

A Work Project, presented as part of the requirements for the Award of a Master's degree in
Management from the Nova School of Business and Economics.

SOCIAL MEDIA MARKET OF FACEBOOK, INSTAGRAM, AND TIKTOK

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20-05-2022

Abstract:

The exponential growth of the entertainment and media industry has revolutionized the social media market. People tend to use social media platforms in their daily lives for different reasons. The goal of this research is to determine how Portuguese consumers perceive Facebook, Instagram, and TikTok, and understand the Portuguese social media market. To reach the main conclusions, a literature review was done in order to better understand the market. Furthermore, interviews with experts and personas were carried out to dive deep into the reasons behind the usage of social media platforms. Nonetheless, were selected 3 main platforms: Facebook, Instagram and TikTok. These platforms are not considered main competitors however they have a room for improvement.

Keywords: Marketing Research, Conjoint Analysis, Perceptual Map, Social Media Platforms, Brand perceptions, Brand Preferences, Social Media Engagement

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209)

Introduction

The media has been evolving in recent years, as the internet has revolutionized the way people consume and produce entertainment and media. The significance of this industry has been made particularly evident during the pandemic, which led to the consumption of unprecedented levels of media (Jones 2020), with online content, in particular, gaining consumers amongst the younger generations.

Thus, this master thesis will focus on one form of online media: social media.

Social media enjoys a broad appeal throughout the world, as currently there are 4,63 billion social media users globally, more than half of the total world population. That number keeps increasing every year. Most of these people use their social media accounts, either by app or website, every day, making social media a daily part of their lives. While the time spent on social media is increasing, time on traditional media like TV presents a downwards trend (Kemp 2022).

The appeal of social media led to the spawning of various social media platforms, with a select few of them now being some of the biggest companies in the world, such as Meta (Facebook and Instagram's parent company) and Alphabet (Youtube's parent company) are amongst the top 10 most valuable companies by market cap (Johnston 2022). And the leaders of these social media companies, like Mark Zuckerberg (Facebook and Instagram), Evan Spiegel (Snapchat) and Jack Dorsey (Twitter) are present in the Forbes' 2022 billionaires list (Mille 2022).

The exponential growth and the increasing number of social media platforms launched with distinct features are generating different users' perceptions among them. Over and above, these perceptions are also affected by social media usage patterns, consumer gender, and age (Chan-Olmsted, S. M., Cho, M., and Lee, S. 2013).

For these reasons, it is interesting to analyze, in terms of the different associations and attributes, what consumers value and the different motivations that lead them to use different social media platforms. Therefore, the goals of this study are to dive deep into the market and understand how to proportionate a better user experience to have a higher engagement and lower costs.

This Master's thesis will narrow the object of study to the Portuguese market. Portugal is a country with an extremely high number of social media users (Statista, 2021), and continuous growth of usage (Marketest 2021). Previous literature has looked at this topic mostly in the United States of America (Chan-Olmsted et al. 2013; Di Gangi and Wasko. 2016), however, there was no accessible research that incorporated a conjoint analysis method with perceptual maps or a study dedicated only to the Portuguese market. Since Portugal has a much different cultural, socioeconomic, and historical background than the United States of America, it is pertinent to explore how these differences affect consumers' preferences and perceptions on social media. In particular, Portugal is a much more feminine and collectivist society than the USA, meaning that concern for society and care for others are more prevalent (Hofstede Insights 2022). Therefore, this study will add value to the academic literature by examining exclusively the Portuguese market.

To have a better understanding of Portuguese consumers' perceptions and preferences on social media engagement, this study will further focus on three specific social media platforms - Facebook, Instagram and TikTok. Since these three platforms were among the most known and used in Portugal (Marktest 2022), they can offer the possibility of comprehensive insights into the market. Furthermore, so that the analysis would be more robust, it was important to have associated the different users' needs, which are associated with these platforms distinctly. Although WhatsApp and Twitter could have also been considered, as they are on the top use ranking, both platforms have seen their notoriety declining since 2020

(Marketest 2021). Additionally, WhatsApp is more of a social messaging medium, while Twitter works as a micro-blog. YouTube was also not considered since its content is primarily one-directional and its interactivity is low. Moreover, presently, the most valued social media platform, according to GWI's data research, is Instagram which has overtaken Facebook for the second place worldwide, with 14.8% of internet users preferring it, and 14.5% preferring Facebook. In the first place, WhatsApp is seen by 15.7% of working-age internet users as their favorite social media platform, and TikTok by 4,3% of users (Kemp 2022).

As there does not seem to be any indication these analyses have been performed within the social media industry for the Portuguese market, it will offer new insights into what is most valued by consumers and compare perceptions of the 3 main players in the industry. Thus, this study proposes the following research questions: RQ1) What drives Portuguese consumers to use social media? RQ2) How do Portuguese consumers perceive Facebook, Instagram, and TikTok? RQ3) What are the attributes of social media that Portuguese consumers value the most? These questions will add to the academic literature by focusing on the literature review, as well as the execution of a multidimensional perceptual map and a conjoint analysis, allowing us to gather the relevant information to answer these research questions.

The presented master thesis will be designed based on the following structure. Starting with the background which will contain the introduction to the evolution of this market segment which guides to the literature review. After that, the methodology will demonstrate how the analyses were proceeded dawdled by the results of both analyses. Finally, the discussion, recommendations, and implications will be explained in the conclusion section.

Background

The internet in the 21st century has changed communication and increased the motivation to use social media. The Web 2.0 development since 2003 has led to large networks with user-generated content, which anyone can contribute (Muhammad 2018). The internet shift towards continuous collaborative content creation, focused on user interaction (Sharma 2008) provided new and different opportunities to connect and share information. (Pilch 2009; Chan-Olmsted, Cho and Lee 2013). The internet became a digital space where it is possible to easily access information, connect and socialize with other users, due to widespread technological advancements (Aydin 2016). Mobile internet access has been increasing, with more personal internet for each user (Meeker 2010).

The internet was a major source of disruption in several industries. The disruption of the media landscape occurred on two fronts. On the one hand, traditional media, which commonly involves film, news, radio, and television can now be fully consumed online, either by streaming film, radio, or television or by having a subscription to digital news publications. On the other hand, producing content is now more accessible and easier than ever, as the conventional formats are no longer the sole controllers of media and entertainment. Therefore, the new forms of media have completely revolutionized the industry, which is exemplified by Spotify, a music streaming service founded in 2008, making CDs and DVDs obsolete; WhatsApp, which appeared in 2009, turning turned into one of the main forms of message exchange in the world, replacing SMS's; and Facebook, founded in 2004 and Instagram in 2010, making sharing photos and videos a successful reality for daily life; and so many more.

In terms of new forms of media, social media is one of the most important. Social media has taken over the industry due to its uniqueness, as it dissipates the barriers between mass media and interpersonal communication, between production and consumption, and between media usage and leisure activities (Stollfuß 2020). *“As a consequence, social media seem to*

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have absorbed entertainment-related functions of formerly private, interpersonal communication channels, for example socializing, creative expression, and self-presentation functions” (Bartsch 2017). This occurs due to social media enabling two-way conversations, in contrast to the traditional linear communication channels, as it allows consumers to connect directly with the media producer (such as an influencer). This direct channel of communication also means that there is an openness to user feedback, as there are fewer barriers to the flow of information, which leads to satisfaction, pleasure, or affinity from users due to reactions to their user-generated content. These increased levels of interactivity and participation are both entertaining and rewarding (Chan-Olmsted et al. 2013) and generate engagement.

At the beginning of 2022, 67.1% of the 7.91 billion world’s total population is using a mobile phone, with a total of 5.3 billion unique users. Social media consumption is mostly done through a mobile phone device since from these unique users, 4.62 billion are social media users, representing 58.4% of the world’s population. Compared to 2012, the number of users had grown at a CAGR of 12% over the decade. This increasingly significant digital presence is also notable with the decreasing number of “unconnected” internet users, which dropped below 3 billion (Simon Kemp 2022). There is, undoubtedly, an effortless social media access, added to a higher user adherence, that leads to social media as an alternative daily form of communication.

When talking about the most-used platforms, Facebook ranks first place with 2910 million active users, followed by YouTube (2562 million), WhatsApp (2000 million), Instagram (1478 million), WeChat (1263 million), and TikTok (1000 million). Although TikTok is just in sixth place for the most used ranking, the App Annie app rating states that it was the most-downloaded mobile app in 2021, with enormous potential to continue to grow.

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Instagram, Facebook, and WhatsApp were, by this order, the most downloaded mobile apps after TikTok (Kemp 2022).

Having a closer look at the frequency of usage, the time spent on the internet continues to rise. A typical user spends around seven hours per day, across all internet devices, and an average of two hours and 27 minutes per day on social media platforms. More precisely, users spend a total of 23.7 hours per month on YouTube, 19.6 hours on Facebook and TikTok, and 11.2 hours on Instagram. Globally, despite having fewer users overall, TikTok had the biggest gains during the last year: the time spent per month increased by 6.3 hours, an increase of 48%.

Simon Kemp (2022) still points out that 27.6% of the users, ages between 16 and 64, discover contemporary brands and offers through social media ads, and per month 23.2% of them actively follow a brand on social media, which demonstrates that social media is being used for new functionalities, driving to new opportunities for businesses.

Literature review

In the following section, critical literature for the development of this master thesis will be granted. It dawns with the social media literature trailed by the consumer psychology which is pursued by the reasons for people use social media. After these 3 concepts, diving into the engagement definition is essential to understanding the business perspective. Finally, the chosen platforms are conferred and reports regarding the Portuguese market are given.

Social Media

There is no universal definition of what social media are, but in general, as mentioned in the SAGE Handbook of social media, “By social media, we mean those digital platforms, services and apps built around the convergence of content sharing, public communication, and interpersonal connections.” (Burgess and Poell 2017) and these are the online resources “that people use to share ‘content’: video, photos, images, text, ideas, insight, humor, opinion, gossip news” (Drury 2008).

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The variety of social media platforms that already exist on the market means that different social media platforms are used for different purposes, as they include different core functions and structures (Sylvia M. Chan-Olmsted, Moonhee Cho, Sangwon Lee 2013). According to Dykeman (2008), people use social media for two main reasons “(i) to connect with others; and (ii) to manage the impression they make on others. According to Roy Baumeister, social media platforms have made it easier for people to fulfill the all-important need to belong to a social group, which is as important for human beings as fulfilling our basic biological needs, such as obtaining food. An Empirical Study showed that members of diverse social media platforms are more resilient and healthier mentally and physically when compared to people that do not use social media platforms. It also concluded that patients with larger networks report less pain, regardless of the quality of these connections and that seniors improved cognitive and motor functioning by using social media platforms (Hoffman, D. L., and Novak, T. 2012).

Although social media platforms bring many benefits to society, as was mentioned, it also brings negative aspects. The need for socialization, along with other factors, leads to internet addiction (Bayraktutan, 2005; Esen, 2007; Grohol, 1999), which influences users’ behaviors. This visible behavior-based dependence can lead to “internet addiction disorders, pathological internet use, problematic internet use, cyber addiction, high internet addiction, excessive internet use, virtual addiction” (Özdemir et al. 2014; Kardefelt 2014; Liu et al. 2014). Considering that time can either be the cause or the result of internet addiction as stated by Irwansyah (2005), life quality can deteriorate, or even psychological issues might surge (Young 1996; Doğan et al. 2008; Gökçearsan and Günbatar 2012). One thing is certain, according to the different addiction levels, young consumers will have different preferences and intended usage of social media (Akın 2017).

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The fake news exposure is worrying users hence, there is a concern with privacy and safety (Siegler 2010), and negative reactions to self-representation, if perceived as not reliable or authentic (Easton et al. 2018, 5; Jong and Drummond 2016, 7; Palmer 2015, 437; Raggatt et al. 2018, 8), which leads to a constant effort to have positive reactions. Other negative impacts these platforms might bring are associated with mental health issues and psychological distress (Sampasa-Kanyinga and Lewis 2015), caused by comparison among users, filtered version of reality, or excessive use. In exchange, these behaviors are explained by the fear of missing out on status and the addiction caused by the serotonin (Meghan 2016), which is released when getting likes and comments (Muhammad 2018).

As mentioned, social media platforms differ from each other because they have different structures and core functions. However, there are five specific characteristics that, according to Mayfield (2008) underline the operations of all social media: Participation, Openness, Conversation, Community, and Connectedness.

Participation

Participation can be defined as "the extent to which senders and receivers are actively engaged in the interaction as opposed to giving monologues, passively observing, or lurking" (Burgoon et al. 2000, 36). This participatory nature allows different parties to engage and interact with each other and emphasizes the social element that permits people to share content with different people. (Burgoon, J.K., Bonito, J.A., Bengtsson, B., Ramirez, A., Dunbar, N.E. and Miczo, N. 2000).

Openness

Social media platforms are open to user feedback by having almost no barriers to making comments or accessing information (Mayfield 2008). This happens because most social media networks contain "limited flow barriers, both in applications and technological transferability, so information can easily travel between sources and users and among users" (Meadows-Klue

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2007). This characteristic can be illustrated by the people that share a big part of their lives online on platforms like Instagram, showing the availability of easy-to-use mechanisms for creating and sharing content (Burgoon, J.K., Bonito, J.A., Bengtsson, B., Ramirez, A., Dunbar, N.E. and Miczo, N. 2000).

