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CATÓLICA  
PORTUGUESA

NANO INFLUENCERS:  
USING ORDINARY PEOPLE FOR EXTRAORDINARY RESULTS

Internship Report submitted to Universidade Católica Portuguesa  
to obtain a Master's Degree in Communication and Social  
Science with Specialization in Internet and New Media

By

Syed Saadat Ali

Faculty of Human Sciences

September 2023



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## **Abstract**

This thesis explores the influence and effectiveness of nano influencers (individuals with less than 10,000 Instagram followers) on marketing communication. The study examines several key metrics to understand the performance and behaviors of 84 public Instagram accounts across various influencer tiers—nano, micro, mid-tier, macro, and mega—in propagating content on social and environmental issues.

Our findings demonstrate that nano influencers exhibit high engagement and thematic relevance levels despite their smaller follower bases. Their posts resonate strongly with their audience, facilitating trust and authority within their communities. Nano influencers' use of relevant hashtags and consistent posting schedules contribute to their ability to attract and retain new followers. On average, nano influencers were 50.06% more effective than higher-tier influencers for every impression.

The study introduces several practical strategies for leveraging nano influencers in marketing efforts. These include increasing their number in campaigns, employing paid ads for greater reach, and adopting burst-style and influencer-driven campaigns for broader dissemination of social and environmental content. A notable strategy introduced is 'hub-centric influence maximization,' which involves using nano influencers to activate larger, more influential hubs in the network, thereby creating a cascading effect that maximizes overall campaign impact. Additionally, the research highlights the importance of understanding each follower's social capital and diverse values when planning influencer campaigns rather than assuming homogeneity among followers.

Overall, this research provides valuable insights into the effectiveness of nano influencers in marketing communication. By understanding their unique characteristics and implementing tailored strategies, marketers can harness the power of nano influencers to reach large audiences, generate meaningful engagement, and influence behavior.

**Keywords:** *Nano influencer, influencer marketing, social media, Instagram, message propagation, marketing communication, hub-centric influence maximization*

## Resumo

Esta tese explora a influência e eficácia dos nano influenciadores (indivíduos com menos de 10.000 seguidores no Instagram) na comunicação de marketing. O estudo examina diversas métricas-chave para compreender o desempenho e os comportamentos de 84 contas públicas do Instagram, abrangendo diferentes níveis de influenciadores - nano, micro, médio, macro e mega - na propagação de conteúdos sobre questões sociais e ambientais.

Os resultados indicam que os nano influenciadores apresentam altos níveis de engajamento e relevância temática, apesar de apresentarem um número menos de seguidores. O uso de hashtags relevantes e cronogramas consistentes de postagens pelos nano influenciadores contribui para a potencializar a sua capacidade de atrair e reter novos seguidores. Em média, os nano influenciadores foram 50,06% mais eficazes do que influenciadores de níveis superiores em conseguir a atenção dos cibernautas.

O estudo sugere diferentes estratégias para potencializar a utilização de nano influenciadores no esforço de marketing. Estas incluem aumentar o seu número em campanhas, empregar anúncios pagos para maior alcance e adotar campanhas conduzidas por influenciadores para uma disseminação mais ampla de conteúdos sociais e ambientais. Uma estratégia notável introduzida é a 'maximização de influência centrada em *hubs*', que envolve usar nano influenciadores para ativar *hubs* maiores e mais influentes na rede, criando assim um efeito cascata que maximiza o impacto geral da campanha. Além disso, a pesquisa destaca a importância de compreender o capital social e os valores diversos de cada seguidor ao planejar campanhas de influenciadores, em vez de assumir a existência de homogeneidade entre os seguidores.

No geral, esta pesquisa oferece *insights* valiosos sobre a eficácia dos nano influenciadores na comunicação de marketing. Ao compreender as suas características únicas e implementar estratégias personalizadas, os profissionais de marketing podem aproveitar o poder dos nano influenciadores para alcançar grandes audiências, gerar engajamento significativo e influenciar comportamentos.

**Palavras-chave:** Nano influenciador, marketing de influenciadores, mídia social, Instagram, propagação de mensagens, comunicação de marketing, maximização de influência centrada em hubs.

## **Dedication**

I dedicate this work to my grandmother, Syeda Feroz Jahan Alam Afroze, the great-great-granddaughter of Bahrul Ulm Ubaidullah Al Ubaidi Suhrawardy and the niece of Hussain Shaheed Suhrawardy. This tribute celebrates our rich family heritage and her inspiring legacy. Each step in my journey brings me closer to the wisdom and resilience that our entire clan embodies, serving as a guiding force in my endeavors and aspirations.

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## **Introduction**

Influencer marketing has become a powerful tool in the modern digital marketing landscape. As traditional marketing approaches become less effective, brands increasingly turn to influencers to bridge the gap between their products and consumers. Central to this shift is the rise of social media platforms, where users can influence one another's purchase decisions, attitudes, and behaviors. These have led to the rise of influencers, whose usage has revolutionized how brands market and communicate their products. These influencers are not just celebrities with a large following but also ordinary individuals who have built a robust online presence and a loyal following by sharing content that resonates with a particular community or cluster of people. As such, the term "influencer" encompasses a broad spectrum of online personalities, ranging from high-profile celebrities with millions of followers (mega influencers) to everyday individuals with relatively modest numbers of followers (nano influencers).

While influencer marketing has gained significant popularity, limited research focuses specifically on nano influencers and their impact on marketing communication. Most existing studies have primarily focused on higher-tier influencers, neglecting the unique possibilities and the potential impact of nano influencers. The need for more research focusing specifically on nano influencers presents a significant disparity in the current understanding of their unique attributes and how these could be capitalized upon in marketing communication. Therefore, this thesis primarily addresses this knowledge gap, aiming to contribute valuable insights into the role and effectiveness in marketing campaigns of nano influencers (ordinary individuals) who produce content on social and environmental justice. This research could redefine the traditional marketing wisdom that more followers equate to more influence and provide empirical evidence that individuals with a modest following can sometimes cause a formidable impact.

The guiding research question for this study is: How influential are nano influencers in marketing communication compared to other tiers of influencers (micro, mid-tier, macro, mega) based on their social capital? This research will also investigate two sub-questions designed to explore the critical attributes of nano influencers that contribute to their effectiveness and strategies for optimal utilization in marketing campaigns: What are the

key attributes and behaviors of nano influencers who produce social and environmental justice content? And, how can nano influencers who produce social and environmental justice content be utilized effectively in marketing campaigns to maximize their impact and reach?

This dissertation comprises several interconnected sections. The introduction presents the background of the study, the Statement of the Problem, the Purpose of the Study, primary and sub-research questions, the significance of the study, and the structure of the entire research paper. The study was conceived in response to a real problem encountered during a professional internship with Ethical, a consultancy organization in Lisbon, Portugal.

Part I details the internship the researcher undertook in order to find a problem to research. Part II is dedicated to the literature review. The literature review explores the existing literature, providing a theoretical groundwork for understanding nano influencers' unique characteristics and potential impact. It is divided into four chapters. Chapter one initiates the discussion by defining influencers, including a typology of influencers, and establishing the context of their appropriateness in today's digital marketing sphere. This segment also examines the attractiveness of influencer marketing and how it bolsters Word-of-Mouth (WoM) and electronic Word-of-Mouth (eWoM), which are critical pillars for viral content distribution and promotion. The review transitions in chapter two to focus on the strategic aspect of influencer endorsements. It delves into the classification of endorsers and evaluates the effectiveness of such endorsements in shaping consumer behavior. Furthermore, it analyzes the customer journey and the marketing funnel, highlighting how influencers aid in shifting from traditional outbound marketing to a more customer-centric, inbound marketing approach. The chapter concludes by linking influencers' role in achieving marketing campaigns and objectives. In chapter three, the review explores viral marketing, examining network fundamentals and cascade models as the primary mechanisms for generating viral content. The discussion underscores the critical roles of the sender, receiver, and the message itself in initiating and sustaining viral marketing efforts. Finally, chapter four narrows the focus to Instagram as a prominent platform for influencer marketing. It dissects Instagram's functionalities through the 'Honeycomb Model,' evaluates the motivations behind Instagram usage, and investigates the concept of self-presentation, shedding light on how influencers capitalize on these elements to maximize their impact. In essence, the literature review critically

examines the broad and multifaceted dimensions of influencers and influencer marketing, providing insightful commentary on its effectiveness, strategies, and application in the evolving social media landscape.

Part III details the research methodology employed in this study, including data collection, data analysis techniques, and the selection of participants. It also discusses the ethical considerations in conducting research involving influencers on social media. Part IV presents the findings of the study based on the analysis of data collected from nano influencers and influencers in other tiers. It examines critical data points and evaluates their effectiveness in marketing communication. Part V discusses the implications of the findings for marketers and brands, exploring strategies for effectively utilizing nano influencers. Finally, the conclusion summarizes the study's key findings, limitations, and recommendations for future research. It concludes the thesis by highlighting the importance of nano influencers in marketing communication and their potential for driving meaningful engagement and influencing consumer behavior.

## **PART I. Internship Synopsis and Research Direction Development**

The primary purpose of the researcher during the internship was to discover a real-world problem that could be solved through academic research. The internship provided the researcher with practical, hands-on experience at a European company. In return for the internship, the researcher assisted in the company's day-to-day tasks throughout the internship period and provided suggestions and solutions to problems faced by the company and the industry at large.

The internship program was hosted by Ethical from October 1, 2020, to January 31, 2021. Ethical is a consultancy firm located in Lisbon, Portugal. They specialize in corporate social responsibility (CSR) and strategic sustainability. The firm is dedicated to helping clients achieve their sustainability goals through customized solutions. Currently, there is no common standard for defining a CSR activity, which frequently leads to confusion regarding what constitutes an appropriate CSR activity (Keys et al., 2019).

*Corporate social responsibility* is a broad concept that refers to a company's commitment to responsible environmental and social actions (Saeed & Arshad, 2012). It is usually viewed as an obligation to society beyond the bounds of a business's legal obligations (Saeed & Arshad, 2012). On the other hand, *strategic sustainability* refers to the actions which contribute to the goals of sustainable development as well as to the goals of the company (Presley et al., 2007). Strategic sustainability involves three crucial factors: economic dimensions, environmental dimensions, and social dimensions. These factors are utilized to create and implement a strategic justification tool for evaluating projects that have sustainability implications (Presley et al., 2007). Strategic sustainability can be used as a more specific approach to CSR activities.

When corporate social responsibility is approached through strategic sustainability, the goal is to look at a problem within the business processes and make it more efficient while finding ways to conserve natural resources. For instance, food waste is a big problem in the agriculture and food industry (Hingston & Noseworthy, 2020). Food waste generates social and economic costs and releases massive greenhouse gasses like carbon dioxide and methane (Hofman, 2020). The global food system accounts for almost 30% of all greenhouse gas emissions (Clark et al., 2020). Losses and inefficiencies occur at every

food production and supply chain stage, from growing, transporting, storing, and selling (Hingston & Noseworthy, 2020). In Portugal alone, roughly one ton of food goes to waste every year (*Fighting food waste*, 2020). The best way to minimize food waste is to avoid generating it in the first place. Implementing corporate social responsibility (CSR) has many benefits. One of the biggest hypermarket chains in Portugal, Continente, identified that the most frequent source of their food waste was consumer bias towards aesthetic beauty standards. Some goods and products lose commercial value, despite being in perfect condition for consumption (Pekic, 2017). In partnership with Ethical, Continente developed a selection of preserves and chutneys made from end-of-life food products. This approach helped reduce food waste, promote a sustainable supply chain, and the project was financially profitable.

Businesses adopting a responsible and ethical approach to their operations helps them build a strong brand image and improve profitability (Księżak, 2017).

According to the International Standards for Responsible Corporate Conduct, companies should identify and assess their risks (OECD, 2011). They should then take the necessary steps to control their exposure (Mullerat, 2010 *apud* Księżak, 2017). Being ethical and responsible can also help companies develop effective risk mitigation strategies. In addition, it helps reduce waste and improve the efficiency of its facilities (Księżak, 2017). Good CSR practices can also help boost the quality of products and services by implementing multiple innovations. Doing so can help prevent errors and improve the efficiency of the company's operations. Having the necessary resources and cooperation within the supply chain can significantly help a company deliver the best possible product to its customers (Mullerat, 2010 *apud* Księżak, 2017). The other advantage of having a corporate social responsibility policy is that it can prevent governments from implementing more restrictive regulations (Księżak, 2017).

On a broader scope, the main focus of CSR is for companies to help local communities. When corporations get involved with their resources, they can gain insights into problems that affect local communities. Through technological developments, innovations, and engagement, corporations can improve people's lives in the community (Księżak, 2017). Being involved in the community can also help raise awareness about health issues and improve the quality of life in society (Księżak, 2017). Companies may assist the public in understanding the value of routine medical exams by engaging in CSR activities.

Community participation might also encourage others to do the same (Książak, 2017). According to Buchholtz and Carrol (2008), social activation can help individuals feel good about themselves by being involved in helping others.

Corporate social responsibility is often approached based on senior executives' interests to create a more positive and ethical image for their organizations. Problems arise when projects like those do not deliver enough impact on the company or society. In the case of corporate philanthropy, it primarily benefits society with limited and questionable reputational benefits for the company (Porter & Kramer, 2002). In other cases, CSR projects become a stunt deemed more of an advertisement for the company with little benefit to society (Keys et al., 2019). Lofty and over-ambitious ideas without a clear objective or an execution plan often turn CSR activities into just a pet project. Ethical helps companies successfully overcome these obstacles by developing *smart partnerships*. This strategy involves working with both the business and society to create value. *Smart partnerships* are focused on common areas where both (or all parties involved) are impacted. Based on identified common challenges, they develop creative solutions which use each party's complementary capabilities and expertise (Keys et al., 2019). More and more companies value agencies because of the new opportunities they can create and the strategic relationships they can build between businesses, local government, non-profit entities, and local community organizations. To illustrate, during the internship, the researcher was assigned to develop several project proposals incorporating the critical factors of a successful venture. These projects would help build strategic partnerships that accrue benefits to all parties. The researcher developed a project proposal that addressed social and environmental challenges.

One of the proposed projects during the internship, Ethical Pen, involved the replacement of single-use plastic pens with environmentally-friendly materials made from upcycled newspapers. The product was designed to be simple so that ex-offenders (unskilled laborers) could make it locally in Portugal as part of a social reintegration program. The production of *Ethical Pens* would be carried out under the supervision of Sapana, a non-governmental organization for development (NGOD) that "aims to empower individuals to their full potential and support them to become their best version" (Sapana, 2020). With merchandising options, the ideal end-user for the pens would be hotel chains in Portugal which could use them as part of the amenities they offer guests. Other possible use cases

would be in corporate or government offices where they would purchase on a subscription basis. Multi-benefit projects are usually the most impactful and encourage multiple stakeholders to participate and collaborate. Supporting multi-benefit projects like this gives organizations a soul (Marchand, 1999).

CSR strategies can significantly affect employees too. According to Towers and Perry (2013), a clear conscience is one of the main advantages of corporate social responsibility. They noted that employees are more likely to perform their duties with a positive attitude and feel satisfied when they work for an ethical and responsible company. The increasing number of people looking for ethical businesses has also helped boost workers' commitment. They are likelier to work for companies committed to improving labor practices (Perry & Towers, 2013). Being ethical and responsible can also help decrease the number of sick days and improve the company's efficiency by implementing training programs. It can additionally help improve the turnover rate and prevent waste (Perry & Towers, 2013).

Attending meetings and engaging in discussions based on case studies of past or upcoming projects were routine activities at Ethical. These discussions primarily focus on the unresolved or recurring challenges the company encounters. Participation in these activities offered valuable insights into Ethical as an agency and the needs of other companies and organizations (clients and partners) operating in various sectors and industries. Through these meetings and case study discussions, the researcher identified and addressed three significant obstacles Ethical faced. These included the issues of acquiring new clients, focusing and specializing in a particular platform, and improving how corporate social responsibility messages can be effectively communicated.

Acquiring new clients is paramount for any agency-type business's growth and sustainability. Beyond its immediate revenue implications, new clients expand an agency's customer base and contribute to its brand recognition and credibility. A steady flow of new clients is essential to ensure an agency's longevity, as more than client retention is needed to sustain growth. The researcher proposed certification and award-hosting programs to address the issues. The biggest underutilized asset Ethical has is its trademarked name, *Ethical*. It is easy to pronounce and remember but, more importantly, a very descriptive word. When used as an adverb, further explanation is not required.

Hence, the two programs were aptly named as Ethical Certification Programme and Ethical Awards.

The certification program is a new service that offers to attract new customers and additional revenue streams. The program is specifically designed to increase the trust, credibility, and expertise of Ethical as an agency. The framework used was based on the European Union's ESG scoring methodology. The framework for the certification program was also meant to be used as part of the judging criteria for the award-hosting program. The main idea was to maintain complete transparency between both programs. Likewise, hosting an award show can be an effective strategy for acquiring new clients (Ritter & Gemünden, 2003) and help Ethical expand its client base (Chell & Baines, 2000). hosting such events will also give them the opportunity to demonstrate their expertise and further increase their visibility within the marketplace (Chell & Baines, 2000). Moreover, the newly attracted client base could consist of business leaders and other stakeholders. In addition to the visibility of the company, Ethical will be able to increase its reputation and position itself as a pioneer in the industry. They could accomplish this by simply emphasizing their dedication to quality and corporate social responsibility. Another opportunity the event will provide is for Ethical to educate its potential clients about its services and develop a sense of community. It can be concluded that such events help an agency to build long-term relationships with its potential clients and other industry leaders by holding an award ceremony or certification program (Chell & Baines, 2000). Project proposals for certification and award hosting initiatives included value proposition, entry requirements, screening process, judging process, submission categories, and Stakeholders' responsibilities.

Addressing the second obstacle, specializing in a specific platform, can help a CSR communication agency by allowing them to develop a deeper understanding of the platform's features, audience, and best practices. This knowledge may help the agency develop CSR communication campaigns that are more persuasive and well-targeted for the platform's audience. It can also help the agency optimize the campaigns for better performance on that platform. Moreover, focusing on one platform may establish a reputation as an authority in that field, drawing in new customers who want help with CSR communication.

The researcher helped Ethical specialize in Instagram marketing by facilitating workshops on the fundamentals of Instagram based on the researcher's extensive experience as a marketer, social media manager, and long-time user. The researcher also helped develop strategies based on campaign goals and Instagram functions. The frameworks developed mainly were based on the works of Aron Levin (2020). Furthermore, The researcher developed an Instagram Direct Message campaign strategy to request influencer collaboration. Several message templates and supporting content were created for the campaign.

It is in the best interest of organizations and companies to be seen as socially responsible (Gupta & Hodges, 2012). However, the challenge lies in making it known to the stakeholders and communicating their CSR effectively and memorably (Cheng et al., 2021). CSR communications from the company itself are often received with higher mistrust and lower credibility since CSR has often been used to defend legitimacy (Cheng et al., 2021). Dune and Harness (2008) explain that consumers often distrust company information due to the sources' biased nature.

Corporate social responsibility (CSR) initiatives are often perceived as *greenwashing*. This term refers to the negative publicity that can be generated by a firm's poor environmental performance (Delmas & Burbano, 2011). On the other hand, some companies may also use social activism to promote their products and services. There is a possibility that this could have a negative impact on the company as customers may start to believe that the business is attempting to enhance its reputation in a covert manner (Delmas & Burbano, 2011).

The increased demand for ethical businesses has made consumers extremely cautious when purchasing. Additionally, they are more inclined to select goods made by socially conscious businesses (Książak, 2017). Gupta and Hodges (2012) explain that being ethical and responsible is also a way for businesses to distinguish themselves from the crowd. Doing so can attract more potential customers and increase their sales. A company can stand out by presenting itself as a responsible organization (Gupta & Hodges, 2012). Corporate Social responsibility can help boost a company's goodwill. It helps improve the relationship between the company and its customers. The desire of consumers to have guilt-free products can cause a drop in sales for a company that has been accused of

unethical practices. A negative image can also lead to boycotts of the company's products (Książak, 2017). It is not just consumers but even investors who prefer ethical businesses. Many of them now are solely focused on investing in companies with high moral and ethical standards. It is not merely about morals; stocks of ethical companies tend to be less risky than other companies. This phenomenon is partly because responsible companies avoid being criticized by the public (Książak, 2017).

Companies often hire agencies to assist and strategize CSR communications. CSR communication aims to stimulate positive consumer behavior outcomes and increase the prospect of recognizing and accepting the message (Hur et al., 2020). CSR communication engagement can be explained as a consumer's informational, physical, behavioral, and emotional contributions to the brand's service process outside consumption, including value creation (Hur et al., 2020). At Ethical, the researcher and the rest of the team spent significant time finding better CSR communication methods. Since increasing awareness and credibility of the message is the primary purpose, Ethical wanted to explore influencer marketing as a possible solution. According to social learning theory, consumers form their behavioral and opinion patterns based on their experiences with individuals they identify as role models (Bandura, 1977). For instance, when consumers see an influencer as a leader in their field, they tend to imitate her or his actions. This behavior can help decrease their skepticism toward a company's CSR initiative (Cheng et al., 2021). A study conducted by Casaló et al. (2020) revealed that on Instagram, the presence and association of influencers could govern the likelihood of followers engaging with the accounts of organizations. These insights lead to the belief that influencer marketing is ideal for highly skeptical topics such as CSR communications.

The researcher was assigned to create a talent pool of Instagram influencers in Portugal who are passionate about social and environmental. The specificity of the platform was very much intentional. Instagram provides myriads of benefits compared to other social networking sites.

Compared to the text-based content on Twitter, Instagram is more focused on visual-based content. Visual-based content is generally faster for the brain to consume than text-based content. Indeed, the graphic-driven aspect makes content more appealing. Other popular social networking sites like Youtube and TikTok come with their limitations.

Youtube and TikTok are both focused on video-based content. When comparing Instagram to Youtube, Instagram has a lower barrier to entry. The production cost for high-quality content can be low compared to Youtube. This is especially important for amateur and casual content creators who rely on limited gear for content production. TikTok, on the other hand, is limited only to short-format vertical videos. So there is also the versatility of each platform's formats to be considered. Different sizes and orientations of pictures and long and short-format videos give more freedom to creators to express their creativity. Influencers prefer Instagram over other major platforms (Whittaker, 2022). Most importantly, Instagram not only hosts a massive number of users, but the users themselves are very diverse regarding their age and interests. These factors were the driving forces that led us to focus on Instagram over other social networking sites.

The company (Ethical) provided criteria to ensure each influencer fit with Ethical as a company, the type of projects they execute, and the products Ethical works with. Since the profile specifications do not fall under any popular influencer category, there was no pre-existing list to work with. The assignment served two purposes. First, it helped assess the landscape of influencers in Portugal using Instagram. Second, the list was used as a lead of talents for future in-house talent management departments. The researcher used purposive sampling, a non-probability method, to collect the sample. The sample was created using the researcher's judgment and the criteria provided by Ethical. Given the time restraints of the internship period and limited resources, the non-probability sampling method seemed most appropriate. Besides, it also allowed the researcher to target the most suitable participants. Further details of the sample collection process can be found in the methods sections.

Based on our initial observations, it was noted that a significant portion of influencers fitting the defined criteria has a relatively modest following of fewer than 10,000 individuals. While using influencers for marketing and communication may be common, the effectiveness of individuals with fewer followers remains an unresolved question. This dilemma led to conceptualizing the research on nano influencers.

## **Part II - Literature Review**

### **2.1. A Brief Primer on Influencer Marketing**

The growing usage of social media platforms and the rise of information communicated via those channels have propelled influencer marketing into becoming an essential element in advertising. In Europe, spending on influencer marketing is expected to reach 3.99 billion euros by the end of 2023 and 5.97 billion euros by 2027 (Statista, 2023). This growth in influencer marketing can be attributed to several different factors. To begin with, consumers have shifted their media consumption from traditional to online media (Kull, 2007). Second, consumers respond differently when they are exposed to advertisements online. When online, consumers tend to be more goal-oriented (Campbell & Farrell, 2020). At the same time, advertisements are very intrusive by nature. So instead of engaging, they make potential consumers avoid them at any cost (Hsu, 2019). People use ad-blockers or scroll or skip (Hsu, 2019). So, it is necessary for online advertising to use softer, less overt, and more authentic approaches (Campbell & Grimm, 2019). Third, social media extends the consideration and evaluation stages in consumer decision-making. It Requires subtle exposure to products and brands (Lindsey-Mullikin & Borin, 2017). Fourth, consumers spend much of their time online on social media. In 2012 the average user spent roughly an hour per day on social media. Whereas in 2019, that number had increased to 2 hours and 22 minutes (Deyan, 2021).

Social media platforms are open forums where consumers can amass audiences (Campbell & Farrell, 2020). Consumers on these platforms can field-test their content with instantaneous feedback, resulting in the rise of talented individuals who are often deemed more authentic than brand-created content. Finally, the internet enables easy aggregation of consumers based on shared interests, facilitating the emergence of influencers who appeal to a relatively niche, long-tail audience (Campbell & Farrell, 2020). Combining all these factors is driving rapid change in the advertising industry (Campbell & Farrell, 2020).

Even though influencer marketing is being covered extensively in magazines and online publications, it is yet to be defined academically in literature. There is no standardized term or definition (Bakker, 2018). Kotler et al. (2002) compare it to word-of-mouth

marketing and describe it as a form of personal communication about a product that reaches buyers through channels not directly controlled by the company. Those channels can be characterized as independent experts, buying guides, advocates, or even personal acquaintances like neighbors, friends, or family members (Bakker, 2018).

Within the framework of marketing, Influencer Marketing is a form of advertising. While online advertisements can reach and target anyone essentially, they are perceived negatively, making them less impactful. On the other hand, Influencer Marketing is less intrusive and more flexible than traditional online ads (Opresnik et al., 2020). Influencer marketing provides a certain level of organic reach. Influencers design their content to be engaging for the audience. One reason is that influencers are, in many ways, specialists in creating likable content, while brands often struggle to produce engaging content (Campbell & Farrell, 2020). The perception of influencers as having greater credibility than advertisements could be the other factor (Schouten et al., 2019). About 90% of the time, influencer marketing provides a more robust return on investment when compared to other marketing channels (MediaKix, n.d.). With influencer marketing, instead of directly reaching out to many consumers, a brand inspires or compensates influencers to drive a brand message to the larger market (AMA, 2021). Those influencers can include celebrities, content creators, customer advocates, or even employees (AMA, 2021).

### **2.1.1. Defining an Influencer**

Influencers could be compared to opinion leaders; individuals who are likely to influence others in their immediate environment (Katz & Lazarsfeld, 1955). Unlike opinion leaders in the traditional sense, influencers are usually not the head of any formal organization or public figures like newspaper columnists, critics, or media personalities, whose influence is exerted indirectly via organized media or authority structures (Watts & Dodds, 2007). Their influence is direct and derives from their informal status as highly informed, respected, or simply well-connected individuals (Watts & Dodds, 2007). Influencers represent a new type of independent third-party endorser who shapes audience attitudes through social media platforms (Freberg et al., 2011).

Influencers play multiple functional roles. First of which is of an endorser. Influencers serve as a reference group to their followers, on whom they employ aspirational,

informational, or attachment-driven persuasion (Bearden & Etzel, 1982). An endorser can be presented as a celebrity, expert, or fellow consumer. McCracken (1989) defined a *celebrity* as someone who enjoys public recognition and uses this recognition on behalf of a consumer good by appearing in an advertisement. Not all endorsers are celebrity influencers, but many endorsers' followers view them with aspirations. Also, influencers are often more trusted and more effective than traditional celebrities because of their perceived authenticity. Many influencers are pundits on niche product categories, ideas, or lifestyles. An endorser's credibility in a given area affects his or her informational influence on consumers (Bearden & Etzel, 1982; Lin, Bruning, & Swarna, 2018), and this effect is heightened the more a product fits within an endorser's area of expertise (Till & Busler, 2000). The effectiveness of celebrity endorsers is driven by consumer aspiration. On the other hand, followers of expert endorsers seek deeper evaluations of messages and their sources (Biswas et al., 2006) and wish to reduce uncertainty (Bearden & Etzel, 1982). Influencers often present themselves as fellow consumers. This makes them more receptive to the endorser's message, as consumers view word-of-mouth product reviews from fellow consumers as more trustworthy than other reviews (Nielsen, 2015). Many influencers share similar interests, demographics, life stages, or life events with their followers. Influencers are able to grow a strong bond with their viewers. This special bond, in turn, invokes a perception of authenticity and, in some cases, even gives them a sense of community (Campbell & Farrell, 2020).

An influencer's second functional role is that of a social media manager. This role can include a spectrum of tasks: producing content, content strategizing, and community manager. While marketers, advertising agencies, and brands struggle to create enticing content, influencers and their teams are often considered an expert of sorts (Campbell & Farrell, 2020). It is common for a brand to ask influencers to appear for a photo shoot and post content on their social media account. In other cases, brands can use influencers for full service, starting with producing the content, creating strategies for the brand, and managing interactions with their followers once the content is posted (Campbell & Farrell, 2020). After a post goes live on social media platforms, influencers and their team often interact with their audiences. This interaction helps expand organic reach, deepen engagement and provide additional support to brands. Influencers can offer better solutions that would otherwise require the hassle of hiring multiple agencies (Campbell & Farrell, 2020).

Lastly, influencers are valued because of their audience. An influencer's audience consists of consumers who are already eager to view their content. An influencer's audience can be significant for marketers. They offer organic reach, targeting, and heightened attention. Influencers differ significantly in branding and focus, follower base, engagement rates, monetary requirements for collaboration, and skill sets to formulate the package the influencer is able to offer a brand (Campbell & Farrell, 2020).

While academic literature needs consistent and specific definitions of what constitutes a large number of followers, industry sources offer some clarity. In practice, there are varying classifications of social media influencers. For example, Porteous (2018) suggests three tiers – micro, macro, and celebrity – whereas others suggest two tiers – micro and macro (Dhanik, 2016; Hatton, 2018 *apud* Kay et al., 2020). These tiers are solely based on follower count, which reflects perceived popularity and their potential organic reach (Bakshy et al., 2011). It is important to note that followers' count on their own does not reflect an influencer's actual value or effectiveness. Instead, it can indicate the level of approval received by an influencer's followers (Reinikainen et al., 2020). Assigning tiers to influencers based on follower count is the most commonly used method (Mediakix, n.d.).

### **2.1.2. Typology of Influencers**

We note essential distinctions between tiers, incorporating insights from industry sources (Association of National Advertisers, 2018; Launchmetrics, 2018; Baklanov, 2020; Mediakix, n.d) and academic sources (McCracken, 1989; Campbell & Farrell, 2020; Levin, 2020) to define influencers within five distinct categories: Mega influencers, Macro-influencers, Mid-tier influencers, Micro-influencers, and Nano influencers.

Mega influencers are similar to the traditional sense of celebrity or a public figure in terms of recognizability. Their fame, popularity, and recognizability are well beyond the network they operate in. *Mega influencers* are defined as influencers with more than one million followers. These influencers enjoy public recognition and use this recognition on behalf of a consumer good by appearing with it in an advertisement" (McCracken, 1989, p. 310) (Campbell & Farrell, 2020). Mega influencers exert value-expressive influence in

that their persuasive power stems from consumers liking or even wanting to emulate them (Campbell & Farrell, 2020). They often have a very diverse audience with several topics of interest. Their relationships with their followers are more distant compared to other groups of influencers. Mega influencers have the most extensive reach but the lowest trust compared to other tiers of influencers (Baklanov,2020).

Macro influencers are yet to become public figures, but they are famous within a community (Campbell & Farrell, 2020). Macro influencers are very successful, with followers between 500,000 and 1 million. Their content is usually high-quality and consists of a particular passion or topic (Baklanov,2020). Macro influencers tend to achieve strong engagement rates and can harness their large followings for substantial brand exposure. Nevertheless, they typically charge a lower price per post than mega and celebrity influencers (Campbell & Farrell, 2020). macro-influencers are dominant within their subject domains (e.g., travel, food, music), and their audiences often aspire to be like them (Campbell & Farrell, 2020).

Mid-tier influencers command an audience size between 50,000 to 500,000 followers. The journey to becoming a mid-tier influencer requires a lot of time, resourcefulness, patience, and attention. Brands also look for those qualities in a prospective partner (IZEA, 2021). Mid-tier influencers are experienced and professional. Their contents are well polished. Mid-tier influencers offer authenticity because they continue to preserve the bond they have built with their audience. Overall, mid-tier influencers represent a happy balance between intimate fan communities and scalable audience reach (Mediakix, n.d.).

