenario about which positive news was read, and 75 data points belonging to the male influencer scenario about which negative news was read. According to the conclusions of the exploratory factor analysis, two statements in the attractiveness subdimension (cek4, cek5) were not included in the analysis because they

decreased reliability and were not collected in the relevant factor. As a consequence of the analysis conducted by removing the statements, the KMO value (0.952), Bartlett Sphericity test (Chi-square=9611.097, Df=78, Sig.=0.000), and Cronbach's alpha (0.945) results of the source credibility scale show that the scale is suitable and reliable for factor analysis.

One-way ANOVA tests were carried out to analyse whether the averages of the source credibility and expertise, trustworthiness, and attractiveness subdimensions significantly differ according to the herding behaviour and anchoring effect scenarios considered within the scope of the research. This analysis is used to test whether more than two parametric main population means are equal to each other. First, Levene's test was used to test the homogeneity of variance among groups. When the significance (p) values of the Levene statistics are greater than 0.05, the variances among groups are homogeneous (Tabachnick & Fidell, 2015). Levene's test statistics and significance values are given in Table 3.

Variables	Levene Statistics	Significance (Sig.)	Variables	Levene Statistics	Significance (Sig.)	
Expertise	0.634	0.728	Attractiveness	0.540	0.805	
Trustworthiness	0.668	0.699	Source Credibility	0.295	0.956	
Sources: developed by the authors.						

#### **Table 3.** Homogeneity of Variances

After the homogeneity of the variances was tested, F test statistics were used to test the differences in the variances of the groups. When the significance values (p) of the F test statistics are less than 0.05, the variances of the groups differ (Tabachnick & Fidell, 2015, pp. 52--53). The values of the ANOVA outcomes are given in Table 4.

#### **Table 4.** ANOVA analysis results: Between Groups Analysis

Variables	<b>F</b> Value	Significance (Sig.)	Variables	F Value	Significance (Sig.)
Expertise	80.735	0.000	Attractiveness	50.761	0.000
Trustworthiness	61.067	0.000	Source Credibility	82.952	0.000
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Sources: developed by the authors.

Since the significance (p) values of the calculated F test statistics were less than 0.05, it was concluded that the variances of the groups differed. This result indicates that the source credibility dimension and the subdimensions of expertise, trustworthiness, and attractiveness differ according to at least one of the scenarios created within the scope of the research. In this case, the Tukey HSD test, which uses the equal variance approach in multiple comparisons, is used to determine which groups the difference is between. The analysis of variance revealed that the variances between the groups were homogeneous and differed. Accordingly, Tukey HSD test results were examined to test whether the averages of source credibility and its subdimensions differed on the basis of the experimental designs. The test results were analysed in two different tables according to the number of followers and news content, and hypotheses were evaluated within the scope of the research model. First, the differences according to the scenarios created using the number of followers were tested. Table 5 presents the findings of the Tukey HSD test according to the number of followers (herd behaviour).

Dimension	I	J	IJ	St.er.	Sig.
Exportion		Female Low Follower	0.99452*	0.11361	0.000
	Female High Follower	Male High Follower	-0.16937	0.1547	0.825
		Male Low Follower	0.86548*	0.11955	0.000
Expertise	Eamala Low Follower	Male High Follower	-1.16390*	0.12045	0.000
	remaie Low romower	Male Low Follower	-0.12905	0.12436	0.969
	Male High Follower	Male Low Follower	1.03485*	0.12606	0.000
Trustworthiness		Female Low Follower	0.32071	0.12421	0.164
	Female High Follower	Male High Follower	-0.13799	0.12624	0.958
		Male Low Follower	0.16279	0.13070	0.918
	Eamala Low Follower	Male High Follower	-0.45870*	0.13168	0.012
	reliate Low Follower	Male Low Follower	-0.15792	0.13596	0.942
	Male High Follower	Male Low Follower	0.30078	0.13782	0.363
		Female Low Follower	0.50397*	0.12254	0.001
Attractiveness	Female High Follower	Male High Follower	0.05556	0.12455	1.000
		Male Low Follower	0.53276*	0.12894	0.001