Conversationality

Traditional media channels enable one-directional transmissions of information to an audience compared to social media which allows a two-way conversation (Mayfield 2008). Conversationality became a central topic of social media since Web 2.0 enables the capacity and speed of dialogic loops. The degree of conversationality varies by social media type, for example, Facebook has a higher level of conversationality compared to TikTok which has more limited two-way communication because of the core utilities and structures inherent in this social media platform (Pilch 2009).

Connectedness

Social connectedness can be described as “interpersonal, community, and general social ties” (Teixeira, 1992). Even though physical presence is considered to be a crucial factor in social relationships (Stafford, Kline and Dimmick 1999), it was also proved that interpersonal ties can be created and maintained via communication technologies (Stafford et al. 1999; Wellman and Gulia 2003). Core functions of social media like providing links to other resources, people, and sites offer connectedness to its users (Mayfield 2008).

Community and Commonality

Social Media offers the possibility for individuals and organizations to create communities and relationships with other people who share some commonality with them (Mayfield 2008). Social media facilitates the process for individuals and organizations to find people with the same interests as them, and by doing this they are building communities centered on a common goal.

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Now that the five characteristics that social media platforms have in common have already been mentioned, it is important to talk about what distinguishes them and what makes them have different reasons for use

Types of social media

“Social media can be divided into six main groups – Social Network Sites (SNSs), Content Communities, Microblogging, Community Blogs, Social News, and Bookmarking Sites.

This report will focus on the first two types of social media platforms – SNSs and Content Communities because as mentioned earlier this study will only analyze three platforms – Facebook, Instagram, and TikTok, that fall into these two groups of platforms. The reasons that make it possible to distinguish one type of social media from another are the following:

Social Network Sites (SNSs) allow individuals to (1) construct a public or private profile, (2) create a list of other users with whom they want to share a connection, and (3) view and change their list of connections and those made by others within the system. What makes this type of social media different is that it enables users to make visible their social networks, which can result in connections between individuals that would not otherwise be made (Boyd, D. M. and Ellison, N. B. 2007).

Content Communities allow people to share online multimedia content. After opening an account, users can upload their content and make it publicly available. Visitors search the content communities by keyword, subscribe to individual users, and provide feedback on the content (Danah m. Boyd, Nicole B. Ellison 2007). This type of social network differs from SNSs because in content communities the interaction between the different members takes place in a public space within the site, while in the SNS's the conversation takes place in the private space of an individual member "wall" or profile page (Thompson P. 2011).

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So, it is possible to conclude that SNSs are relationship management based, like Facebook, and Content Communities are entertainment-based, as TikTok. Instagram can be considered both, depending on its usage.

With a focus on social media engagement, the presence of entertainment with a network component has proved to be the most engaging formula so far.

Consumer Psychology

Stimulus-Organism-Response Theory

In 1974, Mehrabian and Russell proposed the Stimulus-Organism-Response (SOR) model which suggests that external factors affect and stimulate (S) different behavioral outcomes (R) after the incentive is perceived by the individual (O). This paradigm describes that customers' emotions and conscious and unconscious perceptions highly influence consumers' responses and feelings (Hetharie, Hussein and Puspaningrum 2019). As confirmed in Appendix 1, the SOR framework demonstrates that emotional responses can be clarified by 3 dimensions – Pleasure, Arousal, and Dominance – that influence the final customers' actions.

SOR model was useful for this dissertation due to three reasons. Firstly, this paradigm has been mostly used in previous studies on digital users' behaviors (Grace, Ross, and Shao 2015; Luqman, et. al 2017). Additionally, Koo and Ju (2010) established that digital features influence the consumers' purposes. Lastly, this model has into account the external and internal factors that can impact the customers' preferences and behaviors.

Having into account, this report, this theory aims to understand how the consumers react to a specific stimulus and analyze how the external factors influence the selection of social media platforms. Understanding this paradigm becomes crucial to conclude if there is a specific motivation that guides consumers to use a certain type of social media platform. Being aware of this theory will allow, throughout the third parties interviews, to detect specific external incentives.

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Moreover, to better understand how consumers, construct their decisions we decide to research the consumer decision-making process.

Consumer Decision-Making Model

The first consumer decision model was developed by Howard in 1963 (Du Plessis et al 1991). In 2011, Eisenfuhr defined decision making as a procedure of choosing from several alternatives to accomplish a result. According to Colin Combe (2014), the decision-making paradigm includes distinct decisions making models – the rational model, administrative model, intuitional model, and political model. In addition, this model is considered an analytic cognitive consumer behavior paradigm which is described as “a sophisticated integration of various social, psychological and marketing influences on consumer choice into a coherent sequence of information processing” (Foxall 1990). However, the Consumer Decision Making Model (CDM) demonstrate one colossal limitation. CDM was developed rooted mainly in the rational model, which considers that people built their decisions based on consciously oriented evidence and operate in an ideal world. Although later theorists perceived those consumers frequently “engaged in non-conscious behavior” during this process. Despite it, CDM nowadays continues to be useful for research and consumer behavior studies due to the fact it demonstrates the existent relation between concepts and the flow of the happenings (Erasmus, Boshoff and Rousseau 2001).

As perceived in figure 1, the decision-making process has five main stages: problem recognition, search, alternative evaluation, purchase, and outcomes. Also, it evidences that this model is influenced by external and internal factors which are crucial to define the outcomes (Darley et. al. 2010).

Based on this paradigm some studies were developed in the social media environment once social media platforms began to be an external factor that, nowadays is influencing the target decisions (Lee 2013; Voramontri and Klieb 2019; Wang and Yu 2015).

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Furthermore, considering the CD it will increase the value of this thesis since studying this process will be fundamental to drain and guide the third parties' interviews that will be accomplished and, also, better analyse the reasons and recognize the problem which leads Portuguese people to use one platform over another. Additionally, to study the human motivations of social media users, UGT become an essential model.

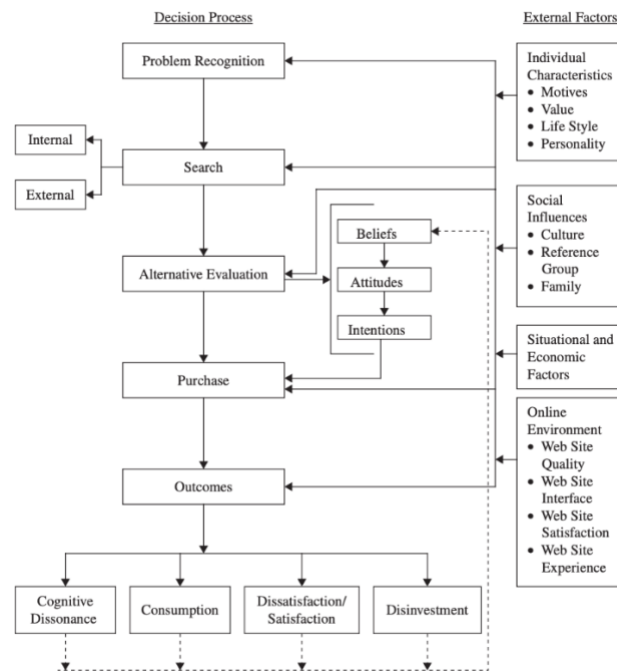


Figure 1 – Adapted Consumer Decision-Making Model Framework (William K. Darley et. al., 2010)

Uses and Gratification Theory

Uses and Gratification Theory (UGT), introduced by Katz and Blumler (1974), provides a further understanding of people's motivations for media access and usage. It was developed to analyze the fulfilled needs and the gratifications that people acquire from diverse forms of media.

UGT assumes that “the individual is active, and goal-directed” (Kaye, Johnson 2004), thus, the being is self-aware of the main reasons for using media and the provided alternatives (McLeod and Becker 1981). Even though when this paradigm was developed, it was directly related to the mass media, Stafford et. al (2004), stated that advertising and marketing

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researchers, already verified UGT in internet media leading to this conjecture can be applied to the social media platforms and on the internet approaches. Additionally, Katz, Gurevitch and Haas (1973), classified this model into five main needs – Cognitive needs, Affective needs, Personal Integrative needs, Social Integrative needs, and Tension-free needs – which become crucial to comprehending the presented model.

According to Ruggiero (2000), cognitive needs can be described as necessities that are related to the desire to be more informed and knowledgeable (such as curiosity). Affective needs are linked to emotional needs and experiences that provide pleasure. Personal needs are associated with reassurance, self-esteem, integrity and social status, and feeling more connected to the individual itself. Social needs encompass the desire to become part of a community, socialize and build relationships throughout the media. Finally, the tension-free needs embrace the requirement to escape and relieve any emotion of tension or distress (Kasirye 2021). Later, McQuail (1983) discovered four main reasons which motivate people to use media: Entertainment, Integration and Social Interaction, Personal Identity, and Information. In 2011, Mutinga, Moorman and Smit presented two motivations which only applied to social media usage – Remuneration and Empowerment. Finally, in 2018, Muhammad, referred that “social interaction, information seeking, pass time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, knowledge about others” are the main accomplishments that people are seeking when using social media. The acceptance of UGT in the context of social media platforms was conducted by Ivan Tanta, Maja Mihovilović and Zrinka Sablić in 2014, where they concluded “The uses and gratification approach proved thereby to be an adequate theoretical background for the research, both for constructing the questionnaire and interpreting the results”.

This theory will be crucial for the selection of associations that will be studied and the Personas creation. Likewise, to explore the associations that Portuguese people might have

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about the social media platforms, the brand personality construct is an important subject to analyze.

Brand personality construct

Jennifer L. Aaker (1997) defined brand personality as the array of human characteristics allied to a brand. Moreover, Keller 1993 established that a brand personality manages to have a symbolic or self-expressive purpose. Also, some marketing researchers mentioned that this concept has great importance in the persuasion process and is crucial to distinct from competitors (Sung and Kim 2010). In addition, frequently consumers relate brands with some human traits (Rook 1985; Fournier 1994) which, consequently, will go to influence the consumers' perceptions and preferences. According to Aaker (1997), this framework was developed to create reliable, valid, and generic dimensions to measure brand personality. As observed in Appendix 2, it includes five diverse dimensions of brand personality: Sincerity, Excitement, Competence, Sophistication and Ruggedness. In 2019, Mutsikiwa and Marre, explored the brand personality dimensions over social media brands by applying the Brand personality construct (BPC) and scale (BPS) in which they conclude that Facebook is highly related to excitement and sincerity. Under Pamuksuz et. al. (2021), "Social media is a natural platform in which brand personality is discussed—both by consumers and by brands—and therefore a natural arena in which to measure, compare, and track brand perception."

Along with the development of this report, BPC will be a required paradigm mainly for answering one of the research questions of the dissertation (RQ2), guiding to the conclusions about the three social media platforms' personalities. Nonetheless, becomes essential also to study the profile of the digital consumers and their behaviors and for that, the 4C's is a great theory.

The Digital Consumer's 4 C's

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Online critics, reviews, friends' posts, celebrities' purchases, and much other social media content influence people's purchase behavior. The concept of user-generated content present in today's platforms is an interesting and complex object of study that influences people's consumption (Belk and Llamas 2013).

Therefore, Hoffman and Novak readapted the traditional marketing mix specifically for social media users' goals, creating the 4 C's to understand the "why" behind the usage of social media, and the consequent impacts on consumption behavior (Belk and Llamas 2013). The 4 C's are not opposites or alternatives and often overlap or are dependent to explain the same behaviors.

Connect: It is pretty evident that many people use social media for the ability to connect with others, across time and space. Its goals require other people's involvement and interaction, such as socialization and updating status. This connection takes many shapes and is much different from offline communication. From posts to videos to status updates, bios, likes or comments, music sharing etc. it provides a higher range of information, extremely easy to access (Belk and Llamas 2013). Acting as a competitor of offline communication, social media provides first impressions without meeting someone physically, but studies have indicated that likeability derives from the same aspects in both scenarios: non-verbal expressivity (Weisbuch et al. 2009).

The process of getting information on social media, in what comes to the depth and involvement of it, can impact consumers' impressions generated from it, as research indicated that those who "actively choose which information to use on Facebook to form an impression of another user" do not tend to like such user as much as "those passively given a set amount of information" (Waggoner et al. 2009). Confidence in perceptions also increases with information amount for passive perceivers but not for the active ones (Waggoner et al. 2009). This suggests that using social media with the active purpose of connecting is harder to generate

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positive perceptions, than when not actively trying to connect, partly due to the “overabundance of info available” (Belk and Llamas 2013).

On what comes to the well-being and socialization, a study conducted on Facebook indicates that while direct communication on a social media platform “increases feelings of bonding and decreases felt loneliness, paradoxically, those who consume the most content feel least bonded and most” lonely (Burke et al. 2010). These connections include, of course, business connections, and social media presence increases the accessibility of brands creating an “online shopping mall” (Stephen and Toubia 2010). Furthermore, studies have indicated that these B2C types of connection have the same trust levels as in the “real world” (Eastwick and Gardner 2008).

Consume: social media provides access to instantaneous information of user-generated content, like other people’s moods, opinions, photos, etc (Belk and Llamas 2013) and its goals involve a more passive position, by reading, watching, or listening to content. In what comes to behavior effects, there is a lot of information to shape consumption decisions, even when not actively seeking information. Normal social media posts indirectly promote (or demote) certain products, for simply being used (Belk and Llamas 2013). SM’s word of mouth effects varies by product type and by the consumer, but typically, online reviews on unknown products tend to be given more importance (Zhu and Zhang 2010). Plus, “while most word of mouth is positive, negative word of mouth is actually most effective” (Chen et al. 2011). is valued the most when from a “reviewer” with the same likes rather than dislikes (Gershoff et al. 2007).