Micro-influencers are usually able to make a career out of their online activities. However, they are smaller than most other tiers of influencers in terms of scale and scope. Their followers are usually very localized to their geographic bases. Most of their income comes from affiliate-link programs or occasional brand partnerships (Campbell & Farrell, 2020). They cater to a particular audience actively engaged in deeper, more meaningful connections with the influencer (Mediakix, n.d.). Influencers with an audience size ranging from 10,000 to 50,000 followers can be categorized as micro-influencers. Micro-influencers are very popular because they can be found for almost any subject or niche.

Most followers find micro-influencers very credible and authentic, making them great candidates for marketing managers (Campbell & Farrell, 2020).

Nano influencers could also be considered as the average consumers who are passionate and willing to share (Baklanov, 2020). Their online activity primarily consists of leaving comments or reviews. As a result, Nano influencers often come across as vocal opinionated individuals. Individually they are often perceived to possess very little influence (Baklanov, 2020). Multiple Nano influencers are often used to trigger herd mentality and gain preference with any social network platform's algorithms (Levin, 2020). Campaigns styled after or similar to burst campaigns can be a great example.

Burst Campaigns are all about impacting using a group or groups of influencers that can effectively guarantee to dominate a target user's feed, trending topics or discovery pages, or page rankings. The frequency of creation, shares, and interactions makes them favorable to most social networking platforms' algorithms. The most common use of a burst campaign would be to supplement or complement more extensive campaigns. In this instance, the whole is greater than the sum of its parts. The frequency of this type of campaign creates a sense in the consumers that they are missing out on something that all these influencers are talking about, leading to increased consideration (Levin, 2020). The most reported cases are usually on political issues. Nano influencers are often used for political persuasion to trigger herd mentality. Chaturvedi (2019) writes about instances on Twitter where organized groups of people tweet, retweet, and comment to persuade public opinion and hijack top trending topics to suppress opposing ideas. Mobilizing individuals, even with a small reach, can create massive effects. In January 2021, ordinary people discussed the stock market in an internet forum called Reddit. What followed those discussions were 4 million individuals who decided to buy stocks of a failing company – Gamestop. Their actions resulted in an almost 8000% increase in the stock price (Misra & Grewal, 2021).

These examples demonstrate that, in many instances, Nano influencers can be used to generate momentum, increase message diffusion rate, and maximize propagation. They are like soldiers in a grassroots movement used to develop or even improve momentum.

Nano influencers can be regular or average users or users at the beginning of their influencer careers. They tend to know most of their followers personally and often maintain a relationship similar to a peer. Their followers are primarily friends, acquaintances, and others close by (Campbell & Farrell, 2020). They offer their audience the benefits of personal accessibility and perceived authenticity. Because of those reasons, Nano influencers often generate the highest engagement rate compared to the other tiers of influencers (Campbell & Farrell, 2020).

Nano Influencers may be individuals looking to become critical actors within the industry. They can also be individuals who have experienced growth organically through ordinary social media behavior. This tier of influencers is just beginning to expand its follower base. Nano influencers are categorized as anyone with less than 10,000 followers (Campbell & Farrell, 2020). From a growth and experience perspective, they are just beginning to understand the industry and learn how to position themselves. As a result, they are often willing to partake in unpaid partnerships in hopes of networking opportunities, exposure, or free samples (Campbell & Farrell, 2020).

Regardless of the number of followers or the size of anyone's audience, everybody has the potential to influence others (Bakshy et al., 2011). In the 1980s, Dallas Smythe, a political economist of communication, asked a crucial question: What do the media actually make? (Fisher, 2014). Smythe explained that what goes on in the mass media was not primarily audience consumption of media content but the selling of audience attention to advertisers. He thought about the audience as commodities sold to advertisers. Smythe further suggested that if audience attention was bought and sold, then audience members were 'laborers' in the media system (Fisher, 2014).

While mass media and new media are vastly different (Kull, 2007), they rely heavily on advertiser-generated revenues as part of their business model. In the current age of the internet (web 2.0) and social media, the audience or the users are positioned as laborers. Different media have different kinds of advertisements. This is not incidental. The forms of advertising and production, dissemination, and consumption methods are closely linked with media forms. Advertising on social media differentiated itself from mass media advertising by adjusting according to the unique characteristics of web 2.0 (Fisher, 2014). The new form of advertising is called social advertising. Social advertising

incorporates social cues with an advertisement (Constine, 2013). In 2011, Facebook introduced its version of social advertising called Sponsored Stories (Constine, 2013).

Sponsored stories are ads based on regular users' posts and activities; businesses and organizations pay Facebook to render these regular posts and activities into ads. Sponsored Stories can be created when a user does one of the given actions: Likes a page, Likes or comments on a page's post, RSVPs to a page's event, votes on a page's question, check-ins to a place, uses an application or plays a game, or likes or shares a website. Advertisers can then take those actions and convert them into Sponsored Stories which appear as a recommendation by a trusted friend (Fisher, 2014). As cited by Fisher (2014, p.57-58), in a deposition, the COO of Facebook- Sheryl Sandberg, was quoted as saying:

On average, if you compare an ad without a friend's endorsement and an ad with a friend's 'Like,' these are the differences: on average, 68% more people are likely to remember seeing the ad with their friend's name. A hundred percent – so two times – more likely to remember the ad's message and 300% more likely to purchase.

Facebook's sponsored stories feature was discontinued in 2014, but the core features of social advertisements are still integrated with the platform (Kramer, 2014). Social advertisements are very effective and very popular. Most big internet platforms offer their own version (Constine, 2013). Social advertisements use interpersonal persuasion techniques in scale. The fundamentals of social advertisements indicate that it is possible to use ordinary people to create extraordinary results.

### **2.1.3. Appropriateness of an Influencer**

Influencer marketing is primarily designed to help brand owners accomplish communication goals (Bakker, 2018). The selection process of an influencer is one of the essential tasks for any brand manager. It dictates who presents the message (source) and how well it will be received (Bakker, 2018). As mentioned earlier, Influencers differ significantly in branding and focus, follower base, engagement rates, monetary requirements, and skill sets. In 1980 Larry Percy and John R. Rossiter proposed the VisCAP Model to help advertisers choose the appropriate presenters for their advertising. This model aimed to increase their campaigns' effectiveness by enhancing branding and

persuasion of campaign messages (Fitrianto, Mohammad, & Iisnawaty, 2020). The VisCAP acronym stands for four significant aspects of presenter characteristics: visibility, credibility, attraction, and power (Fitrianto, Mohammad, & Iisnawaty, 2020). It was later adopted to select appropriate influencers for influencer marketing campaigns (Fitrianto, Mohammad, & Iisnawaty, 2020).

Visibility represents how recognizable an influencer or an endorser is (Huttula, 2020). It means their popularity and fame as endorsers (Huttula, 2020). The idea behind these metrics is that highly visible presenters will draw attention and thus increase brand awareness (Huttula, 2020). Credibility consists of two primary characteristics: an influencer's expertise and trustworthiness (Huttula, 2020). Expertise is vital for both low and high-information communication models (Fitrianto, Mohammad, & Iisnawaty, 2020). Trustworthiness further consolidates brand attitude (Bakker, 2018). "The attraction the presenter holds for the target audience is of primary importance for the transformational models, where the advertising content most offers positive stimuli to enhance the positive motivation."(Fitrianto, Mohammad, & Iisnawaty, 2020).

An influencer's attraction or attractiveness aspect can also be broken down into likeability and similarity (Huttula, 2020). "Likability is mainly relevant to the low involvement or transformational model, where everything about the ad must be likable, including the presenter. Similarity (to the target audience) is a high involvement or transformational factor, where the target audience must not like the ad but identify with the brand presentation personally" (Fitrianto, Mohammad, & Iisnawaty, 2020). Together, credibility and attractiveness enhance the brand attitude and accelerate the acceptance rate of the brand message and purchase intention (Bakker, 2018). Lastly, the power aspect in the VisCAP model is associated with brand purchase intention (Bakker, 2018). Almost every action and interaction can be measured in social media, especially conversions, and sales. Power is the perceived ability of the influencer to instill compliance with the message (Percy & Elliott, 2016).

The relationship between an influencer and the product or message they endorse should be logical for the audience (Huttula, 2020). A mismatch between an influencer and their product or message can negatively affect brand image (Huttula, 2020). The relationship between an influencer and their followers is a critical dimension to study (Huttula, 2020).

In recent literature, Brian Solis and Alan Webber (2012) proposed the Pillars of Influence framework for social media influencers. It helps audit influencers/individuals based on their ability to influence or "*the ability to cause effect, change behavior, and drive measurable outcomes online*" (Solis & Webber, 2012, p.8). Solis and Webber (2012) explain that influence measures social capital. Higher social capital equates to a higher probability to influence. Social capital is the sum of several elements which contribute to the ability to influence. Even though it is not absolute, evaluating elements of social capital serves as a proxy to determine one's ability to influence (Solis & Webber, 2012). The Pillars of Influence encompass three critical measurements of an influencer: reach, resonance, and relevance (Solis & Webber, 2012).

Reach describes the volume of unique users who have accessed an influencer's work. This indicator aids in figuring out how many individuals are exposed to an influencer's brand and how far their content is reaching (Solis & Webber, 2012). Higher reach equates to a larger audience, which helps heighten their exposure and brand recognition. Reach reflects affinity, potential impact, and popularity (Solis & Webber, 2012). The number of followers is primarily used to measure reach (Bakker, 2018). Relevance refers to how well an influencer's content aligns with their audience's interests and needs. An influencer's content should be helpful to their followers and pertinent to their intended audience. Over time, this may assist in raising engagement and developing a devoted following. Relevance reflects how well an influencer fits several categories, such as personality, brand, content, and target audience (Bakker, 2018). Resonance refers to the level of engagement and interaction that an influencer's content generates. Metrics such as shares, likes, comments, and other interaction and engagement metrics are used to calculate resonance (Solis & Webber, 2012). Therefore, higher engagement translates to a higher resonance. Resonance can also serve as an indicator to tie strength between influencers and their followers. High resonance can lead to increased loyalty, trust, and sales. Resonance is a qualitative indicator concerned with the average interaction between an influencer and its audience (Bakker, 2018).

Additionally, Ensuring that the influencer's followers are genuine (and not bought or fake), engaged, and aligned with the brand's values and goals is crucial (Bakker, 2018; Komok, 2018). One of the ways to measure the quality of an influencer's audience is by using an audience quality score. This metric considers various factors, including follower demographics, engagement rates, follower authenticity, growth rate, and like-to-

comment ratio (Komok, 2018). An influencer with a high audience quality score can drive more meaningful engagement with their audience, resulting in increased brand awareness, conversions, and loyalty.

Qualitative and quantitative measurements dictate an influencer's worth or social capital (Bakker, 2018). Audience quality score, VisCAP, and the Pillars of Influence provide guidelines to identify the best brand and target audience fit (Bakker, 2018). Aside from marketers and businesses, Influencers can also use these models as feedback to ensure their content satisfies their audience's expectations (Bakker, 2018).

#### **2.1.4. The Attractiveness of Influencer Marketing**

In a study on the flow of communication and influence, Katz and Lazarsfeld (1955) explained how messages are more impactful when processed in a two-step flow. The two-step flow of communication argues that media content does not create direct influence through its content. Instead, it exerts influence through the personal networks of individuals that are embedded within them (Hepp, 2018). Messages relayed by a person are more effective at influencing than messages received directly from a source (Hepp, 2018).

Influencer marketing is more complex than just secondhand information. Most influencers know how to create a meaningful connection with their followers. They speak directly to their audience regularly. By sharing intimate photos and videos, influencers give their followers a glimpse into their real life. These moments of direct interactions allow a follower to feel a deep sense of connection with the influencer. This personal connection means that people can value influencers and trust them as they would with real friends. Influencer marketing is the most effective form of marketing not only because it lets marketers access audiences who explicitly want to listen but also because influencer marketing can be used to appeal to those individuals in profound and personal ways.

An important differentiator of influencer marketing is that it primarily relies on computer-mediated communication (CMC). Therefore, to better understand why influencer marketing works, it is essential to explore the social-psychological dimensions of CMC.

Social information processing (SIP) theory explains how individuals develop interpersonal impressions and relational communication through computer-mediated communications (CMC). Social information processing (SIP) describes how people develop their interpersonal impressions or idiosyncratic relationships through computer-mediated communications (Walther, 2015). i.e., one person can influence another through computer-mediated communications. However, this theory assumes that it may take longer when compared to in-person or face-to-face communications (Walther, 2015). The longer required time is due to the lack of social cues, absence of nonverbal cues, and delay in information exchange (Walther, 2015). It is important to note that the SIP theory was developed in the 1900s when the primary online interface was text-based. Although dated, SIP theory has been proven to be accurate empirically both on a micro and macro level (Walther, 2015). SIP has become almost a foundational theory for CMC interpersonal relationships to build upon (Walther, 2015).

The Social Identity model of Deindividuation Effects (or simply SIDE theory), on the other hand, ignores the notion of interpersonal impressions and instead focuses on information sharing and group behavior under computer-mediated communications (Walther, 2015). When people are attracted to a group, they tend to associate with its members collectively. They become more sensitive to social influence by the other group members (Walther, 2015). Social identification proposes that individuals enhance their esteem by reflecting on the norms of their group and that they value others who also reflect the group's norms (Walther, 2015). For social media influencers, the number of followers can reflect the level of trustworthiness and expertise of an influencer because others approve of the influencer's activities (Reinikainen et al., 2020).

Following an influencer fulfills the need for belonging (Hoos, 2019). Individuals use social proof to gather and validate pieces of information (Tajfel & Turner, 2004). When an influencer promotes a brand or product, their followers experience a psychological conformity effect (Reinikainen et al., 2020). This effect can lead to a desire to assimilate information into their personal preferences and choices (Reinikainen et al., 2020). People identify as members of particular groups and prove their alignment with the group by sharing the group's behaviors, values, and views (Tajfel & Turner, 2004). This notion of conformity was even explicitly adapted for retail, marketing, and e-commerce as a "consumer tribe" by Seth Godin (2009). A consumer tribe is formed when people lean

towards the same values and preferences as leaders or ideas (Godin, 2009). By purchasing the same items, a consumer confirms his identity as a part of the group (Godin, 2009).

Influencer marketing cultivates the most natural tendencies, emotions, and desires. It uses the power of social media to connect with people and build trust (Hoos, 2019). It is a form of word-of-mouth at a scale where people accept those they trust and those who can captivate their audience through great storytelling. In the context of psychology, it is apparent that natural emotions, fear of missing out, care, and relationship-building are all part of our digital life (Hoos, 2019). Influencer marketing can be well-utilized through these reactions, emotions, and experiences (Hoos, 2019).

### **2.1.5. Word-of-Mouth**

In marketing and communication literature, the term word-of-mouth (WOM) refers to interpersonal communications about a commercial entity where the communication itself is perceived as non-commercial. This definition of WOM consists of three crucial aspects. First, the communication type is interpersonal (Ismagilova et al., 2017). Apart from being focused on interpersonal communication between people, marketing messages should also be geared toward conveying a commercial message. Lastly, even though word-of-mouth communications are considered to be commercial, only some people consider them to be motivated by the content. They are perceived to be unbiased (Ismagilova et al., 2017).

Word-of-mouth can be negative or positive. Positive word-of-mouth occurs when people share their positive experiences about a product or service with others (Buttle, 1998). Negative word-of-mouth refers to a consumer response to a negative experience with a product or service (Richins, 1983). A study conducted by the US Office of Consumer Affairs revealed that a person dissatisfied with their experience could tell nine other people about their experience. On the other hand, a study conducted by Glynn Mangold et al., (1999) revealed that people tend only to tell their stories to five other people. Customers can use word-of-mouth marketing to help them make a purchase decision. It can be a vital part of a consumer's decision-making process as it allows them to gather information about a particular product or service. Another type of word-of-mouth is output word-of-mouth, which can be propagated after a service or purchase experience

(Buttle, 1998). It is also important to note that the activities for WOM are not just limited to customers but also people who are involved in the company's operations. These include the employees, customers, suppliers, and other stakeholder groups (Buttle, 1998). Customers do not always start the dissemination process of word-of-mouth communications. Word-of-mouth can be solicited or unsolicited. For instance, if a customer is looking for information about a particular product or service, they might seek WOM from opinion leaders (Buttle, 1998). Despite the spontaneous nature of word-of-mouth marketing, more companies are making an effort to stimulate and manage the activity of this type of marketing. It is the most cost-effective form of marketing due to its minimal impact on the company's operations.

The wide range of causes and motives behind WOM makes it complex, with endless possibilities in types and forms. The three most common forms of word-of-mouth marketing are experiential, consequential, and intentional (Bughin et al., 2010). Experiential word-of-mouth marketing occurs when customers interact with a product or service, and their experience differs from their preconceived expectations. It could result in positive or negative word of mouth depending on the experience (Bughin et al., 2010). Marketing activities can also initiate word-of-mouth marketing. When customers encounter traditional marketing campaigns and decide to pass on the message, it is referred to as consequential word-of-mouth marketing. The impact of those messages is often more substantial than direct exposure to a commercial (Bughin et al., 2010). In other instances, marketers employ famous people to create excitement surrounding a good or service. When celebrities are employed to initiate word-of-mouth marketing, it is called intentional word-of-mouth marketing (Bughin et al., 2010).

One of the main advantages of word-of-mouth marketing is its independence from the source of information. This allows it to be more credible and reliable than the information that companies generate. According to various studies conducted by researchers, consumers consider word-of-mouth to be more trustworthy than the information that firms generate (Herr et al., 1991; Lopez & Sicilia, 2014; Miquel-Romero & Adame-Sánchez, 2013; Wu and Wang, 2011 *apud* Ismagilova et al., 2017). According to researchers, word-of-mouth marketing influences consumers' decisions more than the information that companies generate. It also has a more significant effect on consumers due to its feedback opportunities (Murray, 1991). Word-of-mouth marketing is a widely

accepted form of information gathering that considerably affects consumers' formation and purchase decisions. It lowers the anxiety level of potential customers and helps them make informed decisions (Ismagilova et al., 2017). According to Richins (1983), researchers discovered that positive word-of-mouth could have a significant impact on a consumer's decision-making process. However, they noted that negative word-of-mouth could also be more prevalent than positive ones. This phenomenon can be explained by the fact that more people report their dissatisfaction with a service or product than those who are satisfied with their experience (Ismagilova et al., 2017). Word-of-mouth marketing is regarded as one of the most effective forms of information dissemination. It has been known that it can influence a consumer's decision-making process. In academic literature, it is also known that it can help boost the awareness of a company's products and services. Despite its importance, traditional word-of-mouth marketing only works within its network boundaries (Ismagilova et al., 2017).

#### **2.1.6. Electronic Word-of-Mouth**

The rise of internet technologies has led to an increase in the number of consumers searching for information about a company or product through the web. This has prompted the emergence of electronic word-of-mouth or eWOM. eWOM is considered to be more potent than traditional word of mouth. Although it is less personal, eWOM is publicly available and has a significant reach (Ismagilova et al., 2017). eWOM is defined as "the dynamic and ongoing information exchange process between potential, actual, or former consumers regarding a product, service, brand, or company, which is available to a multitude of people and institutions via the Internet." (Ismagilova et al., 2017). The definition does not imply that the content of eWOM communications is commercial. Instead, it is noted that eWOM is driven by the desire for unbiased opinions. This is because, in eWOM, users can pay to have their own online reviewers provide their opinions on a product or service (Ismagilova et al., 2017). The definition of eWOM emphasizes that it is not a static process but an ongoing exchange of ideas and information that can be carried out through online platforms. It also refers to messages being spread online spontaneously (Ismagilova et al., 2017).

There are a variety of characteristics that make up and define eWOM communications. It occurs in Online or internet-mediated environments. There are a few characteristics that

are specific to eWOM. First, it is compelling and has an unprecedented reach. It can reach a wide range of people in a short time (Ismagilova et al., 2017). It is feasible because there are more alternatives for consumers and communicators to promote eWOM than traditional WOM. This increases awareness (Kiecker & Cowles, 2002). The dispersion of eWOM's platform is also a factor that affects its success. For instance, the number of conversations about a product occurring across different communities affects its popularity. So the type and the functional framework of any platform are critical factors (Ismagilova et al., 2017).

The persistence of eWOM and its ability to remain in public repositories are also factors that can influence its development and evolution. For instance, it can lead to under-reporting because the consumers need more time and resources to provide their opinions. It can lead to bias from under-reporting, but it also means that because of persistence and observability, current eWOM impacts future eWOM (Dellarocas & Narayan, 2007).

The various characteristics of eWOM, such as its reach, speed of diffusion, and ability to reach a large audience, have empowered consumers. They are more likely to share their negative or positive experiences with the world. This can help boost sales and improve consumers' attitudes toward a particular product or service. On the other hand, negative eWOM can cause a company to lose money or even irreparably damage its reputation (Ismagilova et al., 2017).

Electronic and traditional word-of-mouth both have distinct characteristics. Traditional word-of-mouth marketing is usually focused on a local social network. On the other hand, eWOM can reach far beyond local communities due to the fact that consumers have access to it all around the world via the internet. This eliminates the geographical limitations of traditional marketing and allows people to exchange information about a service or product. The size of the eWOM communication boundary is significantly larger than that of traditional marketing (Ismagilova et al., 2017). Instead of being carried out in a face-to-face context in traditional word-of-mouth marketing, eWOM is disseminated via a number of online platforms like blogs, forums, social networks, and instant messaging. Moreover, In traditional marketing, conversations are typically private. In eWOM, participants interact with a network of people, and conversations are more visible in online communities. So the tie strength between receivers and information senders is

also different (Ismagilova et al., 2017). eWOM is mainly conducted between people with weak ties. For instance, in traditional word-of-mouth marketing, messages are typically exchanged between friends and family, where the sender is known. However, in electronic word-of-mouth (eWOM), the sender might not always be identifiable. Additionally, the rate at which information spreads differs between the two methods. In traditional marketing, information is usually shared within a small circle and occurs in real time. In contrast, eWOM allows for the information to be shared asynchronously among a larger audience. Most importantly, eWOM is more measurable than WOM (Ismagilova et al., 2017).

## **2.2. . Strategic Endorsement and Customer Journey**

Advertising is crucial for both promotional and marketing purposes. One of the most visible parts of marketing is advertising. *Advertising* is a paid presentation that promotes goods or services (Khan, 2013). It aims to draw consumers' attention to promoted goods or services (Khan, 2013). Within the activities of advertisement, endorsement plays a pivotal part (Silvera & Austad, 2004). An endorsement is a type of advertising message where consumers are likely to believe that the advertised content represents the opinions of a different party other than the sponsoring advertiser (Samarasinghe, 2018). The effects of endorsement can be viewed through three basic psychological dimensions: the cognitive, the affective, and the conative or behavioral (Lavidge & Steiner, 1961).

The cognitive component refers to a person's intellectual, mental, or rational states in classical psychology (Lavidge & Steiner, 1961). The cognitive function is to inform, create awareness and provide knowledge to the consumers about the sponsored brand, product, service, or idea (Knoll & Matthes, 2016). Establishing awareness starts with creating attention and interest (Knoll & Matthes, 2016). Endorsements can influence both processes (attention and interest). People tend to treat certain stimuli with preferential treatment. In the case of celebrity endorsements, people interested in a particular celebrity are likely to direct their attention to the advertisement. The affective component refers to the emotional states, how people feel towards an advertisement or advertised object (Lavidge & Steiner, 1961). Endorsers can change consumers' attitudes or feelings about a product, brand, or topic. In the context of marketing communications, consumers tend to associate an unconditional stimulus (the endorser) with a conditional stimulus (the

object being endorsed) through repeated exposure (Erdogan, 1999). Lastly, the conative refers to the behavioral implications of advertising. It is to stimulate desire and purchase a product or service. Conative or behavioral effects include buying an object, sharing information about an object, or supporting a political candidate. As long as consumers do not encounter any social pressure to behave in a particular way, they are more likely to behave in the prescribed way provided by an advertisement (Knoll & Matthes, 2016).

### **2.2.1 Endorser Classification**

The success of an endorsement is widely dependent on the endorser. An endorser gives their vote of confidence or approval to a brand. The endorser is usually knowledgeable, esteemed (in a specific field), or well-known by the public or at least the target audience (Fleck et al., 2013). Friedman et al. (1976) suggest four broad categories of endorsers; celebrities, professional experts, company presidents, and typical consumers.

The celebrity endorser is known to the public in areas not covered by the product class he or she is endorsing. This category of endorsers is considered the most popular type of advertisement (Friedman et al., 1976). Celebrity endorsement is a well-established marketing strategy with a long-standing practice, dating back to the late 19th century. One of the most famous examples of this practice is Queen Victoria's association with Cadbury's Cocoa, which began in the late 1800s. According to Sherman's (1985 *apud* Erdogan, 1999) account, Cadbury's was one of the first companies to use celebrity endorsement, and Queen Victoria's endorsement of the product was seen as a sign of quality and prestige. By 2001, it was estimated that around 25% of all advertising campaigns in the United States of America were carried out using celebrities (Karasiewicz & Kowalczyk, 2014).

In most cases, a celebrity will be paid to endorse a brand or product in exchange for compensation. The degree to which this endorsement can engender trust and credibility depends on various factors. For instance, if the endorser is selective and makes few paid endorsements, trust and credibility may be high. On the other hand, if the number of endorsements increases, trust and credibility may decrease (Fleck et al., 2013). Celebrity endorsements are more persuasive, believable, and trustworthy when compared to other forms of endorsements. They also have distinct personalities and lifestyles that can be

used to enhance the effectiveness of their statements. According to a study by McCormick (1989), the main reason why celebrity endorsers are more compelling is that their images are transferred to the brand through their pre-existing image. However, some researchers believe that the presence of a celebrity can also be a peripheral cue used by less involved consumers (Biswas et al., 2006). According to Block and Atkinson (1983), consumers have a preconceived notion about a celebrity endorser. This image is then transferred to the endorsed product or service. Some researchers believe that the presence of a celebrity can act as a peripheral cue, and it can also be more beneficial to a company if the target market is less involved. Celebrity endorsements are explained through the associative learning theory, which is a framework that is based on the idea of memory as a network composed of various nodes (Collins & Loftus, 1975). The concept of celebrity endorsements is similar to that of a brand, as the nodes in the memory associated with the celebrity are linked over time. This means that consumers' feelings about the celebrity are transferred to the endorsed product or service through their repeated association with the celebrity (Biswas et al., 2006). In other instances, consumers frequently seek assistance from experts who are knowledgeable about specific (sometimes more complex) product or service classes. These endorsers are referred to as professional experts. Having a well-trained and experienced endorser helps consumers make an informed decision. (Fitrianto et al., 2018). Professional experts are recognized for their expertise in the product class they endorse. (Friedman et al., 1976).

An expert is typically regarded as a source of valid assertions. A scientist or academic can be considered an expert if they have the necessary expertise to make informed decisions. An *expert's specialization* is defined as having the necessary knowledge to perform a specific task. For instance, a scientist or academic can only be considered an expert if they have the necessary expertise to make informed decisions. According to Tedeschi (2017), an expert endorsement is more effective because the statements attributed to an expert are more likely to produce a better understanding of the subject than those made by a non-expert. Since most ads are focused on conveying particular views or meanings associated with a brand, using an expert endorser can make viewers more agreeable to the statements (Biswas et al., 2006).

The third category of endorsers is the company president (Friedman et al., 1976). The president is someone who heads a company. They appear in advertisements to endorse

their own product, which their company creates. This type of endorser provides a certain level of professionalism (Friedman et al., 1976). In other academic literature, this category of the endorser is also referred to as *an internal endorser*. Internal endorsers include CEOs, presidents, founders, and even ordinary employees of a company (Fleck et al., 2013).

Internal endorsers may act as a spokesperson for the company. He or she can represent an idealized version of a real person. Internal endorsers are perceived as individuals grounded in reality but hold a position of power or knowledge. Their source of credibility derives from working internally at a company they endorse (Fleck et al., 2013). In contrast to the idealized image of a celebrity spokesperson, ads featuring corporate employees can be effective because they can evoke strong feelings of credibility. They can also humanize the brand by portraying the company's employees as being like everyone else. The people featured in the ads could be the company's flawed employees (Fleck et al., 2013).

Furthermore, most ads featuring prominent individuals or companies' current and former CEOs can inspire positive feelings, such as admiration and awe. According to the respondents, their presence in the ads validates the extent to which the individuals are committed to the brand. It is also true that people may feel more respect and admiration for a CEO who has achieved celebrity statuses, such as Mark Zuckerberg, Steve Jobs, or Elon Musk (Fleck et al., 2013). Internal endorsers have a distinct advantage when it comes to gaining the hearts and minds of target consumers. This is because they can connect with their potential customers in a way that's impossible for others (Fleck et al., 2013).

Lastly, the typical consumers are characterized as ordinary people. Their knowledge of a product comes from the regular use of that product (Friedman et al., 1976). They are not actors endorsing a product but a real person providing testimony. "Ordinary people starring in ads convey a realistic, genuine feel" (Steinberg, 2005 *apud* Fitrianto et al., 2018). People often rely on their emotions instead of being rational when making decisions. In moments like those, the realistic feeling approach to advertisement is more effective. Using ordinary people in advertisements makes consumers feel closer to the product (Fitrianto et al., 2018).

Besides mainstream formats of advertisements, a typical scenario where ordinary people are used as endorsers can be seen in customer-generated reviews. Like any other endorsement, customer-generated reviews can also be paid or unpaid (Woolley & Sharif, 2021). Endorsements like online customer reviews can help people make informed decisions and reduce the risks they might encounter when purchasing. For instance, while surfing the Internet for a product, consumers can come across hundreds of options. A good review can help people make informed decisions and increase their confidence (Dwidienawati et al., 2020). The credibility of online customer-generated reviews is based on the users' experiences, presumably not influenced by the marketing or promotional strategies of the company. They are perceived as less misleading. Longer reviews containing more information about the products and their specific features can help improve the product review (Dwidienawati et al., 2020). Customer-generated reviews can reduce the uncertainty surrounding the quality of a product, while the consistency of the comments from one user to another can improve the review's credibility. According to studies, customer reviews can boost sales and improve the website's credibility (Dwidienawati et al., 2020).

### **2.2.2 Endorsement Effectiveness**

In order to increase the chances of an advertisement being successful and effective, researchers have tried several approaches to make the most optimal endorser selection model. According to Fitrianto et al. (2018), "some of the most accepted models are the Source Credibility Model (Hovland & Weiss, 1951), (Ohanian, 1990)), The Source Attractiveness Model (McGuire, 1985), The Product Match-up Model ((Forkan, 1980); Kamins, (1989) (1990)), and The Meaning Transfer Model (McCracken, 1989)".

The source credibility model explains that a message's credibility primarily depends on the communicator's characteristics. This model focuses on two primary traits, trustworthiness and expertise (Gauns et al., 2017). Trustworthiness refers to an endorser's perceived honesty, integrity, and believability (Gauns et al., 2017). Marketers can create a favorable impression and even change consumers' perceptions by employing endorsers who are perceived as trustworthy or honest, believable, and dependable (Gauns et al., 2017). *Expertise* is defined as how a communicator is perceived to be a source of valid

assertions (Erdogan, 1999). It refers to an endorser's knowledge, experience, or skills (Erdogan, 1999).

The degree of information and abilities a person possesses, which may be used to make believable claims, is referred to as expertise (Erdogan, 1999). It does not matter if an endorser is an expert or not as long as they are perceived as an expert. The target audience's reaction to an endorser's message is the most crucial factor that affects their perception of the source of quality information (Erdogan, 1999). It has been hypothesized that the messages that come from credible senders influence the attitudes of the consumers when presented (Schimmelfennig & Hunt, 2019). Consumers are more likely to accept arguments presented by credible messengers (Schimmelfennig & Hunt, 2019).

The source attractiveness model is a conceptual framework that considers familiarity, likeability, and similarity. These three dimensions dictate an endorser's attractiveness (Gauns et al., 2017).

The information obtained by exposure to the source is referred to as familiarity. Likability is affection for the source based on physical appearance or behavior. The similarity is the resemblance the audience experiences with the endorser (Gauns et al., 2017). The degree to which a message can be persuasive depends on these dimensions. According to the model, eliciting positive stereotypes is associated with being more attractive. This makes people more likely to change their attitudes and beliefs (Gauns et al., 2017). With this model, advertisers choose endorsers based on an endorser's physical appeal and their "celebrity" status.

