THE INFLUENCE OF PERSONAL BRAND COMMUNICATION ON CONSUMERS

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Abstract. The idea of this research is to combine the influence of personal brand with business needs. This article is a personal brand's analysis on how personal brand influences consumer interest in products/services. An experiment is carried out on the content viewed by consumers using eye-tracking technology "Neuromarketing & AI LAB" to reveal emotional and structural sensations in the social network Instagram. The aim of this research is to determine the influence of a personal brand on the consumer. Research methodology: analysis of scientific literature, logical definition and theory construction, an experiment: research of human emotions and chosen content. Data analysis method: descriptive statistics and comparative analysis. AOI (heat map) was selected to illustrate the research results. Influencers with up to 100 000 followers were selected – stimuli that trigger or enhance physiological and psychological reactions in the body. It was found that the body and face of a personal brand had the higher influence on consumers. Personal brand attracts consumers' attention and promotes engagement. The originality and value of the paper: content relevance research of personal brand (identity) influence on consumers in social network Instagram. Further we suggest carrying out similar personal brand's research choosing other social networks.

1. Introduction

For individuals who want to successfully provide their services or goods, it is important to create the right communicative image of themselves in society and have a quality personal brand. Through engagement tools in media a personal brand can communicate an important message and have a positive influence on a business's success.

The field of neuromarketing is quite new. It is a branch of neuroscience research. Neuromarketing is an emerging field which goes beyond traditional tools of quantitative and qualitative research, focusing on consumer's brain reactions to find and fix the relationship between behavior and the neuronal system. Thus, neuromarketing research helps to better understand the effects of marketing stimuli on consumers. With neuromarketing tools the research gap is being filled by using advertising messages in order to optimize the processing of information in our brain. Researchers suggest using neuromarketing tools together with traditional marketing research instruments. It will help to better understand consumer behavior and bring additional added value for traditional marketing research tools. It will allow researchers to find

new valuable consumer insights revolutionize marketing research (Bercea, 2012).

Therefore, the idea and relevance of this research is to carry out a personal brand analysis: to fulfil experiment on the content viewed by consumers (technique of content analysis), to reveal the emotional and structural dimensions of the chosen content in the social network Instagram. The aim of the research is to find out the influence of a personal brand on consumers by invoking the content in the social network Instagram. This social network was chosen by authors as the Instagram provides unique opportunities for personal selling in online business, education opportunities recommending goods or services by a personal brand, playing the role of an expert with experience in a particular field. Thereby providing the opportunity to compete in the social network Instagram, where a personal brand acts the role of a product or service (Shutaleva et al., 2022).

The importance of this research: from a business perspective, it is important for organizations to see the better engagement of customers in social media. This is a window of opportunity to market their products and improve corporate productivity via higher sales, and for marketers

to look for different ways to exploit the potential of personal brand on social media (Narayanaswamy & Heiens, 2022).

The novelty. A personal brand has a strong connection to society. One of the main challenges faced by businesses and individuals who care about their reputation on social networks is how to attract and engage consumers to choose their products or services. In this case, the personal brand is a valuable tool to create a positive image and reputation value. Although, the importance of a personal brand has already been extensively highlighted in the scientific community. There is a lack of research on the importance of content: how does a personal brand influence consumers in the social network Instagram. According to Casaló et al. (2020) research, it is important to investigate the characteristics of Instagram content (originality, uniqueness, quality, and quantity) in order to assess the influence of the tool on users. According to Brems et al. (2017), the creation of personal brand is a process in which an individual actively attempts to manage others' impressions by invoking personal skills and experience. Customers' attitudes towards a brand determine familiarity with personal brand, and also grow trust. The more significant the awareness and trust, the higher expected purchase engagement (Zhang et al., 2019). A brand is not only a commercial tool, but also an important cultural and social category that has a significant influence on commerce and consumer behavior. A strong and recognizable brand is important to stand out in the market and attract new customers.

The paper is structured in the following way: the research paper starts from the introduction, the first part presents the literature review, the second part outlines research methodology, and the third part provides the empirical results and discussion. The paper ends with the main conclusions and references.

2. Literature review

At the beginning of the research, it is important to define the concept of the personal brand. Currently, a personal brand is a relatively new, emerging topic in the market, in many cases associated with the creation of businesses or companies. The focus of personal brand is on the audience and on the establishment of overall connection. It helps to purposefully prepare the company's Strategic Plan, conduct market analysis, set strategic goals, and get to know more about the customer and competitors (Tarnovskaya, 2017). Content creators use a variety of tools to engage users of social media to watch/follow the content being created. Personal brand's communication with users is going through live streams or comments section, where users can express their opinions or show emotions about visible content (live translation, posts, reels or similar). In this way, content creators gain fans and thus influence their followers, becoming a personal brands (Ki et al., 2020).

Following a literature review and an analysis of the different definitions of a personal brand, it can be stated that the perception of this concept varies. Most authors attribute personal branding to business creation or its development, creation of a name or social media accounts, or online personal website. The creators of social networks show how they live their life posting the messages from daily life, while the audience provides feedback by impressions or comments. It is important to note that social networks are becoming an increasingly important part of human lives. According to Wei et al. (2022), with increasing number of users, new business directions are emerging: consumers for consumers, and consumers for businesses. Feedback from users occurs through emotional expressions in the comments section, liking actions, sharing with friends or the community. In this way it creates an image and a strong link between the brand and consumers. With such access to consumers, the personal brand publicises the companies' products and helps to create a unique and memorable image in the market. Otherwise, it can be a great channel for the own (personal brand's) product or service, which can be publicized without intermediaries. In summary, a brand is not only just a logo or a commercial tool, but a feeling experienced by a consumer. It can be noted that a brand is an individual symbol that creates its own identity in social networks, as well as a close relationship and strengthening the bond with consumers (networks' users). By publicizing an individually created product or service, a person cooperates with brands, and in this way increasing the awareness of the product by providing recommendations for certain brands. When you are starting this activity, it is important to conduct a personal self-analysis and set the goals. The following model will allow to start building a personal brand. It is important to note, that the term of "personal branding" – is the process of creation of personal brand, when the term of "personal brand" is the brand as itself of such a person.

The importance of personal brand in a career is being discovered in many fields, such as business, public life, politics, and others. A career depends on the recognition of a personal brand success, influences in the job market and the ability to stand out from competitors. Building a personal brand is a complex and long-term process. The overall personal brand's strategy should consider the unique qualities and potential of each individual characteristics (Zabojnik, 2018). One of the most successful approaches to create a personal brand is the Personal Branding Canvas model (Viek et al., 2022). It helps to implement vision and use feedback mechanisms, learn how to create business models of personal brands' (Moshood et al., 2022). Also, there are developed new models that differ in certain characteristics and are adapted to specialized areas of business, among which personal branding is no exception.