Goldenberg et al. (2009) define two types of influential people: innovators (embrace new products and trends 1st) and followers (bigger impact on market share) (Belk and Llamas 2013). On influences taken from social media, Watts and Dodds (2007) conclude that a substantial number of easy to influence people is the cause of information spreading rather than a small number of outstanding people spreading information. In what comes to the intentions

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behind the information-seeking; the breadth is the most valued when trying to decide, while depth is the way to go for people trying to just learn (Weiss et al. 2008).

Create: The basis of social media is content creation. The publishing of thoughts, feelings, status, etc (Belk and Llamas 2013). The type of content produced is linked with the personality attributes of the creator (People self-promoting themselves tend to have more narcissistic traits for example (Buffaradi and Campbell 2008) and “those high in need of uniqueness are less likely to generate positive reviews for or recommend, products that signal a lack of” uniqueness (Cheema and Kaikati 2010). Back et al. (2010)’ study on Facebook has concluded that the personality attributes on users’ profiles are quite accurate, reinforcing this idea. However, to understand people’s decisions on what to create, it would be necessary to understand people’s goals and motivations that guide them to do so. Shop, learn, network done by posting, uploading, or blogging, or other of the 4 C’s could be behind this necessity. However, only a study of such goals can generate an understanding of the likeliness of content going viral, and how people consume it.

Control: Besides creating content, people decide on whom to share it with and what content to consume. Privacy and usage settings are controlled to change how much of your presence is private and how much content reaches you. It is a “balance between self-expression and privacy” (Belk and Llamas 2013). The increase of the world’s online presence has constantly challenged people’s control levels. Password memorization, pc-phone connections and other features assess the extent to which people are willing to go on security issues and connect with the real world (Belk and Llamas 2013). More than the practical effects on the platforms, the levels of control of each user signal the way they approach such platforms, and the kind of consumption, connection, and creation they have.

“Consumers will likely exercise weaker control over the content on websites to which they feel a more intimate connection” (Belk and Llamas 2013). At the same time, there are studies indicating a possible paradox on privacy concerns, with people being keener to use personal information on unprofessional dangerous-looking platforms while having low felt security (John et al. 2011). Studies have also indicated that online control has an impact on real-life self-control (Fox and Bailenson 2009) (A phenomenon that can be used to “gain control over themselves or others “by engaging in such “types of online “(Belk and Llamas 2013)).

Chosen Platforms

Facebook

Facebook is typically known for sharing and updating personal status (Muhammad 2018), while provides accessible information and introduces new experiences and features (Di Gangi and Wasko 2016). Its mission statement is “To give people the power to share and make the world more open and connected”. (Jurevicius 2021)

Globally, Facebook is the adults between 25 and 44 years old’ most popular social media platform, and in third place in the younger generations between 16 to 24 years ranking (Kemp 2022). According to Meta’s records of 2.91 billion users at the end of 2021, is the most used social media platform.

Nevertheless, Facebook is being slowly abandoned (Duncan 2016; Frees and Koch 2018; Matthews 2014) by the younger generations (Stollfuß 2020), which is evidenced by its leveled growth over the past five years. Most Facebook users visit it daily, however the relation with this platform is changing, according to Auxier and Anderson’s research (2021). Locowise’s data reveals that only 0.07% of Facebook users will react, comment, or share a post.

The gratification motives behind the use of Facebook are social interaction, since users want to connect with friend and colleagues, entertainment, either to pass time or to benefit from

escapism, affection seeking, as users intend to share content to garner “likes” and “shares” from their friends, and information seeking (Menon and Meghana 2021).

Instagram

Instagram was created in 2010, with the core functions of fast scrolling, new frequent content, and community building. Now, around 40 million photos are daily uploaded, and it is well-known especially for the Gen-z and Millennials, that prefer visual storytelling than written. Users perceive this social media as interactive and engaging, with appealing visual features that joins in-the-moment experiences with social networking. Editing, sharing photos, tag photos, live video streaming, are recognized as flexible, creative, and easy mobile functions. (Muhammad 2018). Its mission statement is “To capture and share the world's moments”. (Nash 2021)

Presently, it is seen as the most popular platform to share images with other users (Schreiber and Kramer 2016; Serafinelli 2018), and as the most preferred among the young adult generation aged between 16 and 24 years, especially for females (Kemp 2022). As for Instagram’s continuous growth, 250 million new users were joined. Its ad reach increased 21% in 2021, with a total of 1.48 billion users reached in 2022, which means that, in the past two years, its advertising reach grew around 60%. Each month, home feed ads reach most of the active users. On the contrary, the stories’ ads reached one billion users (72.6%) for the same period, standing out as an opportunity to explore additional functions and options. Lastly, the explore tab’s ads reach eight hundred million users per month and are only 675 million those who see ads in reels.

Teenagers use this platform in search of gratification, for three main reasons: self-expression, by posting their own activities and sharing their opinions, for surveillance, by keeping an eye close on what others do with curiosity, and for entertainment, when escaping from stressful life situations, to just relax or to pass time when bored. Instagram is mainly used

for social interaction, for business purposes, information sourcing, entertainment, and relaxation (Muhammad 2018).

TikTok

TikTok is a simple short loop video sharing platform existing since 2016, with functions that recall to creativity (Wang 2020), as record easily, reproduce, and edit (Feng, Chen and Wu 2019, 1). Its popularity has been increasing, especially during the Covid-19 season at home, it was the most downloaded worldwide social media platform. In 2018, it was merged with music.ly and is present on 154 countries, downloaded 2.6 billion times, with 1 billion monthly active users, that use on average 80 daily minutes seeing and following videos with trends, memes, and challenges (Duarte, and Dias 2021). TikTok users find it esthetic (Chung and Wei 2020) and fun, with the content adapted to their fragmented and accelerated time (Feng et al. 2019), and where they can be creative on how to connect with others. Its mission statement is “To inspire creativity and bring joy” (Pereira 2022).

TikTok is rising its audience at a fast pace, with an ad reach of 885 million users above the age of 18 in 2022. An average of 650,000 new users per day in the last 90 days (about 3 months) corresponds to almost eight new users per second. TikTok is mostly known among the younger generations, but adults are also starting to join this platform (Kemp 2022).

Its current main segment is users aged with less than 20 years old, mainly girls (Bossen and Kottasz 2020), that feel they can expose their potential without impediments (Patel 2020), demonstrating with their mobile phones, dances according to certain tendencies, or challenges. This type of short videos sharing through user generated content, where each user can establish a network while creating and sharing content, along with technology developments, gave origin to the economy of “internet celebrities” (Xu, Yan and Zhang 2019).

Therefore, on TikTok is possible to consume content, seeing and reading without participating (passive users), to share it (participative users), or to produce it (creators) (Shao

2009), by creating images, videos, or audios. For the creators, to be easily recognized and express themselves outside their reality becomes an incentive. This innovative quality of production that originates celebrities at a global level, and the content suggestions from the algorithm according to each user's needs and preferences (Duarte and Dias 2021), lead to TikTok's success.

There is a value attribution to the social integration, pressure relief, and short and swipe formats, which increases addiction and satisfies emotional and cognitive needs (Wang, Gu and Wang 2021). In general, participative TikTok users are searching for an environment where it is possible to socialize and integrate, and passive users are more motivated towards entertainment, escape (Omar and Dequan 2020), and information (Shao 2009, 9). The creator users have a more strategic behavior, focused on self-promotion, self-expression (Omar and Dequan 2020), self-actualization (Shao 2009, 9), and on learning how to expand their online community (Klug 2020). Producers rely on their own identity and benefit from their creativity, opinions, and digital competencies. The content creators who become opinion leaders (Xu et al. 2019) have a prominent role in new products' short-term promotion. The most valued gratifications, independently of the age, correspond to vigilance, relaxation, information, and entertainment needs (Bossen and Kottasz 2020).

Different platforms are associated with different usages and different needs. At the same time, different markets have different behaviors related to these usages and needs. After recognizing the reasons associated with Facebook, Instagram and TikTok, now it is possible to have a clearer insight on how the Portuguese market specifically relates with these platforms.

Portuguese Market Research

According to a series of eight hundred online Marktest interviews, that occurred in July 2021 with Portuguese residents from 15 to 64 years old who use social media, in the last ten years the number of social media networks has increased by more than the double. Around 5.9

million Portuguese, corresponding to 68.5% of the Portuguese residents over 15 years old, are accessing social media networks, which is four times higher compared to the 2018 users.

The major social media Portuguese access differences can be identified among the various age groups, with young adults from 15 to 24 years old showing values way above the average (98,3%), and among social classes, where the highest numbers belong to the highest classes (Marktest 2021).

As a Statista (2021) study identified, Portugal had 7.8 million monthly active mobile social media users in 2021, positioning 13th place in the European ranking with the most users. The year before that, Portugal had an active social media penetration of 69% (Statista 2021). It is reasonable to agree that social media habits have been increasing since Portuguese users have an average number of six social network accounts, the double observed 10 years ago, and Portuguese young adults have around nine accounts (Marktest 2021).

Even though Facebook was the social network with the highest abandoned rate, according to Marktest (2021), it still has a significant presence in Portugal, with 93.4% of social media users that owns a profile, and Instagram with 76.1%, a slightly increase comparing to 2020 for both. During the Covid-19 pandemic, TikTok in Portugal had half million new users. Facebook has now the same notoriety in 2021 as it had in 2011, 98.5, which decreased from 99.6 in 2020. Instagram had 14.6 in 2013 and in 2021 had 89.6, with its notoriety score always rising each year. TikTok is a more recent platform, nevertheless, it started with 26.8 in 2020 and had 32.2 in 2021 (Marktest 2021).

According to a GWI research, a typical Portuguese user aged 16 to 64, spends around 7.56 daily hours across all internet devices, which is above the worldwide average. During 2021, 89.3% of the inquiries that own a social media account open it several times a day. Facebook is the social media that Portuguese people use most frequently, followed by Whatsapp, with 81.3% of its users open it at least once a day, and then Instagram with 75.9%.

The publication frequency has also increased, since the percentage that posts at least once a day increased from 37% to 59,9%. A study was driven to TikTok's largest consumer segment, a Google Forms survey responded by teenagers aged between 13 and 16 that used TikTok, and consequently have internet access and know how the digital environment works, concluded that this audience visits the platform around 7 times per day, with a total of 50 minutes.

GWI's latest numbers show that almost 12.7% internet users aged 16 to 64 in Portugal now uses social media for work-related activities, more than one third of Portuguese users has shopped through social media platforms (Marktest 2021), and in 2021 around 30% and 60% user's last purchase was in Instagram and Facebook, respectively (Marktest 2021). For following brands, Portuguese consumers seem to prefer Facebook, nonetheless this number has been decreasing over time. Simultaneously, an impressive growth on Instagram users' keeping brands track is recognizable, which has increased four times since 2016. More than half follow public figures on social media (Marktest 2021).

Based on factors such as age, gender, and frequency use, two distinctive profiles were identified by Scherr and Wang (2021), the day users, which were mainly motivated by social integration, and the night users, constantly searching for news. There was a clear distinction between passive/participative users (55.5%) and the producers (45.5%). Compared to the first ones, producers use TikTok more frequently, (38.5% uses it more than ten times a day) and for longer time, 61.8% used it for over 2 years. Producers also have a higher percentage of public profiles, use more private messages, and have a higher number of followers than the ones they follow back. Passive users and producers demonstrated unique needs and gratifications. The biggest difference between them is related to excessive utilization and addiction, since producers consider themselves more addicted and more excessive usage than the passive ones. With the auto promotion motivation (Klug 2020), for Portuguese producers is important to focus on a social image, to promote social recognition and admiration gratifications. Social

interaction works as a mean to achieve this (Patel 2020 and Klug 2020), and auto expression ends up being socially rewarding (Scherr and Wang 2021) for them. Passive Portuguese users tend to use TikTok for a more entertainment purpose, as the most valued content in this social media are choreographies, humor videos, and songs. Additional TikTok uses and gratifications for the Portuguese are to keep up with the tendencies, addicted escapism, or following what is new (Scherr and Wang 2021). Entertainment has more relevance on TikTok than communication once interaction and social integration were identified as non-initially demanded gratifications (Duarte and Dias 2021).

Methodology

To study the Portuguese market preferences regarding social media networks and consider the previous literature review, it was used for this report both quantitative and qualitative research methods. These two approaches complement each other and were used to answer the three research questions mentioned at the beginning of this dissertation. The first research question will be answered by the qualitative approach through several preliminary interviews with different professionals and third parties that are aligned with the personas' profiles that were considered to be extremely important for this study. The quantitative method will be used to answer research questions number two and three through two surveys that aim to obtain data on the perceptions and attributes that Portuguese consumers consider in social media platforms (Facebook, Instagram and TikTok) and which will be the basis for the construction of a perceptual map and conjoint analysis.

Personas

For the definition of the market's customer personas, consumer behavior was our basis. Consumer behavior is about what affects consumption decisions. Given that social media has consumers with all sorts of demographics rather than a very specific target, it is a possible way to segment by focusing on the different reasons behind social media use. We analyzed

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different theories and frameworks and decided to base them on the User and gratification theory as a starting point. From Katz, Gurevitch and Haas's (1973) model, which characterizes the main needs behind the usage of social media platforms, and impacts consequently their consumer behavior, we developed 5 different personas. Those needs are Cognitive needs, Affective needs, Personal Integrative needs, Social Integrative needs, and Tension free needs. These necessities were the segments for this construction, as they describe what is behind individual motivations in this market.