On the other hand, the product match-up model suggests that the endorser and the product should complement each other to advertise effectively (Erdogan, 1999). The product's features and the endorser's image are the two most important factors determining the match between the two. This model suggests that when an endorser and the endorsed product have high congruency, the advertisement is likely to succeed (Erdogan, 1999). Congruence is a combination of the two factors. It is composed of two variables: expectancy and relevancy (Schimmelfennig & Hunt, 2019). Expectancy is the degree to which the stimuli meet a predefined pattern conceptualized by the communicated theme (Schimmelfennig & Hunt, 2019). The degree to which the endorser's information

contributes to the communicated theme's vivid representation is referred to as relevance (Schimmelfennig & Hunt, 2019).

Lastly, the meaning transfer model was developed due to the shortcomings of the previous endorser selection models. The source credibility and attractiveness models suggest that any credible or attractive endorser can effectively endorse any brand or product (Schimmelfennig & Hunt, 2019). However, this assumption has been criticized due to the fact that it doesn't explain why certain celebrities are more effective than others at boosting a brand's credibility (Schimmelfennig & Hunt, 2019). The Match-up hypothesis is also limited since it cannot identify and measure the dimensions of the potential match between a product and a celebrity. Even though it can recover some of the shortcomings of the Source Effectiveness Model, it still does not address the cultural impacts of celebrity endorsers (Erdogan, 1999).

The meaning transfer model considers the various factors of cultural meanings of an endorser. Aside from physical appearance, various other factors such as age, sex, class, lifestyle, and ethnicity are also taken into account when choosing an endorser (Erdogan, 1999). This model revolves around the meaning of an endorser and their transfer of characteristics and personality. This transfer process occurs in four stages (Gauns et al., 2017). The first stage involves forming a meaning or an image with the celebrity, while the second stage involves linking the celebrity's image to the product. The third and final stage is when the consumers finally acquire the brand meanings they want and make purchase decisions (Gauns et al., 2017).

### **2.2.3. Customer Journey and Marketing Funnel**

The eventual objective of any advertisement is to generate sales (Lavidge & Steiner, 1961). Consumers do not go from being disinterested to persuaded purchasers in an instant. Instead, the purchase decision goes through several steps or phases (Lavidge & Steiner, 1961). Advertising, therefore, can be viewed as a force that propels individuals through those steps (Lavidge & Steiner, 1961).

Lavidge & Steiner (1961) further explains that several steps make customers go from unaware to final sale. The potential purchasers are most likely unaware of the existence

of the advertised product or service. These people are grouped in the first stage. The next stage is people who are merely aware of the advertised product, service, or idea. People are expected to know more about the product at stage three, such as its offerings. The next stage is a favorable attitude towards the product, service, or idea. By stage five, the people with favorable attitudes develop a product preference over competing products. Next, they develop a desire to buy, and finally, at stage 7, they purchase (Lavidge & Steiner, 1961).

It is only logical to believe that if the idea of advertising is to encourage sales, it must first inform and then persuade. It is the basis for the hierarchy of effects; the order of effects leads to something happening, and the earlier effects are set as preconditions. Persuasive models introduced the concept of a hierarchy of effects (Vakratsas & Ambler, 1999).

One of the earliest models was developed by E. St. Elmo Lewis, called the AIDA model. AIDA is an acronym for Attention, Interest, Desire, and Action (Alina & Maryna, 2019). The AIDA model has been adopted in various marketing communication strategies. It focuses on the existence of a product or service (Alina & Maryna, 2019).

Awareness is the first step in the AIDA marketing funnel designed to capture consumers' attention. It is based on three factors: the company's sales history, the product's perceived value, and the motivation to buy it (Alina & Maryna, 2019). Various forms of advertising can be utilized to promote awareness, such as pay-per-click ads, social media, and blogs. Awareness also comes from the company's competitors and the media (Alina & Maryna, 2019). The second step, interest, aims to educate the consumers about the company's offering and provide them with helpful information about it. Awareness helps consumers make informed decisions (Alina & Maryna, 2019). It is crucial that the consumers clearly understand the company's services and why they should buy from them. The more consumers learn about the company's product or service, the more they will consider its advantages. This is also an excellent opportunity to build relationships with potential customers (Alina & Maryna, 2019). The prospect then comes across the desired stage, when they decide whether they want to commit to buying the product or service offered by the company. This stage is crucial for marketers to build relationships and provide the most helpful information to help consumers make their decisions (Alina & Maryna, 2019). The final step in the funnel is the action stage, where the decision-making process

occurs. Customers decide whether to follow through with the purchase (Alina & Maryna, 2019).

The hierarchy of effects was introduced in the field of advertising to help researchers understand the various factors that affect a product's sales. Although the number of stages may be refined or increased, the underlying pattern is still the same (Vakratsas & Ambler, 1999).

The DAGMAR model, for example, was developed to measure an advertisement's effectiveness. The acronym, DAGMAR, stands for Defining Advertising Goals for Measured Advertising Results (Yorke, 2015). The DAGMAR model uses four stages. It postulates that customers progress from being aware of the product or service (awareness) to understanding it (comprehension), then to a state where customers decide if the product or service fulfills their requirement (conviction), and finally, the actual purchase (action) (Yorke, 2015).

Roger's (1962) innovation adoption model provided further evidence to solidify the notion that consumers followed a hierarchical process in decision-making. The Innovation Adoption Model considers the many stages that a customer goes through to embrace innovation in products and services. The adoption rate measures how quickly a group of people in a social system adopts an innovation. Different factors can also affect the rate of adoption, such as the type of innovation that's being pursued, the nature of the communication channels that are used to spread the innovation, and the extent of the change agents that are involved in the innovation (Stacks et al., 2019). The model states that customers embrace new innovative products and services after five stages: awareness, interest, evaluation, trial, and adoption (Rogers, 1995).

Another model to use the persuasive hierarchy framework was the information processing model by McGuire (1978 *apud* Kailani, 2012). The information processing model considers the various factors that affect an advertisement's effectiveness. These include the source factors, which are the people involved in the communication, the message factors, which are the details of the message, and the receiver factors, which are the people receiving the message (Scholten, 1996). The Information Processing Model states that advertising effects are categorized into six hierarchically ordered stages. These include

the "presentation of the communication, attention to the communication, comprehension of the arguments and conclusion, yielding to the conclusion, retention of the new attitude, and behavior based on the new attitude" (Scholten, 1996).

These hierarchy-based models can also be utilized as a marketing funnel. At each stage of the funnel, consumers may need a different type of advertisement to propel them through the stages. Though the number of stages may be expanded or refined, cognition, affect, and behavior still forms the fundamental pattern in all the mentioned models. The concept of a marketing funnel can be tailored according to an organization's objectives and methods of communication. Therefore, the number of stages varies from model to model. Figure 2.1 illustrates how different models divide a funnel in relation to behavioral psychology.

#### **2.2.4. Adapting to Inbound Marketing**

With the popularity of e-commerce, the entire customer journey process shifted to the online space. If we look at the AIDA model for reference, from awareness phase to the action phase can be executed entirely online. While the sequence layout in traditional hierarchy models is still relevant, the habits of consumers during the purchasing process have changed drastically. Customers can be prompted by an ad while surfing the internet, they can then quickly do a Google search to learn more about the product or service, and finally make a purchase on online stores like Amazon.com. To address the changing consumer behavior due to technological shifts, marketers adopted a more digital-oriented marketing strategy called inbound marketing (Baltes, 2016). This strategy aims to provide helpful information throughout the purchasing cycle to help users make informed decisions. This method aims to influence the buyers from the moment they need to purchase until they make a decision (Sánchez-Teba et al., 2020). Instead of bombarding everyone with irrelevant advertisements, inbound marketing aims to shift the focus from being an advertiser to being a socializer and to attract potential consumers' attention (Sanchez-Teba and colleagues, 2020). With inbound marketing, the goal is to create unique content that is both informative and entertaining. While reaching the consumers is part of the inbound marketing strategy, the other essential part is building relationships with potential customers. This strategy involves using a multichannel approach such as email, social networks, and blogs (Sánchez-Teba et al., 2020). Even when customers

make decisions online, the process is linear and sequential, much like in traditional hierarchical models. The conversion funnel used for an inbound marketing strategy is built on a more straightforward architecture. In order to map where the customers are in their purchasing journey, the funnel is separated into three parts: TOFU (top of the funnel), MOFU (middle of the funnel), and BOFU (bottom of the funnel). Content strategy is modified and implemented depending on where a consumer is in the sales funnel (Sánchez-Teba et al., 2020). In each stage of the funnel, it is also encouraged to use influencers (to produce and distribute the content) as part of the marketing strategy.

The top of the funnel (TOFU) is the awareness stage. Marketing initiatives at this stage focus on raising awareness for a brand or product. Marketers are expected to educate prospects, create buzz about a brand or product, and spread awareness. Measuring activities in this stage of the funnel also helps gain a better understanding of the audience and the marketing landscape (Cohen, 2015). Influencers play a vital role in this part of the funnel. Influencers can effectively introduce products, services, or ideas to their followers (Silva et al., 2019). They are often used as brand ambassadors because of their storytelling skills, which can help with initial product introductions or in-depth tutorials for more complicated products.

Awareness tactics are far more effective when delivered in a subtle and personalized way (Huttula, 2020). Instead of relying on mass-produced promotional messages, brands prefer working with influencers who can weave their notes into their tone and language (Huttula, 2020). With the right influencers, businesses can benefit from increasing their brand awareness and sales through social media marketing (Huttula, 2020). Influencers reach people (subscribers or followers) who are already interested in hearing what they have to say (Silva et al., 2019). Other popular activities at this funnel stage include SEO (search engine optimization), email marketing, blog posts, promotional ads, social media posts, and video marketing. Contents are placed at the top of the funnel to attract a wide range of audience and to generate leads. High-volume searches are often associated with the top-of-the-funnel intent of a buyer. They are also likely to search for general information or research a product or topic. Many of these individuals are not in the final stages of making a purchase decision (Husain, 2022).

Next, the objective at the middle of the funnel (MOFU) is to keep the identified leads (from the previous phase) engaged (Bátor & Lengyel, 2014). At this stage, the contents are focused on providing a reason why potential customers should choose a particular service or product

(Sánchez-Teba et al., 2020). This stage also serves as a stage to build trust. One of the ways these objectives are achieved is by using influencers and influencer campaigns (Delbaere et al., 2020). This stage of the funnel is crucial because engagement leads to action. Engagement is where people can share their experiences and opinions, influencing buying decisions (Maslowska et al., 2016). As a result, a third-party endorsement is critical to today's social media consumers (Dean & Biswas, 2001). Likes, shares, and comments help spread the word and influence buying decisions (Schultz, 2016).

The middle of the funnel is where consumers get interested and explore various products, services, and ideas. As they make their way through the funnel, influencers can help them navigate through the different stages by offering compelling content and information which helps consumers make informed decisions. The MOFU section's primary tools are to inform and assist potential customers (Bátor & Lengyel, 2014).

The bottom of the funnel, also known as the BOFU, refers to the stage where prospects actively engage in the purchase process. Although content marketing can encourage a sale, it should also continue to add value, like the content at the other levels of the funnel (Husain, 2022). While it is common to believe that influencers do not drive sales directly from their posts, plenty of strategies will help them do just that. Influencer campaigns are organic and, therefore, harder to track (Huang et al., 2011). creative calls to action can still be performed by influencers using unique links, discounts, or coupons. In some cases, influencers can help boost in-store sales by using demonstration-type campaigns. Social media platforms allow influencers to send their followers directly to a purchase page (Huang et al., 2011). Content at the funnel's final level is designed to persuade the audience to make a decision or take action (Sánchez-Teba et al., 2020).

### **2.3. Viral Marketing**

The latest addition to the lexicon of advertising is viral marketing. For decades, the advertising business operated on an asymmetrical communication paradigm in which

advertisers engaged audiences through paid media channels (Himmelboim & Golan, 2019). The emergence of social media platforms completely transformed the general media landscape and the advertising model as audiences' roles expanded from content recipients to content creators, distributors, and commentators (Himmelboim & Golan, 2019). Recognizing the expanded potential for free content distribution, marketers discovered that developing highly engaging advertising material might enhance potential reach at a lower cost and with greater credibility than traditional paid advertising (Himmelboim & Golan, 2019). Viral marketing is the pinnacle of advertising. It relies on collective individuals to propagate messages on an online social network. Instead of aggressive advertisements, it results in organic reach and earned media (Himmelboim & Golan, 2019). Viral marketing differs from traditional marketing in several ways. Compared to traditional marketing, viral marketing is more cost-effective, produces better results, and is more targeted. Additionally, the emergence of social media and online communities has dramatically extended the reach of individual consumers beyond their immediate circle of friends to even strangers. These factors significantly increase the scale, scope, and viability (Thompkins, 2012).

An analogy can be drawn between viral marketing and an epidemic. *Epidemics* are defined as an outbreak of infectious disease that affects a significant portion of a population in a short period (Rodrigues & Fonseca, 2015). In the 1990s, the syphilis (a severe venereal disease) epidemic occurred in Baltimore. For decades, only a couple of people in the city got the disease annually. The number of cases was stagnant for a very long time, but from the year 1995 to 1996, there was a sudden spike of 500 percent in syphilis cases (Gladwell, 2013). The sudden increase was a consequence of three subtle changes. In terms of the environment, many believe that the city's drug problem caused the spread of the disease. During this period, many people went to areas with poor sanitation to buy illicit drugs. They then could contract the disease in different ways (Gladwell, 2013). In terms of the disease itself, the decline in the city's medical services during the 1990s may have caused the epidemic to take hold. This suggests that doctors did not address the issue before it became a significant problem (Gladwell, 2013). Finally, in terms of people who have the disease, some theorists believe that the outbreak started after the housing projects in the city were destroyed. The individuals who lived in these areas moved to other areas in the city and spread syphilis to others (Gladwell, 2013).

The scope, make-up, and constraints of viral marketing can be better understood using the same paradigm of an epidemic. Like epidemics, the virality aspect is not necessarily caused by significant changes. However, it occurs due to minor alterations in the environment (network characteristics), the disease itself (message or content), and the individuals participating in transmission (senders and receivers) (Gladwell, 2013). A message is considered viral when it is widely disseminated and absorbed by its target market via person-to-person communication (Rodrigues & Fonseca, 2015). In essence, viral marketing is a strategy that evolved from word of mouth using information technology (Rodrigues & Fonseca, 2015). Influencers are often the agents who initiate the propagation process of viral marketing. Influencers (initial seeders) play a crucial role in the success of influencer marketing. In addition to influencers (senders), several other factors play a vital role in dictating the degree of virality in a phenomenon; the architecture of the network where communication takes place, how contagious the message is, and how resistant the receivers or the population is to the message or phenomenon.

### **2.3.1 Network Fundamentals**

A social network is a group of individuals (or organizations or other social entities) linked by a set of social interactions such as friendship, co-working, or information sharing (Garton et al., 2006). Online Social networks are driven by connectivity between people and what flows between those connections. Understanding how people use computers to communicate has been the focus of much research (Garton et al., 2006). Through social network analysis, researchers seek to understand how people communicate with each other and organizations. They also try to find out what information flows through these networks and how it affects people and organizations (Garton et al., 2006). In order to understand how people connect, analysts often ask about the various types of exchanges that create and sustain social relationships. These include goods and services and intangibles such as social support. The resources can be used in a CMC (computer-mediated communications) to communicate information or provide emotional support (Garton et al., 2006).

Much of network analysis is based on graph theory (Hoffman et al., 2017). A network is modeled using a graph composed of a set of nodes and a set of edges that indicate the

relationships between the various subjects. These nodes represent individual persons in traditional social network analysis, whereas the edges indicate interpersonal interactions such as friendships (Hoffman et al., 2017). Edges can also be referred to as a tie. A tie is a social interaction that connects two people by one or more relations. Usually, a pair maintains a tie based on one relationship, but they may also maintain a multi-relationship tie as they regularly exchange information (Garton et al., 2006). Ties are typically described as weak or strong, yet the definition of weak or strong varies depending on the context (Marsden & Campbell, 1984).

The concept of social network analysis is a shift from the typical individualism in the social sciences to structural analysis. It prioritizes the relationships between people and organizations and their friendship structure (Garton et al., 2006). When assessing viral marketing or predicting the efficiency of a message diffusion, a network's characteristics play a vital role. A social network can vary in range and density. Range describes the size and heterogeneity of a network (Garton et al., 2006). Larger networks have more social characteristics and are more complex to manage. On the other hand, small homogeneous networks are ideal for conserving resources (Garton et al., 2006).

Network density is one of the most common indicators of a network structure. Something is more likely to spread if there is a high amount of connectedness. Whereas a lack of connectivity, the phenomenon is more likely to cease spreading (Garton et al., 2006). The diffusion of information within a network changes fundamentally as the system gets more and more connected. When dealing with an isolated group of individuals, the goal is to affect the whole group by broadcasting information to everyone. This technique is commonly used by traditional advertising campaigns (Garton et al., 2006). When a network's connectivity level increases, the goal of spreading information to everyone is no longer necessary. Instead, it allows affecting those with the most significant potential to affect others. This makes it possible for more effective and strategic use of our network (Garton et al., 2006). Today, advertising agencies focus more on getting influential bloggers to spread their message. It allows them to reach out to a broader audience and those with the most significant potential to influence (Garton et al., 2006).

A cluster is an empirically discovered structure in social network research. It reflects the overall topology of a network. In graph theory, a cluster is a group of nodes more

connected to each other than to the rest of the nodes in a network (Mishra et al., 2007). In other words, A cluster is a collective of people who have dense internal friendship patterns with sparse external friendships. Clusters are also referred to as groups or cliques (Garton et al., 2006). There are various reasons to seek tight-knit communities (clusters) in networks. For instance, distinct Clusters can be a bottleneck of information. Inversely, targeting marketing campaigns can be designed based on clusters (Mishra et al., 2007).

### **2.3.2 Cascade Models - Ways to Influence**

The phenomenon of information cascades refers to the widespread adoption of an action or idea due to the influence of others. Cascades can also be described as a "fad" or "resonance." Diffusion refers to the process of bringing new ideas, information, and behavior into the network. For instance, a small group of early adopters can initiate the introduction of a new product. As more people use it, their neighbors and friends also start using it (Divakaran, 2021). The axiom of viral marketing is that by picking a small number of people from a network at the outset, they may start a cascade of influence (Kempe et al., 2003). Understanding the various components of influence is vital for marketing professionals as it allows them to develop effective influencer marketing strategies and explain why something has or has not worked. Exploring Influence Maximization (IM) models provides insight into how individuals influence one another on a network (Mallipeddi et al., 2018). Threshold and cascade propagation models are two of the most popular model classes used in this field (Gopal et al., 2016).

The threshold model determines the activation of an inactive node by taking into account the cumulative influence of its various nodes (Mallipeddi et al., 2018). In threshold models, propagation is determined by people's aggregate influence on each other (Gopal et al., 2016). The threshold model also considers that every individual has a certain threshold that dictates their activities or role in propagation. So, influence occurs as a cumulation of influences from all surrounding connections. The likelihood of an idea being adopted increases as more people surrounding it start prescribing or adopting the idea. The threshold model is primarily helpful for altering behavior or public opinions.

In contrast, in a cascade style propagation, influence is not dependent on the cumulative influence of the surrounding network connections but on a single source that directly

influences because it is sufficiently capable, trustworthy, or influential (Gopal et al., 2016). Cascade models help spread information, news, ideas, rumors, viral messages, and marketing products already existing in a market (Gopal et al., 2016).

Understanding the concepts of influence is crucial for marketers because it can help predict the adoption of a product or idea. In real-world scenarios, multiple exposures are required for influence to occur or before adoption occurs. For instance, if a person sees a piece of information on a social media site, the probability of acceptance is low. However, when they see it multiple times in multiple places through multiple sources, the person is likely to accept the information with greater belief and even start to share it due to influence. Competing messages or ideas can also add additional resistance. These complexities of communication are referred to as complex contagions.

The concept of influence can also be understood through group communications. Studies on group communication show that the way people use CMC (computer-mediated communications) is influenced by organizational and group factors, making them more closely related to social network analysis. This method incorporates critical mass, adaptive structuration, social influence, and symbolic interactionism. According to these theoretical perspectives, group norms play a significant role in developing critical mass and affect the specific pattern of local usage (Garton et al., 2006).

### **2.3.3. Sender**

Influence takes place in stages. At each stage of the message flow, every activated node tries to activate its non-active surrounding nodes with a certain probabilistic level. The probability is dependent on certain factors, such as the message's sender (s), the message's receiver, and the message's content.

The diffusion process is a fundamental process that involves spreading a message, content, or ideology in a population (Kumar et al., 2019). It can be done by establishing seed nodes (Kumar et al., 2019). Seed nodes are the first set of nodes (individuals) that initiate the spread or the diffusion processes (Mallipeddi et al., 2018). These nodes can vary in size, big or small. More connections translate to more prominent nodes. Nodes

(individuals) with multiple connections are regarded as social hubs or simply *hubs* (Himmelboim & Golan, 2019).

In 2011, a group of researchers conducted computer simulations and found that messages seeded using hubs outperform random seeding or using small nodes in terms of the number of referrals (Himmelboim & Golan, 2019). A strong linear relationship exists between the number of connections or relationships a node maintains and the likelihood of propagation and engagement (Bastos et al., 2013).

Macro and mega influencers can behave like social hubs, which is why they are sought after for influencer marketing. On the other hand, smaller nodes maintain few connections and individually contribute very little to the content distribution or message propagation process. There needs to be more academic research dedicated to these small-sized nodes. Instead, there are some reports based on observations of researchers.

In some instances, the primary message replication is accounted for by a few smaller nodes whose activity is so intensive that they account for the message's propagation. Hubs can often act as a gatekeeper (Bastos et al., 2013). Instead of relying on the hub to distribute the message, political content relies on highly active users to generate highly replicated messages (Bastos et al., 2013). Political content, as an example, relies on highly active nodes to develop highly repeated messages rather than depending on the hub to distribute messages (Bastos et al., 2013).

Another use case for small nodes was presented by Watts and Peretti (2007). The strategy proposed is referred to as Big Seed Marketing. *Big Seed Marketing* is a method that combines the traditional methods of viral marketing with the power of old-fashioned mass media. It produces results that are far more predictable than those generated by other viral marketing approaches (Watts & Peretti, 2007). The power of large numbers of people makes Big Seed Marketing an effective method for spreading ideas (Watts & Peretti, 2007).

As messages or content gets passed from one node to another, it becomes possible to calculate the reproduction rate. Reproduction rate or  $R$  refers to the average number of times that a node (person) passes on a given message (Sengupta, 2014). When the  $R$  of a

given message is greater than 1, the number of people who get it will increase exponentially. On the other hand, viral messages with an R below 1 typically fail. This is because viral campaigns often burn themselves out unless the R of the message exceeds a certain threshold (Watts & Peretti, 2007).

The concept of Big Seed Marketing is to use a large number of seeds so that even if the R is less than 1, the burnout process will continue for multiple generations, increasing the number of people who get the message (Watts & Peretti, 2007).

Many organizations have successfully implemented Big Seed Marketing for their viral marketing campaign; one of the first was Proctor & Gamble to promote Tide Coldwater as an energy-efficient alternative to regular detergents (Watts & Peretti, 2007). This campaign had a substantially lower reproduction rate of 0.041 but began with almost 900,000 seeds. They incorporated social tools, which allowed the campaign to be passed along. The campaign was less viral than they would hope, but regardless Proctor & Gamble was able to reach an additional 40,000 more people than it would have if it did not use Big Seed Marketing (Watts & Peretti, 2007).

Big Seed Marketing takes advantage of the power of large numbers of people. It does not depend on the individual brilliance of any particular individual. Instead, the focus is solely on the process of spreading the message efficiently and effectively (Sengupta, 2014). Rather than relying on viral marketing and mass media, Big Seed Marketing combines the two approaches to spread the message. This method allows a sizable primary audience to spread the message while generating more interest in the secondary audience (Sengupta, 2014).

For something to go viral, selecting the right set of nodes is crucial to start the diffusion process. *Centrality* is used to measure the importance of a node based on its topological properties in a network. Many centrality measures are based on the various factors that affect a node's importance (Kumar et al., 2019). The *degree centrality* measure takes into account the size of the node's neighborhood. It shows how many nodes are at a given distance from one edge (Kumar et al., 2019). The closeness centrality measure takes into account the distance between all nodes in relation to the other nodes in the network. The smaller the distance would mean higher the importance of a node (Kumar et al., 2019). *Betweenness centrality* is a metric that reflects a person's involvement in allowing data to

flow from one network segment to the next (Golbeck et al., 2015). The betweenness centrality is a metric that measures the number of nodes that are in-between others. It can be calculated by considering the number of shortest paths that pass through a given target node. A high betweenness centrality will be observed if the target node appears in many of these shortest paths (Perez & Germon, 2016). *Eigenvector centrality* considers the number of connections a person has made with other people. With this method, a person with few connections might have a high eigenvector centrality as long as those connections are well-connected ones (Hansen et al., 2020). Lastly, the *PageRank centrality* is a variant of Eigenvector centrality. It is primarily used for directed networks (Kumar et al., 2019). It considers various factors regarding the number of links a site has received from other sites. It also considers the linkers' quality and the link propensity of the site's users (Hansen et al., 2020).

Influencers can be categorized into primary, contextual, and low influencers based on the different functions a node plays in the diffusion process (Himmelboim & Golan, 2019). Primary influencers receive significant and disproportionate interactions from other users (nodes). They are usually responsible for the overall distribution of content on social networks (Himmelboim & Golan, 2019). The role of contextual influencers is to bridge the separated groups in a network. They are usually highly mentioned or tagged individuals. Lastly, the low influencers are those who share a link to online content in a limited capacity. Their focus is primarily on their immediate connections, however the aggregate influence of these types of influencers is substantial (Himmelboim & Golan, 2019).

#### **2.3.4. Receiver**

Understanding the target audience of a message is very important to improve its effectiveness. This process can be carried out by identifying the ideal customers and developing effective marketing strategies. Understanding the needs and wants of the potential customer helps tailor messages for higher effectiveness. The literature on advertisements provides valuable information about the audience. Advertising is commonly regarded as a means of mass communication, and people are assumed to respond the same way. A growing body of research explores the possibility of different factors affecting people's attitudes toward advertising (Myers et al., 2010). One of the most common strategies businesses use to divide their market into homogeneous groups

is segmentation (Goyat, 2011). Segmentation helps gain insight into the audience's position message and offerings accordingly, making the message more receptive. This strategy allows businesses to identify their ideal customers by determining which groups of people exhibit erratic behaviors. This allows them to tailor their marketing mix to meet the needs of each specific market segment (Goyat, 2011). The four main segmentation bases that have emerged in studies are geographic segmentation, demographic segmentation, psychographic segmentation, and behavioral segmentation. Geographic segmentation refers to the region or country where most people live. Demographic segmentation is focused on age, sex, and family type. Psychographic segmentation is based on the variables that affect the most common purchase occasions and finally, behavioral segmentation is based on the individuals' perceived user status (Goyat, 2011).

In today's world, where mass production is no longer the primary method of communication, it is strange that research on the subject has yet to explore the possibility that different people might react differently to advertising (Myers et al., 2010). The meaning of an ad is created by the person who receives it, and it can be different from the one the advertiser intended. People may also have different reactions to advertising depending on their characteristics (Myers et al., 2010). We distinguish people based on their personalities and characteristics. Therefore, depending on their characteristics, people may have varying reactions to advertising (Myers et al., 2010). Companies have to consider the customer's human nature to build successful relationships. This is why they must develop effective marketing strategies based on customer characteristics (Myers et al., 2010).

One of the main reasons why people are reluctant to participate in mass research is the difficulty in collecting information (Myers et al., 2010). Businesses can collect vast customer information through databases to create personalized profiles. This will allow them to identify their ideal customers and develop effective marketing strategies (Myers et al., 2010).

The Big Five personality traits are known to capture the characteristics of people's personalities. These include agreeableness, extraversion, conscientiousness, and openness to experience (Myers et al., 2010). These personality metrics range from low to high. According to Clark & Çallı (2014), those with high extraversion levels are extroverts, while those with low extraversion levels are frequently regarded as shy and

quiet. Low levels of conscientiousness indicate individuals as disorganized and easily distracted. Whereas high levels suggest, individuals have a strong work ethic. They are also thorough and orderly (Clark & Çallı, 2014). Low levels of agreeableness suggest an individual is distant and has a reserved personality. In comparison, high levels indicate a friendly and sympathetic-natured person (Clark & Çallı, 2014). Neuroticism is linked to distress and discontent. Depending on their personality dimension, individuals can be positioned on the extremes of emotional chaos and emotional stability. Highly neurotic people are prone to being anxious, withdrawn, and labile. On the other hand, low-level neurotics are more likely to be content and calm (Clark & Çallı, 2014). Lastly, openness indicates an individual's willingness to try new things and their ability to think critically. People with low levels are typically described as reserved and resistant to change, while those with high levels are more imaginative and creative (Clark & Çallı, 2014).

The Big Five was discovered by analyzing the various synonyms in the English language. They determined the most common variation in people's personality traits (Myers et al., 2010). The very same five groups of personality traits have been identified in other languages by replicating this process. This is known as the "lexical hypothesis," which holds that natural language contains enough information to account for individual personality differences (Myers et al., 2010). In 1980, Mitchell and Olsen introduced the concept of the theory that consumers' attitudes toward advertising could influence their behavior (Myers et al., 2010). The Five-Factor Model was then used to analyze the various aspects of advertising and predict the emotional appeal of a product or service (Clark & Çallı, 2014). Researchers have been searching for a way to identify the various personality types that influence online behavior. They believe that this method could help improve the design of interactions. The Five-Factor Model identified the various kinds of personality traits associated with different online behaviors (Clark & Çallı, 2014).

### **2.3.5. Message**

While some advertisements can reach large audiences, others do not (Himmelboim & Golan, 2019). The difference between a successful viral marketing campaign and one that does not take off is the ability to connect with the consumers. The key to viral marketing success is persuading consumers to interact with the marketing content (Petrescu, 2014). The emotional or material reward that consumers receive from marketing messages can

help them decide to interact with the brand and share their commercial content on social media (Petrescu, 2014). Viral marketing content aims to increase the consumer's involvement and share the content through social media (Petrescu, 2014). Contents of viral marketing campaigns are unique and must be executed in a way that is different from other marketing efforts. Some studies focus on content characteristics to explain why advertising becomes viral (Himmelboim & Golan, 2019).

According to research, uplifting and creative messages are more likely to be forwarded by consumers. These include messages that are about sexual excitement, humor, and inspiration. Other emotional content, such as shocking images, is also frequently forwarded by consumers. Viral marketing messages must be exciting and engaging in order to be successful. Aside from that, the content must include other characteristics such as incongruity, surprise, and provocation (Petrescu, 2014). This type of content is often featured in marketing messages because the messages and images are associated with specific values, norms, and taboos. In the online environment, content is not regulated as strictly as in traditional media. Because of this, marketers can create sexually explicit and violent content (Petrescu, 2014). One of the most successful strategies is to use provocative materials. The main advantage of provocation is its distinctiveness. Because of this, it can stand out from the crowd and get consumers' attention. Content must be created with originality and creativity to succeed (Petrescu, 2014).

*Incongruity* is a term used to describe the intentional violation of expectations in marketing messages. For example, the appeal might seem inappropriate or unexpected if a message uses humor. In addition to being intentional, incongruity can also be used to describe the relevance of the information being processed in an advertisement. Incongruity can be used in various elements of an advertisement, including graphics and design (Petrescu, 2014). Incongruent ads are also known to contrast the other ads on the market and attract attention. They can also increase the consumer's interest in the advertisement and make them curious about its content (Petrescu, 2014).

Surprise is also a characteristic used in marketing messages to shock consumers. It can be done through the use of unexpected and creative elements. Usually, this type of content is created by combining various factors, such as a brand's characteristics and marketing communication (Petrescu, 2014). According to researchers, people tend to respond to surprise with awe and astonishment. They also found that it can trigger a more effective

response when it includes a feeling of warmth or playfulness (Petrescu, 2014). In certain situations, unexpected or positive surprises can turn into humorous elements. In some circumstances, this can be achieved by combining conflicting emotional reactions, such as disgust or joy. Surprise can also create a halo effect that can be used to enhance the marketing message (Petrescu, 2014).