The choice of business model depends on the target groups and the market intended for. One effective method is recommended, especially for novice marketers, which is called the Personal Branding Canvas, created by Zabojnik (2018). This framework consists of ten sections which define the strategically important aspects of personal branding through questions. The model of Personal
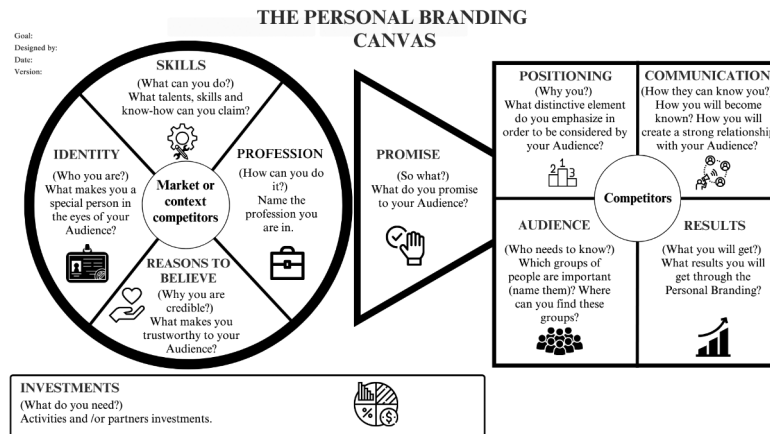
THE PERSONAL BRANDING
CANVAS

Figure 1. The Personal Branding Canvas (adapted from Viek et al., 2022)

Branding Canvas is presented in Figure 1. It will help to self-assess and adapt person's existing skills in the marketplace, even without advanced marketing skills. Stages of creating a Personal Branding Canvas are identity, profession, reasons to believe, skills, promise, positioning, communication, audience, results, and investment. It is easy in use and practical approach which allows to outline personal goals and properly form a visual framework. Luigi Centenaro was designed the model in 2013, and he argues that in order to survive the new industrial revolution, it is no longer enough only to develop new skills. Due to increasing competition, today's personnel must reinvent themselves, create new values, and ensure that their values are clearly understood and continuously evolve their strategy. It is time to move from professional development to professional innovation. It is important to create added value for customers and social media audiences. At the beginning of the activity, the following are important: communication with customers and investments. Personal Branding Canvas model is applied in the implementation of a successful personal brand by creating a clear awareness and credibility of the personal brand. Personal branding is an ongoing process that needs to be carried out in order to a predetermined image or impression in relation to other individuals, groups or organizations perspective. An analysis of the Personal Branding Canvas model showed that it is important to examine personal strengths and weaknesses, career, and work experience (Viek et al., 2022).

Building a personal brand in social networks is a crucial process that allows you to create a unique and recognisable image in the market. First of all it is important to identify the principles of activity of personal brand (to foresee a working philosophy). This step requires a clear vision, mission and values, and the understanding of the target audience, thus, a unique identity-building strategy can be designed. Using these principles, it is possible to create an effective strategy that will help to achieve estimated goals. The key stages of creation a brand are important factors that influence brand's success in the context of social networks (Schwöbel-Patel, 2019).

The stages of personal branding in the social networks are (Schwöbel-Patel, 2019):

1. Developing a vision, mission and values.
2. Analysis and selection of the target audience.
3. Content marketing and traffic of media channels.
4. Relationship building, mentoring and control.

In terms of stages of social media development, it is important to highlight the personal brand online activity. In Schwöbel-Patel (2019) approach to the typology of social networks, distinguishes the term "personal brand equity". The author argues that stages mentioned above are equated to strategic actions which help to build personal character and visibility in online world (the public space). Applying this personalized specific strategy, we can launch activities for action in social networks. The most important personal brand assets include profile, social networks, domain (name), and website. After analyzing the stages of personal branding in social networks it can be noted that successful personal brand depends on a clear vision and good understanding of the target audience. It is important to assess the meaning of the personal brand's activity, the competitive advantage, and the target customer. Social media platforms are the powerful channels for personal brand's activities, so it is essential for strategic steps to develop a profile, name, and website. Each stage needs to be implemented properly, taking into account the goals, audience and specifics of social networks, in order to successfully develop a personal brand and have an influence on users (consumers). After implementing the stages of brand formation, it is extremely important to evaluate the relationship with the audience, which is constantly developing and later becomes a decisive factor in the formation of opinion.

Social networks are the most important platforms in the creation of personal brand and perform marketing strategies. They provide an opportunity to communicate directly with target audiences, build awareness, increase loyalty, and create society. Social networks have a significant influence on consumer behavior and brand opinion. Social media – various online networks that provide users the opportunity to communicate with each other verbally

and visually (Carr & Hayes, 2015). Regardless of the physical location, employees can participate in all business processes through social media platforms (Grover et al., 2022). Social media provides a virtual marketplace for organisations to develop campaigns, promotions, and/or advertisements (Djafarova & Bowes, 2021). In social networks, a person chooses content in which opinions are formed, reviews of products and services are made, taking into account the market context (Grover et al., 2022). In today's society, consumers increasingly use social networks to spend their free time and express their opinions about products and services. Therefore, it is important to take this trend into account when creating content and using marketing strategies. Competitions, special themes sharing of specific topics, closed and open questions are effective tools to attract audiences. However, it is necessary to pay attention to avoid overloading users with heavy information, political or tabloid articles, news or similar information. In addition, it is important to consider the time of the posted posts. For example, in the first half of the day the information can be a discussion of current events or the presentation of interesting facts, and in the evening, when major users expect lighter content, it can be shared information about a joke, funny video or story of the day. Engaging content and the use of social media marketing tools attract and retain customer attention.

An analysis of US social networks shows that the most popular social networks in the world are Facebook, Instagram, Twitter, YouTube and TikTok. Facebook is the oldest and most widely used social network where users can share their views on products, create communities and give feedback in the comments section. Instagram platform is popular among young users, while Twitter is more intended for news and famous people around the world sharing opinions. YouTube is the largest video community and advertising platform that reaches a wide audience. A new and growing social networking platform is TikTok, especially among younger users. TikTok is a new and innovative way to build brand image using short and interactive videos that can easily attract consumers and evoke emotions (van Stekelenborg et al., 2019). In social networks dominate three media formats: text, video, and photos. It's important to choose platforms that support multiple formats, such as video and text or photos. All three formats are supported on the Facebook platform, while our analysing Instagram network is focused on photos and videos. Instagram and TikTok, attract the attention of younger users (22–34 year-old audience) (van Stekelenborg et al., 2019). Based on these findings, it can be argued that choosing the right social network and its popularity should be taken into account, as well as media formats, user engagement and age of target groups. This will help you communicate effectively with users.

Social networks enable companies to communicate directly with target audiences, build awareness, loyalty, and community. In the business sector, social networks are widely used as a means of communication with consum-ers, for personal brands' activities and a means of attracting customers. It enables peer-to-peer collaboration with personal brands. It is therefore important to take stock of the prevailing trends in social networking, to find out similarities and differences and choose the most appropriate platform.

According to a number of studies, social networks have a significant influence on consumer behavior and opinion of a commercial brand (Carr & Hayes, 2015). Social networks are widely used in business as a means of communication with consumers, for personal brand promotion and customer attraction. One of the main advantages of using social networks is the large number of users, which reach billions of people worldwide. Social networks offer a great opportunity to reach many potential consumers and build loyalty for a personal brand. The growing use of social media platforms has opened a wider range of opportunities to connect with the public, spread and raise the profile of companies' products (Pedroni & Pofi, 2018). Social media in modern society is shaped by economic, political, and cultural power structures (Fuchs, 2015). These networks allow to reach a large number of users, to create connections, communicate, to build communities, and to develop product loyalty. Many organizations advertise their business on social media in order to attract as many users and customers as possible (Siddiqui & Singh, 2016). When a personal brand or business uses social networks, it strengthens the connection with consumers, ensures faster communication between, and allows customers to easily follow business news. In this case, there is a noticeable collaboration between a business and a personal brand which can create content in the social networks and attract customers. The image that a brand gains from its social media influencers helps to build direct relationships with the key consumers and fosters brand loyalty (Glucksman, 2017). Social networks provide organization's the opportunity to monitor consumer behaviour, analyse market trends and get direct feedback. This data can be useful for developing business strategies, improving products and planning marketing activities.