Based on other studies' personas and articles on relevant aspects, we decided to categorize the personas using the following characteristics: Name, age, gender, social media channels, location, occupation, lifestyle, interests, and influences (brands and influencers). To gather this information, some literature research was done, where through averages in Portugal, we were able to understand the typical age and gender for each necessity. Grabbing on other studies we could also associate other factors, and based on them, we conducted five interviews to fitting people. With those responses, in order to create an individual identity for each persona to guide us more precisely, they were constructed.

From these five personas generated by the five mentioned needs, we reduced them to three personas. Since we found several similarities and common points among the affective, social-integrative and tension needs personas' characteristics we decided to bundle them into one to simplify. Our three final personas (Appendix 4) are therefore the "Cognitive", the "personal-integrative" and the "Affective/ personal-integrative", which we named, respectively, "Tiago", "António" and "Ana" (Table 3).

| Needs | Personas | Description |
|-----------|----------|--|
| Cognitive | Tiago | Uses social media with the central purpose of getting information and knowledge out of it, as well as satisfying his curiosity on subjects, such as people's social environments and |

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| | | |
|---|---------|---|
| | | overall exploration of new topics. Seeks particularly for facts. Facebook tends to be the preferred social media platform. |
| Personal- Integrative | António | Uses social media to connect with others and learn. Accesses social media for social support and to share life events, in order to get a sense of community. Instagram tends to be the preferred social media platform. |
| Affective and Personal- Integrative | Ana | Uses social media mainly because of emotional necessities. They are either pleasure and satisfaction, or to get positive engagement to increase self-esteem. Accesses social media somewhat compulsively, many times even unconsciously for tension-releasing from stressing issues. Instagram and TikTok tend to be the favorite social media platforms. |

Table 1 - Summary of Consumer Personas

Later, these three personas' segments will be compared with our results, to understand if and how they vary in preferences and perceptions on social media.

Preliminary Interviews

For the development of this study, fourteen preliminary interviews were conducted based on two types of questionnaires. The two scripts were composed differently once the intended objectives of these conferences were distinct – one for professionals (Appendix 5) and other for customers (Appendix 6). This process sets in with four professionals' interviews, where the experts were selected having in count the work area and its connection with social media networks. Meanwhile, three personas' profiles were elaborated based on these interviews and the literature review. In this regard, ten consumers were interviewed. These preliminary conferences were managed by Zoom Meetings and face to face interviews.

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The expert interviews' script was divided in 4 categories: Market (to better understand the dynamics of the market, future forecasting, and the advantages of this study to the market), Preferences (recognizes what consumers value more based on the experts' perspective), Attributes (to understand the perceptions that experts have about the market) and Recommendations (to recognize which type of research content managers demand for, and which substance would be interesting to study in order to fulfill its needs). Although, the consumer script followed a different design.

The consumer script was categorized in 5 sections: demographic data (age, gender, professional situation, location, and marital status), interests (hobbies, preferred brands), persona segment (to validate the persona segment and perceived the need that the interviewee could fill in), perceptions (to perceive the associations that costumers have about social media networks) and preferences (analyze the consumers' preferences).

Professionals Insights

In order to enrich the content of this dissertation, four exploratory interviews with specialists were conducted. The purpose was to understand how our study can be useful for the interviewee's position and career and, also, to gather important insights that add value to the report, given that these people have in-depth knowledge in the social media area.

The **first interviewee** was a Brand Manager of an FMCG company that uses the three platforms that this study addresses to promote different types of products, events and to ensure that the brand she works for is always present in the consumers' minds. As mentioned in the interview "knowing the preferences and motives of my brand's consumers to use social media would be of enormous benefit to my work and industry as the results of your research will certainly provide me with key insights to improve the posts I make and the way I engage with consumers." The interviewee gave as an example that if the report concludes that Portuguese

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consumers highly valued the information in a post, then it would be a good insight for her to start doing more informative captions instead of interactive posts.

The **second interview** was accomplished with a Fashion and Lifestyle Influencer, who is growing mainly on Instagram, although produces some content for TikTok. The interviewee refers that this study will have crucial impact for understanding which type of content should be uploaded in the different platforms. Furthermore, it was mentioned that companies will have the possibility to reduce costs once, based on the study, it is easier to perceive and better suit the type of content that should be divulge through social media influencers in accordance with Portuguese's preferences. This cost reduction will be sustained by the fact that the managers will spend less in influencers services that do not reach their target consumers and will focus on a specific platform that is more aligned with their purpose and its objectives. In addition, "it will be also an advantage for content creators since it will allow them to understand better its audience". Regarding futures predictions, she mentioned that posts on Instagram have the tendency to disappear and the algorithm will go to benefit the interpersonal, interactive, and real-time experiences (Lives, Stories, Videos – Reels, IGTV). She perceived that nowadays people demand for instantaneous content - "people want to live with me". Also, TikTok will allow long-time videos which will position it as a YouTube competitor.

According to the **third interviewee**, a Client Solutions Manager at TikTok Portugal, this study will be useful to understand exactly what makes a person want to use TikTok and stay. When discussing about brands' interactions, an interesting perspective was brought up. Brands are realizing that if they want to be on TikTok they cannot just take their square TV ad and put it on TikTok in vertical screen, that does not work. Brands need to adapt and make tailor-made and native content, which is born on TikTok, that may not seem like advertising. While on YouTube a user is forced to see advertising, on TikTok if you do not like it, you can skip it, so an ad on TikTok must be of good quality and fit with the ecosystem. The relationship

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with brands has to be one of education, explaining to them that brands can relearn how to communicate in a way that is closer to people and more personal. Brands have the opportunity on TikTok to take risks, communicating in a way that had never been done before, and to represent itself to a new audience. According to the interviewee, Portugal is a slow country, in which brands probably do what others have been doing in the last 10-15 years, which is investing on Google, Facebook, ads words, and it has great results. Nevertheless, there are “brands that are already waking up, some sooner than others, and realizing that there is a new player, with a new audience, with a different way of communication. The brands that do not adapt will be overtaken, if not by Portuguese brands, will be by the foreign ones, which are two steps ahead.” This study will contribute for these brands to understand how to better engage with consumers through TikTok.

The **fourth interviewee** was a nano-influencer (content creators that have between 1000 and 10 000 followers) that uses Instagram almost exclusively. She shares health, fitness, and diet related tips, and is the owner of an online platform for fitness instructions. She believes this study could be relevant to her as an opportunity to understand better what and how to post, and even consider other apps, in order to increase her engagement and subscribers of the app. Being that her target are females, she would also like to understand how differently man and woman’s preferences and perceptions are when consuming on social media, in order to create more specifically to her goals.

Consumers Insights

Based on the created personas, ten consumers' interviews were conducted with the purpose to determine and confirm the characteristics of the developed personas. The interviews followed the structure described in the Appendix 6.

These interviews provided the evidence to conclude that the generated personas were aligned with the target and that the different profiles were aggregable with the reality. Mainly, that younger consumers have a higher tendency to be on Instagram, however they slightly prefer TikTok and, the older generations prefer Facebook, as perceived in appendix 4 with “Ana” and “Tiago”, respectively.

One of the youngest interviewees (15 years old) mentioned that she preferred to use TikTok due to how she easily can express and be herself on this platform. Also, mentioned that her preference regarding the platforms for entertainment is TikTok, although Instagram is a great platform to be aware about different and recent events. Other consumers with 17 years old and 21 years affirms that they do not have Facebook and it is a platform that does not arouse interest to create an account (“Facebook had its glory times, however I never had an account there. Instagram is more useful and already satisfy my needs that Facebook could satisfy. Nowadays, is a social media more attached to older generations”).

In contrast, another consumer interviewed with 28 years old referred that he only has Facebook to be aware about the news and sometimes to chat with his friends. Moreover, others interviewee located in the range of 28-35 years old confirmed that the only social media platform they have is Facebook because they do not have interest in other people life (Instagram) and do not identify with the content shared on TikTok.

In addition, based on these interviews, it was perceived that female consumers have a higher tendency to be customers of social media platforms than male gender. Also, is statable that their percentage of usage is higher than males.

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Nonetheless, these performed questionings added value to this report once it provided the possibility to complement the personas' information mainly regard the hobbies, preferred brands, and their preferences.

Conjoint analysis

A “Conjoint analysis is utilized to categorize the consumers' preferences and desire to pay for various product contributions” (Green et al. 2001). According to Kotler (2000), it is a method to calculate the “utility values that customers give to varying levels of a product's attributes” (King et al. 2019).

Mathematicians Duncan Luce and John Tukey are the first brains behind this method. They published an article called “Simultaneous conjoint measurement: A new type of fundamental measurement” in the year of 1964, with their idea of “measuring the intrinsic goodness of certain characteristics of objects by measuring the goodness of an object as a whole” (Luce et al. 1964). This is where it all started, still very basic and missing central concepts like products, features, prices or even data collection. However, the concept was built upon and became renowned in the 1970's with further studies: “Conjoint Measurement for Quantifying Judgmental Data” in 1971 by Green and Rao, “the first detailed consumer-oriented” on the subject (Green et al. 1978), and “On the design of choice experiments involving multifactor alternatives” by Paul E. Green in 1974. At the level it has today, it is a more complex method, used professionally by Marketing managers and researchers in order to study consumer trade-offs.

The way that this method is conducted is a choice-based study on product's (and pricing) characteristics to understand people's preferences among a set of different features. The experimental design consists of breaking down products into a set of components, that are then bundled differently creating fictional, mixed, products with characteristics from different ones (levels), where the respondents will choose from different combinations. Meaning, the analysis

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centers on the comparison of product's attributes rather than the products themselves (Kucukusta and Guillet 2014).

With the results of the conjoint analysis, it is possible to calculate the Partworth utility (or preference score or utility score). This is a mathematical measurement of the degree to which every attribute and every level impacts the respondent's decision of a purchase. So, with the weighting of distinct factors that constitute the marketing mix, this questionnaire will, at the end, not only provide information on what levels are more valuable, but also, what attributes weight more when making the decision of what product to choose. This studies often uncover unconscious purchase drivers that are not even apparent for the customers themselves (King et al. 2019).

On what comes to marketing practical relevance of this studies, this tool acts as a predictor of factor's different importance and preferences for the target consumers, or even segments of consumers, and provides consequent understanding of consumer behavior. It allows for the evaluating of business possibilities (namely line depth or breadth), testing new features or validating old ones (as the basis for a benefic and valuable, at the consumers eyes, feature selection for the product), defining the marketing mix and even outlining customers. It can even be used for market share forecasting and demand projections (Wittink and Bergestuen 2001).

Now that the definition of conjoint analysis has been presented, the different attributes and levels chosen to analyze in this study will be presented.

Conjoint Analysis Attributes and Levels

Content Media

Content Media refers to the form type of content shared and presented. It comprises three possible levels: Images, Videos, or Text. Facebook possesses all three options, Instagram two of them (Images and Videos), and TikTok only has video content. This attribute is in a way

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connected with Completeness, that will lead us to understand how accessible, important, and comprehensive format is, and which are the preferred ones that meet their needs.

Content Displayed Based On

Social media, in particular our studied brands, has three main ways of presenting its content to people: Following, Recommendations and Search and Explore. The first occurs when the content that the platform presents you is based on people you follow or is your friend. The second, when the content seen is based on suggestions by the app based on the user's preferences in material, which is calculated by an algorithm. The third one is when the users search directly for what they want to see. The three studied platforms possess the three mechanisms. However, Instagram and Facebook's feed is more focused on the Following, whether TikTok's is on Recommendations. This attribute connects with Flexibility, where content is presented through different ways that respond to different needs.

Visual Content Available Time (stories)

This time-focused attribute looks specifically into the Stories feature. This consists of content that is only available for a 24-hour period and then is automatically deleted, that is why it is related with Evolvability, responding to the recent constant status update need. Both Facebook and Instagram have it and is here studied to understand how the time-limit concept is important for the platforms' users.

Send Content

In these platforms people can send content to other users, corresponding to the Integration technical feature, by understanding the preferences on different combinations of environments and sources. This attribute studies the possible ways to do that. Direct Messages is one of the mechanisms that all three apps have. There is also Tagging, that consists of putting the receiver's Tag-name in the content to share for them to be notified directly and Sharing in Groups of people.

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Amount of Exposed Personal Information

Finally, the Amount of Exposed Personal Information is an attribute that will, as already mentioned, serve as an indicator of the price-to-pay for the consumption of social media. Divided in less possible, intermedium and All, with no restrictions, it intends to understand how much people are willing to give up in privacy as a trade for the apps' usage.

1st Survey - Multidimensional Perceptual Map

To be able to answer RQ2, that is, how Portuguese consumers perceived Facebook, Instagram and TikTok, a perceptual map was conducted. For the creation of the perceptual map, the first step was conducted a survey to analyze the perceptions of the Portuguese about three social media platforms in relation to the twelve chosen attributes.

Attributes

Presented in Figure 2 is the list of associations chosen for the survey. Throughout the survey' development, some modifications and improvements were made. The first improvement was related the initial choice of associations, as "Peer Pressure" was considered as a factor that leads consumers to use social media. However, when creating the survey, it was concluded that this factor should not be considered a determinant since it is a precedent to the use of social media and not a factor that Portuguese consumers relate with it. Having said that, it was removed from the primary list and did not proceed to the final survey . In addition, some of the selected names for the associations were changed during the analysis of the results: Online shopping and Update Status were changed for Shop Online and Status Update, respectively. Thus, Robustness was changed for Ruggedness, as the model indicates. These modifications did not have greater impact on the analysis because the definitions were still the same, although the association names were modified.