A study conducted by researchers revealed that when presented with a positive surprise, it can be used as an amplifier for subsequent positive reactions. On the other hand, when presented with a negative surprise, it can be used to generate negative word-of-mouth (Vanhamme, 2000 *apud* Petrescu, 2014). The emotional impact of surprise can trigger a higher level of social sharing and viral effects. This phenomenon can also be used to generate a more robust reaction in response to marketing messages (Petrescu, 2014). The most successful marketing messages are entirely different from what consumers expect. They can stimulate an emotional response and raise their curiosity. Most consumers pay attention to unexpected content and take it by surprise, and they are more likely to share it with their social group (Petrescu, 2014).

In 1983, psychologist Arnold Frazer defined *creative strategy* as a framework that helps determine the overall quality of the advertisement message. He then proposed seven different creative strategies that can be used to create effective marketing messages. These strategies include resonance, unique selling proposition, brand image, positioning, generic, anomalous/affective, and preemptive (Uluğ Yurttaş & Özkoçak, 2020). On the contrary, Laskey, Day, and Crask (1989) defined a *message strategy* as a set of techniques that can be used to create effective marketing messages. They categorized these into two main categories; informational and transformational. The former includes the various subcategories of comparative, generic, and hyperbole, while the latter refers to the categories of brand image, user occasion, and generic-transformational (Laskey et al., 1989). The term creative message strategy was then used to refer to the various techniques used to create effective marketing messages. The rational approach to marketing is the one that focuses on the information and arguments presented in the advertisement. At the same time, the emotion and image are handled separately (Moriarty, 1991 *apud* Uluğ Yurttaş & Özkoçak, 2020).

In 1999, Taylor introduced the concept of the six-segment messaging strategy wheel, a framework for analyzing advertisements. He continues to follow the same approach as previous research and identifies two basic approaches to advertising; transmission view and ritual view (Golan & Zaidner, 2008). However, Taylor's model divides the two approaches into three segments. This approach allows for analyzing advertisements more effectively (Golan & Zaidner, 2008). Under his model, advertisers can implement either a single approach or a combination of approaches (Golan & Zaidner, 2008) (see image 4).

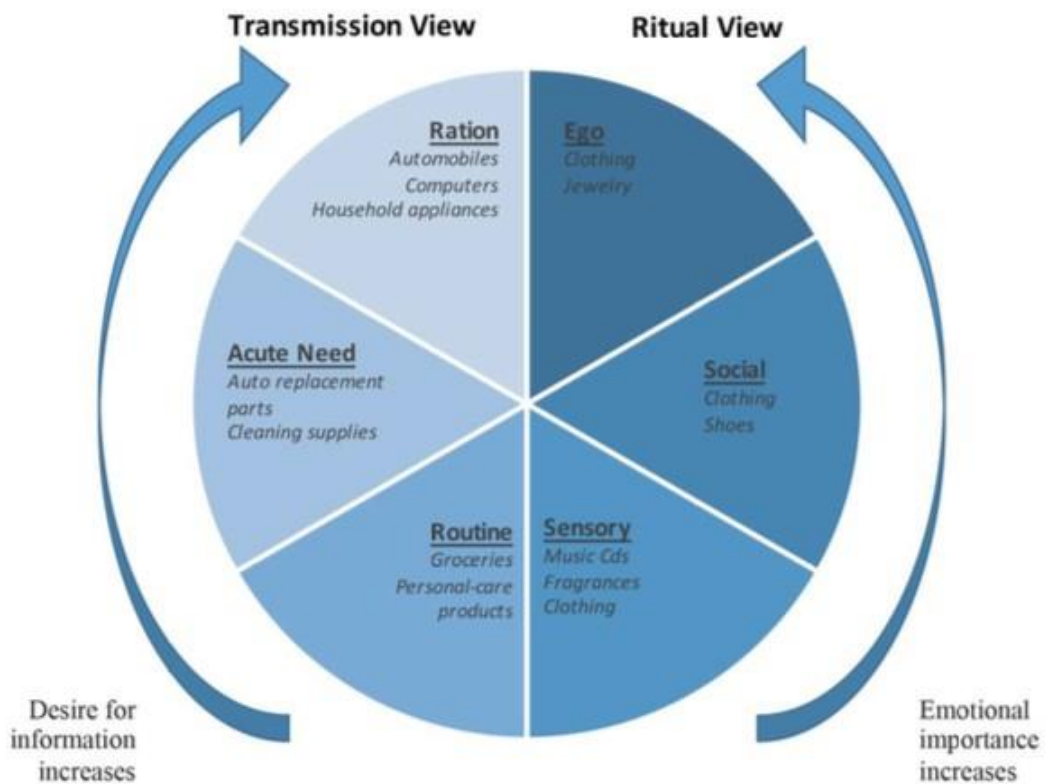


Image 4- Taylor's Six Segment Message Strategy Wheel Source: Uluğ Yurttaş & Özkoçak, 2020,p.4.

The transmission view refers to the logical appeal. It is based on consumers' need for information. According to him, this segment is used to inform and persuade consumers. The transmission view is divided into the ration, acute need, and routine (Golan & Zaidner, 2008). The ration segment is based on the Marshallian Economic Model. This strategy is carried out by using advertisements that contain helpful information (Uluğ

Yurttaş & Özkoçak, 2020). It is based on the consumers' need for information. Some commonly advertised products using this approach include cars, computers, and household appliances (Golan & Zaidner, 2008). The acute need segment of Taylor's model is based on the consumers' immediate needs. This segment allows advertisers to create effective and memorable ads that are designed to provide a quick and straightforward solution to a specific problem. Some of the products that are commonly advertised using this approach include replacement parts such as tires or batteries (Golan & Zaidner, 2008). Building trust and brand familiarity are some of the most common strategies used when implementing informational advertisements (Ahn et al., 2013). Even though the need to purchase batteries or tires may not arise very often, building trust and familiarity affects consumers' decision-making process. Routine is the final segment in the transmission view of Taylor's six-segment strategy. It is based on The Pavlovian Learning Model (Uluğ Yurttaş & Özkoçak, 2020). This segment is designed to inform consumers to persuade them to purchase (Ahn et al., 2013). This strategy focuses on the role of a product in a consumer's routine (Golan & Zaidner, 2008). Taylor states that this segment has a dual role, as it informs the consumers about the product's capabilities and provides them with the necessary cues to make informed decisions. Examples of products that can be advertised using this approach include coffee, cereals, and personal-care products (Golan & Zaidner, 2008).

Ritual view, on the other hand, refers to the emotional or sensory appeal of the message (Uluğ Yurttaş & Özkoçak, 2020). Ritual communication aims to extend the message content to include people's attitudes, beliefs, and perceptions. As a result, ritual-based communication tends to focus on one's emotions or senses (Ahn et al., 2013). Three segments of the ritual view are ego, social, and sensory. The ego segment stems from The Freudian Psychoanalytic Model (Uluğ Yurttaş & Özkoçak, 2020). It involves communicating how a company or brand appeals to consumers' egos to convince them that they are who they are (Golan & Zaidner, 2008). Usually, this type of advertisement features user images to convince consumers that they will get the desired result (Ahn et al., 2013). This type of advertisement is usually carried out to show how the product or service can be used to address their needs. Some examples of products that can be advertised using this strategy include luxury watches and cars (Golan & Zaidner, 2008). Taylor's social segment refers to shifting from the individual to the collective (Golan & Zaidner, 2008). It is based on The Veblenian Social Psychological Model. The social

segment is designed to appeal to consumers by showing them various services and products related to their significant relationships. This strategy can be carried out to convince them that the product or service is beneficial for approval from their significant relationships (Uluğ Yurttaş & Özkoçak, 2020). This concept allows an advertisement to introduce a product or service to a social audience. Some examples of products that can be advertised using this strategy include holiday gifts, jewelry, clothing, and shoes (Golan & Zaidner, 2008). Under Taylor's ritual view, the final segment is called sensory, which is designed to appeal to consumers' senses of taste, touch, hearing, taste, and sight. This strategy can be carried out to convince them that a particular product or service can increase their sensory pleasure (Golan & Zaidner, 2008).is designed to appeal to consumers' five senses: taste, touch, hearing, taste, and sight. This strategy can be carried out to convince the audience that a particular product can increase their sensory pleasure (Ahn et al., 2013). Some products that use a sensory technique for message strategy include Music, fragrance, and clothing. "Moments of pleasure" are frequently used in sensory communication methods (Uluğ Yurttaş & Özkoçak, 2020).

## **2.4. Instagram**

Social media has become an indispensable part of our lives in the digital age. For marketers, Instagram presents a unique opportunity to reach and engage with their target audience. With the appropriate strategies, brands can leverage Instagram to showcase their products, collaborate with influencers, and build a loyal following. Marketers need to understand the behavior and motivation of their users on Instagram to create content that will resonate with their target market (Campbell & Farrell, 2020). Understanding the platform's functions is also vital for businesses and individuals to utilize it effectively. Furthermore, Instagram's algorithms and platform dynamics are constantly evolving, making it essential for marketers to stay updated with the latest trends and updates.

### **2.4.1. Instagram's Honeycomb**

Instagram is an online platform that allows users to share visual content. It allows people to create a social network online based on users' interactions with photos and videos (Jang et al., 2015). Even though Instagram can be accessed through the web, it is primarily a mobile-first application (Yang, 2021). Instagram's approach to user experience for their

app is to keep it as simple as possible. It focuses on four essential functions: capturing photos, video, editing, sharing, and commenting. This strategy makes it very easy to use and helps Instagram differentiate itself from other social networking sites (SNS) (Yang, 2021). Instagram also allows users to share their content with other social networking sites with just one click. This helps users expand their social networking options and aids Instagram to cross-promote themselves to other social communities at no cost (Yang, 2021).

Today Instagram is widely popular. An estimated ninety-five million photos and videos are uploaded on the social networking platform daily, with over two billion monthly users worldwide (Aslam, 2022). Success and popularity translate to abundant data, making the platform attractive to researchers of many disciplines. Because there is always an increasing knowledge gap between marketers and the functionalities of social media platforms, Kietzmann, Hermkens, McCarthy, and Silvestre (2011) developed the honeycomb framework. The goal of the framework is to explain how social media works. The honeycomb framework helps identify the platform's user experience components using seven blocks; identity, conversations, sharing, presence, relationships, reputation, and groups. Although the framework does not necessarily need to include all of the building blocks of a social media platform, it allows researchers to study the varying levels of functionality of the platform. As shown in image 5, the model is divided into two parts: the left and the right. The first model explains the various features of social media, while the right hand explains the implications of these features. Image 6 represents the honeycomb functionalities of social media for Instagram.

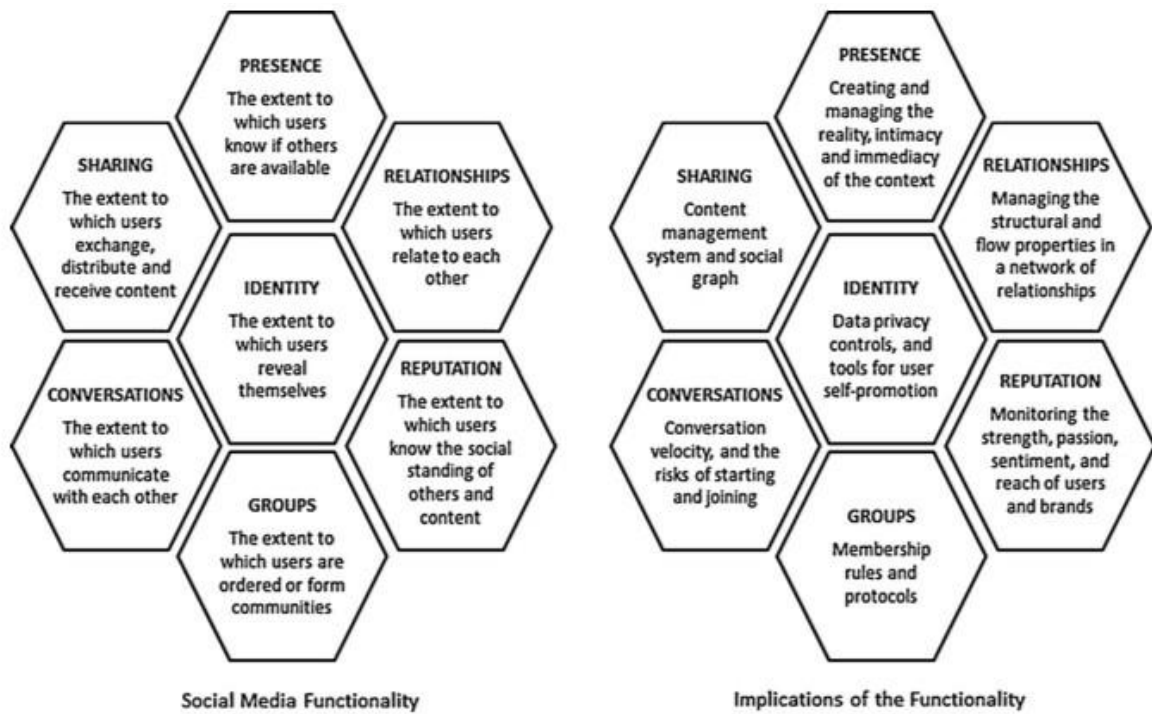


Image 5 - Honeycomb of Social Media. Source: Kietzmann et al., 2011,p.243.

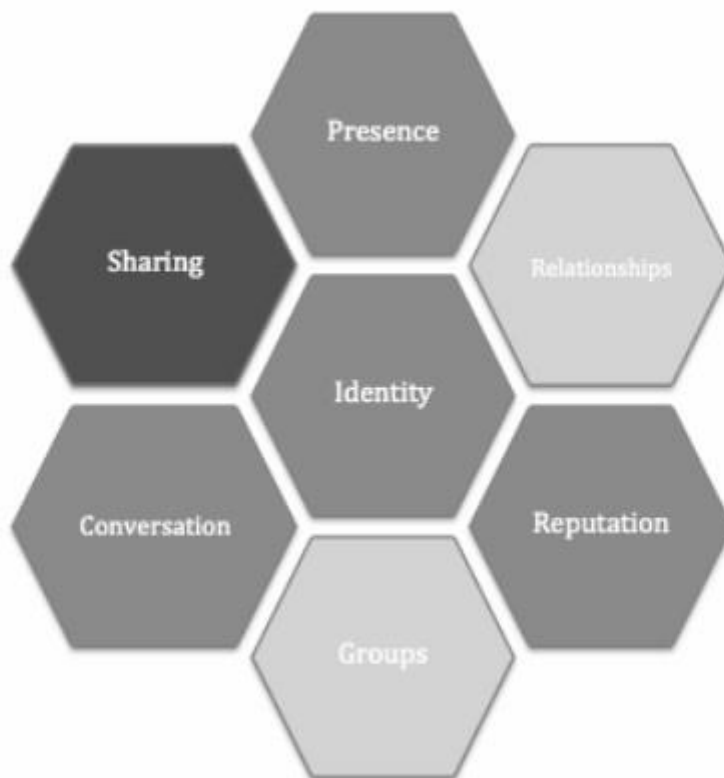


Image 6 - The Honeycomb of Social Media functionality for Instagram. Source: Veissi, 2017, p.19.

The functional identity block depicts how much information individuals can share about themselves on a social media platform. This can include revealing various information about themselves, such as their age, gender, and location (Kietzmann et al., 2011). Due to the varying aims and preferences of users and social media sites, the discourse on social media can be complex. Many people who participate in the site's activities use their real names, while others use pseudonyms (Kietzmann et al., 2011). For instance, David Dobrick, a prominent Youtube content creator, uses his real name. On the other hand, other content creators, such as Jimmy Donaldson, use his alias or handle Mr.Beast. However, Kaplan and Haenlein (2010), noted that people could also (deliberately or unconsciously) reveal their identities by displaying their subjective information; their ideas, feelings, likes, and dislikes. A person's identity is the core function of social media platforms, and it allows them to promote and brand themselves. For marketers and researchers, this would mean the availability and accessibility of rich and abundant data sources (Kietzmann et al., 2011). Instagram provides several opportunities for users to express their identities (Berg & Sterner, 2015). Firstly, signing up on Instagram requires revealing some personal information. Beyond that, individual profiles include a username and a biography section where users can express their identity (Veissi, 2017). Instagram also provides a blue checkmark, a verification badge for public figures and brands to show authentic presence (Instagram help center 2021).

The conversations block of social media sites is part of the framework that allows users to interact with others. Most social media sites are designed to facilitate conversations among groups and individuals. Different forms of communication can be utilized to achieve these goals, such as blogging, tweeting, video blogging, etcetera. People use platforms to meet new people, find true love, stay up to date with trending topics, stay in touch with people or develop their self-esteem (Kietzmann et al., 2011). Despite the various aims and preferences of users and social media sites, some people still see it as a way to make their voices heard (Kietzmann et al., 2011). For firms, it would mean that they can generate publicity by starting new discussions and riding on the wave of viral messages. It also means that users can provide feedback on social media platforms through comments. Feedback can be used to gauge the company's performance and improve its customer service (Kietzmann et al., 2011). For example, users can see

comments and feedback on Facebook, which can then be shared with other users. This allows them to participate in the discussion and create a dynamic exchange (Kietzmann et al., 2011). According to Haenlein and Kaplan (2010), social media marketers need to provide a compelling reason for their customers to engage with their company.

*Instagram Direct* is a feature that allows users to communicate with one another in a more personal manner. It is similar to an e-mail service or peer-to-peer instant messaging service. The conversation can become deeper and more meaningful as users interact with one another (Veissi, 2017).

Public profiles allow users to interact with other users outside their own network. Conversations are further encouraged with the use of tagging and sharing (Veissi, 2017).

Real-time conversations can also take place when people broadcast themselves live. This is beneficial for both broadcasters and viewers as it allows them to discuss topics that they are interested in (Pietikäinen, 2020).

The honeycomb's sharing block represents how people share, distribute, receive, and exchange content on a social media platform (Kietzmann et al., 2011). The term "social" frequently connotes the importance of exchanging ideas, experiences, or interpersonal interactions between people. The social aspect also focuses on the objects facilitating the exchanges (Kietzmann et al., 2011). After all, The objects are why people engage and associate with each other in the first place. People are connected through shared objects. The objects can be text, images, video, sound, links, etcetera. Sharing is a way of interacting on a social media platform (Kietzmann et al., 2011).

A platform's functional objective also influences the extent to which people share. Sharing allows users to connect and build relationships (Kietzmann et al., 2011). Understanding the various factors that affect a customer's response is critical to creating a successful marketing message for companies and businesses. In addition, having the necessary knowledge about social media platforms and how they are built is also very important to create a forward-friendly message (Kietzmann et al., 2011). Instagram describes itself as a mobile photo and video-sharing application, which makes sharing the most crucial functional block for Instagram. There are several ways users can share content. Users can share photos and videos on their profile which then appears on *Instagram's feed*. As described by Instagram's own webpage, "Instagram Feed is a place

where you can share and connect with the people and things you care about." (Instagram help center 2021). Similarly, users can also share photos and videos using the stories function. The stories function presents content in a slideshow-like manner that disappears in 24 hours. Brands often use the feed to post primary content and the story function to showcase supporting content (Levin, 2020). Additionally, users can broadcast live. Those contents are considered unedited and the most authentic way to share stories with other users in real time. Furthermore, Instagram's Other feature, direct messaging, lets users share content with specific people (Veissi, 2017).

The presence building block of a social media site is also crucial to provide a level of visibility that lets users know if other users are available. This is done through the status lines "available" or "hidden." In the virtual world, this type of presence can be used to bridge the real and the virtual (Kietzmann et al., 2011). It provides a level of visibility that enables users to know if other users are available. In some cases, this is tied to the desire to interact with each other in real time. The presence block is also linked to the various functional elements of the honeycomb framework, such as conversations and relationships (Kietzmann et al., 2011). According to Haenlein and Kaplan (2010), the level of social presence is influenced by the relationship medium and the intimacy of the people involved. For firms, this type of presence should be considered a part of their overall strategy to increase the effectiveness of their social media platforms (Kietzmann et al., 2011). The presence block of the honeycomb structure tackles the idea that different situational elements, such as time and place, can alter how a customer receives marketing messages. This is the key takeaway for marketers and advertisers (Kietzmann et al., 2011).

According to Kietzmann et al. (2011), physical and virtual presence are essential factors that businesses should consider when marketing their products and services. In 2010, Keller also noted that customers' situational context could affect how they perceive marketing messages (Berg & Sterner, 2015).

Instagram's Live feature gives users the ability to broadcast in real-time (Instagram help center 2021). Instagram Live is usually an unedited and uncut version of the truth (Levin,2020). Going live provides maximum authenticity (Levin,2020). It is usually unstructured or semi-structured. It can be used to showcase a live moment with an

influencer (e.g., morning routine). It can also be used to highlight a specific moment of a brand event or to capture real-time interactions with potential consumers (Levin,2020). Users can also geotag their posts (contents). Geotags or location functions are used for storytelling, highlighting their presence in a specific location or promoting a location (Berg & Sterner, 2015). One of the most important factors businesses consider when marketing their products and services is the geographical aspect of their presence. This can be used to enhance corporate content and promote their locations (Berg & Sterner, 2015).

The relationships block explains the extent to which a user can be related to other people. Kietzmann et al. (2011) define the term 'relate' very loosely, where two or more people have some form of connection that prompts them to interact with one another in some form or merely name one another as a friend or follower. Kietzmann et al. (2011) further explain that each social media platform is designed to host different types of relationships. Some can be formal and structured, while others may be designed for informal connections. The nature of relationships between people determines what kind of information is being exchanged on a social media platform. Kietzmann et al. (2011) explain the significance of various relationship qualities using two social network theory aspects, structure and flow. The structural property of a user's relationships measures the number of connections they have in their network. It also indicates a user's position in a social graph (Kietzmann et al., 2011). On the other hand, the flow property refers to the strength of relationships. It can be described as strong or weak. Strong relationships are long-lasting and frequent, while weak relationships are infrequent and distant (Kietzmann et al., 2011). Companies using social media platforms for marketing may find it valuable to understand the nature of user relationships. First, companies can identify the centrality of an individual or how influential they might be. Second, the insight into the diversity of their users' relationships on social media platforms can help build strategic communications (Kietzmann et al., 2011).

A study on marketers and their activities on Instagram reveals that marketers interact with their followers virtually differently. In most cases, marketers would try to answer customer queries in the comment sections of posts. Occasionally they would follow individuals to receive information or to interact with them. These actions lead to building a relationship. Despite Instagram having no obvious capabilities that focus on

relationships, following others and interacting with them leads to building strong ties. This is partially because people tend to follow others they like with similar interests (Berg & Sterner, 2015).

The reputation block explains to what extent a user can identify the standing of content or other users on a social media platform. Reputation can be measured in various ways depending on the content of concern and the platform they use. The reputation block reflects trust. Typically, it is based on objective information (such as the number of views or followers) or the crowd's collective intelligence (e.g., a rating system). The reputation block has a couple of Implications for companies:

1. A brand's reputation is not necessarily in their hands but in the users of a social media platform.
2. The metrics a brand or a company wishes to focus on can be crucial for building strategies. For instance, the number of followers on Twitter does not necessarily reflect the reputation level. Kietzmann et al. (2011) explain that People can follow as many people as they want on the platform; they do not have a reason to unfollow.
3. The follower count does not directly translate to the number of people who read the posts.

Instagram addresses the reputation functional block by providing several indicators on individual profiles and content (Berg & Sterner, 2015). Profile pages include follower count and the number of accounts the profile follows. Secondary indicators include the number of likes and comments for each post. Furthermore, mentions and the number of times other users tag a profile also help to indicate reputation (Pietikäinen, 2020). The cumulation of these indicators allows users to judge other profiles or contents' social standing.

Lastly, the functional group block represents how people can create communities on social media. Having more social connections helps users expand their reach and create more groups of friends. In 1992, anthropologist Robin Dunbar (1992) proposed the concept of Dunbar's number, which suggests that people have a cognitive limit that prevents them from having many stable social relationships with other people beyond a certain threshold. Social media platforms usually address this issue by providing various tools to manage memberships. There are two different types of groups on social media.

The first type allows users to sort through their various contacts and create groups that are specific to them. The second type of group is similar to clubs in the offline world in that they can be open to everyone, invite-only, or closed, where people would need membership approval. Groups on platforms such as Facebook allow users to create groups that are specific to them. Administrators can then manage the group and approve or deny applications. The most significant advantage for companies is that they can quickly join and engage with established social media groups. Doing so can help them get insights into culture and subculture, stay relevant and increase engagement.

The functional group block indicates "the extent to which users can form communities" on a social media platform (Kietzmann et al., 2011). Even though Instagram does not explicitly focus on the group as a functional block, the act of following other users, profiles, or brands indirectly classifies them into communities, networks, or interest groups (Berg & Sterner, 2015). Furthermore, hashtags are created by interest groups (individuals, companies, brands, etcetera.) to curate all relevant content in one place. Conversely, hashtags also help reach individuals and groups with a shared interest (Berg & Sterner, 2015).

#### **2.4.2. Instagram Usage and Motivation**

The actions that users carry out on Instagram are referred to as Instagram Usage. *Instagram usage* is defined as the cumulation of activities performed on Instagram by its users. These actions can be liking, sharing, commenting, uploading content, tagging, using hashtags, or simply scrolling or browsing within the application (Cheung, 2014).

Instagram usage can be motivated by a variety of factors. Studies indicate five significant motives for using Instagram (Cheung, 2014). The first is for cognitive reasons, such as information-seeking through social network sites. The second motive is for diversion or entertainment. The third reason for using social network sites such as Instagram is for social connections. The social connection includes companionship, maintaining relationships, or social interaction. The fourth motivation to use Instagram is for self-expression. The concept of self-expression is related to using social media platforms such as Instagram to show one's identity and personal interests. In other words, the platform's goal is to convey one's feelings, interests, and hobbies to other people. Lastly, there is

escapism. Escape motive is when people use social network sites like Instagram to ignore their problems or avoid loneliness (Cheung, 2014).

Fulfillment of these motives leads to higher usage and a sense of gratification. So the popularity of Instagram and its repeated usage can be further explained by the Uses and Gratification theory. Uses and Gratification theory states that people can fulfill their needs and gain gratification through media (Katz et al., 1973). It emphasizes the connection between wants and gratification. Katz et al.(1973) argue that media use can gratify some needs and help reconstruct others.

In addition to gratification, social networking sites like Instagram enables an individual to create or increase their social capital. Social Capital refers to the assets, value, or resources people gain through social interactions (Cheung, 2014). Two different functional types of social capital are associated with social networking sites: bonding and bridging.

Bonding social capital derives from strong ties between people. It is usually formed with close friends and family members who share common values or interests (Putnam, 2020). The bridging social capital, on the other hand, is based on weak ties. It can be described as a widespread network that links members from heterogeneous groups from different socioeconomic statuses and generations (Putnam, 2020). Bonding social capital can provide emotional support; it can be leveraged to mobilize solidarity. Bonding social capital is also valuable for upholding identity and status. (Putnam, 2020) Whereas bridging social capital is helpful for information diffusion. Relationships based on bridging social capital may open up opportunities like landing a job placement or taking part in collaborative projects (Putnam, 2020).

Instagram can be used as a platform for building social capital. The activities that help connect with existing friends and family help generate bonding social capital. Activities that help reach out to unknown people help build bridging social capital (Cheung, 2014).

### **2.4.3. Self-presentation**

Accessibility and convenience of use have allowed Instagram to evolve from a tool for communication to a space for archiving different aspects of one's life for the public to

view. This aspect of Instagram encourages users to present an idealistic version of themselves (Seibel, 2019). Online identity is a part of an individual's overall identity that can be constructed through the various features of social media (Seibel, 2019). Using social networking sites like Instagram inevitably leads to creating personas. This process of creating identity can be voluntary or involuntary. Anyone who uses the internet actively or passively creates an online persona (Seibel, 2019). It can be referred to as self-presentation (Goffman, 1956). The most common reasons for self-presentation are intimacy, social control, and social approval (Omarzu, 2000).

Self-presentation refers to strategies used to project one's image while limiting the disclosure of personal information (Goffman, 1956). The concept of self-presentation has been introduced previously. The foundational work for self-presentation was conceptualized in Ervin Goffman's (1956), *The Presentation of Self in Everyday Life*. According to Goffman (1956), people conduct themselves as a performer on stage. They use verbal and non-verbal cues to express their identity with the most plausible version of their exaggerated self. Self-presentation is very purposeful and goal-driven. It leads individuals to weigh their self-presentation objectives with the version of themselves that they believe their audience wants when deciding how to present themselves (Goffman, 1956). self-presentation can be divided into two categories: frontstage performances and backstage performances. While the former is typically more cautious and reserved when presenting themselves, the latter is less scripted and can be less filtered. Goffman (1956) further noted that self-presentation is a complex negotiation between two positions. Each position has its own set of strategies that a person can use to manage their image (Goffman, 1956).

Traditionally, self-presentation transpired through in-person interactions, which had certain limitations to how individuals could portray themselves. An example would be if an individual presented themselves as healthy, but their physical appearance might cause audience members to doubt their claims (Smith & Sanderson, 2015). Instagram and online communications give individuals more control over how they wish to present themselves (Smith & Sanderson, 2015). Virtual spaces make it harder for the audience to refute false self-presentation claims. While people can highlight certain aspects of their lives in face-to-face interaction, online platforms like Instagram allow greater control and the ability to tailor (Smith & Sanderson, 2015). Furthermore, online platforms allow people to

emphasize particular salient identities unsuitable for face-to-face interactions (Kim & Papacharissi, 2003).

The increased control over self-presentation can be seen as affordances made possible by the features and framework of Instagram (Seibel, 2019). *Affordance* is a concept that refers to a relationship rather than a property. It states that the presence of an affordance is determined by the qualities of the object or person (Norman, 2002). This is why people must understand how technology affects their relationship with it. Concerning communications technology, perceived affordances are essential to how we view and utilize technology (Seibel, 2019).

Certain aspects of Instagram can be leveraged for self-presentation. The user profile of Instagram is one of the essential features people can use to enhance their personal identity. Each profile accommodates a profile picture, provided name, username, and bio; space for additional information. All of these features are customizable and used to personalize each profile and the identity behind the profile (Seibel, 2019). The profile also contains the curation of posts (videos and images) shared by the profile owner. Individuals usually seek the best light to present themselves in their best light. Sharing an image of themselves allows people to communicate their desires and intentions. It also allows them to see how they wish to be perceived by others. The ability to selectively pick how one is perceived through sharing and capturing a photograph on Instagram is a unique affordance (Seibel, 2019).

Furthermore, each post can be provided with a caption and hashtags. The caption feature affords a user's identity to be linguistically communicated so that other users can both understand and support the user's own sense of self. Instagram's framework and features are built on the idea of using hashtags. They are a set of words or phrases, followed by the octothorpe sign (#), that are used to identify and categorize content on social media. Instagram's hashtag feature allows users to share their content with others interested in the same content. It also allows users to identify themselves in their photos. These affordances contribute to the development of an individual's communal identity. Although hashtags are commonly used to identify and categorize content on Instagram, they can also curate individuals' identities (Seibel, 2019). According to psychologist Papacharissi (2011), identity is a social performance that can be seen as a result of the

association of various social circles. Instagram's framework and features are designed to help people develop their communal identity (Seibel, 2019). Users can "follow" other profiles on Instagram. Following other profiles lets the user receive content from all the following profiles in a personalized feed. In addition, users can also see who follows them and the list of other accounts they are following. These generated lists are viewable by everyone (Seibel, 2019). The number of accounts that an individual follows and the number of accounts that they are following can be used to construct relational identity. Users can easily identify with their social circle by publicly displaying an association with other accounts (Seibel, 2019).

One of the most prominent features of Instagram that affords people to develop a communal identity is the ability to interact with other people through the act of sharing, liking, and tagging (Seibel, 2019). These are commonly referred to as paralinguistic digital affordances. They are acts of communication that are lightweight and can be considered phatic. They allow people to interact with others without the use of a specific language or message (Hayes et al., 2016). Receiving paralinguistic digital affordances has three main benefits: emotional, status, and social benefits (Hayes et al., 2016). The actions of liking, saving, tagging, and sharing a post on Instagram can all be categorized as lightweight forms of communication. These actions support other people's content and, in return, help users build their own identities. The act of support helps develop a supportive community of like-minded people who endorses the user's construction and presentation of identity (Seibel, 2019).