Social networks are dominated by three media formats: text, video, and photos. It is important to choose the right platform to communicate with target users. It is advisable to choose platforms that support multiple media formats, such as video and text or photos. The time which users spend on platforms is relatively small – 7.8 minutes on average for all platforms. Users spend the longest time per visit on the YouTube platform – 13.2 minutes, on the TikTok they spend a similar time – 10.9 minutes, when Instagram is the platform with the least amount of time users spend – only 3 minutes per visit. However, looking at the number of visits per month, Instagram ranks second with 69 user visits, and its subsidiary Facebook – with 120 visits. The rest platforms have the number of visits between 42 and 52. Users visit the Facebook (Meta) platform most often and spend about 4 minutes of their time (Haenlein et al., 2020).

Facebook and Twitter are long-standing social networking platforms with the largest number of users in their forties and older. Instagram is popular among users in their twenty's-thirties, while TikTok is dominant among the twenty's year-old audience. Younger users value fast-accessible, interesting, and visually appealing content, so these platforms are more focused on visual media such as photos and videos (Haenlein et al., 2020).

Influencers are divided into five different types (categories) according to the number of followers: nano influencers, micro influencers, medium influencers, macro influencers, and mega influencers. As the category grows, the number of followers increases, engagement with the content, higher rewards for advertisements, and public status increases. Influencers can have a significant influence on a brand's popularity and reach, depending on their category and number of followers. Based on the Kothapalli (2021) analysis, nano influencers have a base of 1000 followers, when micro influencers have from 1000 to 100,000 followers. In this tier, influencers influence by engaging in activities, providing services, or creating products, often considered niche specialists. Average influencers have between 50,000 to 100,000 followers. Nowadays, it is beginning to be noticed that macro influencers who have from 1 million followers and more, have in their base well-known people on a regional or national scale, whose popularity and circle of users ensure high accessibility and have up to a million followers (Kothapalli, 2021).

In this research paper the term "influencer" has the same meaning as "opinion leader".

The following paragraph provides the information of personal brand's influence on consumers. As the market grows and the business expands, companies have a growing need to increase awareness and sales of products or services, so more and more attention is paid to personal brand's using. Particularly popular those personal brands which emphasize activities and hobbies of their interest, in which they have experience and can share recommendations. They were people whose friends were always asking for advice, and the same principle applies to attracting users on social networks. Therefore, a circle of friends helps to attract an audience. In the context of marketing, we can also come across other concepts that correspond to the term of opinion leader, as described by Sahelices-Pinto and Rodríguez-Santos (2014) study. Opinion leaders have a high influence on the awareness, decision-making and behaviour of ordinary consumers in public opinion dissemination process, as argued by Zhao et al. (2018). Based on Chaudhry and Irshad (2013), mid-level consumers often rely on the advice of opinion leaders when making purchasing decisions. Opinion leaders are another way to define a personal brand and characteristic to be followed in social networks. Influencers in social media who are popular have their own audiences, which they reach through their social media channels. Such influencers can post the content in their channels in exchange for rewards (Campbell & Grimm, 2019). Social networks have become a popular source of consumer information, where consumers share their thoughts, opinions, and experiences. Opinion formers can be considered as digital leaders, moderators, and strategic communication actors (Borchers, 2019). They are self-presenting themselves and implementing self-promotion, and in this way engage with their followers on various social networks such as Instagram, YouTube, Twitter and TikTok (Abidin, 2016; Dhanesh & Duthler, 2019). Social media influencers' promotional messages are often perceived as honest feedback (reviews), and therefore have a significant (strong) influence on consumers. According to research studies on how opinion leaders influence people's behavior – one of the most important reasons is their credibility and authority (Chu & Kim, 2011). If an opinion leader (influencer) has a large follower base and he/she is perceived as an expert in his or her field, his or her opinion can be seen as credible and authoritative. It influences other people's attitudes towards certain products or services they recommend. In addition, the opinion leader approach can also be an effective tool for personal brand advertising strategy, due to their ability to create a strong emotional connection with the audience.

Creating content that encourages people to identify themselves and their lifestyle with the content creator, creates a strong connection between the audience and the opinion leader. Social network leaders (influencers), who have experience and knowledge in the practice of their field, share with the audience, talking about the peculiarities of the activity or the emotions that their work brings to them. This is a self-evident circumstance that allows you to offer a product or service, increase the awareness of a personal brand and attract more followers. This sharing of knowledge and advice is valuable for consumers who may have difficulty understanding the technicalities involved in purchasing a product or service. In a study by Bergström and Jervelycke Belfrage (2018), it was found that opinion leaders play an important role in content tools and intermediaries. Recommendations of opinion leaders influence consumers' choice among a large assortment. Opinion leaders can provide valuable information about goods or services, share personal experiences and recommendations, and help consumers to make informed decisions. Opinion leaders are an essential source of knowledge creation in communities (Kang et al., 2023). This principle creates a sense of community, with audiences sharing experiences and emotions, leaving recommendations or requests. The Instagram platform has a feature that allows you to reply to a comment while making a video. Influencers provide more opportunities to engage with consumers, to create connections and evoke emotions. Consumers who get to know a brand through opinion leaders perceive the brand as a more significant and of higher quality (Nagy et al., 2017). Consumers with less experience in a particular product often trust the advice and recommendations of opinion leaders (influencers) (Casaló et al., 2020). Djafarova and Rushworth (2017) note that

Instagram opinion leaders influence the purchase behavior of young female users, while profiles of non-traditional famous people are influential due to their high credibility. Communication with consumers helps us to understand preferences and requirements. It is important for building a personal brand that meets consumer needs. Social networks are particularly effective in the context of personal brand because of their social power, which is translating to a high influence on consumers (Fuchs, 2015).

3. Research methodology

The aim of the research is to find out the influence of a personal brand on consumers, i.e. which stimuli are attended to. A quantitative research approach is used to achieve this goal.

The intended purpose of the research paper is to determine the influence of a personal brand on a user in a social network.

Objectives of the research:
1. To examine the concept of personal brand from a theoretical perspective.
2. To examine the communication of personal brand in social networks.
3. To conduct a scientific experiment using the eye-tracking technology "Neuromarketing & AI LAB".
4. To analyse the influence of personal brand engagement in the social network Instagram.

Variety of standard methods. Research papers in the literature review mostly cover the methodologies which integrate interviewing of participants (surveys of a number of respondents), analysis of literature review, quantitative research, and also methodologies which apply such principles as induction, comparative analysis, gnoseological interpretation and analysis, deductive method.