Furthermore, during the survey formalization, the brand personality construct was added to literature review once it was perceived that it would be a great complement and it would

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highly increase the insights for the conclusions of the study. To gather this information, was decided to inquire about how the Portuguese associate each social network with the different five dimensions of brand personalities.



Figure 2 - List of Associations for the 1st survey

Survey settings

The survey was created in Microsoft Forms and the developed questions were designed mainly based on the Likert-type scale. Furthermore, it was constructed with the possibility to participants pursue different pathways based on their responses. The main objective was to present all the chosen associations to consumers and invite them to rate each social media regarding these associations.

The first section aims to obtain demographic information from consumers. As it is shown in Figure 3, the first question requests the participant nationality (“Are you Portuguese?”) and if the answer given is “No”, the participant would not advance further into the survey, as this report only focus on the Portuguese market. The second question asked if participants used any of the aforementioned platforms: Facebook, Instagram or TikTok, and, similarly to the first question, if the answer given is “No”, the participant would not advance further into the survey.

Further questions were about the frequency of usage of the platforms, age, gender, marital status, and education level to reach a more complete analysis of the consumer.

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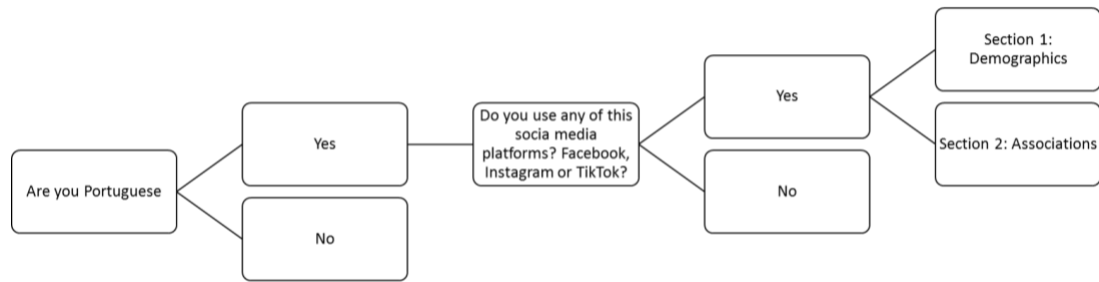


Figure 3 - 1st Survey's Diagram

The second section is more oriented for collecting data about the Portuguese consumers' associations. In this section, the explained associations on LR and the five dimensions of BPC were presented and followed by brief explanations, as can be seen in Appendix 7. As mentioned, previously, these questionnaire (section 2) follows a Likert-type scale so that consumers can rate the three social media on five-point scale, where 1 is totally disagree, 3 is neutral and 5 is totally agree. As reported by Mutsikiwa and Maree (2019) "The scale reported high reliability across all five dimensions" and Croasmun and Ostrom (2011) "Likert scales are useful in social science and attitude research projects".

Revision, Selected channels, and Data processing

Before the survey being published was revised by the professor and by three people to investigate the clarity and reliability of the survey. It was available online for 3 days and was spread by the researchers throughout social media channels as WhatsApp (groups and individual messages), Instagram, Facebook, and LinkedIn.

After closing the survey, the data was exported into an Excel sheet and then processed. All the columns relative to data from feedback to the survey and points that could be given to each question, which are specific to Forms, were removed as they had not data. Then, the entries in which respondents answered no to the question "Are you Portuguese" and to the question "Do you use any of these platforms? Facebook, Instagram or TikTok?", were deleted, as there presented insufficient data to analyze. Later, all the data relative to the associations were

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converted from text to numbers. Finally, an average for each association per brand was computed.

These averages were exported to SPSS. On SPSS, the data was analyzed for dimension reduction of the associations using the principal components analysis as the extraction method. Initially, the perceptual map was constructed without any rotation. However, that implies that all perceptions, when integrated into 2 main associations, are independent from each other, which would lead to unconvincing results. Therefore, the Direct Oblimin rotation method, with delta as zero, was chosen to construct a final map, to ensure that some dependence between the components was allowed (Jennrich 1979).

Finally, in order to measure the influence that the demographics of the sample had on the final results, particularly the averages for each association, a series of ANOVAs were run using the statistical analysis software Jamovi to determine whether it was possible to conclude that the average of each association for each group within each demographic trait were not equal. Then, once more employing Jamovi, the averages for each group were computed.

2nd Survey – Conjoint Analysis

According to Rao and Pilli (2014), there are four main steps for the development of a conjoint analysis: “1) development of stimuli based on a number of salient attributes (hypothetical profiles or choice sets); 2) presentation of stimuli to an appropriate sample of respondents, 3) estimation of partworth functions for the attributes as well as any heterogeneity among the respondents; and 4) use of the estimates in tackling any managerial problems (e.g., forecasting, pricing, or product design).” The first two steps correspond to the development of our survey and will be described in this methodology. The last two will correspond to the posterior analysis.

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Attributes and levels

Based on the official platforms' websites, in addition to the group's personal experience, attributes were discussed. From an initial set of 14 attributes and 43 levels identified, through a careful and discussed selection, 5 solid attributes with 14 levels remained. Even though all the initial attributes were interesting and relevant to a better comprehension of the engagement, they had to be reduced, otherwise the number of combinations would be too many. With that being said, the selection was made based on the ones considered to have the least relevance, and not because they were considered not to be relevant.

The first step was deleting four Yes or No questions, that did not seem to enrich the study substantially. The Preferred Device attribute (pc, tablet, phone) was not included, considering it is possible to access to all of them in all these devices, besides the fact that it was not focused on the brands features. Then, the Text Quantity was cut, since its levels (none, few, or a lot) were not very quantifiable as people could have different interpretations of it, and it would depend on the type of media content. Two options were discussed after that, either integrating Content Displayed Based On with Research Content or Visual Content Available Time with Visual Content Source. The first one was chosen, due to the higher similarity among them: the levels from Research Content were erased, except the Follows level, that was integrated in the new generated Content Displayed Based On attribute. The Hashtag level from the Get Content Displayed Based On attribute was deleted, when agreed that it was possible to be included in the Search and Explore level option. Since the editing feature would need to have a different and more thorough analysis, rather than just a yes or no question, the Visual Content Source attribute was also removed. Lastly, the Videos was not included in the final attributes, mainly because there was still a need to decrease the remaining number of levels, and from the remaining options appeared to be the one with less takeaways. In addition, we had already

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removed the attributes specific to the other types of Content Media, Text, and Images, so it seemed reasonable to remove the attribute specific to video.

Overall, the attributes present in Table 4 were the ones studied in the survey.

| Attributes | Levels |
|--|------------------------------|
| Content Media | Images |
| | Video |
| | Text |
| Get Content Displayed Based On | Search and Explore |
| | Following |
| | Recommendations |
| Visual Content Available Time: Stories | With time limited content |
| | Without time limited content |
| Send Content | Tagging other users |
| | Sharing on Groups |
| | Send Direct Message |
| Amount of Exposed Personal Information | Less possible |
| | Intermedium |
| | All, with no restrictions |

Table 2 - Attributes and Levels

After developing and selecting the attributes so as their corresponded levels, a point was reached where we needed to decide whether to include the brands as an attribute or not. There were benefits for both sides, so the main objective was reviewed. Increasing the social media engagement was identified as the principal one, rather than how to specifically improve Facebook, Instagram or TikTok. These are three platforms chosen to guide us and to serve as a starting point; thus, they are different and respond to diverse needs. Since these brands provide somewhat of a specific product, unlike other brands where it is often possible to choose from various products, these social media platforms are the products themselves. So, by using them in the survey, users could respond based on the whole concept of the brand, rather than the specific attributes defined in the questions.

The brands did not seem necessary, since in the introduction the three social media platforms were referred. Considering these platforms are constantly adapting and adding new features, the point was not to associate a specific feature to a brand, but to understand the association and preference for a specific feature. However, the frequency of each platform's

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usage was asked, so that it is possible to make some analysis and have conclusions about preferences for people with different preferred platforms. Having the brands included would also make the survey more extensive.

Survey settings

The chosen tool for the development of the survey was *conjoint.ly* for a choice-based, brand-specific questionnaire, where the final attributes and levels were uploaded, together with icons to improve the understanding and lightness of the answering process. (Appendix 9) After that, and before running the survey, the “applicability of levels across brands” table was filled, regarding the connection between each level and each brand. The selection was based on the features each brand actually possesses, at the time of the survey development. Some attributes have all levels featured in all apps (case of the quantity of Exposed Personal Information, where this is customizable), others have distinct levels on different apps (TikTok only has video content, and Facebook is the only app to have Text, for example) (Appendix 10). Being that these platforms change and adapt a lot, during the period of answers collection, TikTok introduced Stories, which it did not have before. That attribute is therefore not associated with TikTok in this table, and most of the respondents still answered to the survey unknowingly of such TikTok actualization.

On what comes to the platform’s settings, it is important to mention the filtering mechanisms against low quality responses that were used. Two major policies were adopted as already suggested and standardly set by *conjoint.ly*: responses that are too quick, as well as responses where people do not scroll all the way to down to see all the alternatives, were not considered. Respondents would be warned once (and if the problem was answering too quickly, would be sent back to the beginning), and at the second occurrence, the survey would simply end. While a good assurer of quality and well-thought responses, this serves at the same time as a limitation on quantity of responses, as explained in the limitations chapter.

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The template was chosen based on clarity (Appendix 11). The attributes' names had to be showed to support and clarify what the levels were referring to, thus, having a button at the end of the bundles was valued positively, instead of just pressing anywhere. This would serve to avoid possible confusion of people thinking they were voting for a specific level, and as a way to force people to scroll down to see all the options to be able to vote.

Besides the conjoint questions, a set of demographic ones were also established. Two yes or no questions were asked at the beginning for validation of the respondents: "Do you have Portuguese nationality?" and "Do you use any of the following platforms? Facebook, Instagram, TikTok". If the answer to any of them was "No", that would be the end of the survey for that person, as they do not fit our study focus. After the conjoint analysis, age, gender, study level, occupation, civil status, and frequency of use of the three studied platforms was asked (Appendix 12). These responses would be useful for analysis purposes, namely the comparison with our defined consumer personas, and possibly understanding of previously unnoticed influences of such factors on preferences.

Revision, Selected channels, and Data processing

After testing its understandability with a few respondents and it being revised by the professor, the survey was launched and collected answers from the 4th of April to the 20th of April 2022. It was spread by the researchers through several channels, namely WhatsApp, Facebook (messenger and groups), LinkedIn, E-mail, YouTube comments, Instagram, and SMSs. The calculations and graphs were created in the Conjoint.ly platform, for the exception of the pivot tables that were constructed in Excel.

Results Perceptual Map

Sample

Through the launched survey a total of 533 answers were gathered, in which 529 were Portuguese and four non-Portuguese. Furthermore, from the 529 (533-4) respondents, 86%

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(456) were users and 14% (73) were corresponded to non-users. Knowing that this research focused on studying the social media networks for Portuguese users, only 456 collected answers were taken into consideration, which represents 86% from the total answers. To better characterize our sample, demographic information was requested: age, gender, occupation, marital status, and education level as well as the usage frequency. As cited in the literature review, age and gender are two main characteristics that influence the usage and the perception of social media platforms, enhancing the importance of the understanding the impact of these characteristics in our research. Furthermore, the study of the additional characteristics is crucial to investigate the respondents' profiles which therefore is vital to examine the created personas. Nevertheless, these additional traits can influence the results becoming essential to analyze them.

Hence, the evaluation of these answers was crucial for this study once it had the possibility to impact the report conclusions.

Sample characteristics – Age

Based on the demographic answers given by the respondents, the collected sample can be characterized. Understanding the age of the social media networks users' sample is a central aspect that should be studied. As it is possible to verify in graph 1 Appendix 13, the majority of the respondents were either between 18 and 24 years old or between 45 and 54 years old, the former being 32% of the sample (146 respondents) and the latter being 28% of the sample (128 respondents). This compares to 22 under 18 (5%), 33 between 25 and 34 (7%), 53 between 35 and 44 (12%), and 74 over 54 (16%). As it is visible, on this remaining set of less significant answers, the sample skews to older people, with 56% of the sample being more than 34 years old, and only 5% of our sample being under 18 years old.

The difference between the age ranges, in particular the concentration of answers from people between 18 and 24 years old, can be explained by the fact that younger people are more

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related with social media sites (Auxier and Anderson 2021). Also, the excess of answers from responses between 45-55 years old can be elucidated due to the selected channels to disclose the survey, since around the oldest people Facebook is a most popular social media platform (Kemp 2022).

The fact that there are not an equal number of responses in all age ranges directly influences the results of the study as, like previously mentioned in the literature review, different social media platforms have different people segments that they pretend to attract.

Sample characteristics – Gender

As perceived in graph 2 Appendix 13, the collected users' sample consists of 297 females, 156 males and 3 others. It means that 34% of the users were male and 65% female users, while the remainder 1% consists of the people which preferred not to say. Based on this data, is possible to observe a relevant discrepancy between the number of males and females.