## **PART III – Methods**

The dataset for this research was created through content analysis of public accounts on Instagram. This study focuses on nano influencers who actively voice their opinions about social and environmental justice, primarily on Instagram. For comparative reasons, the sample consists of five tiers of influencers: nano, micro, mid-tier, macro, and mega influencers. By choosing content analysis, the researcher could study a specific online community whose activities and interactions are archived for the public to view. In terms of time and data quality, this approach provides a significant advantage without compromising the integrity of the research.

The dataset comprises 84 public accounts (nodes) with 21,937,186 edges (follower and following relationships). The dataset also includes supportive data, i.e., posts (1008 entries), and metadata, i.e., hashtags (1154 entries).

### **3.1. Data Collection Procedures**

It was crucial to identify a relevant sample for this research. The first set of influencers was chosen using the hashtag #fazpeloclima for Instagram search and variations of the search query "top Portuguese social climate activists Instagram" on Google search engine. Once the initial set of influencers was identified, the researcher crawled through the influencers' followers and following lists to identify additional accounts. A total of 101 influencers were identified using *prima facie* evidence.

There were four criteria for the accounts to be included in the dataset:

1. Either in their bio or their posts, they showed they are interested in social and environmental justice.
2. They voiced their opinion about social and environmental justice in one or more posts.
3. The accounts were public.
4. The accounts were located in Portugal, or most of their followers were from Portugal.

For quality assurance, all accounts were rigorously reviewed again during the filtering stage. Seventeen profiles were eliminated due to the procedure because they fell short of

one or more of the abovementioned requirements. The total number of accounts in the adjusted population size was 84. All types of accounts (personal, business, meme, organization, etc.) were acceptable for the sample since every type of account could be used to propagate messages. During the data collection phase, the researcher then gathered the total number of followers and following for each account. Each account was then classified into one of the five categories based on the number of followers: nano influencer (39), micro influencer (21), mid-tier influencer (18), macro influencer(3), and mega influencer (3).

Instagram accounts with over 10,000 followers have access to extra features, such as the ability to embed links in their stories and content monetization opportunities (Instagram help center, 2021). Furthermore, it is worth noting that existing literature primarily begins with micro-influencers, commencing their analysis with a minimum follower count of 10,000. As a result, any account with fewer than 10,000 followers has been deemed a nano influencer account for this research. Consequently, accounts with 10,000–50,000 followers are labeled micro influencer accounts, those with 50,000–500,000 followers are macro influencer accounts, those with 500,000–1 million followers are mid-tier influencer accounts, and those with more than 1 million followers are mega influencer accounts.

The following step involved gathering the twelve most recent postings from each account between December 28, 2020, and January 2, 2021. The number of likes and comments was then tallied using those posts. Additionally, all the corresponding hashtags used in the posts were also logged. The metrics were later used to compute like rate, comment rate, engagement rate, overall engagement, and post frequency. In order to measure follower growth, the researcher reexamined followers of every account as of July 2021. In total, 13 data points were collected through content analysis: Account name, Link, Location, Bio description, Number of Followers, The number of accounts following (followee), Growth rate, Follower-followee ratio, Average engagement per post, Engagement rate, Like rate, Average post per day, week, month and, Hashtags. These data points were then further used to compute additional metrics for data analysis.

### 3.2. Data analysis

First, the researcher summarized all the data points that were collected. The datapoint is expressed using the mean score of each tier of influencer. Moreover, the researcher used correlation tests using the prompt “=CORREL(data y, data x) “ in Microsoft Excel throughout the data analysis process whenever it was deemed relevant and/or necessary. Next, to examine how nano influencers might perform in marketing communications compared to other tiers of influencers (micro, mid-tier, macro, and mega) based on their social capital, the researcher developed a coding scheme based on the "Pillars of Influence" concept. This framework is grounded on social capital theory, which asserts that social interactions provide people with assets, value, or resources (Cheung, 2014; Solis & Webber, 2012). The Pillars of Influence framework generates an influence score which the researcher utilizes to evaluate the relative impact of different categories of influencers. Additionally, the researcher has used descriptive statistics and visual aids to comprehensively understand each pillar's underlying components: reach, relevance, and resonance.

In the context of social media, an influencer's audience size is referred to as their reach. Reach denotes the total number of individuals who can access their posts (Solis & Webber, 2012). When determining an influencer's reach, the number of their Instagram followers is a crucial metric to factor in (Bakker, 2018). However, there are additional variables that require consideration. First, the frequency at which an influencer uploads their content affects how often the audience is exposed to it. Second, it is essential to note that not all of an influencer's followers get exposed to all the content uploaded by the influencer all the time. Therefore, when determining an influencer's reach score, we multiply the engagement rate and posting frequency per week by the number of followers. Thus, the formula for calculating reach is as follows:

Reach Score = (Number of Followers x Average Engagement Rate x Posting Frequency Per Week)

The researcher additionally conducted a correlation test to confirm if there were any correlation between the reach score and the number of followers.

The relevance of an influencer reflects the degree to which their content is aligned with a brand or marketing campaign (Bakker, 2018). Evaluating an influencer's relevance involves analyzing the content they frequently share and how well it aligns with the target brand or campaign. A topic distribution analysis was conducted to determine the relevance score by analyzing the hashtags used in the influencer's 12 most recent posts, as hashtags indicate the topic of a post (Hsiao & Chen, 2020). The equation for computing the relevance score is:

$$\text{Relevance Score} = (\text{Number of relevant hashtags} / \text{Total number of hashtags})$$

In the relevance score equation, the relevant hashtags are divided by the total number of hashtags to obtain a proportion of relevant posts. The researcher then used each tier's cumulative mean relevance score for comparative analysis.

The resonance of an influencer refers to the level of engagement their posts typically receive from their followers (Solis & Webber, 2012). In order to measure an influencer's resonance score, it is required to assess their engagement rate. This study evaluated 12 of the most recent posts from each influencer's account. Thus, the formula for computing the engagement rate is as follows:

$$\text{Engagement rate} = ((\text{Total likes} + \text{Total comments}) / \text{Total posts}) \times 100$$

The resonance score is computed using the following formula:

$$\text{Resonance Score} = (\text{Average engagement rate} / \text{maximum possible engagement rate})$$

The equation divides the average engagement rate by the maximum possible engagement rate. When using the maximum possible engagement rate as a benchmark, the resonance score provides a more accurate evaluation of an influencer's ability to generate engagement and establish a strong connection with their audience, irrespective of the size of the influencer's followings. Theoretically, the maximum possible engagement rate can be any real number. Therefore, the maximum possible engagement rate was determined using the maximum observed engagement rate in the entire dataset. However, to ensure

outliers do not skew the calculations, the researcher used the 95th percentile engagement rate from the entire dataset as the maximum possible engagement rate, which was 18.13%. The researcher used each tier of influencers' cumulative mean resonance score for comparative purposes.

Once the three pillars of influence are calculated, they can be summed together to derive the influence score. The formula for computing the Pillars of Influence is as follows:

$$\text{Influence Score} = (\text{Reach Score}) + (\text{Relevance Score}) + (\text{Resonance Score})$$

As depicted in the equation, influence is viewed as a combination of an influencer's capacity to disseminate and distribute messages and their potential to cause change. However, the equation limits the reach score to the immediate number of participants to which an influencer can transmit a message. Since the current research is focused on nano influencers or those with limited followership, the significance of reach as a score is less important as a metric than relevance and resonance. Additionally, this research focuses on how effective nano influencers are in altering behaviors, persuading people, generating measurable outcomes, and stimulating interest in messages that organizations aim to promote. Besides, attaining high reach is relatively straightforward when organizations have sizable budgets. Therefore, to reevaluate the influence score, the researcher assigned weights to the Resonance, Relevance, and Reach scores based on their corresponding importance and then summed them. The equation utilized to compute the new Pillars of Influence Score is as follows:

$$\text{Weighted Influence Score} = (\text{Reach Score} \times 0.0) + (\text{Relevance Score} \times 0.5) + (\text{Resonance Score} \times 0.5)$$

Subsequently, after computing the weighted influence score for each influencer, they were classified as either nano, micro, mid-tier, macro, or mega influencers. The researcher calculated the cumulative mean weighted influence score for each tier of influencer to compare them.

### **3.3. Ethical Concerns**

This study is conducted without the involvement of third parties and relies on publicly available data collected through Instagram. This makes it easier for ethical considerations to be made when compared to other studies that rely on surveys or interviews. Images and corresponding comments were not screen-captured to ensure privacy and confidentiality further. Instead, the researcher collected relevant metrics. All the data were collected ethically and responsibly. The researcher did not use any invasive algorithms or programs. The researcher also ensured the data was accurate, reliable, and unbiased. This research was conducted, prioritizing the participants' well-being and rights while ensuring the scientific rigor and validity of the research findings.

## **PART IV- Findings and Discussions**

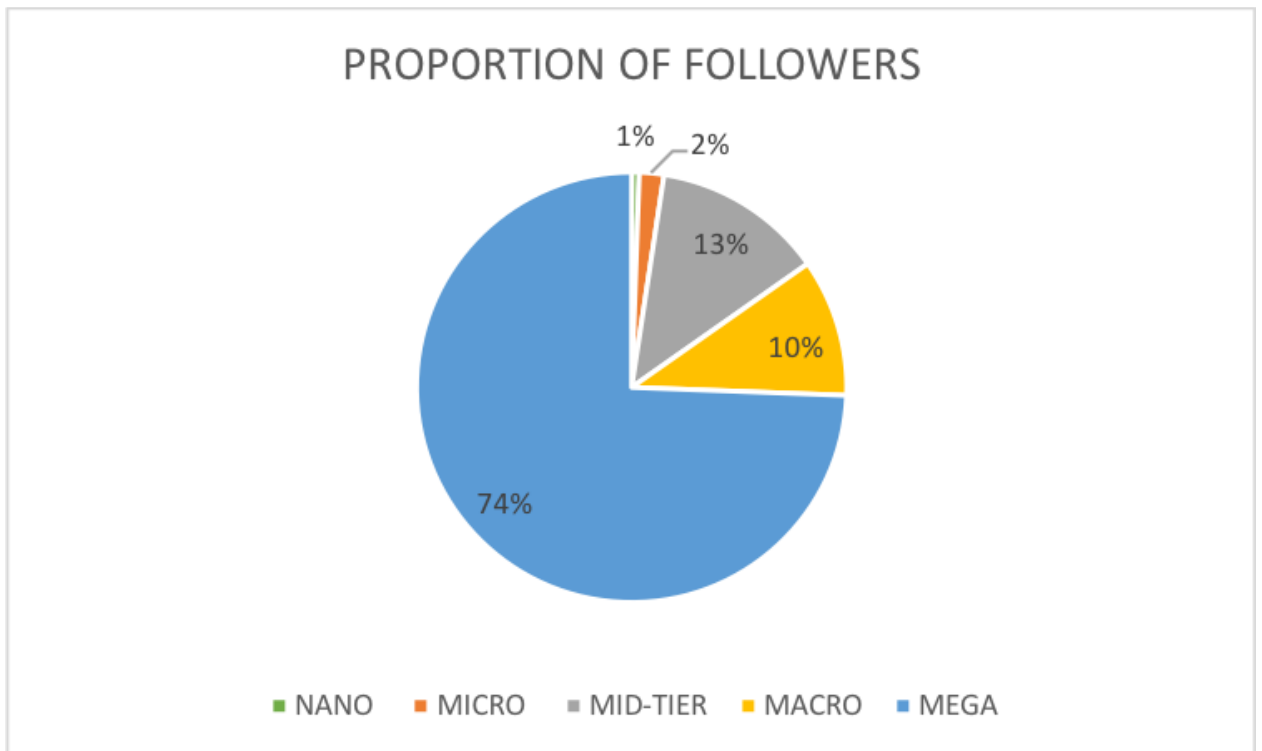
### **4.1 Findings**

The study analyzed data collected from 84 public accounts grouped into five tiers of influencers - nano, micro, mid-tier, macro, and mega. The data included 21,937,186 relationships (edges), 1008 posts, and 1154 metadata. The data set was diverse and provided ample information for analysis. To effectively present this information, a clear and concise approach was necessary. This section focuses on the key trends, patterns, and discoveries uncovered during data gathering and analysis. Various graphs, tables, and charts were used to aid in visualizing and interpreting the data. These visual aids made it easier to compare and analyze across different categories and variables. Moreover, descriptive text accompanied the tables and figures, interpreting the findings and highlighting important observations and relationships within the data.

<b>TIER</b>	<b>NUMBER OF FOLLOWERS</b>	<b>NUMBER OF ACCOUNTS</b>
<b>MEGA</b>	over 1,000,000	3
<b>MACRO</b>	500,000 – 1,000,000	3
<b>MID-TIER</b>	50,000–500,000	18
<b>MICRO</b>	10,000–50,000	21
<b>NANO</b>	Less than 10,000	39

Table-1. Distribution of Accounts

This table shows how influencers are distributed among different tiers based on their number of followers. While macro and mega influencers have the highest number of followers, they only make up a small portion of the overall influencer population. As the follower count decreases, the number of available influencers increases. Essentially, there are more options for influencer selection at the lower tiers of the classification system.



Graph-1. Proportion of Followers Per Category of Influencer

The proportion graph indicates the percentage of the audience that each tier of influencer has in the population. It is evident that the mega influencers have the highest number of followers, followed by the mid-tier, macro-influencers, micro, and finally nano influencers. Even though we have the most number of nano influencers in our dataset, they only account for 1% of the total audience share in the population.

INFLUENCER TIER AVERAGES OF KEY DATA POINTS										
	FOLLOWERS	FOLLOWING	FOLLOWER-FOLLOWING RATIO	INTERACTIONS PER POST	ENGAGEMENT RATE	LIKE RATE	COMMENT RATE	POSTS PER WEEK	GROWTH RATE	HASHTAG USAGE
<b>NANO</b>	3177	1472	8	174	9.72%	9.38%	0.34%	2.1	20.97%	13.9
<b>MICRO</b>	20147	1635	30	840	3.49%	3.33%	1.30%	5.2	29.99%	11.5
<b>MID-TIER</b>	155500	1331	759	5240	2.99%	2.80%	0.19%	6.7	9.07%	16.9
<b>MACRO</b>	751270	901	1032	45993	5.65%	5.58%	0.07%	6.0	3.64%	4.3
<b>MEGA</b>	5406013	1598	5603	113826	1.92%	1.84%	0.08%	4.4	5.77%	12

Table-2. Cumulative Average of Key Data Points

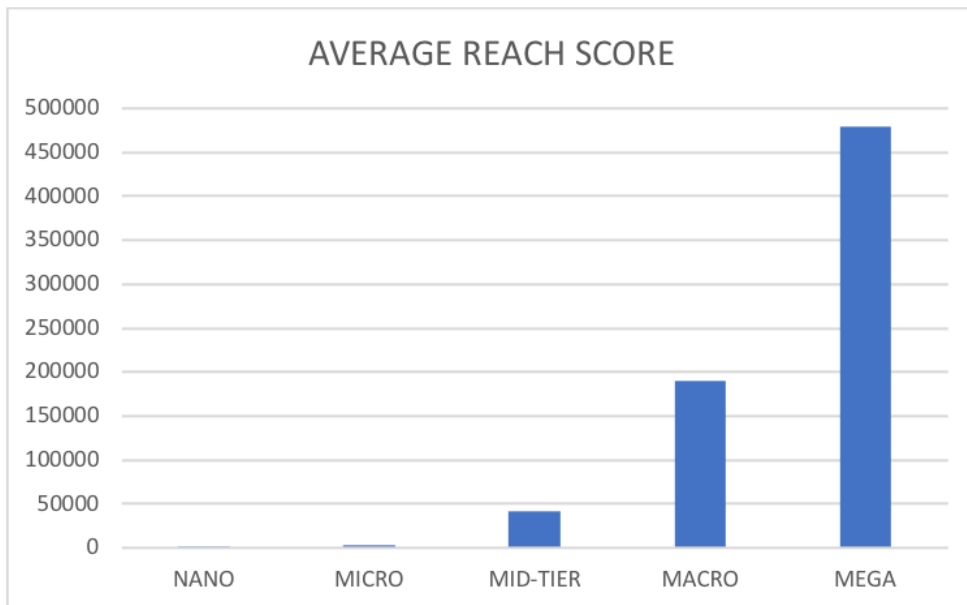
The study analyzed the data collected from different account tiers to gain deeper insights into the performance and behaviors of the influencers. The table provides data on influencer tier averages for key data points, including the number of followers, number of accounts following, follower-following ratio, interactions per post, engagement rate,

like rate, comment rate, posts per week, growth rate, and hashtag usage. Despite having a substantial number of followers, mega and macro influencers only follow a select number of accounts, as indicated by the follower-following ratio. During the data collection and verification procedure, it was discovered that many of the accounts followed by macro and mega influencers belong to nano influencers (or accounts with less than 10,000 followers).

The analysis exhibited striking patterns across different metrics. The findings showed that the higher-tier accounts with a more extensive follower base tend to have higher interactions per post. They also maintain a more frequent posting schedule by consistently sharing content. This regularity allows them to remain top of mind with their followers and increase their visibility.

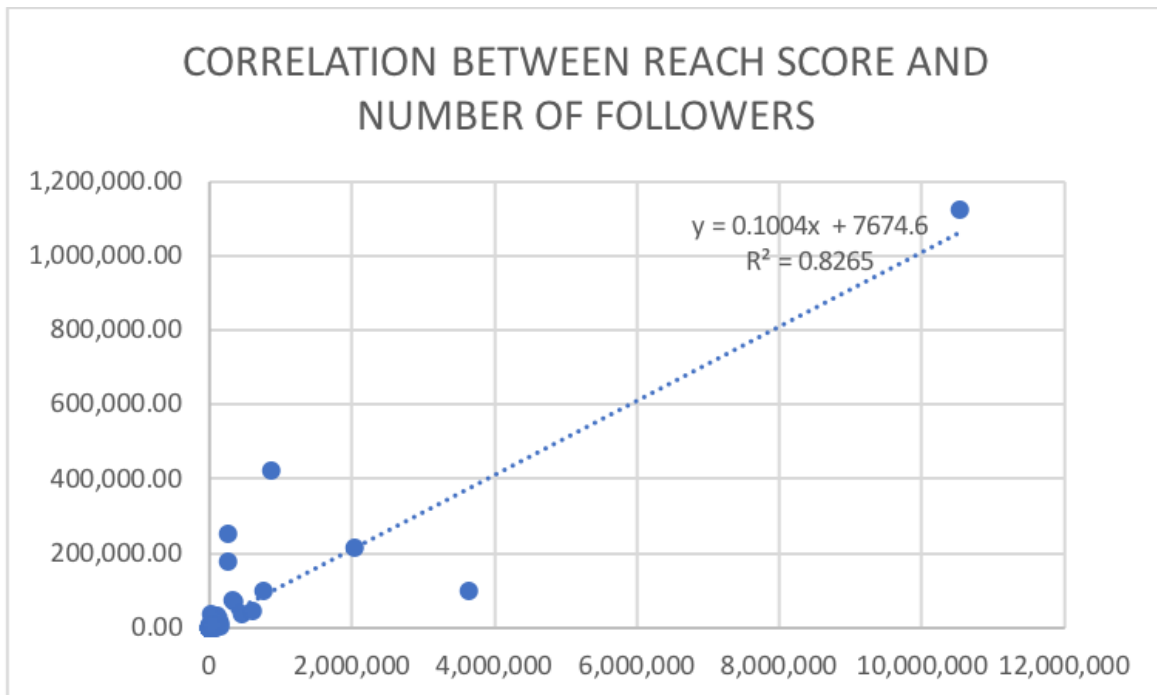
On the other hand, as follower count increases, the engagement rate (measured as a percentage of followers) tends to decrease. This trend indicates that as an account's audience grows, its followers' relative engagement may begin to decline. Therefore, it is vital for the influencers to foster meaningful interactions and engage with their community continuously. The study also analyzed the performance of the nano influencers, revealing their distinct attributes and how they perform compared to higher-tier accounts. Although they have a smaller follower base, they still exhibited high levels of engagement and growth rate. Their consistent use of relevant hashtags may be one of the factors that help them grow and develop their following. The growth rates of different influencer tiers provide insights into their audience expansions. Nano influencers have a commendable growth rate of 20.97%, showing their ability to attract and retain new followers. Micro influencers have a slightly higher growth rate of 29.99%, indicating their effectiveness in attracting more followers. Mid-tier influencers have a lower growth rate of 9.07% but maintain a stable and engaged follower base. Macro and mega influencers have the lowest growth rates due to their already substantial follower counts. These growth rates show the evolving reach of each influencer tier and should be considered by brands when collaborating with influencers.

With the overview of key data points, we can estimate an influencer's social capital influencers possess in various tiers and their respective capacities to exert influence. We calculate each building block of influence: reach, relevance, and resonance.



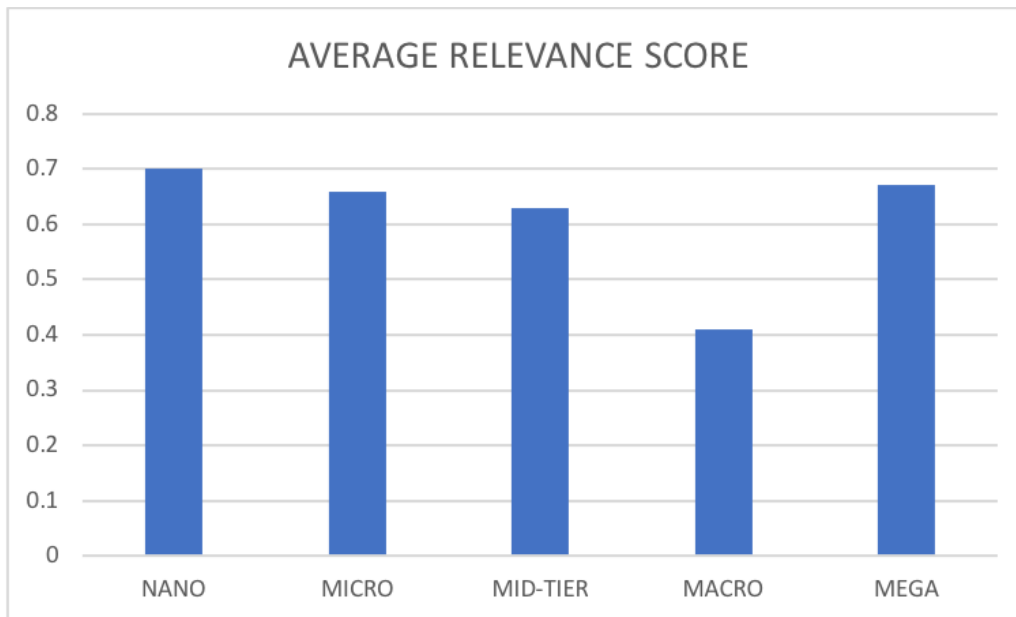
Graph-2. Cumulative Average Reach Scores

An influencer's reach can be assessed using the reach score. The reach score is calculated based on the number of followers, engagement rate, and post frequency. The table depicts the average reach score to expect from each influencer belonging to their respective tier. Nano influencers score the least, with an average reach score of 271. The range of nano influencers' reach score was between 10.8-1620.3. It goes to show the diversity in reach and the quality of influencers in the nano tier. Micro-influencers received an average score of 3326. With an average score of 41224.21, mid-tier influencers have a wider reach than nano and micro-influencers. Macro influencers have an average score of 189421.21, showing significant reach and engagement potential. Mega influencers, who captivate a large audience, received the highest score of 479103.25. As the influencer tiers progress, the reach scores increase, highlighting the broader reach and potential impact of influencers with larger follower bases. To investigate further, the researcher conducted a correlation test between the reach score and the number of followers.



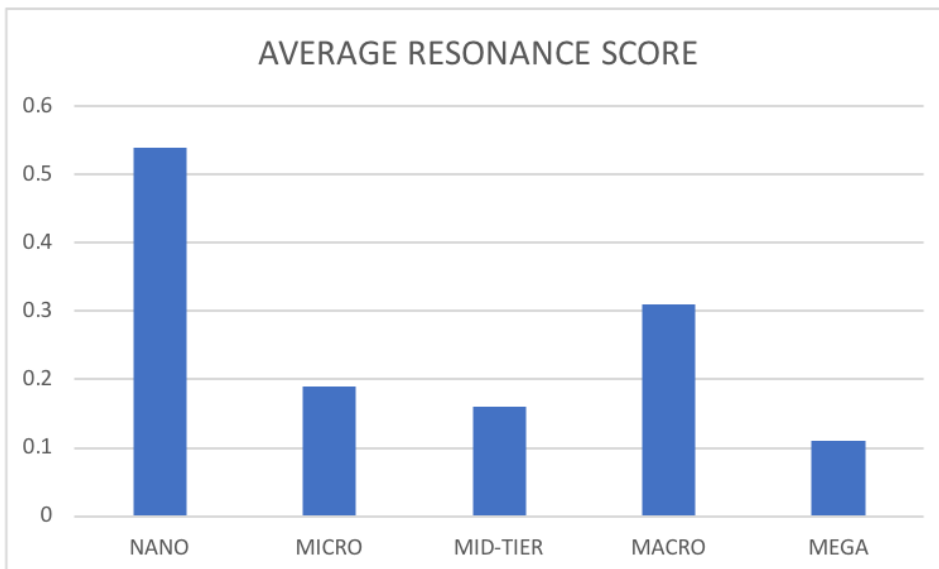
Graph-3. Correlation Graph Between Reach Score and The Number of Followers

The scatter plot was generated to examine the relationship between the reach score and the number of followers. It visually represents the correlation between the two variables, and the correlation coefficient will indicate the strength and direction of the correlation. The analysis suggests a strong correlation between the reach score and the number of followers ( $R=0.90912425$ ). It is not surprising that nano influencers score the lowest while mega influencers score the highest in terms of average reach score. Some outliers in the data suggest that factors beyond the number of followers play a role in determining the reach score. Other variables, such as engagement rate, posting frequency, content quality, and audience demographics, can all impact the reach score.



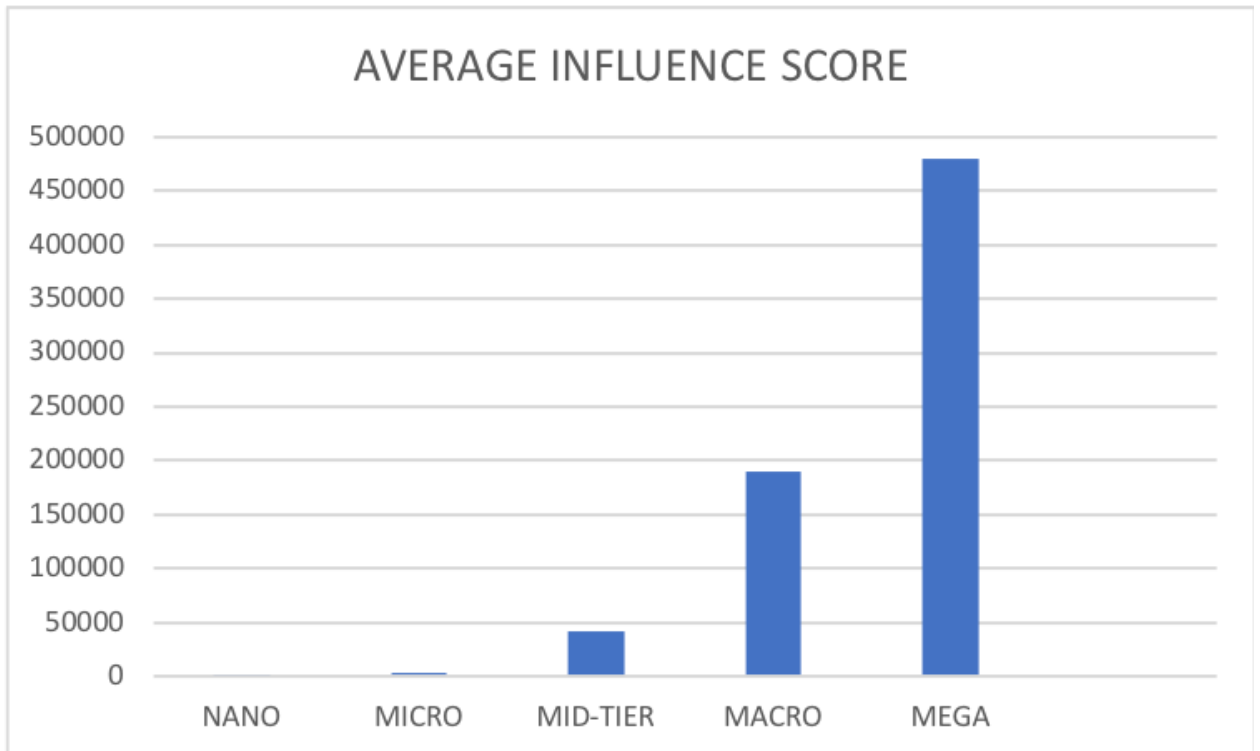
Graph-4. Average Relevance Score

The relevance score is derived by analyzing the subject matter of each content. Our analysis found that nano, micro, mid-tier, and mega influencers have moderate to high relevance ratings (ranging from 0.63- 0.7). The relatively lower relevance score of 0.41 for macro influencers indicates that they post on a broader range of topics. On average, nano influencers are found to score the highest in terms of relevance score. Most of their posts are about social and climate justice issues, making them suitable for niche category campaigns. The high relevance score can also indicate the level of authority and trust established with their followers over time through consistent communication on these topics.



Graph-5. Average Resonance Score

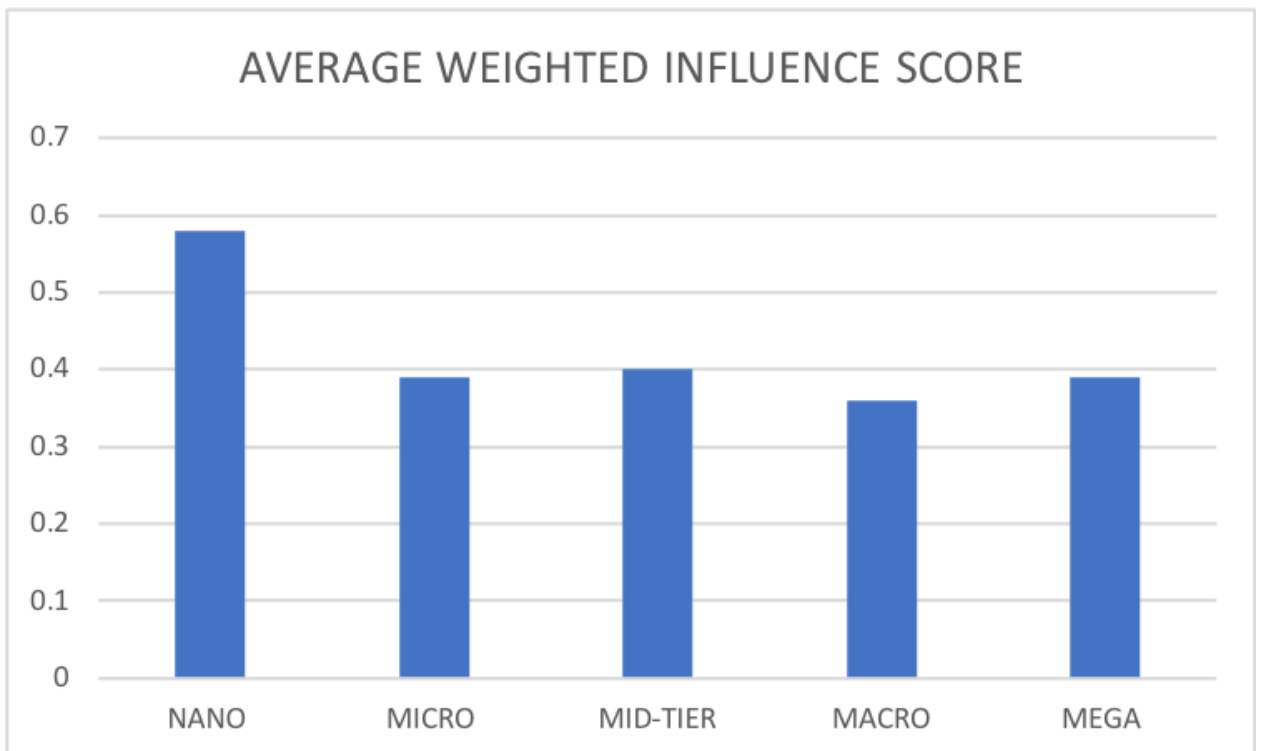
The resonance score is determined by the degree of interaction an influencer's postings typically receive from their followers. The graph shows that nano influencers have the highest average resonance score, 0.54 out of 1. The graph suggests that their audience is more actively involved and responsive to their content than other influencer tiers. Receiving a high resonance score for nano influencers indicates their ability to generate significant engagement and foster a more authentic and targeted relationship with their followers. Aside from nano influencers, micro influencers typically have an average resonance score of 0.19, while mid-tier influencers have an average resonance score of 0.16. Macro influencers, on the other hand, have an average rate of 0.31, with mega influencers coming in last with an average rate of 0.11.