Research methodology for this research. Analysis of literature review (descriptive and content analysis), and methodologies are chosen which apply such principles as induction, comparative analysis, gnoseological interpretation and analysis (analytical, comparison, logical, synthesis), logical definition and theory construction – deductive method. The field of neuromarketing is fairly new, which goes beyond traditional tools of quantitative and qualitative research. So, neuromarketing research helps to better understand the effects of marketing stimuli on consumers. Therefore, the method – experiment is chosen, and technique of content analysis is selected.

An experiment is empirical research that helps to check the connection of causal phenomena by planned management (changing, correcting) the conditions of a process or phenomenon. During experimental research, the researcher deliberately controls and manipulates the conditions that lead to the proceeding of interest. The researcher manipulates the chosen independent variable by causing different variations in the dependent variable. After comparing the differences in the results, the researcher can determine the reason for the variation in the results, and this is a big advantage of the experimental method

(Boniface, 2019).

Based on previous information, an experiment of personal brand influence is chosen: research of human emotions (behavior) and chosen content in the social network Instagram.

The method of experiment in this research was selected based on a similar study conducted by Zahmati et al. (2020).

Research data collection method: an experiment. Data processing method: the technology (software) of "Neuromarketing & AI LAB". Data analysis method: descriptive statistics method. Experiment: empirical research that helps to check the purpose by changing the process conditions (showing purposefully selected material with stimuli). The "Neuromarketing & AI LAB" technology allows us to perform an experiment, scan the look of the subject's eye and present the results of the research. A map of the areas of interest of the research group – AOI (Areas of Interest), heat maps have been chosen to illustrate the results of the research (Hofer et al., 2023; Farooqui, 2023). The method of comparative analysis will allow us to compare the obtained results and the data. One group of users was chosen for the research, because such research is quite expensive.

Research instruments. A stimulus can be any factor that causes or enhances physiological and psychological reactions in the body. In the context of personal brand, stimuli can be advertising elements such as images, colors, or textual information. Two stimuli were used in the research: the first main stimulus – active Lithuanian Instagram stars, television faces, businessmen. The selection of stimuli had several limitations of the research. All these personal brands had to be Lithuanian Instagram macro influencers (opinion formers) with up to 100,000 followers, managing businesses, providing goods or services. Following a review of the most popular Lithuanian influencers, the next stimuli were selected: Karolina Meschino [421000 followers in 2023 April 18], Mantas Stonkus [314,000 followers in 2023 April 18], Žydrūnas Savickas [514,000 followers in 2023 April 18]. Three photos were selected with the personal brands (stimuli). The selected stimuli correspond to the goals set in this publication: to determine the influence of a personal brand on a user in a social network. The selection of the second stimulus: the brand of business companies has to be identified, but this met several limitations of the research. The photos were selected from a personal influencers Instagram profiles', and secondly, the photo had to feature two stimuli: the brand and the influencer providing the goods or services. After the searching of Instagram personal profiles, 3 photos were selected: a) a photo of a grocery to analyse the case with Karolina Meschino; b) the photo of a gift for entertainment and recreation "Gera dovana" and clothing store "H&M" – for the case of Mantas Stonkus; c) the photo of nutritional supplements of the brand "Real Pharm" – for the case of Žydrūnas Savickas. Different profiles in the experiment allowed us to compare the personal brand influence (in our case – influencer's influence) on consumers. Once the

photos were selected, they were prepared for the experiment: photo editing programs were used to retouch the 3 photos and remove the key stimuli – influencers from them. The remaining 5 photos were randomly selected from "Eurokos" shop: various beauty brands' ads on the Instagram social network.

Research sample and selection method. Using the "Sample Size Calculation" method (Das et al., 2016), and choosing a confidence level of 95%, specifying the population (2000), it was estimated that 33 respondents are needed for the experiment (7 extra respondents were involved in the research). In total 40 people were participated in the experiment (18 men and 22 women). The participants of the experiment were randomly selected students in the Instagram target group (22–34 year old), and the majority were studied at SMK University of Applied Sciences. This ensured the homogeneity of the target group.

Research design. The research was conducted using eye-tracking technology "Neuromarketing & AI LAB" and sampling frequency software RealEye v13.13.10. Eye tracking technique allows to analyze behavior of research participants and cognition without measuring brain activity. Eye tracking tool helps to identify where the potential customer is looking at, for how long, and the path of his/her view and changes in human dilation while the subjects looks at stimuli. Eye tracking could be useful in development of advertisements and concept testing, assessment, logo and package design, online usability and micro-site development or in-store marketing (Bercea, 2012). Thus, experiment participants performed tasks on a smart device by opening a dedicated link, using the front-facing camera, and approving the application. The principle of use: experiment participant had to follow red balls with his/her eyes when the programme was tracking and detecting (catching) eyes looking points. In total – 11 photos were selected for the research: 6 photos related to the influencers (stimuli) with Karolina Meschino, Mantas Stonkus and Žydrūnas Savickas (2 photos of every influencer – one with the stimulus, and another – retouched without stimulus); and 5 random photos of Eurokos ads. During the experiment participants did not have to perform specific tasks, but just to look on the moving pictures passed by. Photos were shown for 6 seconds in random order with an interval of 1.5 seconds between photos. It allows research implementors' to prioritize the areas of interest that attracted the most attention and emotion.

Research ethics. Research participants were informed of their voluntary participation and anonymous contribution, as well as the possibility of withdrawing from the study at any time without specifying the reason.

4. Empirical results and discussion

The stimuli (influencers) of the experiment are well-known Lithuanian society members and personal brands when the popularity also influences viewers' engagement. During the quantitative research, the data was collected and recorded by the "Neuromarketing & AI LAB" equipment.
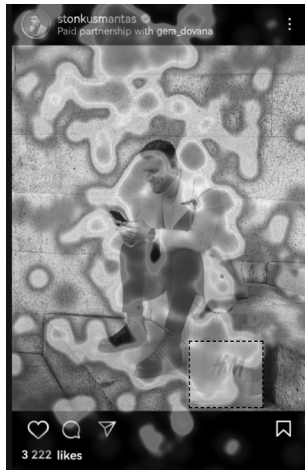
Visualisation of the characteristics was realized with "heat maps" method, where "T" is the duration of one stimulus looking time of 6 seconds. The research was composed of 11 photos in Instagram social network in total: 3 photos of Lithuanian publicly well-known persons – influencers (Karolina Meschino, Mantas Stonkus, Židrūnas Savickas); 3 retouched photos without influencers; and 5 photos of beauty products advertisements of "Eurokos" shop, selected as distractions for research participants (the idea – to mix influencers' photos with not related once, and conduct the research). All photos for users have been shown in random order.

During the experiment 3 observation zones were fixed: icon, face, and product. After receiving the data of the experimental results, the method of descriptive statistics has been chosen: analysis of the received data was obtained, and a heat map of the areas of interest of the research group – AOI (en. Areas of Interest), has been chosen to illustrate the results of the research. The most important indicators of the research: Fixation (the number of fixations the user has made while exploring the content); Fixation duration (average time a user stays looking at a single point); Ratio (percentage of time a user stays looking at a single point), (percentage indicating how many possible areas the user has viewed). The most important indicators of the research are:

- Fixations (number of fixations made by the user while examining the content);
- Fixation duration (average time the user stays looking at one point);
- Ratio (percentage showing how many available zones the user viewed).

These three metrics are the most representative of user engagement as they allow comparisons between the three units of measurement.