	Table 5. Tukey H	HSD Test Results by	Number of Followers	(Herd Behaviour)
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Dimension	I	J	IJ	St.er.	Sig.
	Esmale Low Follower	Male High Follower	-0.44841*	0.12991	0.013
	Female Low Follower	Male Low Follower	0.02880	0.13413	1.000
	Male High Follower	Male Low Follower	0.47721*	0.13597	0.011
		Female Low Follower	0.62216*	0.10372	0.000
	Female High Follower	Male High Follower	-0.10539	0.10542	0.974
C	-	Male Low Follower	0.51843*	0.10914	0.000
Source Credibility	Esmala Louy Follower	Male High Follower	-0.72756*	0.10996	0.000
	Female Low Follower	Male Low Follower	-0.10373	0.11353	0.985
	Male High Follower	Male Low Follower	0.62383*	0.11509	0.000

Note: \* significant at the p<0.05 level; I – scenario I; J – scenario J; IJ – mean difference; St.er. – Standard error; Sig. – significance Sources: developed by the authors.

A significance value (p) less than 0.05 in the table's rightmost column indicates a statistically significant difference among the scenarios. The mean difference column indicates the values of the differences. According to the results of the ANOVA, participants perceive influencers with a high number of followers as more credible than influencers with a low number of followers in terms of expertise, attractiveness subdimensions, and the source credibility dimension. Users' perceptions of expertise, attractiveness, and source credibility do not significantly differ in terms of the gender of influencers. According to the results of the analysis, users' perceptions of expertise, attractiveness, and source credibility differ only in terms of the number of influencers' followers. With respect to the trustworthiness subdimension, Instagram users perceive female influencers with low followers as less credible than male influencers with high followers. In other scenarios, the perception of trustworthiness does not differ significantly according to gender or the number of followers. In this context, hypotheses H1, H1a, H1c, H2, H2a, H2b, and H2c are accepted, whereas hypothesis H1b is rejected.

After testing the differences according to the scenarios created according to the number of followers, Tukey HSD test results were analysed to test the differences according to the scenarios created according to the news content, and hypotheses were evaluated within the scope of the research model. Table 6 shows the results of the Tukey HSD test according to news content (anchoring effect).

Dimension	Ι	J	IJ	St.er.	Sig.
		Female Negative News	2.07898*	0.14044	0.000
Expertise	Female Positive News	Male Positive News	0.10464	0.11932	0.988
		Male Negative News	2.10555*	0.14279	0.000
	Famala Nagatiya Nawa	Male Positive News	-1.97434*	0.13952	0.000
	Female Regative News	Male Negative News	0.02657	0.16006	1.000
	Male Positive News	Male Negative News	2.00091*	0.14189	0.000
		Female Negative News	2.32286*	0.15354	0.000
	Female Positive News	Male Positive News	0.07384	0.13045	0.999
Trustworthiness		Male Negative News	2.15435*	0.15611	0.000
	Female Negative News	Male Positive News	-2.24902*	0.15254	0.000
	Female Regative News	Male Negative News	-0.16851	0.17499	0.979
	Male Positive News	Male Negative News	2.08051*	0.15512	0.000
		Female Negative News	2.01412*	0.15148	0.000
	Female Positive News	Male Positive News	0.28266	0.12870	0.355
Attractivanass		Male Negative News	1.89997*	0.15401	0.000
Attractiveness	Famala Nagativa Naws	Male Positive News	-1.73145*	0.15049	0.000
	remaie negative news	Male Negative News	-0.11415	0.17264	0.998
	Male Positive News	Male Negative News	1.61730*	0.15304	0.000
		Female Negative News	2.15781*	0.12822	0.000
Source	Female Positive News	Male Positive News	0.13388	0.10894	0.923
		Male Negative News	2.07688*	0.13036	0.000
Credibility	Famala Nagativa Naws	Male Positive News	-2.02394*	0.12738	0.000
	remaie negative news	Male Negative News	-0.08093	0.14613	0.999
	Male Positive News	Male Negative News	1.94300*	0.12954	0.000

Table 6. Tukey	HSD Test Results	According to News	Content (Anchoring Effect)
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Note: \* significant at the p<0.05 level; I – scenario I; J – scenario J; IJ – mean difference; St.er. – Standard error; Sig. – significance Sources: developed by the authors.

On the basis of the results of the ANOVA, participants perceive influencers about whom they read positive news as more trustworthy than influencers about whom they read negative news in terms of expertise,

attractiveness, credibility subdimensions, and the source credibility dimension. In these dimensions, users' perceptions of expertise, attractiveness, and source credibility do not significantly differ with respect to the gender of influencers. According to the analysis results, users' perceptions of expertise, attractiveness, trustworthiness, and source credibility differ only in terms of the content of the news they read about influencers. In this context, hypotheses H3, H3a, H3b, H3c, H4, H4a, H4b, and H4c are accepted.