Graph-6. Average influence Score

The influence score is calculated by summing the reach, relevance, and resonance scores. It comprehensively measures an influencer's overall ability to impact and influence. The data reveals a clear hierarchy in influence scores, with mega influencers having the highest average influence score, followed by macro, mid-tier, micro, and nano influencers. This hierarchy is expected since influencers with larger follower counts generally have a wider reach and potentially higher levels of engagement.

However, if we examine it closely, we can see that the trend is similar to the reach score. When the reach score is given equal importance to the relevance and resonance score, it obscures the overall influence score data. Additionally, we defined influence as the ability to cause change. Therefore, to truly determine an individual's influence, it is vital to measure their resonance and relevance scores while ignoring their ability to distribute content. Doing so would allow for a more accurate assessment of their impact.



Graph-7. Average Weighted Influence Score

The average weighted influence scores for different tiers of influencers are as follows: Nano Influencers: 0.58145, Micro Influencers: 0.39252, Mid-tier Influencers: 0.39688, Macro Influencers: 0.35943, Mega Influencers: 0.39034. The weighted influence score is calculated by assigning weights to relevance and resonance scores, while the reach score is not considered. The weighting scheme emphasizes the importance of relevance and resonance over reach. It suggests that influencers who align closely with predefined topics and generate high engagement are more influential. The weighted influence score allows marketers to target niche audiences through nano and micro influencers for more focused and impactful campaigns. The weighting can be adjusted based on specific campaign goals and preferences to optimize influencer selection.

When we adjust the influence score by assigning weights, we observe that nano influencers have a score of 0.58, while the combined average score for all other tiers is 0.385. On average, nano influencers score 1.506 times higher than all other tiers combined, resulting in 50.6% higher effectiveness. In other words, nano influencers are significantly more likely to influence per impression compared to any other influencer tier.

## 4.2. Discussion

The discussion section explores the results' implications and discusses how we can effectively optimize the use of nano influencers for marketing campaigns to propagate content on social and environmental issues. Our analysis has revealed that while nano influencers may have limited reach, they exhibit exceptional levels of relevance and resonance. Consequently, their role in influencer marketing requires a unique approach that deviates from traditional influencer marketing strategies. We first discuss how limited reach can be overcome and then look at other creative strategies that are centered around the idea that influencers with small reach can cause significant impacts.

Despite having a limited number of followers, nano influencers should not be underestimated in terms of their ability to distribute messages. Several strategies can be utilized to reach a larger audience beyond a nano influencer's immediate followership.

First, increasing the number of nano influencers may increase a campaign's total reach. By doing so, marketers can rely on cumulative reach instead of an individual's reach. Second, the visibility of a message can be amplified through paid advertisements. Promoted content could result in broader dispersion and a better possibility of message adoption among the target audience. Third is by utilizing the network architecture effectively. While there might not be a specific term exclusively used for this approach, we can describe it as *hub-centric influence maximization*. This approach involves identifying influential hubs and using nano influencers to activate them.

The initial phase of *hub-centric influence maximization* is to analyze the network structure and identify nodes with a high level of centrality or connectedness. These nodes are regarded as prominent hubs because of their capacity to impact and reach a sizeable percentage of the network. In other words, we identify relevant macro and mega influencers within a network that acts as a hub. Once the hub or the influencers are identified, we select a subset of nodes. These nodes are nano influencers who are followed by the identified macro or mega influencers (hubs).

Careful consideration is given to the number of seed nodes (nano influencers) and their strategic placement within the network to optimize the spread of influence. Hub-centric influence maximization involves tailored messaging and engagement strategies for the selected macro and mega influencers' specific characteristics, behaviors, and preferences. The idea is to encourage the selected hubs (macro and mega influencers) to adopt and propagate the desired message, behavior, or idea.

So, the propagation or the seeding process starts with nano influencers. As the selected hubs (macro and mega influencers) adopt the desired message, behavior, or idea, it triggers a cascading effect leading to a broader spread. The *hub-centric influence maximization* can amplify the cascading effect and maximize the overall impact on the network. It is vital to monitor and track the progress of the propagation, measure the reach and impact of the campaign, and make adjustments as necessary to optimize the *hub-centric influence maximization* campaign.

Burst-style campaigns and influencer-driven engagement strategies are possible additional approaches to enhance the impact of nano influencers. These approaches involve collaborating with multiple influencers to increase their share of voice among the target audience and control and shape any given message's narrative.

Burst-style campaigns focus on using a group of influencers to saturate the Instagram feeds of their intended audience successfully. By coordinating the efforts of multiple nano influencers in a pre-defined timeframe, burst-style campaigns aim to generate a significant and immediate impact on the intended audience. With this strategy, the campaign's exposure and engagement potential are effectively increased by leveraging the combined influence and reach of the participating influencers. Burst-style campaigns seek to get a significant share of voice through a well-planned series of content production, sharing, and endorsement actions to break through the clutter and draw in the target audience. Successful burst-style campaigns result in saturating the feeds of targeted audiences.

Influencer-driven engagement strategies focus on involving nano influencers in the campaign's dialogue and interactions. This approach leverages the influencers' credibility and following to facilitate interactions and stimulate conversations. By encouraging these

influencers to write comments, engage with the campaign post, and facilitate discussions, brands, and marketers aim to generate increased audience interaction and participation. This influencer-driven engagement strategy not only enhances the overall engagement metrics but also helps to shape and control the narrative of the message. Through their active involvement, nano influencers influence the direction and perception of the campaign, further strengthening the brand's messaging and positioning.

## Conclusion

This study aimed to understand the influence and effectiveness of nano influencers in marketing communication compared to other tiers of influencers. *Nano influencers* were defined as individuals with less than 10,000 connections or followers on Instagram. The findings of this study shed light on the distinct attributes of nano influencers and their impact on marketing campaigns, specifically for social and environmental justice-related content. Despite having a limited reach compared to higher-tier influencers, nano influencers exhibit exceptional levels of relevance and resonance. Their posts predominantly focus on a single theme or topic, which resonates strongly with their followers and establishes trust and authority within their communities.

The study also revealed that while nano influencers may have a smaller follower base, they exhibit high levels of engagement rate and growth rates. Their consistent use of relevant hashtags and consistent posting schedules contribute to their ability to attract and retain new followers. These findings suggest that nano influencers possess the potential to generate significant impact and influence on a targeted audience.

Several strategies were identified to effectively utilize nano influencers in marketing campaigns for social and environmental issues. Increasing the number of nano influencers can enhance cumulative reach, amplifying the campaign's message. Paid advertisements can also be utilized to expand visibility and increase message adoption. Moreover, the concept of hub-centric influence maximization was introduced, which involves identifying influential hubs (macro and mega influencers) and utilizing nano influencers to activate them, leading to a cascading effect and maximizing the overall impact on the network. Furthermore, burst-style campaigns and influencer-driven engagement strategies were identified as additional approaches to enhance the impact of nano influencers. Burst-style campaigns involve coordinating the efforts of multiple nano influencers in a defined timeframe to saturate the target audience's Instagram feeds. Influencer-driven engagement strategies focus on involving nano influencers in campaign dialogues and interactions, leveraging their credibility and following to stimulate conversations and shape the campaign's narrative.

Overall, this study provides valuable insights into the effectiveness of nano influencers in marketing communication. Based on the weighted influence scores, it was evident that for every impression, nano influencers have a much higher probability of influencing than any other tier of influencer. By understanding their unique characteristics and implementing tailored strategies, marketers can harness the power of nano influencers to reach large audiences, generate meaningful engagement, and influence behavior.

The research findings on nano influencers have several implications which are relevant in the broader context of influencer marketing, marketing communication strategies, and information flow. These implications can guide marketers and brands in making informed decisions and optimizing their use of influencers.

The research findings shed light on the critical role that small (and often overlooked) nodes can play in the flow of information. In the framework of influencer marketing, it is commonly assumed that all followers of an influencer (or individuals) are of equal value. However, the research findings suggest that it is crucial to move beyond the oversimplified premise that all followers possess identical values and consider each follower's identities and incorporate their social capital to recognize an influencer's true potential. By considering these factors, marketers can refine their influencer selection process and optimize the information flow within their marketing campaigns.

It is crucial to recognize this study's limitations. Conclusions were drawn from a specific group focused on social and environmental justice and may not apply to different circumstances. The study also ignored other social media platforms and potential variations by concentrating primarily on Instagram.

Future studies in the field of nano influencers can explore innovative strategies to extend their reach and effectiveness. One potential avenue for research is investigating the use of nano influencers in combination with prominent influencers to enhance communication reach. Creating a multi-level communication approach that reaches a broader audience may be possible by strategically placing nano influencers within a network alongside prominent influencers. In a broader context, studies can explore the extent to which nano influencers contribute to the dissemination of messages within a population is another area which can be explored.

Moreover, future studies can explore the application of group theory in leveraging nano influencers to increase message acceptance rates. Group theory suggests that individuals are more likely to accept and adopt new ideas or behaviors when they perceive them as fitting within the norms and values of their social group. By framing the involvement of nano influencers within the context of group dynamics, it may be possible to enhance the acceptance and diffusion of messages among target audiences.

Lastly, this research primarily focuses on message propagation. Considering the notable strengths of nano influencers in relevance and resonance, it will be interesting to explore the potential of utilizing them to address and combat the challenges posed by misinformation, disinformation, and fake news. Exploring their role in mitigating these issues and understanding their impact on information flow can yield valuable insights and provide alternative methods to combat misinformation, disinformation, and fake news.

Overall, this research contributes to the growing understanding of influencer marketing and offers valuable guidance for marketers looking to use nano influencers as a strategic marketing communication tool. Nano influencers' impact should not be underestimated, as their influence can extend well beyond their immediate follower base.

## Bibliography

Ahn, H.-Y. (Anthony), Wu, L., & Taylor, R. E. (2013). Communication strategies in cosmetic surgery websites: An application of Taylor's six-segment message strategy wheel. *Health Marketing Quarterly*, 30(2), 97–113. <https://doi.org/10.1080/07359683.2013.787879>

Alina, S., & Maryna, V. (2019). THE MARKETING FUNNEL AS AN EFFECTIVE WAY OF THE BUSINESS STRATEGY. *ΛΟΓΟΣ. The Art of Scientific Mind*, 4, 16–18. Retrieved 2022, from <https://www.semanticscholar.org/paper/The-marketing-funnel-as-an-effective-way-of-a-Sapian-Vyshnevskaya/85268c3b9c337a62793d0d59d9211eeb04174413>.

Aslam, S. (2022, February 27). *Instagram by the Numbers: Stats, Demographics & Fun Facts* [web log]. Retrieved July 28, 2022, from <https://www.omnicoreagency.com/instagram-statistics/>.

Bakker, D. (2018). Conceptualising Influencer Marketing. *Journal of Emerging Trends in Marketing and Management*, Vol 1(1), 2018th ser. Retrieved from [http://www.etimm.ase.ro/RePEc/aes/jetimm/2018/ETIMM\\_V01\\_2018\\_57.pdf](http://www.etimm.ase.ro/RePEc/aes/jetimm/2018/ETIMM_V01_2018_57.pdf)

Baklanov, N. (2020, March 24). *State of Influencer Marketing in Portugal* HypeAuditor.com. Retrieved January 10, 2021, from <https://hypeauditor.com/blog/state-of-influencer-marketing-in-portugal/>

Bakshy, E., Hofman, J. M., Mason, W. A., & Watts, D. J. (2011). Everyone's an influencer. *Proceedings of the Fourth ACM International Conference on Web Search and Data Mining - WSDM '11*. <https://doi.org/10.1145/1935826.1935845>

Baltes , L. P. (2016). Inbound Marketing - the most important digital marketing strategy. *Bulletin of the Transilvania University of Braşov, Series V: Economic Sciences*, 61-68

Bastos, M. T., Raimundo, R. L., & Travitzki, R. (2013). Gatekeeping twitter: Message diffusion in political hashtags. *Media, Culture & Society*, 35(2), 260–270. <https://doi.org/10.1177/0163443712467594>

Bátor Attila, & Lengyel Zoltán. (2014). Performance based online marketing in theory and in practice. *Pannon Management Review*, 3(2), 11–44.

Bearden, W. O., & Etzel, M. J. (1982). Reference group influence on product and brand purchase decisions. *Journal of Consumer Research*, 9(2), 183e194.

Berg, L., & Sterner, L. (2015). Marketing on Instagram: a qualitative study on how companies make use of Instagram as a marketing tool.

Biswas, D., Biswas, A., & Das, N. (2006). The differential effects of celebrity and expert endorsements on Consumer Risk Perceptions. the role of consumer knowledge, perceived congruency, and product technology orientation. *Journal of Advertising*, 35(2), 17–31. <https://doi.org/10.1080/00913367.2006.10639231>

Block, M. P., & Atkin, C. (1983). Effectiveness of Celebrity Endorsers. *Journal of Advertising Research*, 23, 57–61.

Campbell, C., & Farrell, J. R. (2020). More than meets the eye: The functional components underlying influencer marketing. *Business Horizons*, 63(4), 469–479. <https://doi.org/10.1016/j.bushor.2020.03.003>

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 and Marketing*, 38(1), 110-123.

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>

Chaturvedi, S. (2019). *I am a troll: Inside the secret world of the BJP's digital army*. New Delhi, India: Juggernaut.

Cheng, Y., Hung-Baesecke, C.-J. F., & Chen, Y.-R. R. (2021). Social Media Influencer Effects on CSR communication: The role of influencer leadership in opinion and taste. *International Journal of Business Communication*, 232948842110351. <https://doi.org/10.1177/23294884211035112>

Cheung, T. T. (2014). A study on motives, usage, self-presentation and number of followers on instagram. <http://dspace.cityu.edu.hk/handle/2031/7521>

Clark, L., & Çalli, L. (2014). Personality types and Facebook Advertising: An exploratory study. *Journal of Direct, Data and Digital Marketing Practice*, 15(4), 327–336. <https://doi.org/10.1057/dddmp.2014.25>

Clark, M. A., Domingo, N. G., Colgan, K., Thakrar, S. K., Tilman, D., Lynch, J., Azevedo, I. L., & Hill, J. D. (2020). Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets. *Science*, 370(6517), 705–708. <https://doi.org/10.1126/science.aba7357>

Cohen, H. (2015, June 22). *Earned media metrics: How to track your results*. Heidi Cohen. Retrieved September 3, 2022, from <http://heidicohen.com/earned-media-metrics/>

Constine, J. (2013). You're Not Just The Product, You're The Ads (And Your Friends Should Thank You). *TechCrunch*, October 11. <https://techcrunch.com/2013/10/11/you-make-ads-better/>.

Dean, D. H., & Biswas, A. (2001). Third-party organization endorsement of products: An advertising cue affecting consumer prepurchase evaluation of goods and services. *Journal of Advertising*, 30(4), 41–57. <https://doi.org/10.1080/00913367.2001.10673650>

Delbaere, M., Michael, B., & Phillips, B. J. (2020). Social Media influencers: A route to brand engagement for their followers. *Psychology & Marketing*, 38(1), 101–112. <https://doi.org/10.1002/mar.21419>

Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87. <https://doi.org/10.1525/cmr.2011.54.1.64>

Deyan, G. (2021, June 29). *How Much Time Do People Spend on Social Media in 2021?* TechJury. <https://techjury.net/blog/time-spent-on-social-media/#gref>.

Divakaran, S. (2021). *How Influence Works? Digital Uncovered*. Retrieved December 25, 2022, from <https://digitaluncovered.com/how-influence-works/>

Dunbar, R. I. M. (1992). Neocortex size as a constraint on group size in primates. *Journal of Human Evolution*, 22(6), 469–493. [https://doi.org/10.1016/0047-2484\(92\)90081-j](https://doi.org/10.1016/0047-2484(92)90081-j)

Dwidienawati, D., Tjahjana, D., Abdinagoro, S. B., Gandasari, D., & Zainal, M. (2020). Customer Review or influencer endorsement: Which one influences purchase intention more? *Heliyon*, 6(11). <https://doi.org/10.1016/j.heliyon.2020.e05543>

Erdogan, B. Z. (1999). Celebrity endorsement: A literature review. *Journal of Marketing Management*, 15(4), 291–314. <https://doi.org/10.1362/026725799784870379>

Fighting food waste. (2020, January 3). *THE PORTUGAL NEWS*. Retrieved December 14, 2021, from <https://www.theportugalnews.com/news/fighting-food-waste/52539>.

Fisher, E. (2014). ‘You Media’: audiencing as marketing in social media. *Media, Culture & Society*, 37(1), 50–67. <https://doi.org/10.1177/0163443714549088>

Fitrianto, E. M., Mohammad, N., & Isnawaty. (2020). Brand Ambassador Performance and the Effect to Consumer Decision Using VisCAP Model on Online Marketplace in Indonesia. *Sriwijaya International Journal Of Dynamic Economics And Business*, 4(1), 21. doi:10.29259/sijdeb.v4i1.21-30

Fitrianto, E., Daud, I., & Nailis, W. (2018). Types of endorsers and its effect on consumer behavior of convenience goods (Case study: Student in Palembang, Indonesia). *JURNAL MANAJEMEN DAN BISNIS SRIWIJAYA*, 15(4), 197–207. <https://doi.org/10.29259/jmbs.v15i4.5718>

Fleck, N., Michel, G., & Zeitoun, V. (2013). Brand personification through the use of spokespeople: An exploratory study of ordinary employees, CEOs, and celebrities featured in advertising. *Psychology & Marketing*, 31(1), 84–92. <https://doi.org/10.1002/mar.20677>

Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*, 37(1), 90–92. <https://doi.org/10.1016/j.pubrev.2010.11.001>

Friedman, H. H., Termini, S., & Washington, R. (1976). The effectiveness of advertisements utilizing four types of endorsers. *Journal of Advertising*, 5(3), 22–24. <https://doi.org/10.1080/00913367.1976.10672647>

Garton, L., Haythornthwaite, C., & Wellman, B. (2006). Studying online social networks. *Journal of Computer-Mediated Communication*, 3(1). <https://doi.org/10.1111/j.1083-6101.1997.tb00062.x>

Garton, L., Haythornthwaite, C., & Wellman, B. (2006). Studying online social networks. *Journal of Computer-Mediated Communication*, 3(1). <https://doi.org/10.1111/j.1083-6101.1997.tb00062.x>

Gauns, K. K., Pillai, S. K., Kamat, K., Chen, R. F., & Chang, L.-C. (2017). Impact of celebrity endorsement on consumer buying behaviour in the state of Goa. *IIM Kozhikode Society & Management Review*, 7(1), 45–58. <https://doi.org/10.1177/2277975217733897>

Gladwell, M. (2013). *The tipping point*. Abacus.

[Godin, S. \(2009, February\). \*The tribes we lead\* \[Video\]. Ted Conferences. \[https://www.ted.com/talks/seth\\\_godin\\\_the\\\_tribes\\\_we\\\_lead?language=en\]\(https://www.ted.com/talks/seth\_godin\_the\_tribes\_we\_lead?language=en\)](https://www.ted.com/talks/seth_godin_the_tribes_we_lead)

Goffman, E. (1956). *The Presentation Of Self In Everyday Life*. University of Edinburgh. *Social Sciences Research Centre*, 5.

Golan, G. J., & Zaidner, L. (2008). Creative strategies in viral advertising: An application of Taylor's six-segment message strategy wheel. *Journal of Computer-Mediated Communication*, 13(4), 959–972. <https://doi.org/10.1111/j.1083-6101.2008.00426.x>

Golbeck, J., Klavans, J. L., & Golbeck, J. (2015). Analyzing networks. *Introduction to social media investigation: A hands-on approach* (pp. 221–235). essay, Syngress is an imprint of Elsevier.

Gopal, R., Hidaji, H., Patterson, R. A., Rolland, E., & Zhdanov, D. (2016). Design improvements for message propagation in Malleable Social Networks. *Production and Operations Management*, 25(6), 993–1005. <https://doi.org/10.1111/poms.12521>

Goyat, S. (2011). The basis of market segmentation: a critical review of literature. *European Journal of Business and Management*, 3(9).

Gupta, M., & Hodges, N. (2012). Corporate Social Responsibility in the apparel industry. *Journal of Fashion Marketing and Management: An International Journal*, 16(2), 216–233. <https://doi.org/10.1108/13612021211222833>

Hansen, D. L., Shneiderman, B., Smith, M. A., & Himelboim, I. (2020). Social network analysis: Measuring, mapping, and modeling collections of connections. *Analyzing Social Media Networks with NodeXL*, 31–51. <https://doi.org/10.1016/b978-0-12-817756-3.00003-0>

Hayes, R. A., Carr, C. T., & Wohn, D. Y. (2016). One click, many meanings: Interpreting paralinguistic digital affordances in social media. *Journal of Broadcasting & Electronic Media*, 60(1), 171–187. <https://doi.org/10.1080/08838151.2015.1127248>

Hepp, A. (2018). Katz/Lazarsfeld (1955): Personal influence. *Schlüsselwerke Der Netzwerkforschung*, 293–296. [https://doi.org/10.1007/978-3-658-21742-6\\_67](https://doi.org/10.1007/978-3-658-21742-6_67)

Himmelboim, I., & Golan, G. J. (2019). A social networks approach to viral advertising: The role of primary, contextual, and low influencers. *Social Media + Society*, 5(3), 205630511984751. <https://doi.org/10.1177/2056305119847516>

Hingston, S. T., & Noseworthy, T. J. (2020). On the epidemic of food waste: Idealized prototypes and the aversion to misshapen fruits and vegetables. *Food Quality and Preference*, 86, 103999. <https://doi.org/10.1016/j.foodqual.2020.103999>

Hoffman, M., Steinley, D., Gates, K. M., Prinstein, M. J., & Brusco, M. J. (2017). Detecting clusters/communities in social networks. *Multivariate Behavioral Research*, 53(1), 57–73. <https://doi.org/10.1080/00273171.2017.1391682>

Hofman, L. F. (2020, October 7). *Transforming Food Waste: Making something out of Rubbish*. Curious. Retrieved December 13, 2021, from <https://www.science.org.au/curious/earth-environment/transforming-food-waste-making-something-out-rubbish>.

Hoos, B. (2019, August 22). *The Psychology Of Influencer Marketing*. Forbes. Retrieved August 15, 2021, from <https://www.forbes.com/sites/teakvetenadze/2021/10/08/136-countries-agree-to-establish-15-minimum-corporate-tax-rate/?sh=47f5d9e864bb>.

Hsu, T. (2019, October 28). The Advertising Industry Has a Problem: People Hate Ads. *The New York Times*. <https://www.nytimes.com/2019/10/28/business/media/advertising-industry-research.html>.

Hur, W. M., Moon, T. W., & Kim, H. (2020). When and how does customer engagement in CSR initiatives lead to greater CSR participation? the role of CSR credibility and customer–company identification. *Corporate Social Responsibility and Environmental Management*, 27(4), 1878–1891. <https://doi.org/10.1002/csr.1933>

Husain, O. (2022, December 8). *Bottom of funnel content: What is Bofu Content & 10 great examples*. Content Harmony. Retrieved December 21, 2022, from <https://www.contentharmony.com/blog/bottom-of-funnel-content/>

Huttula, T. (2020). Social Media Influencers In Finland: Brand Fit And Communication Strategy Roles. *Sijdeb*, 4(1). <https://doi.org/10.29259/sijdeb.v4i1.21-30>

*Influencer Marketing Archives: Page 4 of 4*. American Marketing Association. (2021). <https://www.ama.org/topics/influencer-marketing/page/4/>.

*Instagram help center*. (2021). Retrieved February 10, 2021, from <https://www.facebook.com/help/instagram/1986234648360433>

Islam, G. (2014). Social Identity theory. *Encyclopedia of Critical Psychology*, 1781–1783. [https://doi.org/10.1007/978-1-4614-5583-7\\_289](https://doi.org/10.1007/978-1-4614-5583-7_289)

IZEA (2021, June 4). *Working With Mid-Tier Influencers: Everything You Need to Know*. IZEA. <https://izea.com/2021/06/04/mid-tier-influencers/>.

Jang, J. Y., Han, K., Shih, P. C., & Lee, D. (2015). Generation like. *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. <https://doi.org/10.1145/2702123.2702555>

Kailani, C. M. (2012). Modelling the influence of integrated marketing communication on consumer behaviour: An approach based on hierarchy of effects concept. *Procedia - Social and Behavioral Sciences*, 62, 975–980. <https://doi.org/10.1016/j.sbspro.2012.09.166>

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! the challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>

Karasiewicz, G., & Kowalczyk, M. (2014). Effect of celebrity endorsement in advertising activities by product type. *International Journal of Management and Economics*, 44(1), 74–91. <https://doi.org/10.1515/ijme-2015-0010>

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509–523. <https://doi.org/10.1086/268109>

Kay, S., Mulcahy, R., & Parkinson, J. (2020). When less is more: the impact of macro and micro social media influencers' disclosure. *Journal of Marketing Management*, 36(3-4), 248–278. <https://doi.org/10.1080/0267257x.2020.1718740>

Kempe, D., Kleinberg, J., & Tardos, É. (2003). Maximizing the spread of influence through a social network. *Proceedings of the Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining - KDD '03*. <https://doi.org/10.1145/956750.956769>

Keys, T., Malnight, T. W., & Graaf, K. van der. (2019, February 22). *Making the most of corporate social responsibility*. McKinsey & Company. Retrieved December 15, 2021, from <https://www.mckinsey.com/featured-insights/leadership/making-the-most-of-corporate-social-responsibility>

Khan, M. A. (2013). Consumer behaviour and advertising management. New Age International (P) Limited, Publishers.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social Media? get serious! understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251. <https://doi.org/10.1016/j.bushor.2011.01.005>

Kim, H., & Papacharissi, Z. (2003). Cross-cultural differences in online self-presentation: A content analysis of personal Korean and US Home Pages. *Asian Journal of Communication*, 13(1), 100–119. <https://doi.org/10.1080/01292980309364833>

Knoll, J., & Matthes, J. (2016). The effectiveness of celebrity endorsements: A Meta-analysis. *Journal of the Academy of Marketing Science*, 45(1), 55–75. <https://doi.org/10.1007/s11747-016-0503-8>

Kotler, P., Armstrong, G., Saunders, J. & Wong, V. (2002). *Principles of Marketing*. Harlow: Pearson.

Kramer, S. (2014, January 17). *Facebook Ditches Sponsored Stories: Do You Care - V3B: Marketing and Social Media Agency*. V3B. <https://v3b.com/2014/01/facebook-ditches-sponsored-stories-do-you-care/>.

Księżak, P. (2017). *The benefits from CSR for a company and Society*. *Journal of Corporate Responsibility and Leadership*, 3(4), 53. <https://doi.org/10.12775/jcrl.2016.023>

Kull, K. (2007). *The Model Of Internet-Based Marketing Communication*. Semantic Scholar. Retrieved from <https://www.semanticscholar.org/paper/THE-MODEL-OF-INTERNET-BASED-MARKETING-COMMUNICATION-Kull/3e92ebe4a76db2af27b345137867e1e6c286e325#references>

Kumar, P., Verma, P., Singh, A., & Cherifi, H. (2019). Choosing optimal seed nodes in competitive contagion. *Frontiers in Big Data*, 2. <https://doi.org/10.3389/fdata.2019.00016>

Laskey, H. A., Day, E., & Crask, M. R. (1989). Typology of main message strategies for television commercials. *Journal of Advertising*, *18*(1), 36–41. <https://doi.org/10.1080/00913367.1989.10673141>

Lavidge, R. J., & Steiner, G. A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing*, *25*(6), 59. <https://doi.org/10.2307/1248516>

Levin, A. (2020). *Influencer marketing for brands what Youtube and Instagram can teach you about the future of digital advertising*. New York: Apress.

Lindsey-Mullikin, J., & Borin, N. (2017). Why strategy is key for successful social media sales. *Business Horizons*, *60*(4), 473-482.

Mallipeddi, R., Kumar, S., Sriskandarajah, C., & Zhu, Y. (2018). A framework for analyzing influencer marketing in social networks: Selection and scheduling of Influencers. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3255198>

Marchand, R. (1999). Creating the corporate soul: The rise of public relations and corporate imagery in American Big Business. *Choice Reviews Online*, *36*(06). <https://doi.org/10.5860/choice.36-3417>

Mcleod, S. (2018, October). Pavlov's dogs. Pavlov's Dogs Study and Pavlovian Conditioning Explained | *Simply Psychology*. Retrieved October 6, 2021, from <https://www.simplypsychology.org/pavlov.html>.

Mediakix. (n.d.). *Influencer Tiers for the Influencer Marketing Industry*. Mediakix. <https://mediakix.com/influencer-marketing-resources/influencer-tiers/>.

MediaKix. (n.d.). *The 65 Influencer Marketing Statistics Every Marketer Needs To Know*. Mediakix. <https://mediakix.com/influencer-marketing-resources/influencer-marketing-statistics/#roi>.

Mishra, N., Schreiber, R., Stanton, I., & Tarjan, R. E. (2007). Clustering Social Networks. *Algorithms and Models for the Web-Graph*, 56–67. [https://doi.org/10.1007/978-3-540-77004-6\\_5](https://doi.org/10.1007/978-3-540-77004-6_5)

Misra, S., & Grewal, K. (2021, January 30). The GameStop story - how a group of investors on Reddit gave Wall Street a wild week. *ThePrint*. <https://theprint.in/theprint-essential/the-gamestop-story-how-a-group-of-investors-on-reddit-gave-wall-street-a-wild-week/595181/>.

Mohtsham Saeed, M., & Arshad, F. (2012). Corporate Social Responsibility as a source of competitive advantage: The mediating role of Social Capital and Reputational Capital. *Journal of Database Marketing & Customer Strategy Management*, 19(4), 219–232. <https://doi.org/10.1057/dbm.2012.19>

MYERS, S. D., SEN, S., & ALEXANDROV, A. (2010). THE MODERATING EFFECT OF PERSONALITY TRAITS ON ATTITUDES TOWARD ADVERTISEMENTS: A CONTINGENCY FRAMEWORK. *Management & Marketing Challenges for Knowledge Society*, 5(3), 3–20.

Ngobi , E. (2020, July). *The Art of Follower Retention and Why it Matters* [web log]. <https://www.dashhudson.com/blog/follower-retention-why-it-matters>.

Norman, D. A. (2002). *The design of everyday things*. Basic Books.

Omarzu, J. (2000). A disclosure decision model: Determining how and when individuals will self-disclose. *Personality and Social Psychology Review*, 4(2), 174–185. [https://doi.org/10.1207/s15327957pspr0402\\_05](https://doi.org/10.1207/s15327957pspr0402_05)

Opresnik, M. O., Hollensen, S., Kotler, P., & Opresnik, M. O. (2020). *Social media marketing: a practitioner guide*. Independently published.

Papacharissi, Z. (2011). *A networked self: Identity, community and culture on social network sites*. Routledge.

Pekic, B. (2017, July 24). Contiente Turns Surplus Food Into Preserves And Chutneys. *European Supermarket Magazine* . Retrieved December 14, 2021, from <https://www.esmmagazine.com/private-label/contiente-chutney-preserves-food-waste-46608>.

Perez, C., & Germon, R. (2016). Graph creation and analysis for linking actors: Application to Social Data. *Automating Open Source Intelligence*, 103–129. <https://doi.org/10.1016/b978-0-12-802916-9.00007-5>

Perry, P., & Towers, N. (2013). Conceptual Framework Development. *International Journal of Physical Distribution & Logistics Management*, 43(5/6), 478–501. <https://doi.org/10.1108/ijpdlm-03-2012-0107>

Petrescu, M. (2014). *Viral marketing and Social Networks*. Business Expert Press.

Pietikäinen, M. O. (2020). Social media marketing through influencers with a particular focus on Instagram and Honeycomb model.

Porter, M. E., & Kramer, M. R. (2002, December). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review* . Retrieved December 15, 2021, from <https://hbr.org/2002/12/the-competitive-advantage-of-corporate-philanthropy>.

Presley, A., Meade, L., & Sarkis, J. (2007). A strategic sustainability justification methodology for organizational decisions: A reverse logistics illustration. *International Journal of Production Research*, 45(18-19), 4595–4620. <https://doi.org/10.1080/00207540701440220>

Putnam, R. D. (2020). *Bowling alone: The collapse and revival of American community*. Simon & Schuster Paperbacks.