In Figure 2 we see the stimulus under consideration – Mantas Stonkus in partnership with "Gera dovana" and promoting "H&M" products. 1) Avg. TTFF: average time from the page opening to the first moment the user starts seeing the website or advertised product. The average time with an influencer (personal brand) is 2.99 seconds, and without it – 2.23 seconds. 2) Avg. Time Spent: average time spent by the user examining the content of the page or product. In this case, the average time is 0.44 seconds with a personal brand, and without it – 0.43 seconds. 3) Fixations: the number of fixations of user gazes performed by examining the content of a page or product with a personal brand is 47, and 34 without a stimulus. 4) Ratio: a percentage showing how many of the 40 possible zones the user has viewed. In this case, the user viewed 17 zones from 40 possible (43%) with personal brand, and 15 zones – without influencer (38%). 5) Avg. Fixation Duration: the average time a user stays looking at one point. The average time in the presence of the personal brand is 0.15 seconds, without the stimulus – 0.19 seconds. 6) Avg. FFD: average time it takes for a user to jump from one place next to another. Research results showed that the average time for the photo with personal brand is 0.14

Avg. TTFF (Average Time to First Fixation): 2.99 s
Avg. Time Spent: 0.44 s
Fixations (how many times participants' eyes stopped or fixated on specific points within the stimulus): 47
Ratio (fixations that occurred in a specific area of interest): 17/40 (38%)
Avg. Fixation Duration (the average duration of each fixation): 0.19 s
Avg. FFD (Average First Fixation Duration): 0.2 s
Avg. Revisits (the average times participants returned their gaze to a particular area): 0.31
Avg. TTFC (Average Time to First Click/action): N/A
AOI Size (participants considered as an area of interest. Area of Interest Size): 3.6%
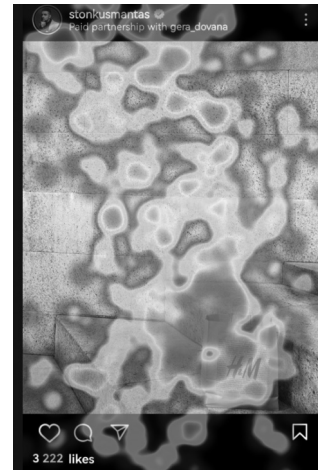
Avg. TTFF (Average Time to First Fixation): 2.23 s
Avg. Time Spent: 0.43 s
Fixations (how many times participants' eyes stopped or fixated on specific points within the stimulus): 34
Ratio (fixations that occurred in a specific area of interest): 15/40 (43%)
Avg. Fixation Duration (the average duration of each fixation): 0.15 s
Avg. FFD (Average First Fixation Duration): 0.14 s
Avg. Revisits (the average times participants returned their gaze to a particular area): 0.21
Avg. TTFC (Average Time to First Click/action): N/A
AOI Size (participants considered as an area of interest. Area of Interest Size): 6.3%

Figure 2. Comparison of heat maps and data with and without influencer Mantas Stonkus (prepared by authors, 2023)

seconds, without influencer – 0.2 seconds. 7) Avg. Revisits: average number of times a user returns to a certain place on the page/photo, or to a product with a personal brand – 0.31, but only with trademark – 0.21. 8) Avg. TTFC: average time to first click/action is NA for the both photos (value not specified). 9) AOI Size: percentage showing how much of the entire page or product areas user viewed. Results showed, that with a personal brand indicator is 6.3%, without it – 3.6%.

In the Figure 2 we see the stimulus under consideration – Mantas Stonkus in partnership with "Gera dovana" and promoting "H&M" products. 1) Avg. TTFF: average time from the page opening to the first moment the user starts seeing the website or advertised product. The average time with an influencer (personal brand) is 2.99 seconds, and without it – 2.23 seconds. 2) Avg. Time Spent: average time spent by the user examining the content of the page or the product. In this case, the average time is 0.44 seconds with a personal brand, and without it – 0.43 seconds. 3) Fixations: the number of fixations of user gazes performed by examining the content of a page or product with a personal brand is 47, and 34 without a stimulus. 4) Ratio: a percentage showing how many of the 40 possible zones the user has viewed. In this case, the user viewed 17 zones from 40 possible (43%) with personal brand, and 15 zones – without influencer (38%). 5) Avg. Fixation Duration: the average time a user stays looking at one point. The average time in the presence of the personal brand is 0.15 seconds, without the stimulus – 0.19 seconds. 6) Avg. FFD: average time it takes for a user

to jump from one place next to another. Research results showed that the average time for the photo with personal brand is 0.14 seconds, without influencer – 0.2 seconds. 7) Avg. Revisits: average number of times a user returns to a certain place on the page/photo, or to a product with a personal brand – 0.31, but only with trademark – 0.21. 8) Avg. TTFC: average time to the first click/action is NA for the both photos (value not specified). 9) AOI Size: percentage showing how much of the entire page or product areas user viewed. Results showed, that with a personal brand indicator is 6.3%, without it – 3.6%.

Comparing the two heat maps it can be concluded that with the personal brand Mantas Stonkus the level of engagement is higher in all nine indicators. The photo with the personal brand Mantas Stonkus had a higher engagement. Darker clouds of the photos show the areas of eye gaze which were fixed the most. In the heat map the attention is often focused on the inscription at the top with the name and surname of the stimulus, and the name of the brand "Gera dovana", which allows to recognize the organization providing services.

In the Figure 3 is represented the stimulus under consideration – Žydrūnas Savickas promoting "Real Pharm" nutrition products. Conducted research showed these results. 1) Avg. TTFF: mean time with a personal brand is 2.77 seconds, compared to the photo with no stimulus – 1.7 seconds. 2) Avg. Time Spent: the average time is 0.43 seconds with personal brand and 0.33 seconds without it. 3) Fixations: 36 with the influencer, but without stimulus – 39. 4) Ratio: user viewed 14 zones from 40 possible once

Avg. TTFF (Average Time to First Fixation): 2.77 s
Avg. Time Spent: 0.43 s
Fixations (times participants' eyes stopped or fixated on specific points within the stimulus): 36
Ratio (fixations that occurred in a specific area of interest.): 14/40 (45%)
Avg. Fixation Duration (the average duration of each fixation): 0.2 s
Avg. FFD (Average First Fixation Duration): 0.18 s
Avg. Revisits (the average times participants returned their gaze to a particular area): 0.5
Avg. TTFC (Average Time to First Click/action): N/A
AOI Size (participants considered as an area of interest. Area of Interest Size): 5.1%
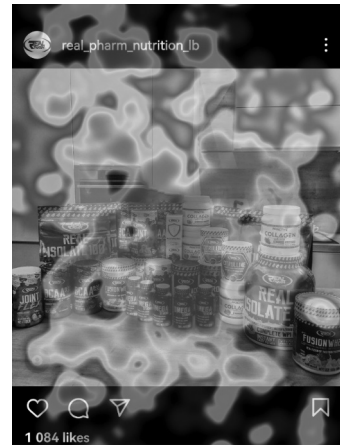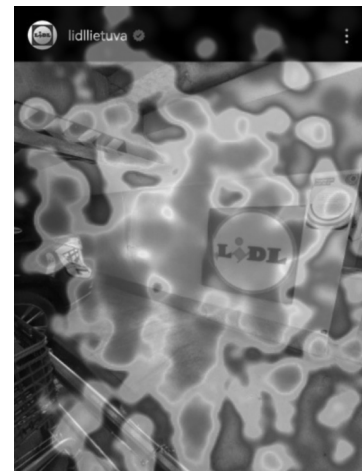
Avg. TTFF (Average Time to First Fixation): 1.7 s
Avg. Time Spent: 0.33 s
Fixations (times participants' eyes stopped or fixated on specific points within the stimulus): 39
Ratio (fixations that occurred in a specific area of interest.): 18/40 (35%)
Avg. Fixation Duration (the average duration of each fixation): 0.14 s
Avg. FFD (Average First Fixation Duration): 0.14 s
Avg. Revisits (the average times participants returned their gaze to a particular area): 0.23
Avg. TTFC (Average Time to First Click/action): N/A
AOI Size (participants considered as an area of interest. Area of Interest Size): 6.4%