This disparity between genders can be interpreted with the fact that in the Portuguese population the number of females is higher than males, as concluded in the CENSOS 2021 and supported by PORDATA 2022. In addition, and as referred before in the literature review, females have a higher tendency to be social media users meaning that the gap between genders is also perceived in social media networks (Kemp 2022).

Sample characteristics – Occupation

According to the previous analysis, the Occupation distribution was predictable. The gathered sample (graph 3 Appendix 13) reported 145 students, 12 unemployed, 260 employed, 33 retirees, and 6 who preferred to not reveal their occupational status. The 57% of employed people was explained by wide range of people between 25 and 54 years old in collected data, since in accordance with the INE, in February 2022, Portugal had 3 207 000 employed people among 16 and 24 and 4 845 000 workers with 25 or more years old.

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Sample characteristics – Education Level

Regarding to the Education level of the introduced sample, the observation of the graph 5 Appendix 13 demonstrates that the sample is composed by 13 people with elementary education, 72 with secondary education, 232 with a bachelor's degree, 129 with a Master's degree, 7 with a doctorate, 1 with none of the other education levels, and 2 who preferred to not reveal such data.

In 2020, Portugal had 52 832 residents with a bachelor and 26 235 people with a Master's degree, 348 892 people with an elementary level and 393 340 with secondary education (PORDATA 2021). The relative difference between the sample and the Portuguese population is justify by the age and the characteristics of the Portuguese population. According to the INE and PORDATA, the level of education has been increasing since 1991, which is reflected mainly in the youngest generations (that have higher levels of education). Furthermore, Portugal population is characterized for being an aging population, which is also demonstrated in Portuguese data. Due to this, and since the sample provided is highly focused on the younger generations, 80% of the respondents that have greater levels of education.

Sample characteristics – Marital status

When analyzing graph 4 Appendix 13, is possible to observe that the most frequently marital status was single, followed by married. These two classes represented more than 50% of the registered sample, more precisely 89% of the people were single or married. This situation can be explained based on marital conditions that Portugal exhibits, since the presented values are similar to the official Portugal numbers. Based on PORDATA (2021), these categories represent 84% of the total residents. It means that the collected data was a Portugal's reflection, providing to this sample a more realistic approach.

Sample characteristics – Percentage of usage and frequency per platform

When analyzing the graph 6 Appendix 13, it is possible to affirm that there are colossal discrepancies in terms of the use of Facebook and Instagram relatively to TikTok. Based on this data, the social networks Facebook and Instagram, are used every day by respectively 47.8% and 66.7% of respondents. However, TikTok only have a daily use about 11.4%. The results for the first two respective social networks were as expected given that Instagram proved to be the preferred social media network for people between the ages of 20 and 24, and Facebook proved to being slowly abandoned by the youngest generation (Duncan 2016; Frees and Koch 2018; Matthews 2014). With regard to people who answered that they did not use any of these types of social network, the answers were as follows - 70% do not use TikTok, 15.8% Facebook and 10.3% Instagram. This high number of people who do not use TikTok, precisely a total of 319, is connected with the fact that TikTok is the most recent social network when compared to the other two, and also because, as referred in the literature review, its main target segment are users aged with less than 20 years old (Bossen and Kottasz 2020). Furthermore, as mentioned before, only 5% of respondents are under 18 years old, which consequently influences the results.

These results were expectable when compared to the Portuguese population. According to Statista (2021), Portuguese people present a daily usage' frequency percentage, regarding Facebook and Instagram, of about 83%, which is also reflected on the sample results. Besides, Duarte and Dias (2021) concluded that 38,5% of Portuguese population that use TikTok open the platform more than 10 times a day, which upon comparison to the sample results is higher, although justifiable by the lower number of survey participants that use this platform.

Group Part

Nevertheless, the mentioned results are a useful insight for the conclusion of this dissertation.

Results Conjoint analysis

Sample

A total of 1.636 entries were registered, from which 359 serve as responses for the analysis. 94 people (about 6% of the respondents) were screened out in the first two elimination questions, with 41 answering not to be Portuguese, and 53 not using any of the three studied platforms. In addition, 1.083 of the respondents opened the link but did not complete the survey (people that gave up during the questionnaire or after receiving a warning of being providing low quality answers), 84 were cut halfway by the platform (answers that were too quick or did not scroll enough even after a first warning), and 16 were cut for being rated as low quality.

A demographic characterization of the sample is the first step of the analysis, as it is a crucial indicator and influencer of the results, as already studied in the personas.

Sample characteristics – Age

The vast majority of the respondents were aged 18 to 24, comprising about 62.1%. The second biggest share was 12,3%, from people aged between 25 and 34 years old. 3.3% were under 18 and above 35 years old, 9,5% between 35 and 44, and 4.5% were above 44 years old. 8.4% of the respondents were minors (<18y). Parallely to the perceptual map' sample, the explanation for this division can be found in the bigger usage of social media platforms by younger people, and due to the spreading method of the survey, where personal connections of the researchers were central.

Sample characteristics – Gender

Gender-wise, the sample is quite evenly distributed, with 56% being female and 43.5% being male. 0.3% answered other, and 0.3% preferred not to disclose. The female gender is slightly more represented, but so is the overall Portuguese percentage of females (52%)

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(PORDATA 2021). In addition, females tending more to the usage of social media (Simon Kemp 2022) is also a possible explanation for such difference.

Sample characteristics – Occupation

70.2% of the sample are students. 26.7% are either employed or autonomous workers, 1.9% are unemployed, 0.8% retired and 0.3% preferred not to say. The most represented group on the people that responded are, therefore, students. It makes sense when accounting that many responses were gathered on student groups on Facebook and by personal connections of the researchers leading to this skewed demographic status. In addition, it is congruent with the fact that a total of 70.5% of the responses are from people under 24 years old.

Sample characteristics – Education Level

On what comes to the education of our respondents, elementary school was the level for 2.8%, high-school or an equivalent for 23.1% and the majority (52.1%) answered to have a bachelor's degree. 20.3% were masters, 1.4% doctorates, and 0.3% did not share this information. Education-wise the responses form somewhat of a normal distribution, with the bigger response being a bachelor's degree. It fits with the other demographics, namely the age and occupation, as, even though the percentage of people with superior courses is similar to those with a high-school level, the average education increases in younger generations (PORDATA 2021).

Sample characteristics – Marital status

Regarding marital status a huge slice of the sample is single (82.5%). 13.6% are married, 2.5% divorced and 0.8% widowed. 0.6% preferred not to say. These values are vastly different from the general demographics in Portugal, where single people are approximately the same number as married people. It is, however, understandable due to the low average of age of the respondents, while the average Portuguese person gets married with 33 years of age (PORDATA 2022).

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Sample characteristics – Location

Studying the locations where the survey was taken, a total of 336 of the 359 answers were in Portuguese territory. Around 160 of those were in Lisbon, 55 in Oeiras and 30 in Porto, constituting the most represented areas. 4 answers were taken in Spain, and 15 across the rest of Europe. There were also 3 from Portuguese in the USA and 1 in Angola.

Sample characteristics – Percentage of usage frequency per platform

To understand the usage quantity of each of the three studied platforms, the frequency of use of each of them was also collected. Facebook is used every day by 25.6% and is not used at all by 29.8%, which could be expectable with what was seen before, on its usage decrease over time. Instagram is used every day by 79.4% and not used by 5.6%. The respondents that use TikTok on a daily basis are 24%, and those who do not use it are 55.4%. Those who use each of the platforms every other day are 8.1% for Facebook, 7.2% for Instagram, and 5.8% for TikTok. Respectively, those who use it a few times a week are 16.2%, 6.1% and 6.1%. Finally, those who use Facebook a few times a month are 20.3%, Instagram are 1.7%, and TikTok are 8.6%.

Instagram is the most used out of the three and has the biggest percentage of users on a daily basis, which is congruent with the defined personas, when looking at the sample demographics. Contrarily, more than half of the survey-takers do not use TikTok at all. Facebook holds the middle ground, between use and unuse. The explanation for having less respondents using TikTok could be based on the fact the other two platforms were used as channels to spread the survey, while TikTok was not. In addition, it is a platform used more by consumers under twenty years old, which do not represent the bigger proportion of the answers (Bossen and Kottasz 2020). It is also a more recent platform, compared to the other two, being therefore normal that it does not have the same number of users already. The progression between the everyday and never limits is also different between them. On Instagram, with the

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increase of the frequency of use, there's progressively more people using it. The opposite happens when talking about TikTok and Facebook, with more people stating to use them a few times a month than a few times a week, and even less using it every other day.

Continuing with a more profound analysis of the frequency of use for the three studied platforms, pivot tables (appendix 20) were useful to compare it with the different demographics from our sample.

Pivot Tables Analysis

Age and usage frequency

Age seems to highly influence the consumption of Facebook and TikTok, while having a smaller impact on Instagram. According to the correlation in the conjoint survey's responses, on average, Facebook usage increases with the increase of the age group, while TikTok has the exact opposite effect. 80% of people under 18 and 34% between 18 and 24 report not to use Facebook at all, whereas the bigger share of the older respondents say they use it every day. For TikTok, the biggest response for each age group, except under 18's (that 73% use every day), claim to never use it. On Instagram's case, even though Instagram's average frequency of use decreases with age and people responding to never use it increases, there is a majority of every-day users on every age gap, with levels of more than half of the respondents in every group except those over 54.

Gender and usage frequency

For Facebook, both male and female have a similar percentage of everyday users (about $\frac{1}{4}$). However, there are more males not using it at all than, due to more females using it on middle terms (for example $\frac{1}{4}$ of women use it a few times a month, frequency that only 15% of men indicate). Gender also has little impact on Instagram, where the differences between them were minimal. On TikTok 61% of males and 52% of females do not use the platform. The difference is even higher on everyday users, where females have 29% and males 17%.

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Occupation and usage frequency

Knowing that age is somewhat associated with occupation, namely regarding the student group, the results were as expected. Regarding Facebook, students were the only group not having the majority using it on a daily basis. Looking at Instagram, 98% of students use it (86% daily), representing Instagram's biggest group in percentage. TikTok's usage is mainly either used daily or never used at all and is, in percentage, more used by students: 53%.

Education and usage frequency

Education is also connected with age and occupation and shows similar effects in the responses: Instagram being transversal to all groups (and with very similar results among them), Facebook increasing with education, and TikTok decreasing. Facebook's everyday user go from 11% on schoolers (basic and/or high schoolers) to 35% of masters and/or doctorates, while those who never use it decrease, respectively, from 58% to 13%. Inversely, TikTok has 42% of schoolers and 15% of masters and/or doctorates that use it daily. The percentage of people that do not have the platform are 35% and 71% in the same order.

Marital status and usage frequency

Singles are the only group to have most people not using Facebook and is also the group that uses Instagram more frequently. Nonetheless, it is relevant to highlight that a large share of the sample is younger, consequently, single. Since the big majority of TikTokers are minors, no big surprises or conclusions are taken in this analysis.

Usage frequency across platforms

For those that use Facebook every day, 68% uses Instagram on a daily basis and 75% does not use TikTok, so for those who use Facebook every day, many also use Instagram daily, but do not use TikTok. On the other hand, 86% of respondents that never use Facebook, use Instagram every day, and 41% do the same with TikTok. In other words, independent of Facebook's usage frequency, for the majority, Instagram is frequently used.

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For most who use Instagram, there is a high chance of not using TikTok, as it occurs with 51% of who uses Instagram on a daily basis. Hence, if using Instagram on a low frequency, respondents seem to give TikTok less use, considering 75% of who never uses Instagram, does not use TikTok. It seems that the comparison with Facebook is contrary: when using a lot of Instagram, Facebook is not used with much frequency, and 65% of respondents with Instagram usage low or inexistent, use Facebook every day.

As for TikTok, half of those who use this platform every day do not use Facebook. For those that use a few times per month or never use TikTok, 29% and 35% respectively use Facebook daily. Lastly, independently of the frequency of TikTok's usage, most of the users seem to use Instagram on a regular basis.

In general, based on the majority of our sample, it seems reasonable to conclude that between Facebook and Instagram, when users consume one a lot, they seem to not use the other much (and vice versa), except when the Facebook usage is high, Instagram usage is also high. Between Facebook and TikTok, when users use one a lot, they seem to not use the other much (and vice versa). Finally, between TikTok and Instagram, who uses Instagram frequently, will not use much TikTok, and among those that do not use TikTok, it is expectable to use Instagram a lot. For those who do not use Instagram, it is probable that will also not use TikTok, and the same is expected to happen for those that use a lot TikTok, also use Instagram a lot.

After having insights on our sample, it was possible to move on to the core of the analysis, the responses of the conjoint, to understand users' preferences on the defined attributes and levels.

Analysis and findings

Goodness-of-fit “refers to a statistical test that determines how well sample data fits a distribution from a population with a normal distribution (...) and establishes the discrepancy between the observed values and those expected of the model in a normal distribution case”

Group Part

(Kenton 2021). With a McFadden's pseudo- R^2 of 58,3%, the goodness-of-fit of the statistical test was considered to be a Medium Fit.

Relatively to the brands, it can be seen in the Appendix 21, the preferences for different combinations of features within each brand. Through them is possible to identify which brands have more or less variation by constituent concept: the wider “violins” represent potential combinations of features within the brand. The diamonds in the middle of the violins show median values, Instagram is in first place with 8.5, then TikTok with 4.6 and Facebook is at last with -3.6. This means Instagram tends to be the preferred brand and Facebook the least preferred one.