Reinikainen, H., Munnukka, J., Maity, D., & Luoma-aho, V. (2020). 'you really are a great big sister' – parasocial relationships, credibility, and the moderating role of audience comments in Influencer marketing. *Journal of Marketing Management*, 36(3-4), 279–298. <https://doi.org/10.1080/0267257x.2019.1708781>

Rodrigues, H. S., & Fonseca, M. J. (2015). Can information be spread as a virus? viral marketing as epidemiological model. *Mathematical Methods in the Applied Sciences*, 39(16), 4780–4786. <https://doi.org/10.1002/mma.3783>

Rogers, E. M. (1995). *Diffusion of innovation* (4th ed.). s.n.

Samarasinghe, U. S. (2018). Social Media and Celebrity Endorsement: An analysis of Literature Review. *International Journal of Scientific and Engineering Research*, 9. Retrieved January 17, 2022, from <https://www.ijser.org/researchpaper/Social-Media-and-Celebrity-Endorsement-An-analysis-of-Literature-Review.pdf>.

Sánchez-Teba, E. M., García-Mestanza, J., & Rodríguez-Fernández, M. (2020). The application of the inbound marketing strategy on Costa del Sol Planning & Tourism Board. lessons for post-covid-19 revival. *Sustainability*, 12(23), 9926. <https://doi.org/10.3390/su12239926>

Sapana. (2020). *INSTITUTIONAL PRESENTATION*. SAPANA. Retrieved December 15, 2021, from <https://www.sapana.org>

Schimmelpfennig, C., & Hunt, J. B. (2019). Fifty years of celebrity endorser research: Support for a comprehensive celebrity endorsement strategy framework. *Psychology & Marketing*, 37(3), 488–505. <https://doi.org/10.1002/mar.21315>

Scholten, M. (1996). Lost and found: The information-processing model of advertising effectiveness. *Journal of Business Research*, 37(2), 97–104. [https://doi.org/10.1016/0148-2963\(96\)00058-6](https://doi.org/10.1016/0148-2963(96)00058-6)

Schouten, A. P., Janssen, L., & Verspaget, M. (2019). Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit. *International Journal of Advertising*, 39(2), 258–281. <https://doi.org/10.1080/02650487.2019.1634898>

Schultz, C. D. (2016). Driving likes, comments, and shares on social networking sites. *Proceedings of the 18th Annual International Conference on Electronic Commerce e-Commerce in Smart Connected World - ICEC '16*. <https://doi.org/10.1145/2971603.2971612>

Seibel, B. (2019). *Insta-identity: The construction of identity through Instagram*. <https://doi.org/10.15760/honors.764>

Sengupta, K. (2014). Big Seed Marketing -A Study and Analysis of its Potency in Comparison to Viral Marketing and Mass Media Marketing. *JOURNAL OF MANAGEMENT RESEARCH IN EMERGING ECONOMIES*. Retrieved May 16, 2022, from [https://www.researchgate.net/publication/331399398\\_Big\\_Seed\\_Marketing\\_A\\_Study\\_and\\_Analysis\\_of\\_its\\_Potency\\_in\\_Comparison\\_to\\_Viral\\_Marketing\\_and\\_Mass\\_Media\\_Marketing](https://www.researchgate.net/publication/331399398_Big_Seed_Marketing_A_Study_and_Analysis_of_its_Potency_in_Comparison_to_Viral_Marketing_and_Mass_Media_Marketing).

Silva, M. J., Farias, S. A., Grigg, M. K., & Barbosa, M. de. (2019). Online engagement and the role of Digital Influencers in product endorsement on Instagram. *Journal of Relationship Marketing*, 19(2), 133–163. <https://doi.org/10.1080/15332667.2019.1664872>

Silvera, D. H., & Austad, B. (2004). Factors predicting the effectiveness of celebrity endorsement advertisements. *European Journal of Marketing*, 38(11/12), 1509–1526. <https://doi.org/10.1108/03090560410560218>

Smith, L. R., & Sanderson, J. (2015). I'm going to Instagram it! an analysis of athlete self-presentation on Instagram. *Journal of Broadcasting & Electronic Media*, 59(2), 342–358. <https://doi.org/10.1080/08838151.2015.1029125>

Stacks, D. W., Salwen, M. B., Eichhorn, K. C., Rogers, E. M., Singhal, A., & Quinlan, M. M. (2019). DIFFUSION OF INNOVATIONS. *In An integrated approach to communication theory and research* (Second, pp. 418–434). essay, Routledge.

Statista. (2023). *Influencer advertising - europe: Statista market forecast*. <https://www.statista.com/outlook/amo/advertising/influencer-advertising/europe>

Thompkins, Y. L. (2012). Seeding Viral Content. *JOURNAL OF ADVERTISING RESEARCH*, 59–72. <https://doi.org/10.2501/JAR-52-4-000-000>

ULUĞ YURTTAŞ, Ö., & ÖZKOÇAK, Y. (2020). Creative strategies on turkish television advertising: An application of Taylor’s six-segment message strategy wheel. *Stratejik Ve Sosyal Araştırmalar Dergisi*, 4(1), 1–16. <https://doi.org/10.30692/sisad.668234>

Vakratsas, D., & Ambler, T. (1999). How advertising works: What do we really know? *Journal of Marketing*, 63(1), 26. <https://doi.org/10.2307/1251999>

Veissi, I. (2017). Influencer marketing on Instagram.

Vieites , L. (2014). Athlete Endorsement As A Marketing Strategy : A Case Study Of Nike And Michael Jordan (thesis). CEU Institutional Repository. Retrieved August 7, 2021, from [https://repositorioinstitucional.ceu.es/bitstream/10637/11302/7/Athlete\\_Masar\\_2014.pdf](https://repositorioinstitucional.ceu.es/bitstream/10637/11302/7/Athlete_Masar_2014.pdf).

Walther, J. B. (2015). Social Information Processing Theory (CMC). *The International Encyclopedia of Interpersonal Communication*, 1–13. <https://doi.org/10.1002/9781118540190.wbeic192>

Watts, D. J., & Dodds, P. S. (2007). Influentials, Networks, and Public Opinion Formation. *Journal of Consumer Research*, 34(4), 441–458. <https://doi.org/10.1086/518527>

Watts, D., & Peretti, J. (2007, May). *Viral Marketing for the Real World*. Harvard Business Review, 85, 22–23.

Whittaker, S. (2022, December 21). *Why do brands prefer Instagram over other social media platforms?* Growthoid. Retrieved January 7, 2023, from <https://growthoid.com/why-do-brands-prefer-instagram/>

Woolley, K., & Sharif, M. A. (2021). What happens when companies pay customers to write reviews? Harvard Business Review (June 25). Retrieved November 21, 2022, from <https://hbr.org/2021/06/what-happens-when-companies-pay-customers-to-write-reviews>

Yang, C. (2021). Research in the Instagram context: Approaches and methods. *The Journal of Social Sciences Research*, (71), 15–21. <https://doi.org/10.32861/jssr.71.15.21>

Yorke, D. (2015). Dagmar model. *Wiley Encyclopedia of Management*, 1–1. <https://doi.org/10.1002/9781118785317.weom090406>

## Appendices

### Appendix A: Account Overview

account name	location	account bio	followers	follower @july '21	growth	following	Follow er- follow ee ratio
Greta Thunberg	x	17year old climate and environmental activist with Asperger's #climatestrike #fridaysforfuture @fridaysforfuture	10,533,789	11,600,000	10.1	1,014	10,388
Greenpeace International	x	Greenpeace exists because this fragile earth deserves a voice. It needs solutions. It needs change. It needs action.	3,642,453	3,800,000	4.3	631	5,773
The Conscious Kid	x	Parenting and Education through a Critical Race Lens. Diverse #OwnVoices Books. Black and Brown Owned . COVID-19 #RENTRELIEF For Families	2,041,797	2,100,000	2.9	3,150	648
Angie Costa	Portugal	O do what you love, love what you do @thisislugin	869,734	875,000	0.6	802	1084.45636
Fafa de Belem	Portugal	comercial@fafadebelem.com.br Assista as nossas Lives de 2020	769,047	841,000	9.4	1,489	516.485561
Vanessa Martins	Portugal	collab: vanessamartins@frederica.pt Shop online <b>rj</b>	615,030	621,000	1.0	411	1496.42336
Joao Manzarrá	Portugal	Um humane que aprecia um toque de mesclado. Trabalhitos: geral@notable.pt	457,792	475,000	3.8	951	481.3796
Zero Plastic	?	If you care about the planet Follow US and join the mission to end plastic pollution!Ct	349,811	367,000	4.9	2,609	134.078574



		'iiActing&Managem ent: rscarrelo@gmail.com PR,Digital & Brands: squad@adagietto.pt						
Climate Save Moveme nt	?	A global network of chapters taking action to end animal agriculture & reforest the Earth. #SwitchToPlantBased	84,988	90,400	6.4	779	109.09 8845	
Maria Granel Zero Waste Store	Portu gal	Portugal 's first #zerowaste store and #organic #bulk #grocery	68,406	74,900	9.5	7,433	9.2030 1359	
Maria Granel Zero Waste Store	Portu gal	Portugal's first #zerowaste store and #organic #bulk #grocery Alvalade - R. Jose Duro, 22 Campo de Ourique - R. Coelho da Rocha, 37 #desafiozero	68,406		#VAL UE!	7.433	9203.0 1359	
Catarina F. P. Barreiros	Portu gal	Por aqui fala-se de sustainability e de um estilo de vida com menos desperdicio. Bern vindos!	65,265	78,000	19.5	687	95	
Zero Waste Living - Agnes MIKE	Austri a	Sustainability ZeroWaste living since 2018 Blogll.J & !S( shop "Twww.waste- less.at	62,864	60,300	-4.1	697	90.192 2525	
Mind The Trash	Portu gal	Portugal's 1st #zerowaste online #store For a more #sustainablelifestyle Sharing ways to reduce trash	54,621	60,800	11.3	1,834	29.782 4427	
Rafaela Duarte   Healthy	Portu gal	,( wellness   food   lifestyle   J Marketing e Publicidade Lisboa, Portugal O PROZIS: RAFAELADUARTE	53,847	59,600	10.7	986	54.611 5619	

Ines Pais	Portugal	<p>—@ellephant.pt</p> <p>DYouTube</p> <p>healthy vegetable-based recipes <b>8t</b></p> <p>baby-guided nutrition and natural parenting</p> <p>minimalism and slow fashion</p>	51,480	56,600	9.9	804	64.029 8507
Mafalda Luis de Castro	Portugal	<p><b>ii</b>Actress</p> <p>@hitmanagement <b>8t</b></p> <p>Vegan <b>O</b>ForLove &amp; Equality <b>fJ</b></p> <p>#rafeiravegana</p> <p>Portugal Segue →</p>	44,824	54,400	21.4	3,069	15
Mariana Soares Branco	Portugal	<p><b>=</b></p> <p>animal.org</p> <p>Portuguesa em Espanha</p> <p>Vida dupla: Med ica de dia, <b>a</b> noite falo por aqui de moda, sustentabilidade &amp; saude. Podcast <b>E</b></p> <p>Precise Ter Lata!</p>	43,163	42,100	-2.5	976	44
Rui Palha	Portugal	<p>Street and humanist photographer from Portugal</p>	39,208	41,700	6.4	858	46
Joana Silva	Portugal	<p>founder</p> <p>@conscious thelabel</p>	28,884	29,100	0.7	796	36
Anna Masiello	Portugal	<p>She/Her !;;! <b>O</b>waste, sustainability, climate justice Founder</p> <p>@shoprcoat Duo</p> <p><b>waves_and_cacao</b> MSc</p> <p>Environment&amp;Sustainability <b>O</b> Italian in Portugal</p>	24,164	25,100	3.9	683	35
Marisa Matias	Portugal	<p>Member of the European Parliament; PhD in Sociology; Candidata <b>a</b></p> <p>Presidencia da Republica Portuguesa</p> <p>#marisa2021</p>	24,127	41,400	71.6	2,253	11
Environment • Sustainability	?	<p>• Environmentally friendly content <b>n</b>.</p> <p>Endorsing sustainable</p>	21,806	54,300	149.0	3942	6

		lifestyle choices • Save the planet No copyright intended, please DM for removal						
Stop Ecocide Internati onal	x	Global campaign to make <b>Ecocide</b> an International <b>Crime</b> . Join the growing movement of <b>Earth Protectors</b> www .stopeccid e.earth	18,353	20,400	11.2	1,708	11	
The Trash Traveler Eco Tips	Portu gal	&Awareness with Positive Vibes SJJ in <b>Molecular Biologist JJ</b> /Vegetarian since 1992.J )'9 1.6+TONS collected during THE HIKE... f	16,698	18,600	11.4	993	17	
For Fridays Future Portugal	Portu gal	Student Climate Strike DATE NEXT SOON Inserted in the international movement @fridaysforfuture # schoolstrike4climate	15,733	15,700	-0.2	168	94	
I Met God, She's Green	Portu gal	O que e que podemos fazer para reduzir a nossa pegada ecologica? Aqui partilhamos os nossos desafios diaries de uma forma positiva.	14,872	14,800	-0.5	359	41	
Verdes Marias	Portu gal	Tres irmas que te ajudam a ter uma vida mais sustentavel sem chatice #microrrevolu<::5es, f por @maribombom @_mariaclaramorae s @mcarolpradopphoto	14,130	19,100	35.2	1,866	8	
JovemCa scais	Portu gal	Se queres estar a par de tudo o que se passa em Cascais esta pagina e para ti!	13,694	14,300	4.4	4,282	3	

		#jovemcascais If you want to know more about Cascais, this is for you!						
Ana Milhazes - Ana, Go Slowly	Portugal	<b>ti</b> Less is more Sustainability=Less consumption [I Shall we move towards a simpler, more sustainable, happy and conscious life?	13,460	14,200	5.5	425	32	
Lisboa Green Capital 2020	Portugal	<b>O</b> Pagina Oficial da Lisboa Capital Verde Europeia 2020 ,ij!Escolhe evoluir #escolheevoluir	13,423	14,900	11.0	213	63	
The Sustainability Project <b>Et</b>	Singapore	17]17m]m]17] lm]17] 17]17]1zD- 17]17]m]1] 17]17]17]17]17]17]17] 17]m]12017!m]17]17]17]17] 1m]m]1m]m]m]m] ramm]m] 17]17]m]lm]17] 17]17]17]17]17] 17]lm]17]17] 17]17]17]m]7n?1?1?1	12,595	14,500	15.1	4,157	3	
Desafio Vegetariano Portugal	Portugal	Experimente uma alimenta9ao 100% vegetal com mais compaixao, saude, empatia, muito mais sustentabilidade e uma equipa de mentoria. 100% gratuito <b>ffilj}</b>	12,182	25,800	111.8	378	32	
Quercus ANCN	Portugal	Associa9ao Nacional de Conserva9ao da Natureza	10,777	12,200	13.2	132	82	
Ligia Gomes Travel + Impact	Portugal	<b>la</b> #travel #foodie #sustainability>> @mypeggada <b>lil</b> #humanrights <b>M</b> #remotework Wrandom <b>O61</b> countries 1:1 acrushonblog@gmail.com !!J in	10,622	10,500	-1.1	4,573	2	
Carlo Rebelo	Portugal	DA PROVIDER8 @costa_vicentina_oficial #tamojunto COVIDI	10,234	x		875	12	

Quinta das Aguias	Portugal	\; .Animal sanctuary Organic vegetable farm Vegan Ecotourism Sustainability	9,675	10,400	7.5	2,962	3.2664
Alana Magalhes • AESTHETICS	Portugal	• Professional Makeup • Organic Skin Cleansing • Holistic Therapies • Astral Map & ThetaHealing *Creator • @honuaorganiccosmetics	9303	9779	5.1	3156	2.9477
Sara I Slowliving	Portugal	• 10% @organicbasics SARADSOBC3 • 20% @greentailors SARA20 • 10% @rnpl_beauty SARAIO • Slowliving  Naturaldyeing  Zerowaste Decor • Sustainable	8,963	9,395	4.8	1,068	8.3923
Eco-Friendly Shop	Portugal	Loja online de produtos veganos, ecológicos e livres de plástico. Junta-te a este movimento por um planeta mais sustentável! .A. ,r	8,653	16,800	94.2	2,648	3.2677
Maria	Portugal	@centralmodels	8,564	8,630	0.8	1,361	6.2924
Isabelle Axelsson	Sweden	Climate and environmental justice activist & Autistic @FridaysForFuture climate striker in Stockholm Listen to the science!	6,431	6,521	1.4	883	7.2831
Greenfest Portugal	Portugal	Urn festival. Urna forma de estar. Urna paixao. Urna experiencia que reúne os sentidos. Este ano tambem em formate digital! #greenfestportugal	5,115	5,453	6.6	3,107	1.6463
Bianca Castro	Portugal	a mixture of science, music, acting and activism	4,636	5,252	13.3	853	5.4349

Catarina Canelas	Portugal	@greveclimaticaeatud antil #fridaysforfuture Journalist @tvioficial @tvi24 Teacher @iscte_iul Writer LoveToTravel Ocean&Planet Lover ec.... MusicLover   + #plasticoonovocontine nte _Lisbon, Portugal	4,627	x	#VALUE!	1,513	3.0582
Abel Rodrigues	Portugal	Int. Representant of Fridays for Future Amazon ia Ativista da @greveclimaticaeatud antil -	4,467	4,956	10.9	5,426	0.8233
Lucas Fontes	Portugal	UEducador Ambiental Presidente da @aspoa_ , r @projetoconscientiza - @urtecobrasil @greenthinkingprojec t f _ . Escrevo poemas Leia-me -	4,206	4,338	3.1	2,995	1.4043
ECO designer Lisbon	Portugal	certified visual merchand iser home/garden makeover curated closet visual coordinator @tessymorelli.photog raphy t t #SECONDHANDSH OP t t	4,165	4,124	-1.0	2,216	1.8795
P E D R O I V E R D A	Portugal	Aquele cara que curte gerar impacto positive! fundador l @verdaimpactpositiv o designer de experiencias l - lanteamor speaker l @tedx_official	3,405	3,510	3.1	3,284	1.0368
LivrePara	Portugal	Despertar. Inspirar. Ser. Comunica9ao e conteudo sobre consume consciente,	3,402	3,726	9.5	2,066	1.6467

		boas noticias e positividade Bruno e Joao direto de Lisboa, <b>ii</b>					
Zero Waste Youth Portugal	Portu gal	We are an international youth empowerment movement! All together towards zero waste!	3,144	5,317	69.1	469	6.7036
Patricia dos Reis <b>7</b> Upcyclin g	Portu gal	cJupcycling & Sustentabilidade Imperfeita <b>DMSc</b> Eng. do Ambiente <b>6</b> CEO: @uptoyoubazaar Upcycling Bazaar From <b>ii</b>	3,124	5,786	85.2	1,010	3.0931
MOVE	Portu gal	ONGD de apoio ao empreendedorismo atraves de micro- consultoria e forma9ao nos A9ores <b>ii</b> , Sao Tome e Principe e Timor Leste <b>ii</b>	3,096	3,656	18.1	1,970	1.5716
Jacinta Madalen o	Portu gal		3,005	3,036	1.0	955	3.1466
Climaxi mo	Portu gal	Colectivo baseado em Lisboa Pela Justi9a Climatica Aberto e horizontal <b>O</b> Anticapitalista	3,002	4,447	48.1	752	3.9920
Rafa	Portu gal	20y Institute Portugues de Fotografia - Porto	2,974	2,941	-1.1	1,641	1.8123
Fridays For Future - Lisbon <b>O</b>	Portu gal	Lisbon Student Climate Strike Join us and #FazPeloClima @greveclimaticaestud antil	2,475	2,471	-0.2	38	65.131 6
Polito Sustaina ble	Italy	Developing a su sustainable strategy to disseminate environmental awareness and sustainability culture.	2,137	2,167	1.4	520	4.1096

Mariana Barros	Portugal	Look at @crosstheline. studio i	1,689	1,772	4.9	2,140	0.7893
Rafaela Aleixo	Portugal	.H  ranqya i davi	1,688	1,618	-4.1	1,203	1.4032
Andreia Galvao	Portugal	ethical circus    FCSH	1,678	2,180	29.9	1,499	1.1194
ECONnect Portugal	Portugal	li!Circular Economy Platform ( under construction, supported by the Startup Voucher-IAPMEI and @famalicaomadein measure)	1,214	1,819	49.8	811	1.4969
Joao Kraeski	Portugal	Criador do @livre_para	1,154	1,163	0.8	1,334	0.8651
indigo	Portugal	comunista e	1,110	1,123	1.2	1,360	0.8162
Beatriz Couceiro	Portugal	Cascais	1,009	1,039	3.0	1,533	0.6582
Climate Reality Portugal	Portugal	Climate Reality Leaders in Portugal representing the non-profit organization founded by Al Gore	943	986	4.6	438	2.1530
miguel	Portugal	I'm a crumpled up piece of paper lying here Pela Liberdade, Pela Democracia, Pelo Socialismo O	864	888	2.8	909	0.9505
sofia	Portugal	...in the name of being honest la policia no me cuida, me cuidan mis amigas	842	809	-3.9	1,355	0.6214
Umundu Lisbon Festival	Portugal	O Umundu Lx is a collective festival for su sustainable transformation .	778	823	5.8	469	1.6588
Lista R - AEFCS H	Portugal	Lista candidata aos 6rgaos Sociais da AEFCSH 2020/2021	609	444	-27.1	1,508	0.4038

Mariana Jesus	Portugal	<p><b>a</b> rrrn lmlrn rrrnrrrrn rn 11]11]11] 11] 11]11]11]lm]</p> <p>lml11llil· 11] #CXNIMCXISCXNdHUMCXNS nGHT <b>S</b>Mt<b>J</b> lll TOFU NEVER CAUSED A PANDEMIC <b>Bl</b>c:&gt;</p> <p>@partido_pan c:&gt; @greveclimaticamont ijo</p>	543	x	#VAL UE!	861	0.6307
Iara CicJrJ	Portugal	<p>Portuguese <b>I</b> Physicist <b>I</b> Photographer &amp; Climate and Social Activist <b>it</b> by me!</p>	446	458	2.7	2.803	159.1152
Martim Vitorino	Portugal	He/Him Sub-19	444	441	-0.7	445	0.9978
O Circular Seas	Portugal	<p>Turning ocean plastic waste into green products for maritime industries</p> <p>#circularseas</p>	192	328	70.8	90	2.1333
Conversas com Impacto	Portugal	<p>Anchor: <a href="https://anchor.fm/conversas-com-impacto">https://anchor.fm/conversas-com-impacto</a> Spotify: <a href="https://spoti.fi/2YzRJs">https://spoti.fi/2YzRJs</a> S Apple: <a href="https://apple.co/20aC7p2">https://apple.co/20aC7p2</a> Google: <a href="http://bit.ly/2ZnFywr">http://bit.ly/2ZnFywr</a></p>	118	131	11.0	565	0.2088

Appendix B: *Engagement Data*

account name	average interaction per post	engagement rate	like rate	comment rate	avg. posts per day	avg. posts per week	avg. posts per month
Greta Thunberg	267,108	2.54%	2.52%	0.02%	0.6	4.2	18
Greenpeace International	18,853	0.51%	0.51%	0%	0.75	5.25	22.5
The Conscious Kid	55,516	2.72%	2.49%	0.23%	0.56	3.89	16.67
Angie Costa	109,718	12.62%	12.49%	0.13%	0.55	3.85	16.5
Fafa de Belem	8,377	1.09%	1.06%	0.03%	1.71	12	51.43
Vanessa Martins	19,883	3.23%	3.18%	0.05%	0.32	2.27	9.73
Joao Manzarra	23,293	5.08%	4.94%	0.14%	0.22	1.51	6.47
Zero Plastic	8,937	2.55%	2.52%	0.03%	1.1	7.7	33
rosanajatoba	5,271	1.63%	1.58%	0.05%	2	14	60
Waste-Ed	12,057	4.51%	4.47%	0.04%	3	21	90
Alice Trewinnard	19,087	7.45%	5.36%	2.09%	1.33	9.33	40
[[ ]]] 1 1 ]]]]] [[ ]]]]]]] ]]]]]]]	2,501	1.53%	1.51%	0.02%	0.67	4.67	20
Everyday Climate Change	371	0.26%	0.26%	0%	0.59	4.12	17.65
Eco Quotes	2,112	1.71%	1.69%	0.02%	1.2	8.4	36
EarthHub	2,027	1.89%	1.86%	0.03%	2.2	15.4	66
Ana Varela	6,780	6.94%	6.82%	0.12%	0.37	2.57	11
Climate Save Movement	962	1.13%	1.09%	0.04%	0.07	0.47	2.01
Maria Granel Zero Waste Store	664	0.97%	0.92%	0.05%	0.92	6.46	27.69
Maria Granel Zero Waste Store	664	0.97%	0.92%	0.05%	0.92	6.46	27.69
Catarina F. P. Barreiros	2,411	3.70%	3.62%	0.08%	0.56	3.89	16.67
Zero Waste Living - Agnes Mike	308	0.49%	0.46%	0.03%	0.25	1.75	7.5
Mind The Trash	678	1.25%	1.21%	0.04%	0.36	2.5	10.71
Rafaela Duarte   Healthy	3,019	5.60%	5.08%	0.52%	1.25	8.75	37.5
Ines Pais	3,172	6.16%	6.06%	0.10%	0.31	2.14	9.17
Mafalda Luis de Castro	2,570	5.73%	5.67%	0.06%	0.04	0.26	1.11
Mariana Soares Branco	2,360	5.46%	5.42%	0.04%	0.08	0.56	2.4
Rui Palha	1,878	4.80%	4.72%	0.08%	0.25	1.75	7.5
Joana Silva	937	3.24%	3.21%	0.03%	0.28	1.94	8.33
Anna Masiello	789	3.26%	3.19%	0.07%	0.29	2	8.57
Marisa Matias	564	2.34%	2.20%	0.14%	1.2	8.4	36

Environment • Sustainability	4,141	18.99%	18.76%	0.23	1.2	8.4	36
Stop Ecocide International	238	1.30%	1.27%	0.03%	0.79	5.5	23.57
The Trash Traveler   Eco Tips	556	3.33%	3.22%	0.11%	0.06	0.42	1.8
Fridays For Future Portugal O	220	1.40%	1.39%	0.01%	0.63	4.42	18.95
I Met God, She's Green	389	2.61%	2.22%	0.39%	0.06	0.44	1.9
Verdes Marias	417	2.94%	1.57%	1.37%	2	14	60
JovemCascais	40	0.29%	0.29%	0%	2.4	16.8	72
Ana Milhazes - Ana, Go Slowly	472	3.50%	3.27%	0.23%	0.04	0.27	1.14
Lisboa Green Capital 2020	275	2.04%	1.98%	0.06%	1	7	30
The Sustainability Project EI	111	0.88%	0.86%	0.02%	0.5	3.5	15
Desafio Vegetariano Portugal	252	2.06%	2.00%	0.06%	3	21	90
Quercus ANCN	160	1.49%	1.48%	0.01%	0.37	2.57	11
Ligia Gomes EI Travel + Impact	180	1.69%	1.46%	0.23%	0.45	3.18	13.64
Carlo Rebelo	257	2.51%	2.46%	0.05%	0.26	1.84	7.89
Quinta das Aguias	421	4.35%	4.23%	0.12%	0.55	3.85	16.5
Alana Magalhaes • AESTHETICS	222	2.38%	2.23%	0.15%	0.36	2.55	10.91
Sara   Slowliving	337	3.76%	3.58%	0.18%	0.35	2.48	2.48
Eco-Friendly Shop	111	1.28%	1.26%	0.02%	1.43	10	42.86
Maria	586	6.85%	6.62%	0.23%	0.11	0.79	3.37
Isabelle Axelsson O	748	11.61%	11.14%	0.47%	0.08	0.53	2.29
Greenfest Portugal	21	0.39%	0.36%	0.03%	0.35	2.48	10.65
Bianca Castro	544	11.73%	11.02%	0.71%	0.06	0.41	1.77
Catarina Canelas	248	5.36%	4.59%	0.77%	0.42	2.92	12.5
Abel Rodrigues	312	7%	6.86%	0.14%	0.12	0.87	3.71
Lucas Fontes	211	5.01%	4.55%	0.46%	0.37	2.59	11.11
ECO designer Lisbon	25	0.60%	0.58%	0.02%	0.24	1.65	7.06
P E D R O I V E R D A	156	4.58%	4.13%	0.45%	0.21	1.48	6.35
LivrePara	109	3.22%	2.71%	0.51%	0.19	1.31	5.59
Zero Waste Youth Portugal	72	2.31%	2.24%	0.07%	0.46	3.23	13.85
Patricia dos Reis ij Upcycling	115	3.68%	3.25%	0.43%	0.57	4	17.14
MOVE	71	2.27%	2.21%	0.06%	0.4	2.8	12
Jacinta Madaleno	337	11.21%	10.97%	0.24%	0.2	1.37	5.88

Climaximo	107	3.57%	3.54%	0.03%	0.48	3.36	14.4
Rafa	225	7.58%	7.37%	0.21%	0.09	0.62	2.64
Fridays For Future - Lisbon <b>eJ</b>	114	4.60%	4.55%	0.05%	0.09	0.6	2.57
Polito Sustainable	23	1.09%	1.09%	0%	0.11	0.79	3.37
Mariana Barros	87	5.13%	4.89%	0.24%	0.22	1.51	6.47
Rafaela Aleixo <b>O</b>	78	4.58%	4.53%	0.05%	0.14	1.01	4.34
Andreia Galvao <b>IJ</b>	218	12.98%	12.69%	0.29%	0.14	1	4.29
ECONnect Portugal	64	5.21%	4.42%	0.79%	0.34	2.41	10.34
Joao Kraeski	187	16.17%	14.82%	1.35%	0.04	0.28	1.18
indigo	138	12.39%	12.16%	0.23%	0.06	0.44	1.89
Beatriz Couceiro	183	18.13%	17.03%	1.10%	0.01	0.08	0.34
Climate Reality Portugal	15	1.67%	1.63%	0.04%	0.39	2.75	11.79
miguel	193	22.26%	21.48%	0.78%	0.01	0.1	0.44
sofia	92	10.97%	10.39%	0.58%	0.04	0.3	1.27
Umundu Lisbon Festival	28	3.52%	3.43%	0.09%	0.36	2.55	10.91
Lista R - AEFCSH	30	4.88%	4.88%	0%	1.83	12.83	55
Mariana Jesus	48	8.77%	8.62%	0.15%	0.18	1.27	5.45
<b>laractaa</b>	54	12.08%	11.72%	0.36%	0.03	0.2	0.87
Martim Vitorino <b>O</b>	104	23.25%	21.76%	1.49%	0.03	0.22	0.95
Circu larSeas	9	4.82%	4.73%	0.09%	0.42	2.96	12.69
Conversas com Impacto	127	107.88%	107.71 %	0.17%	0.04	0.27	1.16