Figure 3. Comparison of heat maps and data with and without influencer Žydrūnas Savickas (prepared by authors, 2023)

1. Avg. TTFF (Average Time to First Fixation): 2.11 s
2. Avg. Time Spent: 0.21 s
3. Fixations (times participants' eyes stopped or fixated on specific points within the stimulus): 18
4. Ratio (fixations that occurred in a specific area of interest.): 13/40 (33%)
5. Avg. Fixation Duration (the average duration of each fixation): 0.14 s
6. Avg. FFD (Average First Fixation Duration): 0.16 s
7. Avg. Revisits (the average times participants returned their gaze to a particular area): 0.5
8. Avg. TTFC (Average Time to First Click/action): N/A
9. AOI Size (participants considered as an area of interest. Area of Interest Size): 4%

1. Avg. TTFF (Average Time to First Fixation): 3.66 s
2. Avg. Time Spent: 0.34 s
3. Fixations: (times participants' eyes stopped or fixated on specific points within the stimulus): 12
4. Ratio (fixations that occurred in a specific area of interest.): 9/40 (33%)
5. Avg. Fixation Duration (the average duration of each fixation): 0.24 s
6. Avg. FFD (Average First Fixation Duration): 0.25 s
7. Avg. Revisits (the average times participants returned their gaze to a particular area): 0.3
8. Avg. TTFC (Average Time to First Click/action): N/A
9. AOI Size (participants considered as an area of interest. Area of Interest Size): 4.4%

Figure 4. Comparison of heat maps and data with and without influencer Karolina Meschino (prepared by authors, 2023)

(35%) with a personal brand, and without it – 18 zones (45%). 5) Avg. Fixation Duration: the average time of this indicator with the personal brand is 0.2 seconds, without the stimulus – 0.14 seconds. 6) Avg. FFD: average time is 0.18 seconds with personal brand, and 0.14 seconds without it. 7) Avg. Revisits: 0.5 with the influencer, and 0.23 without stimulus. 8) Avg. TTFC: average time to first click/action is NA for both photos (value not specified). 9). AOI Size: in case of the personal brand – 5.1%, without the influencer – 6.4%.

By comparing the research results of the two heat maps it can be concluded that in the presence of a personal brand – Žydrūnas Savickas, from three main indicators (Fixations, Fixation duration & Ratio), only one dominated – the time user remains looking at one point. While analyzing other results of indicators can be stated, that engagement of users was greater without the primary stimulus, although it is notable that the influencer in the photo is placing in the background behind the dietary supplement products, which is not typical in another cases. If we pay attention to the heat map, it can be noticed that the darker clouds are situated in the area of Žydrūnas Savickas body and face. Here the viewing points of users were fixed the most frequent. Thus, the photo with the "Real Pharm" brand products received the most engagement in comparison with personal brand Žydrūnas Savickas.

Stimulus under consideration in Figure 4: Karolina Meschino promoting the "Lidl" brand. 1) Avg. TTFF: average time with personal brand is 2.11 seconds compared to no stimulus – 3.66 seconds. 2) Avg. Time Spent: 0.21 seconds with personal brand, and 0.34 seconds without it. 3) Fixations: 18 with influencer, but without stimulus – 12. 4) Ratio: the users viewed 13 zones of 40 possible once (33%) in the presence of a personal brand, and without it – 9 zones of 40 possible (23%). 5) Avg. Fixation Duration: the average time for the picture with influencer – 0.14 seconds, without the stimulus – 0.24 seconds. 6) Avg. FFD: Average time is 0.16 seconds with a personal brand, without it – 0.25 seconds.

7) Avg. Revisits: 0.5 – result with a personal brand, and only with trademark (without influencer) – 0.3. 8) Avg. TTFC: average time to the first click/action is NA for both photos (value not specified). 9) AOI Size: in case of personal brand – 4%, without the stimulus – 4.4%. During comparison of research results of the two heat maps, it can be concluded that the highest engagement was with the personal brand Karolina Meschino. Considering the three main indicators, the advantages were in these aspects: capturing the content and views of different zones. Research results showed that the biggest areas with the darkest clouds were fixed looking to the influencer's body and face, as well as the nearby one "Lidl" brand. At the top of the photo was an eye text examination with the name, surname, and the brand Lidl. By comparing the parameters and the heat maps of the two photos it can be stated that the photo with Karolina Meschino (influencer) had the greatest engagement in comparison with the picture without stimulus. The two main parameters from the three

most important were greater with the influencer: fixations and ratio.

The discussion of the authors. After carrying out an experiment using the technology "Neuromarketing & AI LAB" it was received evidence that a personal brand has an influence on users in the social network Instagram attracting greater attention. Upon examination of the research results of the eye tracking experiment, and after analysis performed, we can state that on average, users spend more time on photo and product analysis to examine personal brand and at the same time – analyze content provided by influencers. The results of the experiment show that the effect of the personal brand on the consumer is proved by attracting attention and creation of more active engagement. The results of the experiment show that the personal brand has the influence on the consumer by attracting attention and encourage higher involvement. Such results of the experiment were expected. During monitoring of the 3 main indicators of the research it was confirmed that users in Instagram are focusing their attention on the stimulus face and brand next to influencer first. In addition, the method and results of this conducted experimental research are similar to Zahmati et al. (2020). They were also conducted similar research in which two AOI points of stimulus were determined (sponsor body and face in their case), in order to investigate the influence of the sportsman (stimulus) on advertising. Later, these two points were analyzed using an eye-tracking technique. The findings showed that the influencer's face acquired the highest number of fixations and the highest fixation duration. Also, this research results showed that the presence of an influencer-sponsor on a promotional poster can attract attention of the direct audience. The presence of influencers in advertisements increases marketing influence and encourages the engagement of the audience. This is proved by analysis made by the group of researchers Contero-López et al. (2022). Also, it was observed that the direction of gaze of the stimulus-influencer is particularly significant and can direct users' attention. From a marketing perspective, a photo is more impactful with an influencer's eyes directed to the product rather than to user (viewer).

5. Conclusions

After examining the concept of a personal brand, it can be stated that a personal brand is an individual symbol that creates its own identity in the social networks. It reveals everyday life, talents, strengths and communicates with the audience, creating a strong connection with users. When publishing an individually created product or service, the personal brand cooperates with trademarks and thus not only increases the awareness of the personal brand, but also helps to attract more attention to the goods or services of business companies.