An analysis of the relative importance of each attribute, averaged across consumers, was done. These partworths were calculated in Conjoint.ly with an average of each respondent attribute partworth utility, done with the range of preferences to levels within the attributes (Appendix 22). The most important attribute was Amount of Exposed Personal Information for all three brands, which is reasonable considering personal data is evaluated as willingness to pay for a product. In turn, the least important attribute was not the same for the three platforms, Content Media for Facebook, Send Content for Instagram, and Content Displayed Based On for TikTok. The attributes' preferences analysis is based on the weight that the levels that were selected in the beginning have. Therefore, there are some attributes that are not included in specific brands, because there was only selected one level, as for Videos in TikTok. The Visual Time Limited Content (Stories) attribute was also not the subject of an analysis by the platform because it consists of a have / not have scenario, where the choosing of a platform implies the choosing of one level. Thus, it is not compared in importance with the other features, as there is not a choice possible inside each brand.

Having a closer look on the levels' preferences, understanding the different preferences distribution for levels was the next step (Appendix 23). Having less available personal

Group Part

information is strongly preferred to having no limitations at all. Direct messaging was the most preferred form to Send Content in all platforms, thus, on TikTok and Facebook there is a preference for Content Displayed Based on the Following, which was surprising. On the contrary, for Instagram it was Search and Explore that was somewhat preferred to Following. There is no preference on the Content Media type on Instagram, but as for Facebook, data indicates that Videos are preferable to Images, and Text at last. As attributes partworths, the level's partworths were calculated with each level's preferences average.

The output of the survey enables to have an ideal social media platform profile, with a value to customers of 22,2 (average partworths across individual respondent's total partworth utility scores for the combination. It is scaled with 0 as the average value): Instagram platform, Images type Content Media, Content Displayed Based on Search & Explore, with Time Limited Content available option, Direct Messages for Sending Content, and less possible Exposed Personal Information (Appendix 24). The highest valued combination for Facebook is in 4th position on preferences and includes Videos, Following, Time Limited Content, Direct Messages and Less possible Exposed Personal Information. For TikTok, the combination is the same, except without Time Limited Content (TikTok did not have it at the time of the study which might have influenced this choice), and it is ranked as 7th. Interesting to note that, even though Instagram and Facebook has both Images and Videos, and Search & Explore and Following, the highest ranked set of preferences are different for each. It is also worth to mention that, for the seven highest ranked possible answers, while Content Media changes between Images and Videos and Content Displayed Based On changes between its three options, the entirety of them have less possible exposed information, and Direct Message as the way to Send Content. Even though Stories was considered as an attribute for analysis, it was not possible to extract a lot of information on its preference, due to the fact it is a "have" or "not have" feature with only one level given to each platform. However, the 7th ranked set is the first

Group Part

one to not include Stories, demonstrating that having Stories such feature available was considered as a valuable attribute in social media platforms, rather than not having Limited Time Content.

In addition to a general analysis of the responses, it is also important to understand how the different demographics influence or not the choice of the attributes.

Demographics vs Attributes and Levels

Through a segmentation process on the conjoint.ly platform, a comparison between different demographics and the responses was conducted to study their correlation (appendix 25). Due to low responses of the following demographics, those segments will not be analyzed: Retired people, Basic schoolers and doctorates, widows, and divorced people.

Brands' preferences are now studied, where the results are quite different from the frequency of use' results. However, it is important to remember that this measures the preferences based on the set of attributes provided by each of them, instead on the brands themselves. Therefore, not only many other features are left out of the analysis, as other intangible crucial factors such as the weight of the brand personality. Furthermore, people are not necessarily aware of these preferences and do not take a conscious decision on which platform to use based on them.

Age

On brands preferences, Instagram has a similar effect to a normal distribution, with the highest of its valorization on people between 25 and 34 years old. It decreases with the distance from this range, as the opposite poles rate it the lowest value. Over 54's is the only group to value Facebook's sets of attributes positively, while the age group that values Instagram the highest (25-34), values Facebook the lowest. Curious to note that the group that uses TikTok the most, minors, ranks it under average. Both 25-34 and 45-54 are the ages that rank TikTok higher, while those comprised between them value it negatively.

Group Part

For Amount of Exposed Personal Information, while the older groups on average give it the higher importance, the younger one assign it lower importance in comparison, even though it is by far still the most important attribute. Among all platforms, those who are 25-34 are the group that rate this attribute higher. Across the three platforms and all age groups, the most valued level of this attribute is the low level one, except for people under 18 years old. These value an intermedium level more than a low level and, in Facebook and TikTok cases, they even prefer a none-restrictive level to the lower one.

On Instagram, for Content Media under 18' prefer Videos and 35-54 prefer Images. Text is negative across on Facebook, but it gets, on average, less negative with the increase of age, while Videos are value decreases, increasing age. Images have the opposite effect as Videos, though in a smaller scale, and they are only less valued than Videos until 34-year-old.

Instagram's Send Content is the least important in almost every age group, except for 18-24. On TikTok, people over 45 are the only to give more importance to Content Displayed Based On than Send Content, whose importance is higher particularly for people under 24. On Facebook these attributes follow the general results in all ages.

On Instagram's Content Displayed Based On, Search and Explore is negative for the youngest and increasingly positive by age. Follow is more valued by the youngest, but negative for 54 and above. All values are somewhat close to 0 and so more evenly distributed on Facebook, where minors prefer Following rather than Recommendations, while 34-45 are the only to prefer Search and Explore. On average, looking at TikTok, Search and Explore increases with age from negative to positive values, while Follow decreases (always positive), and Recommendations are the least preferred in every age gap. Under 18's strongly dislike Search and Explore.

Looking at the Send Content levels, Direct Messaging value tends to be higher the younger the consumer is, maintaining to be the preferred one. Tag level has the opposite effect.

Group Part

Gender

On brands' feature set, the order of preferences is the same in both genders. Females value Instagram sets of attributes more than males, while the opposite happens for TikTok. Even though it is negative for both, Facebook's value is less negative for males. The order of attributes' preferences is typically the same for both genders across platforms. Focusing on small differences, females do give more importance to exposed information theme, and males care a bit more for Content Media on Instagram and Send Content on Facebook. Content-wise, on Instagram, females prefer photos, while males, tending a bit more to Videos, are close to indifference. On the Content Displayed Based On attribute, males do prefer Follow more, when comparing to the opposite gender.

Occupation

The brands preferences are similar across different occupations, with students rating TikTok a little higher. Looking at the attributes, autonomous workers give more importance to Content Media than Content Displayed Based On, unlike the rest, because they value Images rather than Videos to a higher degree than the rest do. Students are the only to not rate Images higher on Instagram, and employees prefer Videos on Facebook. For the Content Displayed Based On attribute, the values are close all across. On Instagram, Search and Explore is the preferred, surpassing Follow in every group other than employed, while it is the least valued by students and employees on Facebook. On TikTok the differences between students, employed and autonomous workers are smaller than the on other two social media.

Education Level

Different education levels have similar values on brand preferences between them. Attribute-wise, preferences on Instagram and Facebook were also similar across the different education backgrounds of the respondents, with the exception of more importance given to Content Displayed Based On by highschoolers, and slightly less to Exposed information. Level-

Group Part

wise, on Instagram, from high school to masters, preferences evolve from Videos to Images, in Follows decreases, and in Direct Messages increases. On Facebook the same exact effect happens, except that Videos are higher valued still in the three groups. In addition, masters dislike Tagging more than Sharing in Groups, unlike the other two. The importance for Exposed Personal Information increases with education only on Facebook. TikTok is ranked pretty similarly on Exposed Personal Information and Send Content, with masters giving a higher value to Direct Messages. Highschoolers give more importance to Content Displayed Based On as they prefer Follow to a higher degree.

Group Part

Marital status

The brand preferences order is the same between single and married. Facebook is, however, given a higher value by the second group. The biggest difference on Instagram attributes is that Married people give more relevance to Content Media than Content Displayed Based On, and singles do the other way around. In addition, singles are indifferent between Images and Videos, but the others prefer Images. Married value Search and Explore higher than singles in detriment of the Follow feature. On Facebook, singles value Videos more than married, in detriment of Text, and married are valuing more low Exposed Information. On TikTok there is a higher valorization of Follow by single people. In all platforms, singles give more value to Direct Messages than married, and these last ones are preferring more of low information sharing (this difference is not significant on Instagram).

Grabbing on the initially identified personas, now a look is given to those specific demographics as they represent consumer-types and specific needs of this market, not only to validate them, but to correlate their needs with their preferences.

Conclusion

Perceptual Discussion

Based on the introductory analysis results, it is possible to state that some of these results were predictable, mainly regarding age and gender, considering that, and according to previously mentioned studies, women have a higher tendency to shop online on Instagram and access information via this platform. Thus, the conclusion of this study corroborates the claim that different genders have different preferences and perceptions. Furthermore, as expected, Facebook is highly associated with entertainment and social interaction for older generations.

Nonetheless, it is perceivable that some results are unexpected and interesting to analyze, for example, how unemployed people relate TikTok as Social Interaction. That was surprising because TikTok is a social media platform that has more barriers to entry for older

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generations and usually unemployed people tend to be older than 18 years old. As well, as mentioned earlier, women use Instagram to access to information even though they curiously consider Facebook to be the most comprehensive and reliable network.

Besides that, based on the acquired outcomes, which resulted from the perceptual map analysis, it is possible now to respond to research question 2 - How do Portuguese consumers perceive Facebook, Instagram and TikTok platforms.

The selected platforms are positioned in market spaces completely different, which means that they are not direct competitors, however, as expected some of them share similarities in their profiles. Instagram and Facebook are both related to social approval (dimension 1) and to the access to information. However, Instagram has a more consistent connection with the referred associations, since is more distant from the origin in the horizontal approach and closer to the initial part of the access information vector (blue point).

TikTok and Instagram have also some similarities mainly regarding entertainment and free time available (dimension 2). Nevertheless, TikTok and Facebook are, based on the collected data, platforms which operate in completely distinct markets and do not have any commonalities among their profiles. As previously discussed, SNS, like Facebook, are relationship management based, and Content Communities, as TikTok are entertainment based. This study confirms those assertions.

Besides this, Instagram is the social media platform that Portuguese people associate with a higher number of associations, which is expectable since Instagram is growing in the Portuguese market since 2019. Furthermore, the preference for Instagram is also justified by the age and the gender of the survey respondents since the age of most of the sample is between 18 and 24 years old. As mentioned in the literature review, Instagram has a higher tendency to be the social media platform which these generations prefer, knowing that Matt Ahlgren (2022) concluded “18 to 34 years old is the age range which is more active on Instagram” and according

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to the Datareportal, in the early 2022, “51.9 percent of Instagram’s ad audience in Portugal was female”. As such, Instagram is perceived to be sophisticated since it presents to be a modern and elegant brand and to have the best profile to satisfy most of consumers’ needs. Moreover, the presence of entertainment with network components, which Instagram can offer, is most engaging, which is validated by the results of the perceptual map. And, due to that, people associate Instagram to competence rather than the common-sense expectation of associating competence to Facebook.

TikTok is positioned as being the platform that is more associated to Self-expression and Entertainment. This conclusion is aligned with the purpose and the mission of TikTok “is the leading destination for short-form mobile video. Our mission is to inspire creativity and bring joy.” Although, the number of associations done to this platform could had been influenced by the lower number of respondents that use this network, since TikTok penetrates the Portuguese market mainly in the youngest ages. This can be seen as the platform is not associated with “Enthusiasm”. This result was unforeseen because, according to the literature review, TikTok is usually seen as a fun and creative brand, so that association was expected to occur. In contrast, Portuguese people perceive TikTok as rugged (strong presence). These incongruencies with common sense could reflect a sample weakness.

On the other hand, Facebook occupies a completely different position in the market. This platform has the lowest number of associations, however, continues to have a high rate among some of them. It was expectable since Facebook is the oldest platform in the market and nowadays is considered one of the biggest cash cows in the market (Sparks 2014). In addition, Facebook, according to the background, is the market leader in terms of the number of users. Its leadership is guided for the innovation and reputation of Meta company (Tillman 2021). This capacity to innovate and offer new experiences and features, as stated in the literature review, is the reason consumers perceive Facebook as an enthusiastic brand, even though the

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user base is trending towards older people. However, an expected result is that Facebook is a sincere brand due to its originality.

Based on this, the presented social media platforms do not need to readjust their strategy in order to be distinguished from the other apps, and occupy a specific position in the market.

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After being aware of the social media platforms' profiles would be noteworthy to understand what are the attributes that would create the perfect platform for the Portuguese population.

Managerial Implications

In terms of how this study will help different businesses, the conclusions were as follows:

Firstly, Instagram itself can use the insights from this study. As previously discussed, Instagram is growing in the Portuguese market and is the platform whose profile satisfies most of consumers' needs. Therefore, to become the biggest social media platform in Portugal, and, considering it is significantly correlated with "Social Approval", it can turn into the "modern day public square". Thus, it should emphasize its marketing communications on how the platform creates connections. One way to do so would be to create a newsletter showcasing Stories in which Instagram helped people connect with each other.

Since Instagram offers connection, B2C connection on social media is as trusted as connection in real life, it supports that the platform is also the most associated with online shopping and, therefore, businesses that sell online or intend to do so should, use this platform as a point of sale, thus increasing their visibility and, consequently, profits. Additionally, as Instagram is the app that people use the most to have access to information, businesses that require more informative ads should use this platform so that what they want to transmit is reached by as many people as possible and manages to persuade consumers to engage in the purchasing stage of the consumer-decision model.