## Appendix C: Hashtag Usage

account name	used hashtags (in 12 most recent posts)
Greta Thunberg	#FightFor1Point5#fridaysforfuture#FaceTheClimateEmergency#flattenthecurve#schoolstrike4climate#climastrike#climastrikeonline#ParisAgreement#ClimateAmbitionSummit
Greenpeace International	#climateemergency#greenpeace#Greenpeace#climatechange#climatecrisis#ClimateCrisis#globalwarming#2020#fight4forests#WaldstattAsphalt#Mobilitiitswende#Verkehrswende#keineA49#Dannenr6derWald#protectforests#climatebreakdown#cleanairnow#cleantransportnow#transformtransport#deutschland#germany
The Conscious Kid	#TeachersOfIG#SpiritDay#CrazyHairDay#TeachersOfInstagram#RentRelief#JingleJangle
Angie Costa	#pub
Fafa de Belem	#Abandonada#Amadah#TBT#SextaFeira#Gratidao#AmizadeVerdadeira#AmigoESal#AAbraceNaoPodeParar#AjudeAbrace
Vanessa Martins	#belezaeci#elcorteinglespt#pub
Joao Manzarra	#pub#wortentransforma#LaysDanceChallenge
Zero Plastic	#noplasticplease#noplastics#plasticbeach#plasticpollutes#plasticart#plasticocean#plasticsucks#ecological#plasticfree#plastics#ecodesign#ecoliving#ecosystem#plasticpollution#plastic#ecology#eco#plasticfreeliving
rosanajatoba	#paz#amor#amarelo#cbnsustentabilidade#sustainability#yoga#energiaverde#cbnsustentabilidade.#Ernicida#autoconhecimento#tbt#greenenergy
Waste-Ed	#GetWasteEd#sustainability#savetheplanet#savetheearth#saveourplanet#fuckplastic#singleuseplastic#recycle#zerowaste#wastefree#breakfreefromplastic#sustainableliving#plastic#saynotoplastic#noplastic#savetheocean#zerowasteliving#reuse#zerowastehome#marine#life#climatechange
Alice Trewinnard	#pub#arodadaalimenta9ao#continente#HBOPortugal#nataleci#modaeci#elcorteinglespt#2021#dwforeveryone#bestof2020#tb2020#projetoceanova#newyearseve#hairtutorial#batistehair#danielwellington
11 11 11 11 11 11 11 11 11 11 11 11	#CA110boasac9oes#teatro#culturaesegura#birthdaygirl#proposal#mesmoantesdestamerdatoda#tv#oficial#work#actor#acting#amardemaistvi#maria#catlover#pet#merrychristmas#pub#creditoagricola#oferecercultura#future#quetudoistopasse#queoproximoanosejamelhor
Everyday Climate Change	#climatechange#globalwarming#climatecrisis#ice#artist#painting#environmentalist#climateemergency#deforestation#nature#climateaction#zariaforman#everydayclimatechange#andes#water#boalivia#greenpeace#prayforamazonia#conservation#brasil#savetheamazon
Eco Quotes	#ecofriendly#zerowaste#savetheplanet#eco#climatechange#plasticfree#vegan#ecoquotes#lessplastic#recycle#pollution#renewable#plantbased#sustainable#earth#reuse#environment#nature#crueltyfree#gogreen#gretathunberg
EarthHub	#savetheplanet#climatechange#ecofriendly#ecofriendlyliving#savetheearth#environmentallyfriendly#sustainableliving#zerowasteliving#zerowastetips#reuse#globalwarming#recycled#zerowaste#greenliving#zerowastelife#environment#zerowastelifestyle#ecotips#tips#greenideas#reducereuse#recycle

Ana Varela	#EUEcolabel#pub#cat2vet#todossomosparte#philipslattego#philipsportugal#comousemleite#maquinacafe#cafésem desperdício#compostagem#ofuturo do planetanaoerreciclavel#moka#reciclagem#desperdiciozero#mobilidadeeletrica#1yearago#tb#economiacircular#EUEcolabel,#consumosustentável#agranel
Climate Save Movement	#vegan#govegan#climatechange#globalwarming#SwitchToPlantBased#environment#nature#newyear#climatejustice#climatecrisis#animalagriculture#palmoil#noplanetb#activism#oneplanet#fortheplanet#newyearsresolution#2021#ecofriendly#planetearth#earth
Maria Granel Zero Waste Store	#mariagranel#zerowastelife#lesswaste#lowimpactmovement#lowimpact#sustainable#zerowaste#lifewithoutplastic#reuse#ecolifestyle#arevolucao come ca aqui#sustainablecollective#ecofriendly#ecoliving#waronwaste#lixo zeroportugal#lixo zero#zerowastejourney#wastefree#gogreen#greenliving
Maria Granel Zero Waste Store	#mariagranel#zerowastelife#lesswaste#lowimpactmovement#lowimpact#sustainable#zerowaste#lifewithoutplastic#reuse#ecolifestyle#arevolucao come ca aqui#sustainablecollective#ecofriendly#ecoliving#waronwaste#lixo zeroportugal#lixo zero#zerowastejourney#wastefree#gogreen#greenliving
Catarina F. P. Barreiros	#ad#AlentejoaPorta
Zero Waste Living - Agnes Mike	#zerowastechristmas#the#shelfcooking#lowwastemovement#zerowastelifestyle#greenwashing#wheatcutleryset#bamboocutlery#bamboocup#nopresentsforchristmas#easyfuroshiki#reusablewrapping#nowrappingpaper#furoshiki#lowwastechristmaschallenge#lowwastechristmas#lesswaste#anticonsumerism#castironskillet#bambooproducts
Mind The Trash	#mindthetrash#consumoconsciente#consumosustentavel#sustentabilidade#vegano#semplastico#natal#permacultura#lutaverde#ambiente#parquenaturaldesintracacais#plantaumaárvore#compostável#produtovegano#produtosustentaveis#hortasurbanas#kitsdenatal#christmastime#greenfriday#aldeiadovale#cicloestafetaslisboa
Rafaela Duarte   Healthy	#pub#instagood#outfitinspiration#fashionstyle#fashionlover#fashionblogger#christmastime#instadaily#outfitsideas#outfitoftheday#christmas#foodphotography#breakfasttime#breakfastideas#healthybreakfast#lisboa#brunchtime#restauranthealthy#healthylifestyle#healthyfood#happychristmas
Inês Pais	#rodadaalimento#continent# natalmargão,
Mafalda Luís de Castro	#rafeiravegana#greenplanet#leavenoonebehind#1planet4allchallenge#parceria#pub
Mariana Soares Branco	#tangerinaemviagem#details#LaRochePosay#tangerineemviagem#Anthelios#AntheliosFluidoInvisivel#pub#HyaluB5,#larocheposay#Pub
Rui Palha	#hspcorner
Joana Silva	#ikeaportugal#parceria#ad
Anna Masiell	#dingdongPT#dingdongEU#GreenChallengePT#ad#TheGreatestGift#LetsGreenThePlanet#reuse
Marisa	#marisa2021#presidenciais2021#feminismo#saudental#forçamaior#antiracismo#Marisa2021#EstudioM#SNS#vidaindependente#SNS.#Sabercomquemcontar
Environment • Sustainability	N
Stop Ecocide International	#romestatute#vanuatu#internationalcriminalcourt#vanuatumgovernment#maldives#ecocidelaw#tuilomaneronislade#stopecocide#ecocide#climatecrime#deforestati

	on#internationalcriminallaw#criminallaw#crimeagainstpeace#katemackintosh#internationalallaw#greentransparency#ecoc idelawfinland#finnishgovenment#marion aillamola#peoouigiboix
The Trash Traveler   Eco Tips	#thetrashtraveler#trashtagchallenge#onemillionactsofgood#christmasgram#trashtag#fillthebottle#christmastree#merrychristmas2020#sustainabilitymatters#cominghomeforchristmas#litteract#savetheoceans#stopmotion#justlbag2020#cigarettebutts#portugal #vanlifestyle#evoluiuchallenge#ecosia#zigarettenstummel#toomuchplastic
Fridays For Future Portugal fJ	#FazPeloClima# FightForpoint5#FridaysForFuture#FightClimateInJustice#fridaysforfuture#FightClimateinjustice#greveclimatica#glasgowagreement#climatejustice# OE2021,#GCEVotaContra,#fazpeloclima#AcordeDeParis# Fightfor1.5#gov#climatecrisis#ClimateActionNow#GCEVotaContra# OE2021
I Met God, She's Green	#imetgodshesgreen#positivesharing#sustentabilidade#projectoportuguesW#joana seixas#ourhome#imperfectenvironmentalist#ficaemcasa#pub#808242424#sns24#staythefuckhome#stayathome#COVID19PT#COVID19#Portugal#WHO#DGS#StayHome#EuFicoEmCasa#estamosiuntos
Verdes Marias	#microrrevo lu9oes#microrrevo lw;:ao#microrrevolu9oes#menoslixo#menosplastico #sustentabilidade#nata sustentavel#microrrevolu9ao#microrrevolu9oes#lixozero#natasemembrulo#compostagem#composteiradomestica#compostar#joiaeco#microrrevolucao#uocvcling#microrrevolucoes#facavocemesmo#nataeco#kitlixozero
JovemCascais	#Cascais#JovemCascais#CascaisJovem#OFuturoCome9aEmT i#OFuturoCome9aEmTi#CascaisENatal#TodosPorTodos!#FutureMaker #CascaisENatalTour#TodosPorTodos#ofuturocomecaemt i#Nata lNaComunidade
Ana Milhazes - Ana, Go Slowly	#zerowaste#desperdiciozero#reuse#lixozeroportugal#lixozero#recycle#sustainable#reciclamaobasta#vidalixozero#zerowastelife#bethechange#reduce#begin#climatechange#minimalism#refuse#lixozeroaescola#zerowasteliving#slowliving#composting#books
Ana Milhazes - Ana, Go Slowly	#zerowaste#desperdiciozero#reuse#lixozeroportugal#lixozero#recycle#sustainable#reciclamaobasta#vidalixozero#zerowastelife#bethechange#reduce#begin#climatechange#minimalism#refuse#lixozeroaescola#zerowasteliving#slowliving#composting#books
Lisboa Green Capital 2020	N
The Sustainability Project	#transform#thesustainabilityproject#environmental#lowwastelifestyle#sustainablelifestyle#zerowastelifestyle#packagefree#cswmj#sustainable#inspire#climateactions#sustainableliving#zerowastesg#zerowaste#sustainability#nosingleuseplastic#ZWPI
Desafio Vegetariano Portugal	#mudaramundoaentada#mudaramundonoprato#desafiovegetariano
Quercus	#23denovembro#diadaflorestaaut6ctone#quercus#voluntariado#diainternacionaldovuntariado
Ligia Gomes es Travel + Impact	#zerofoodwaste#travelplans#letsdreamtogether#travel2020#sonhandoalto#equalrights#foodforeveryone#direitosparatodos#comidaparatodos
Carlo Rebelo	#daprovider#king#41#surffashion#loshuevos#queremosbeberumaagua #abreijos#avalanchedeestilo#lixonolixo#motorat#mountains#road#ya#helmet#motorcycle#scooter#roadtrip#carreirafotografo#viagem

Quinta das Aguias	#quintadasaguias#nature#naturelovers#natureza#loveanimals#friendsnotfood#farmanimalsanctuary#farmsanctuary#animal#paredesdecoura#gatos#catsofinstagram#cats#ZacariasTheLamb#zacarias#gato#cat#christmas#cao#xmas#dog
Alana Magalhaes • AESTHETICS	#makeup#bahia#professionalmakeup#esteticaholistica#naturalbeauty#therapyholistic#estetica#caetite#alanamagalhaesesteticaholistica#alanamagalhaes#esteticanatural#empowerment#makeupartist#professionalmakeupartist#makeup#holistic#beauty#female#femalebeauty#beauty#therapy
Sara   Slowliving	#love#saradsdiniz#slowliving#slowlivingforlife#photo#slow#slowlivingmovement#photoshoot#photography#vsco#photographer#home#consciousliving#staysafe#slowtravel#christmastime#christmas#saradsdinizdecor#vscogirl#slowtravelling#vscofilter
Eco-Friendly Shop	#semplastico#ecofriendlyproducts#ecofriendly#sustentavel#ecofriendlyshop#ecofriendly#ecofriendlyshop#ecofriendlyproducts#zerowaste#semplastico#cozinhasustentavel#vegan#crueltyfree#zerowaste#desperdiciozero#oleosessenciais#sustentabilidade#sustentavel#comprasconscientes#reduzir#solidshampoo
Maria	N
Isabelle Axelsson O	#FridaysForFuture#ClimateJustice#climate#climatechange#ClimateCrisis#ClimateStrike#ClimateChange#FightFor1Point5#FightClimateinjustice#ClimateStrikeOnline#climatecrisis#ParisAgreement#cleanup#GretaThunberg#Activism#WaterIsLife#WorldCleanupDay!#WorldCleanupDay#sweden#schoolstrike4climate#ReNaMalaren
Greenfest Portugal	#greenfest#greenfestportugal#greenfest2020#bio#eco#green#sustainability#environmentalscience#saveenergy#energiasrenovaveis#savetheplanet#thereisnoplanetb#globalwarming#climatechange#climateaction#zerowaste#sustainablefutures#retomasustentavel#earlybird#preregisto#carcavelos
Bianca Castro	#FazPeloClima#FridaysForFuture#JunkTerrorBillNow#JunkTerrorLaw#DigitalStrikePH#ClimateStrikeOnline#WithdrawTheCAP:#WithdrawTheCAP!#FightFor1point5
Catarina Canelas	#plasticoonovocontinente#catarinacanelasjomalista#novofossil#plastico#plastic#descoberta#oldspice#discover#fossilplastic#fortheoceans#autumnvibes#autumnleaves#autumn#cadagestoimporta#pelosoceanos#cursocaravela#tvday#tv#televisionworldday#television#diamundialdatelevisao
Abel Rodrigues	#PareUEMercosul#StopEUMercosur#FazPeloClima#GrevePeloClima#SOSAmazônia
Lucas Fontes	#reflexao#tododiaumpoema#greenthinking#residuossólidos#reciclagem#wakesurff#Desmatamento#ovelheirogaucho#SinistroSalles#RicardoSalles#drogoboy#MeioAmbiente#GreenThinkingAcademy
ECO designer Lisbon	#lisbon#eujardinoemcasa#lisboninteriordesign#milkmagazinestayhome#cerealmagazine#lisboncoworkingspaces#lisbonoffice#lisbondedor#lisbondesign#lisboninteriors#lisboncoworking#jardinsabertos#campodeourique#compraospequenos#lisbonportugal#milkmagazine#lisbongreendesigner#lisbonlocal#lisbonlocalandunique#lisbonswedishdesign#lisboadesign
PEDRO   VERDA	#socialbusiness#primaverafestival#impactopositivo#ferias#inova9aosocial#dudaape#quartou#empreendedorisocial
LivrePara	#livrepara#lisboa#socialgood#impactosocial#sustentabilidade#portugal#lisboacapitalverde#art#online#socialimpact#futuro#feirasentidos#climatechange#eugreen

	deal#EUGreenWeek#con sumocon sciente#arte#ativismo#fazsentido#iamaplaneti er#planetierswg
Zero Waste Youth Portugal	#ecofriendly#greenliving#noplastic#ju ventudelixozero# impactthublisbon#mariagranel#lixozero#climatechange#sustainability#plasticfree#zerowasteportugal#desperdiciozero#lixozeroportugal#desafiozero#lifewithoutplastic#gogreen#zerowasteyouth#zerowastelife#lesswaste#lowimpactmovement#zerowasteyouthportugal
Patricia dos Reis Upcycling	#NatalEco #natal2020 #nataisustentavel #nataisustentavel #menosdesperdicio #natalconsciente #reduzir #consumoconsciente #ecochristmas #sustainableChristmas #reutilizarportugal #menosdesperdicionestnatal #lesswasteinchristmas #reutilizar #sustainableseason #natalecol6gico #advent #consumosustentavel #upcyclingportugal #nataleco #desperdicioalimentar
MOVE	#movenosa9ores #somosmove#moveong#empreendedorismo#lojasolidaria#presentesolidario#move#moveemtimorlestei!#presentedenatal#natal#doarparaajudar#presentescomprop6sito#fundlacaixabpi #bancobpi #diadasolidariedade#moveemsaotome8#nataisolidario
Jacinta Madalene	#nazfashion#whiteshirt#outfits#fashiondesign#circularreconomy#reuse#sustainability#travelaround#lisbon#blackfriday#breakfast#basics#2020#womantraveler#thailand#secondhand
Climaximo	#fightfor1point5#justi9aclimatica#climatejustice#mudarasistemanaooclima#systemchangenotclimatechange #climateaction
Rafa	#streetphotography #staythefuckhome#coronavirus#visualcreatorz#lensculture#pandemia#photojournalism#visualstorytelling #zonestreet#braga#portrait#ficaemcasa#portugal#stayhome#fotojornalismo#covid19#covid19portugal#bummagazine#lenscultureportraits#portuguesejournalists#visualnarrative
Fridays For Future - Lisbon	#FazPeloClima#FridaysForFuture#climatecrisis#FightFor1point5#socialjustice#climatestrike#FazPeloClima!#RescueOfFuture#fridaysforfuture# Fightfor1.5
Polito Sustainable	#FestivalSviluppoSostenibile#ORADIAGIRE#camminatori#efficienzaenergetica .#intelligenzacollettiva#economicocircolare#rifiuti.#degradoambientale#cambiamenticlimatici#DIMEAS#taggandomoduloabitativo#cicloturisti#DENERG#monitoraggio#benessere#innovazione#sostenibile#mobilita#storia#agricolturadiprecisione.
Mariana Barros	#lisboa#portugal#violino#musician#violin#photography lovers#violinist#violinista#music#portrait#music#lisbon#photo#alfama#lisboalovers#lisboaportugal#photoshoot#daryandornelles#daryandornellesfotografia#photography
Rafaela Aleixo	N
Andreia Galvao	#blacklivesmatter
Mariana Bombonato Moraes	#tchau salles#crecheparental
EConnect Portugal	#economicocircular#community#business#greenbusiness#webinars#greenfestportugal#innovate#network#circulareconomy#circularidad#global#economy#report#madeinportugal#marcasportuguesas#desperdiciotextil#zerowaste#textilewaste#empowerwomen#clothesupcycling#3
Joao Kraeski	#lisbon#climatestrike#livrepara#selflove#skincare#morning
indigo	N

UCR's Office of Sustainability	#ucr#sustainability #officeof sustainability #ucrofficeofsustainability'Yii.zoom#conference#webinar#environmentaljustice#tracking#sco12e3#sco12e2#sco12e1#atmos12her#GHGmissions#GHG#greenhousegases#sustainablelivingifcros#trees#greenthumb#collelrn1mrdens
Beatriz Couceiro	#TudoNaMensagem '#SWEET 15E'#ACANAC2017#18inesil#18Diogo
Climate Reality Portugal	#ClimateRealityPortugal #leadonclimate#ewwr#desperdicionalimentar#semanauropeiadeprevencaoderesiduos#foodwaste#residuosinvisiveis#zerowaste#invisiblewaste#LeadOnClimate#climatecrisis#criseclimatica#climatechange#risingtemperature#ClimateAction#InternationalVolunteerDay#VolunteerDay#Volunteer#ClimateHope#ClimateChange#WorldChildrensDay
miguel	#TemposdeMudarn;a#ListaM
sofia	N
Umundu Lisbon Festival	#ClimateEmergency#sustainablejuristicities,#savetheearth#sustainability#festivalumundu lx#umundu lx#revistaonline# rootsmag#Repost
Lista R - AEFCSH	#AEFCSH#ListaR#Ensinosuperior#DARRESPOSTA#EnsinoSuperior#DarRespostas#DarResposta#LISTAR
Mariana Jesus	#nature#Madeira#travel#island#madeiraisland#dog#sea#goveganfortheanimals#flashthedog#vacations#dogsofinstagram#vegan#animalsrights#animals#dogs#animallivesmatter#Lisboa#justi9apelosanimaisdesantotirso#luto#santotirso#lutopelosanimaisdesantotirso
<b>lara UCU</b>	#FridaysForFuture#fightfor1point5#fazpeloclima #fazpeloclima#GalpMustFall#DefendTheDefenders#digitalstrike#greveclimaticaeatudantil#socialjustice#climatejustice#climatechange#climatestrikeonline#mural_das_ etnias#blackouttuesday
Martim VitorinoO	#blackouttuesday
CircularSeas	#circularseas#ocean#ecology#oceanplastic#plasticocean#environment#environment#whale#plasticoonovocontiente#plasticfree#catarinacanelasjornalista#peniche#animal#plastic#marinelitter#togetherforabetterworld#sustainability#filipabessamare#betterplanet#uas4litter#em[Pathy
Conversas com Impacto	#agenda2030#0DS#ONU#podcast#SDGS#UN#antena2#gulbenkian#cultura#DesignThinking#unesco#sustentabilidade#Empowerment#mu sica#mu sica#ambiente#Feminismo#heforshe#igualdadedegenero

Appendix D: *Influence Data*

account name	REACH	RELEVANCE	RESONANCE	INFLUENCE	WEIGHTED INFLUENCE
Greta Thunberg	1,123,744.6	10	1	1,123,756.0	6
Greenpeace International	97,526.7	9	0	97,535.5	4
The Conscious Kid	216,038.5	2	2	216,041.6	2
Angie Costa	422,577.7	0	7	422,584.6	3
Fafa de Belem	100,591.3	9	1	100,600.8	5
Vanessa Martins	45,094.6	3	2	45,099.7	3
Joao Manzarra	35,116.3	0	3	35,119.1	1
Zero Plastic	68,685.4	10	1	68,696.8	6
rosanajatoba	73,818.4	8	1	73,826.8	4
Waste-Ed	253,171.2	10	2	253,183.7	6
Alice Trewinnard	177,907.7	0	4	177,911.8	2
Everyday Climate Change	1,536.5	10	0	1,546.7	5
Eco Quotes	17,697.3	10	1	17,708.3	5
EarthHub	31,188.2	10	1	31,199.3	6
Ana Varela	17,406.1	9	4	17,419.0	6
Climate Save Movement	451.4	10	1	462.0	5
Maria Granel Zero Waste Store	4,286.5	10	1	4,297.0	5
Maria Granel Zero Waste Store	4,286.5	10	1	4,296.5	5
Catarina F. P. Barreiros	9,393.6	0	2	9,395.6	1
Zero Waste Living - Agnes Mike	539.1	10	0	548.8	5
Mind The Trash	1,706.9	7	1	1,714.7	4
Rafaela Duarte   Healthy	26,385.0	0	3	26,388.6	2
Ines Pais	6,786.3	0	3	6,789.7	2
Mafalda Luis de Castro	667.8	5	3	675.9	4
Mariana Soares Branco	1,319.8	0	3	1,322.8	2
Rui Palha	3,293.5	0	3	3,296.1	1
Joana Silva	1,815.5	0	2	1,817.3	1
Anna Masiello	1,575.5	7	2	1,584.4	4
Marisa Matias	4,742.4	2	1	4,745.4	1

Environment • Sustainability	34,784.1		10	34,794.5	5
Stop Ecocide International	1,312.2	9	1	1,322.0	5
The Trash Traveler   Eco Tips	233.5	10	2	244.9	6
Fridays For Future Portugal O	973.6	10	1	984.3	5
I Met God, She's Green	170.8	9	1	180.8	5
Verdes Marias	5,815.9	10	2	5,827.1	6
JovemCascais	667.2	9	0	676.5	5
Ana Milhazes - Ana, Go Slowly	127.2	10	2	139.1	6
Lisboa Green Capital 2020	1,916.8		1	1,917.9	1
The Sustainability Project :t	387.9	10	0	398.4	5
Desafio Vegetariano Portugal	5,269.9	10	1	5,281.1	6
Quercus ANCN	412.7	10	1	423.5	5
Ligia Gomes Travel + Impact	570.8	8	1	579.6	4
Carlo Rebelo	472.6	1	1	475.1	1
Quinta das Aguias	1,620.3	4	2	1,627	3
Alana Magalhaes • AESTHETICS	564.6	1	1	567	1
Sara   Slowliving	835.8	1	2	839	2
Eco-Friendly Shop	1,107.6	10	1	1,118	5
Maria	463.4		4	467	2
Isabelle Axelsson O	395.7	10	6	412	8
Greenfest Portugal	49.5	9	0	58	4
Bianca Castro	223.0	10	6	239	8
Catarina Canelas	724.2	9	3	736	6
Abel Rodrigues	272.0	10	4	286	7
Lucas Fontes	545.8	8	3	557	6
ECO designer Lisbon	41.2	0	0	42	0
PEDRO   VERDA	230.8	9	3	242	6
LivrePara	143.5	10	2	155	6
Zero Waste Youth Portugal	234.6	10	1	246	6
Patricia dos Reis D Upcycling	459.9	10	2	472	6
MOVE	196.8	2	1	200	2
Jacinta Madalene	461.5	3	6	471	5

Climaximo	360.1	10	2	372	6
Rafa	139.8	<b>1</b>	4	145	3
Fridays For Future - Lisbon <b>O</b>	68.3	10	3	81	6
Polito Sustainable	18.4	9	<b>1</b>	28	5
Mariana Barros	130.8	0	3	134	<b>1</b>
Rafaela Aleixo <b>O</b>	78.1		3	81	<b>1</b>
Andreia Galvao <b>IJ</b>	217.8	10	7	235	9
EConnect Portugal	152.4	10	3	165	6
Joao Kraeski	52.2	3	9	65	6
indigo	60.5		7	67	3
Beatriz Couceiro	14.6	2	10	27	6
Climate Reality Portugal	43.3	10	<b>1</b>	54	5
rniguel	19.2	5	12	37	9
sofia	27.7		6	34	3
Umundu Lisbon Festival	69.8	6	2	77	4
Lista R - AEFCSH	381.3	5	3	389	4
Mariana Jesus	60.5	8	5	73	6
<b>lara UCU</b>	10.8	10	7	27	8
Martim Vitorino <b>C</b>	22.7	10	13	46	11
CircularSeas	27.4	10	3	40	6
Conversas com Impacto	34.4	10	60	104	35



<a href="https://www.instagram.com/verdesmarias/">https://www.instagram.com/verdesmarias/</a>	Verdes Marias
<a href="https://www.instagram.com/jovem_cascais/">https://www.instagram.com/jovem_cascais/</a>	JovemCascais
	Ana Milhazes - Ana, Go Slowly
<a href="https://www.instagram.com/lisboagreencia12ital2020/">https://www.instagram.com/lisboagreencia12ital2020/</a>	Lisboa Green Capital 2020
<a href="https://www.instagram.com/thesustainability12roject/?hl=en">https://www.instagram.com/thesustainability12roject/?hl=en</a>	The Sustainability Project <b>13</b>
<a href="https://www.instagram.com/desafiovegetariano12t/?hl=en">https://www.instagram.com/desafiovegetariano12t/?hl=en</a>	Desafio Vegetariano
<a href="https://www.instagram.com/quercusancn/">https://www.instagram.com/quercusancn/</a>	Quercus ANCN
<a href="https://www.instagram.com/acrushon/?hl=en">https://www.instagram.com/acrushon/?hl=en</a>	Ligia Gomes Travel + Impact
<a href="https://www.instagram.com/carlorebbelo/?hl=en">https://www.instagram.com/carlorebbelo/?hl=en</a>	Carlo Rebelo
<a href="https://www.instagram.com/guintadasaguias/?hl=en">https://www.instagram.com/guintadasaguias/?hl=en</a>	Quinta das Aguias
<a href="https://www.instagram.com/alanamagalhaes/?hl=en">https://www.instagram.com/alanamagalhaes/?hl=en</a>	Alana Magalhaes • AESTHETICS
<a href="https://www.instagram.com/saradsdiniz/">https://www.instagram.com/saradsdiniz/</a>	Sara I Slowliving
<a href="https://www.instagram.com/ecofriendlyshop12.12t1">https://www.instagram.com/ecofriendlyshop12.12t1</a>	Eco-Friendly Shop
<a href="https://www.instagram.com/mariavcarmo/">https://www.instagram.com/mariavcarmo/</a>	Maria
<a href="https://instagram.com/isabelleax?igshid=o4vzz17gls8w">https://instagram.com/isabelleax?igshid=o4vzz17gls8w</a>	Isabelle AxelssonC
<a href="https://www.instagram.com/greenfest12ortugal/?hl=en">https://www.instagram.com/greenfest12ortugal/?hl=en</a>	Greenfest Portugal
<a href="https://instagram.com/biancabcastro?igshid=w3J'fj12u109zrn">https://instagram.com/biancabcastro?igshid=w3J'fj12u109zrn</a>	Bianca Castro
<a href="https://www.instagram.com/catarinacanelastvivi/">https://www.instagram.com/catarinacanelastvivi/</a>	Catarina Canelas
<a href="https://instagram.com/abelfrodrigues?igshid=xfg:y3rx9oogx">https://instagram.com/abelfrodrigues?igshid=xfg:y3rx9oogx</a>	Abel Rodrigues
<a href="https://instagram.com/lucasfontes14?igshid=1gcgajol2d4g1">https://instagram.com/lucasfontes14?igshid=1gcgajol2d4g1</a>	Lucas Fontes
<a href="https://www.instagram.com/tessx.morelli/?hl=en">https://www.instagram.com/tessx.morelli/?hl=en</a>	ECO designer Lisbon
<a href="https://www.instagram.com/12edro.verda/">https://www.instagram.com/12edro.verda/</a>	P E D R O I V E R D A
<a href="https://www.instagram.com/livre12ara/">https://www.instagram.com/livre12ara/</a>	LivrePara
<a href="https://www.instagram.com/zerowasteyouth12ortugal/">https://www.instagram.com/zerowasteyouth12ortugal/</a>	Zero Waste Youth Portugal
<a href="https://www.instagram.com/reutilizamente/">https://www.instagram.com/reutilizamente/</a>	Patricia dos Reis D Upcycling
<a href="https://www.instagram.com/move.org/">https://www.instagram.com/move.org/</a>	MOVE
<a href="https://www.instagram.com/jacintamadaleno/?hl=en">https://www.instagram.com/jacintamadaleno/?hl=en</a>	Jacinta Madaleno
<a href="https://instagram.com/climaximo12t?igshid=1ozl4c1kl nz78">https://instagram.com/climaximo12t?igshid=1ozl4c1kl nz78</a>	Climaximo
<a href="https://instagram.com/rafalombal12hotogra12hx?igshid=dd fhk5lr05nn">https://instagram.com/rafalombal12hotogra12hx?igshid=dd fhk5lr05nn</a>	Rafa
<a href="https://instagram.com/greveclimaticalisboa?igshid=1mgo frn28kgo m">https://instagram.com/greveclimaticalisboa?igshid=1mgo frn28kgo m</a>	Fridays For Future -Lisbon
<a href="https://www.instagram.com/120litosust/?hl=en">https://www.instagram.com/120litosust/?hl=en</a>	Polito Sustainable
<a href="https://www.instagram.com/marianavdbarros/?hl=en">https://www.instagram.com/marianavdbarros/?hl=en</a>	Mariana Barros
<a href="https://instagram.com/rafaelamaleixo?igshid=1j4 fw7c9gxxbx">https://instagram.com/rafaelamaleixo?igshid=1j4 fw7c9gxxbx</a>	Rafaela Aleixo C
<a href="https://instagram.com/agalvona?igshid=4d0wz3ddx943">https://instagram.com/agalvona?igshid=4d0wz3ddx943</a>	Andreia Galvao LI
<a href="https://www.instagram.com/econnect.12ortugal/">https://www.instagram.com/econnect.12ortugal/</a>	EConnect Portugal
<a href="https://www.instagram.com/jkraeski/">https://www.instagram.com/jkraeski/</a>	Joao Kraeski

<a href="https://www.instagram.com/rodrigoafonsoasilva?igshid=397236bk9gzn">https://www.instagram.com/rodrigoafonsoasilva?igshid=397236bk9gzn</a>	indigo
<a href="https://www.instagram.com/beatriz5001?igshid=1d7zz8zsgtikf">https://www.instagram.com/beatriz5001?igshid=1d7zz8zsgtikf</a>	Beatriz Couceiro
<a href="https://www.instagram.com/climatereality12ortugal/?hl=en">https://www.instagram.com/climatereality12ortugal/?hl=en</a>	Climate Reality Portugal
<a href="https://www.instagram.com/rngloutor?igshid=13a94xmitldxc">https://www.instagram.com/rngloutor?igshid=13a94xmitldxc</a>	rniguel
<a href="https://www.instagram.com/an.asofia?igshid=t2t316x03ags">https://www.instagram.com/an.asofia?igshid=t2t316x03ags</a>	sofia
<a href="https://www.instagram.com/urnundulx/">https://www.instagram.com/urnundulx/</a>	Urnundu Lisbon Festival
<a href="https://www.instagram.com/aefcshlista_r?igshid=2et7xfghj4gd">https://www.instagram.com/aefcshlista_r?igshid=2et7xfghj4gd</a>	Lista R - AEFCSH
<a href="https://www.instagram.com/rnafigjesus?igshid=5oete9slf9c9">https://www.instagram.com/rnafigjesus?igshid=5oete9slf9c9</a>	Mariana Jesus
<a href="https://www.instagram.com/eenjo)lhejoumex?igshid=o46ez887nosn">https://www.instagram.com/eenjo)lhejoumex?igshid=o46ez887nosn</a>	Iara <b>uau</b>
<a href="https://www.instagram.com/martinvitorino?igshid=hl01gdnixzv">https://www.instagram.com/martinvitorino?igshid=hl01gdnixzv</a>	Martim VitorinoO
<a href="https://www.instagram.com/circularseas/">https://www.instagram.com/circularseas/</a>	CircularSeas
<a href="https://www.instagram.com/conversascornirn12acto/?hl=en">https://www.instagram.com/conversascornirn12acto/?hl=en</a>	Conversas com Irnpacto