After analyzing the communication of a personal brand in social networks, it became clear that first, it is suggested to use the "Personal Branding Canvas" model for creating

a personal brand. It serves to set career goals and helps to achieve them. When starting activities in social networks, creating content and get mentorship, first necessary to determine the operating principles (philosophy) of a personal brand: to set a vision, mission, and values, as well as to determine the target audience. The second step is to create a personal brand social network, which consists of the following stages: profile, social network, name and website. The most popular social networks in the world are Facebook (Meta), Instagram, Twitter, YouTube and TikTok which have different target audiences. In social networks three media formats are dominating: text, video records, and photos. It is important to choose networks with multiple formats, such as videos and text or photos (all three formats are supported on the Facebook network, while Instagram focuses on photos and videos). Instagram and TikTok attract the attention of younger consumers. The Instagram platform is the most popular among the audience of about 20–30-year-old. When choosing the right social network, it should be considered popularity, media formats, user engagement and age of target groups. This will help to communicate effectively with users (potential consumers).

It was selected to use eye-tracking technology "Neuromarketing & AI LAB" for the research and conduct an experiment in the social network Instagram. It was found that the target audience of Instagram is young users (up to around 30 years old), who are interested in the lives of friends, acquaintances and famous people, and spend their free time. Instagram offers content through photos and videos, visually presents information and evokes emotions for users. In the context of personal brand, stimuli can be advertising elements such as images, colours or textual information. The scientific research was integrated the first stimulus: personal brands – macro Lithuanian Instagram influencers (opinion makers Karolina Meschino, Mantas Stonkus, and Žydrūnas Savickas), with up to 100,000 followers; and second stimulus: other business brands. Different profiles of influencers in the experiment allowed us to compare the influence of a personal brand on consumers. After analysis and comparing two heat maps of Mantas Stonkus it can be concluded that with the personal brand (Mantas Stonkus) the level of user's engagement is much higher in all nine analyzed indicators. Thus, the eyes of users were focused mostly on the stimulus. During the analysis of the heat map with Mantas Stonkus we see that users are paying attention to the note on the top of photo with the name and surname, and to the nearby brand "Gera dovana" – the brand providing services which is promoting by the influencer. Research results of the case of Žydrūnas Savickas showed that in the presence of a personal brand (stimulus Žydrūnas Savickas), only one indicator from the main three has been dominated – the time user remains looking at one point. Although, it is notable that the influencer in the photo is placed in the background behind the dietary supplement products, and this could influence such results. The most frequent viewing points of users were the body and face of Žydrūnas Savickas. The research results in Karolina Meschino case highlight that in the presence of a personal brand (stimulus Karolina Meschino), the highest consumer engagement and attracting attention dominated in Karolina Meschino's zone (body and face), and the nearby "Lidl" brand. In addition, users also captured the top of the photo: the influencer's name and brand name "Lidl". The photo with Karolina Meschino had higher engagement.

After conducting an analysis of the influence of a personal brand involvement to the social network Instagram, it was found that the body and face of the personal brand had the highest results – fixation frequency, which means the influence on the business brands of companies. After conducting an eye tracking experiment with "Neuromarketing & AI LAB" technology it can be concluded that a personal brand has a significant influence: it attracts the attention of consumers and promotes engagement. A specific personal brand increases interest, which attracts more attention from consumers. It allows them to watch ads longer, pay attention to business brands, which leads to increased consumption and implementation of higher sales. The results of the research show that the effect of a personal brand on a consumer is in attracting attention and promoting engagement. A personal brand influences users with its content on social networks by sharing personal opinion when recommending goods or services. Karolina Meschino analysis on the social network Instagram confirmed the users monitoring of the 3 main zones: the users were focused their attention on the face of the influencer, the body and the business brand.

Personal brands captures consumer attention and drives engagement. It is recommended to use personal brands as one of the main stimulus to advertise products or services of business. On the other hand, it is recommended to gather a wider community and develop own business for influencers. Further research using neuromarketing tool of eye tracking may be carrying out for analysing personal brands influence in other social networks like Facebook, TikTok, YouTube, and expand the target group and choose other influencers categories: ex. medium, macro influencers and mega influencers, or to compare their influence in different social networks.

References

Abidin, C. (2016). *Please subscribe!: Influencers, social media, and the commodification of everyday life* [Doctoral dissertation, University of Western Australia]. https://doi.org/10.26182/5ddc899d698cb

Bercea, M. D. (2012, August). Anatomy of methodologies for measuring consumer behavior in neuromarketing research. In *Proceedings of the Lupcon Center for Business Research (LCBR) European Marketing Conference.* Ebermannstadt, Germany. https://www.researchgate.net/profile/Monica-Diana-Olteanu-bercea/publication/260058154_Anatomy_of_methodologies_for_measuring_consumer_behavior_in_neuromarketing_research/links/0deec52f3abdb88ac1000000/Anatomy-of-methodologies-for-measuring-consumer-behavior-in-neuromarketing-research.pdf

Bergström, A., & Jervelycke Belfrage, M. (2018). News in social media: Incidental consumption and the role of opinion leaders. *Digital Journalism*, *6*(5), 583–598. https://doi.org/10.1080/21670811.2018.1423625

Boniface, D. R. (2019). *Experiment design and statistical methods for behavioural and social research*. Routledge. https://doi.org/10.1201/9780203756423

Borchers, N. S. (2019). Social media influencers in strategic communication. *International Journal of Strategic Communication*, *13*(4), 255–260. https://doi.org/10.1080/1553118X.2019.1634075

Brems, C., Temmerman, M., Graham, T., & Broersma, M. (2017). Personal branding on Twitter: How employed and freelance journalists stage themselves on social media. *Digital Journalism*, *5*(4), 443–459. https://doi.org/10.1080/21670811.2016.1176534

Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, *23*(1), 46–65. https://doi.org/10.1080/15456870.2015.972282

Campbell, C., & Grimm, P. E. (2019). The challenges native advertising poses: Exploring potential federal trade commission responses and identifying research needs. *Journal of Public Policy & Marketing*, *38*(1), 110–123. https://doi.org/10.1177/0743915618818576

Casaló, L. V., Flavián, C., & Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, *117*, 510–519. https://doi.org/10.1016/j.jbusres.2018.07.005

Chaudhry, S. A., & Irshad, W. (2013). Opinion leadership and its role in buyer decision making. *Academy of Contemporary Research Journal*, *7*(1), 7–14.