**5. Discussion.** The study investigates the determinants of source credibility in relation to herd behaviour and the anchoring effect. In line with these approaches, the study examined the concept of source credibility through Instagram influencers. As part of this research, the literature on influencer marketing was reviewed, and studies on source credibility in influencer marketing were analysed. The experimental design method was used in many of the studies (Utz, 2010; Jin & Phua, 2014; Lee & Sundar, 2013; De Veirman et al., 2017; Antheunis & Schouten, 2011; Janssen et al., 2022), and this method was used in the current research. Various scenarios were devised on the basis of the number of followers to assess herd behaviour and on the content of the news read about the influencer to measure the anchoring effect. In this context, eight different scenarios consisting of four different scenarios 2 (number of followers: high/low)  $\times$  2 (gender: female/male) to measure herd behaviour and four different scenarios 2 (news content: positive/negative)  $\times$  2 (gender: female/male) to measure the anchoring effect were asked to the participants to understand whether they were exposed to the manipulations in the scenarios. After the control statements, statements on source credibility scales were included in the literature.

According to the Tukey HSD test results used to assess the effect of herding behaviour on source credibility, participants perceive influencers with high followings as more credible than influencers with low followings in terms of expertise, attractiveness subdimensions, and the source credibility dimension. This finding demonstrates that participants are influenced by herd behaviour in their assessments of source Credibility, and the findings support the results of previous studies (Utz, 2010; Lee & Sundar, 2013; Jin & Phua, 2014; De Veirman et al., 2017; Hill et al., 2020; Antheunis & Schouten, 2011; Marques et al., 2021; Pozharliev et al., 2022; Janssen et al., 2022). With respect to the trustworthiness subdimension, Instagram users perceive only female influencers with few followers as less trustworthy than male influencers with many followers. No significant difference was observed in the perception of trustworthiness among the other scenarios. The absence of a significant difference between the means of the trustworthiness subdimensions according to the scenarios may be because the participants thought that influencers used inappropriate methods, such as buying followers in influencer scenarios with a high number of followers. In fact, studies in the literature show that the perception that influencers increase the number of followers by paying money negatively affects the perception of credibility (Djafarova & Trofimenko, 2019). According to another result obtained from the study, participants' perceptions of source credibility and expertise, trustworthiness, and attractiveness in herd behaviour scenarios do not differ significantly according to the gender of the influencer. This result shows that individuals are not affected by the gender of the influencer while exhibiting herd behaviour. In the literature review conducted as part of the study, no other study was identified that measured the impact of the gender of influencers on perceptions of source credibility in relation to herd behaviour. In this context, it is believed that the findings of this study will make valuable contributions to the literature.

According to the results of the Tukey HSD test carried out to assess the impact of anchoring on source credibility, participants perceive influencers about whom they read a positive news story as more credible than influencers about whom they read negative news in terms of the source credibility dimension and expertise, trustworthiness and attractiveness subdimensions. This finding indicates that participants are influenced by anchors in their source credibility perceptions, and the obtained results support findings from previous studies in the literature on the topic (Erdogan & Baker, 2000; Louie et al., 2001; Louie & Obermiller, 2002; Chung et al., 2013; White et al., 2009; Jin & Phua, 2014). According to another study, with respect to the anchoring effect, participants' source credibility perceptions and expertise, trustworthiness, and attractiveness do not differ significantly according to the gender of the influencer. This result shows that when consumers are exposed to anchoring, they are affected by the quality of the anchor, not the gender of the influencer. In the literature review carried out as part of the research, no other study was found to measure the impact of influencers' gender on source credibility perceptions as a part of the anchoring effect. In this context, the results obtained in this research may contribute to the literature.

**6.** Conclusions. According to the results of the study, Instagram users' perceptions of source credibility are affected by the number of followers and exposure to a positive anchor about the influencer. This shows the existence of herd and anchoring effects in source credibility. In addition, the study concluded that source credibility does not differ in terms of the gender of the influencer. These results are also important for

businesses. Businesses can promote their products to large masses through influencers with many followers. On the other hand, they can ensure that their brands and products are perceived as reliable through influencers, who are perceived as reliable sources. At this point, it is important for businesses to work with influencers who have a high number of followers and who obtain these followers naturally. Collaborating with influencers who are accepted by society and who do not have a negative impression of them is also a situation in which businesses should pay attention to not negatively affecting their image.