Chu, S. C., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, *30*(1), 47–75. https://doi.org/10.2501/IJA-30-1-047-075

Contero-López, P., Camba, J. D., & Contero, M. (2022). An analysis of influencer marketing effectiveness in luxury brands using eye-tracking technology. *AHFE International*. https://doi.org/10.54941/ahfe1002051

Das, S., Mitra, K., & Mandal, M. (2016). Sample size calculation: Basic principles. *Indian Journal of Anaesthesia*, *60*(9), 652–656. https://doi.org/10.4103/0019-5049.190621

Dhanesh, G. S., & Duthler, G. (2019). Relationship management through social media influencers: Effects of followers' awareness of paid endorsement. *Public Relations Review*, *45*(3), Article 101765. https://doi.org/10.1016/j.pubrev.2019.03.002

Djafarova, E., & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in Human Behavior*, *68*, 1–7. https://doi.org/10.1016/j.chb.2016.11.009

Djafarova, E., & Bowes, T. (2021). 'Instagram made Me buy it': Generation Z impulse purchases in fashion industry. *Journal of Retailing and Consumer Services*, *59*, Article 102345. https://doi.org/10.1016/j.jretconser.2020.102345

Farooqui, M. (2023). The benefits of marketing analytics and challenges. In *Handbook of big data research methods* (Chapter 4, pp. 52–71). Edward Elgar Publishing. https://doi.org/10.4337/9781800888555

Fuchs, C. (2015). Power in the age of social media. *Heathwood Journal of Critical Theory*, *1*(1), 1–29. https://westminsterresearch.westminster.ac.uk/download/2aac6f615d0b62dc632c9a6bea174fac582c0d09270ce0b4e14bcb3216371ddd/701378/Fuchs_2015.pdf

Glucksman, M. (2017). The rise of social media influencer marketing on lifestyle branding: A case study of Lucie Fink. *Elon Journal of Undergraduate Research in Communications*, *8*(2), 77–87. https://www.media-education-portal.com/uploads/1/2/4/7/124735657/08_lifestyle_branding_glucksman.pdf

Grover, P., Kar, A. K., & Dwivedi, Y. (2022). The evolution of social media influence – A literature review and research agenda. *International Journal of Information Management Data Insights, 2*(2), Article 100116. https://doi.org/10.1016/j.jjimei.2022.100116

Haenlein, M., Anadol, E., Farnsworth, T., Hugo, H., Hunichen, J., & Welte, D. (2020). Navigating the new era of influencer marketing: How to be successful on Instagram, TikTok, & Co. *California Management Review*, *63*(1), 5–25. https://doi.org/10.1177/0008125620958166

Hofer, P., Perkhofer, L., & Mayr, A. (2023). Interactive Big Data visualizations: Potential for management reporting: A summary of empirical studies on the selection, use, and design of novel visualization types. In *The digitalization of management accounting: Use cases from theory and practice* (pp. 143–169). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-41524-2_10

Kang, M., Liang, T., Sun, B., & Mao, H. Y. (2023). Detection of opinion leaders: Static vs. dynamic evaluation in online learning communities. *Heliyon*, *9*(4), Article e14844. https://doi.org/10.1016/j.heliyon.2023.e14844

Ki, C. W. C., Cuevas, L. M., Chong, S. M., & Lim, H. (2020). Influencer marketing: Social media influencers as human brands attaching to followers and yielding positive marketing results by fulfilling needs. *Journal of Retailing and Consumer Services*, *55*, Article 102133. https://doi.org/10.1016/j.jretconser.2020.102133

Kothapalli, R. A. (2021) *Nano and micro-influencers in the spotlight.* https://hobo.video/blog/nano-and-micro-influencers-in-the-spotlight/

Moshood, T. D., Nawanir, G., Aripin, N. M., Ahmad, M. H., Lee, K. L., Hussain, S., ... & Ajibike, W. A. (2022). Lean business model canvas and sustainable innovation business model based on the industrial synergy of microalgae cultivation. *Environmental Challenges*, *6*, Article 100418. https://doi.org/10.1016/j.envc.2021.100418

Nagy, A., Kemény, I., Szűcs, K., Simon, J., & Kiss, V. (2017). Are opinion leaders more satisfied? Results of a SEM model about the relationship between opinion leadership and online customer satisfaction. *Society and Economy*, *39*(1), 141–160. https://doi.org/10.1556/204.2016.004

Narayanaswamy, R., & Heiens, R. A. (2022). Finding the optimal social media marketing mix to drive customer attraction and sales performance: An exploratory study. *International Journal of Electronic Marketing and Retailing*, *13*(1), 65–82. https://doi.org/10.1504/IJEMR.2022.119248

Pedroni, M., & Pofi, M. P. (2018). Commodifying the followers or challenging the mainstream? The two-sided potential of curvy fashion bloggers. *Observatorio (OBS*)*, *12*(SPE1), 005–027. https://doi.org/10.15847/obsOBS0001383

Sahelices-Pinto, C., & Rodríguez-Santos, C. (2014). E-WoM and 2.0 opinion leaders. *Journal of Food Products Marketing*, *20*(3), 244–261. https://doi.org/10.1080/10454446.2012.732549

Schwöbel-Patel, C. (2019). Insta-scholarship: The self-branding practices of the 'digital humanitarian'. In *Backstage practices of Transnational Law*. Routledge. https://doi.org/10.4324/9780429023583-9

Siddiqui, S., & Singh, T. (2016). Social media its impact with positive and negative aspects. *International Journal of Computer*

Applications Technology and Research, 5(2), 71–75. https://doi.org/10.7753/IJCATR0502.1006

Shutaleva, A., Novgorodtseva, A. N., & Ryapalova, O. S. (2022). Self-presentation in Instagram: Promotion of a personal brand in social networks. *Economic Consultant*, *37*(1), 27–40. https://doi.org/10.46224/ecoc.2022.1.3

Tarnovskaya, V. (2017). Reinventing personal branding building a personal brand through content on YouTube. *Journal of International Business Research and Marketing*, *3*(1), 29–35. https://doi.org/10.18775/jibrm.1849-8558.2015.31.3005

Van Stekelenborg, J., Ellenius, J., Maskell, S., Bergvall, T., Caster, O., Dasgupta, N., Dietrich, J., Gama, S., Lewis, D., Newbould, V., Brosch, S., Pierce, C.E., Powell G., Ptaszyńska-Neophytou, A., Wiśniewski, A. F. Z., Tregunno, P., Norén G. N., & Pirmohamed, M. (2019). Recommendations for the use of social media in pharmacovigilance: Lessons from IMI WEB-RADR. *Drug Safety*, *42*, 1393–1407. https://doi.org/10.1007/s40264-019-00858-7

Viek, D., Centenaro, L., & Zanella, S. (2022). *Personal branding nas empresas: como valorizar a empresa posicionando suas pessoas-chave*. Chave Mestra Editora.

Wei, Z., Zhang, M., & Qiao, T. (2022). Effect of personal branding stereotypes on user engagement on short-video platforms. *Journal of Retailing and Consumer Services*, *69*, Article 103121. https://doi.org/10.1016/j.jretconser.2022.103121

Zabojnik, R. (2018). Personal branding and marketing strategies. *European Journal of Science and Theology*, *14*(6), 159–169. http://www.ejst.tuiasi.ro/Files/73/16_Zabojnik.pdf

Zahmati, M., Azimzade, M., & Sotode, M. S. (2020). Using eye tracking technology to investigation the impact of celebrity athlete endorsement on the attention to advertising. *Journal of Advanced Sport Technology*, *3*(2), 61–70. https://jast.uma.ac.ir/article_884_499fff538a0ed4916ff67905e32f4a4f.pdf

Zhang, R., George, A., Kim, J., Johnson, V., & Ramesh, B. (2019). Benefits of blockchain initiatives for value-based care: Proposed framework. *Journal of Medical Internet Research*, *21*(9), Article e13595. https://doi.org/10.2196/13595

Zhao, Y., Kou, G., Peng, Y., & Chen, Y. (2018). Understanding influence power of opinion leaders in e-commerce networks: An opinion dynamics theory perspective. *Information Sciences*, *426*, 131–147. https://doi.org/10.1016/j.ins.2017.10.031