In the present research, the Instagram application, which is one of the preferred platforms for influencer marketing in social media, was used. Nevertheless, few studies have been conducted on platforms such as TikTok and Twitch, whose number of users is rapidly increasing and developing. Within this framework, the source credibility of social media influencers can be investigated on other platforms, and comparisons between platforms can be made. The literature review indicates a lack of studies focusing on source credibility within the realm of behavioural economics. In the current study, source credibility, which is addressed only in terms of the anchoring effect and herd behaviour in the context of behavioural economics, can be addressed in terms of other behavioural economics approaches, such as the halo effect, overconfidence fallacy, ownership effect, and framing effect, in future studies.

In the experimental designs created in the study, source credibility was assessed on the basis of both the influencer's follower count and the content of the news featuring it. The literature suggests that there are studies in which products are included in experimental designs along with influencers (Jin & Phua, 2014). In future studies, the influencer marketing literature may be enriched by including influencers and products in experimental designs and investigating whether source credibility differs according to the type of product promoted and product interest. On the other hand, in the literature review, studies have concluded that the compatibility of the personal characteristics reflected by influencers with the brands or products they endorse affects source credibility and the persuasiveness of the message given by the source (Torres et al., 2019; Park & Lin, 2020; Erdogan & Özcan, 2020). In this context, examining how product-celebrity compatibility affects source credibility in future studies could contribute to the literature.

Another issue that draws attention in studies on this subject is the effect of influencers' disclosure of their agreements with the brands they promote on source credibility (Coker et al., 2015; Weismueller et al., 2020). Although it has been concluded that the disclosure of influencer and brand collaboration positively affects the perception of source credibility, the number of studies on this subject is quite limited. Within this framework, future studies can examine the effect of agreements on source credibility by creating experimental designs with and without disclosure of influencer–brand collaborations.

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#### Фактори довіри до джерела-інформації в контексті поведінки натовпу та ефекту якоря: кейс із Instagramінфлюенсерами

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Метою статті є дослідження впливу поведінки натовпу та ефекту якоря, двох концепцій поведінкової економіки, на сприйняття довіри до джерела-інформації, що широко використовується в маркетингових дослідженнях. Ці когнітивні спрощення, що формують споживчі рішення, знижують їх сприйнятий ризик або допомагають ухвалювати рішення в умовах невизначеності. У літературі є обмежена кількість досліджень, що розглядають довіру до джерела-інформації через призму поведінкової економіки. У рамках цього дослідження, було розроблено різні сценарії на основі кількості підписників (велика/мала) для оцінки впливу поведінки натовпу на довіру до джерела-інформації, та на основі інформації про інфлюенсера (позитивна/негативна) для вимірювання ефекту якоря. Після того, як учасникам було показано один із сценаріїв, їм запропонували заповнити анкети з твердженнями щодо довіри до джерела, і було досліджено, як сприйняття довіри змінюється в залежності від поведінки натовпу та ефекту якоря. У дослідженні використовувалися Instagram-інфлюенсери, оскільки цей Instagram стає все більш популярним серед інших соціальних медіаплатформ, є більш ефективним у сфері маркетингових комунікацій, все частіше включається у маркетингові стратегії бізнесів і є найбільш популярним серед молоді. Дані для дослідження було зібрано за допомогою онлайн-опитування 727 студентів, що навчаються на різних факультетах в університетах Туреччини. Ці дані було проаналізовано з використанням інструментарію однофакторного дисперсійного аналізу (ANOVA) в програмі SPSS. Результати дослідження показують, що поведінка натовпу суттєво впливає на сприйняття довіри до джерела-інформації, експертності та привабливості соціальних медіа-інфлюенсерів. Крім того, ефект якоря значно впливає на сприйняття довіри до джерела-інформації, а також на підвиміри експертності, надійності та привабливості. Однак, у сценаріях, де кількість підписників і ефект якоря були однаковими, статистично значущої різниці у сприйнятті довіри до джерела в залежності від статі інфлюенсера не виявлено.

Ключові слова: ефект якоря; поведінкова економіка; експериментальний дизайн; поведінка натовпу; інфлюенсмаркетинг; довіра до джерела.