TikTok was associated with a high correlation to Self-Expression, which means that those businesses that want to convey a more personal message or even opinions that may generate controversy, can use this social network, as they will obtain greater acceptance by the

target audience. An example could be a painter who wants to promote his most artistic work and uses this platform, as it allows him to be more himself.

Facebook was highly related to Enthusiasm, which means that companies that intend to promote products or services where commitment and willingness to act are required on the part of the consumer, should use this platform for better results. For example, publicizing a volunteer event in a marathon will require people who see it to be willing to participate and be committed towards this activity.

Also, for the managers is interesting to perceive how they should invest in the different platforms and understand which platform is related to the different genders and ages. This means that, based on this report, they can adjust their strategy and create a greater impact on their consumers. Doing so will decrease the costs and increase the engagement of the brands. It will be crucial to understand if the correct channel is being used and if the demanded content is being produced and shared in the most engaging platform and reaching the target audience, in order to achieve the appropriate objective.

Firms already using social media as marketing channels have the possibility to compare this thesis' takeaways with their performance so far and utilize such insights to better perform on reaching their defined targets. Through means of pivot tables, demographic, segmentation analysis, and a few simulations, key indications on the variation of usage and preferences by people are provided, to better conduct specific marketing strategies.

Through each customer' information, by keeping in mind each unique specifications for a constructed segment or persona and associating new interactions with the described results and acquired data, it will be easier to customize every interaction with the customer. Understanding better where and how to create connections more efficiently, reaching and impacting the right people, will enable companies to develop individual relationships based on trust. So, increasing engagement through means of adapting to the specific types of

consumption each demographic has, together with feedback, this continuous learning leads to competitive advantage, and because the relation is improved, value is created.

Simultaneously, from a social media brands perspective, with this research both current or potential new players can understand where there is room for improvement, that is to say, which attributes should be improved, and which ones should be considered to be left behind. Thus, Facebook, Instagram and TikTok can also gain competitive advantage, with the analysis and takeaways on the competition, by comprehending where each can gain preference share and, therefore, increase personal meaning and user involvement. More specifically, the main key is to better understand its users' needs, so they can develop its features in order to have a continuous improvement in responding to their needs to a higher engagement.

In conclusion, despite the different usage frequencies of these three platforms, Facebook is typically used by older and wiser users, Instagram can be seen as the platform used the most and by more distinct demographics, and TikTok is a platform for younger generations, especially females, but that is being more adopted over time by other generations. However, it is important to retain that their frequency of use does not necessarily implicit their unconscious sets of preferences. As described, cognitive needs, affective and personal integrative needs, and social integrative needs have different preferences and behaviors on social media consumption and have therefore different ways to be reached in a more accurate way. In these three social media, for the Portuguese market, affective and personal needs could be targeted with an interesting and trendy video, on Instagram or TikTok, promoting a certain product or linked to a certain page. Social needs would possibly gain the most interest from an advertising post shared by their connections through means of a message, and so a post or brand page that has high rates of being sent in direct messages would work for them, mainly on Instagram. For cognitive needs, even though they have the most spread preferences, Instagram and Facebook

would be the way to reach out. Particularly in Instagram, Search & Explore is valued the most, so a page that is easy and intuitive to find could be a positive approach.

Limitations with Analysis Tools

There were some limitations regarding the analysis tools employed.

Firstly, regarding the perceptual map, it was impossible to perform ANOVAs to detect if there were significant differences between the groups for their respective characteristic for certain associations due to some options for the demographic questions for the first survey having so few answers.

Furthermore, it was impossible, with the tools at hand, to control for any bias for the platform from which the platform the first survey was received, as Microsoft Forms does not discriminate in that regard. This could be interesting to measure if perceptions from respondents that got the survey via Facebook were biased towards Facebook.

Regarding the conjoint analysis, the survey loses a lot when answered on a cellphone. Instead of a table being presented, with the different options' levels right next to each other, the visualization is much harder, as the options are presented individually and vertically, requiring for a harder memory process. This has two possible consequences: Less people responding to the survey because this makes it harder to understand and more exhaustive (incentive for people to give up on answering it); or a decrease in the response's quality, because people cannot compare levels right next to each other and will have to memorize them while scrolling down. The data does show that 30% of the entries on a computer were completed answers, while only 18% of mobile answers were completed. It also shows that, while computer-respondents took on average 12,46 minutes to respond to the survey (complete answers), mobile-respondents took 5,42. In addition, if the internet browser is set to "dark mode", on certain devices the survey also loses on clarity, as the icons and shadowing may not be visible. In order to fight this

limitation, together with the link sent out for people to answer, a note was added, requesting for the responses to be done, whenever possible on a computer.

The percentage of useful responses on the conjoint analysis is very low: 22%, requiring an incredibly great number of people to answer the survey for us to meet the reasonable sample number that the platform advises. A very significant number of people are filtered. The main reasons are: 66% of the respondents opened the survey but did not complete it, 5,7% were screened out, 5,1% provided incomplete answers and 1% completed but were marked as low quality. The most common reason (about a third of the one that did not complete) are people who abandon in the fourth slide (the short message before the conjoint questions explaining what comes next regarding the combinations). A possible explanation for that to happen is that people that answer to the survey too fast. These respondents are given a warning with the options: “end survey” or “go back to questions”, the second sends the survey back to such slide, possibly causing people to give up at that point. Therefore, people who respond to the survey giving “random” answers instead of taking it seriously might be the cause behind this low percentage of valid data. This also serves as a “wake up call” about the quantity of people not answering to surveys in a well-thought manner, which is possible to be correlated with what was mentioned about the clarity issues when responding on a cellphone: Response success was 30.1% in computer answers and just 18.5% in mobile answers. This filtering assures, therefore, for a better quality and certainty of our analysis, but at the same time, decreases the available responses for us to analyze.

Another noteworthy mention in the spreading of both surveys is the fact that they were both shared through Instagram and Facebook and not by TikTok. This was due to the first two platforms being accessible for the researchers. That however means that two of the three analyzed brands were used to gather responses, leaning to skewed respondents on platform usage, as it leads to more Facebook and Instagram users responding than TikTok’s.

Implications for Future Research

There were some limitations in applying this perceptual map, mainly related to sample characteristics, especially the age of the respondents. As previously discussed, 56% of the sample is over 34 years of age, while only 5% is under 18, and as mentioned in the literature review TikTok's main target segment is users aged less than 20 years old (Bossen and Kottasz 2020). As such, this skewed the sample to Facebook and Instagram daily users, while 70% of the sample did not use TikTok. This, in turn, led to a difficulty in obtaining answers for associations regarding TikTok, as 34% of the time, the respondent gave no answers. However, the same occurred 24% of the time for Facebook and 20% for Instagram, which still illustrates the higher struggle to obtain responses for TikTok. As such, it would be interesting that future research takes that into account and builds a sample which more accurately represents the social media market.

It is extremely important to keep in mind that preferences are relative to the moment of the survey, i.e., with the platforms having the attributes that were available at that time. Platforms are constantly updating and adding new features and, while this study was being conducted, that turned out to be the case. TikTok, during the response-time of the conjoint survey, added Stories as a new feature. It also improved its following system with the introduction of a new alternative feed page, based on Follows, to add to the already existent Recommendations one.

By having selected Visual Content Available Time (Stories) as a yes or no question, it was not possible to extract a lot of information about the preferences relative to the “in-the-moment” sharing experience. Further investigation about such attribute is relevant, since it is a central feature of social media and has been introduced in most of the big brands, one by one in the last few years.

Since our attributes' study was not totally disconnected from the brands, a relevant approach that could be taken would be to do an analysis of the studied attributes independent from the brands, to better understand the central preferences and dynamics on a general ground to all social media platforms. This would allow for the theoretical creation of an ideal platform for all types of consumer segments and provide better insights to market newcomers, independent of brand associations. With this being said, a scenario analysis of new competitors in the market could also be relevant to understand new preferences distributions.

By adding prices and success rates information to a future conjoint analysis, willingness to pay, price elasticity, revenue and profit can be calculated and useful for marketing planning and budget decisions from companies. This could be accomplished by studying the positive correlation between exposed information, namely cookies settings and personal data people give to the platforms, add efficiency of personalized advertisement.

Parallely, studying other social media perceptions and preferences that are “fighting” more directly for the same consumers' time, or even for social media that satisfy the same gratifications and respond to the same needs. For example, it could be interesting to understand what needs are not being primarily satisfied by the “None” segment.

To conclude, this study analyzed the main reasons for Portuguese consumers to use social media platforms, as well as what attributes' preferences they value most on Facebook, Instagram and TikTok. The conclusions obtained are useful insights mainly for those who use any of these platforms as a marketing tool, or even for the platforms themselves. By knowing why they use social media, what are their associated perceptions, and what consumers value most, they can optimize their approach and work more efficiently to increase engagement.

This study hopes to spark further research questions, considering social media in Portugal has been an evolving and impacting environment that is changing the way of communication and the relation between users and brands.

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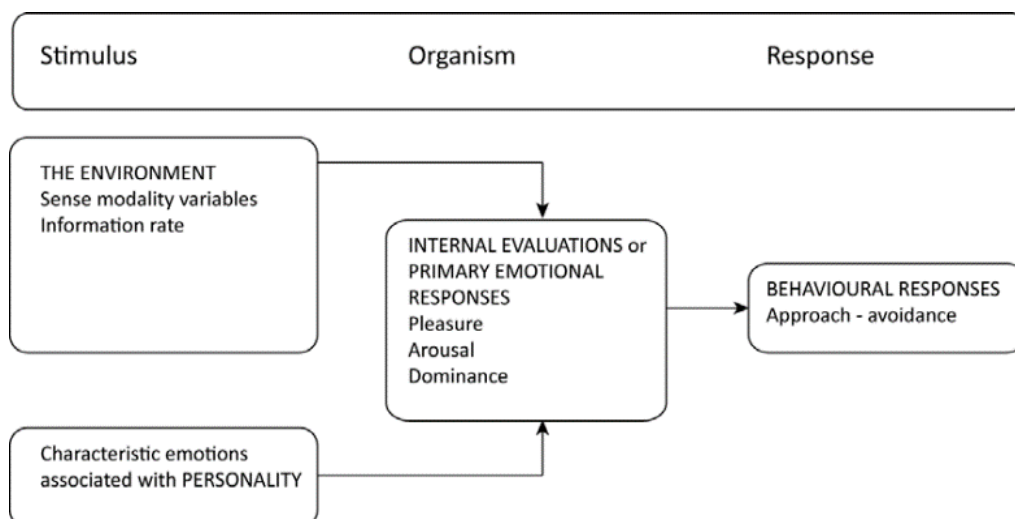
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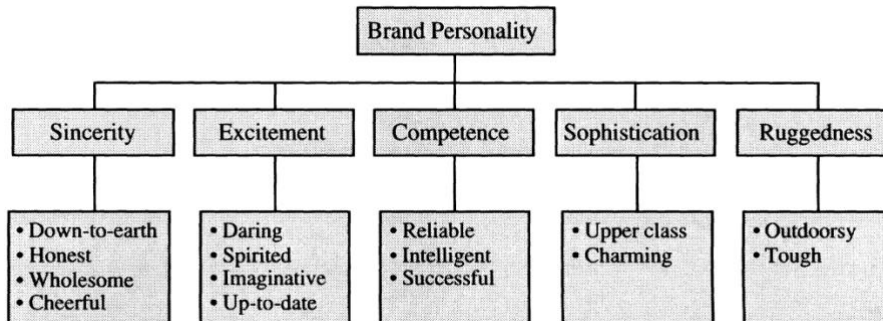
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APPENDICES

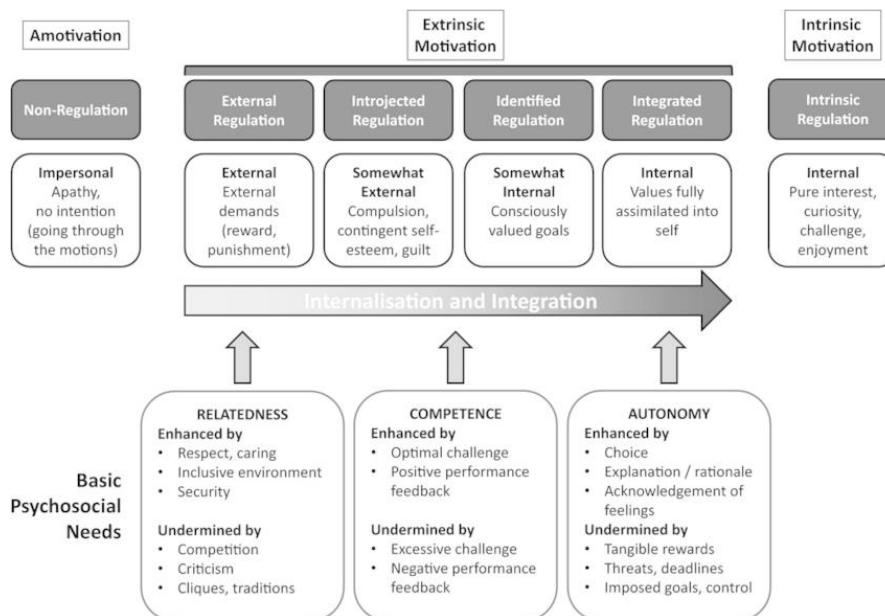
Appendix 1 – Framework of the Stimulus- Organism- Response (Mehrabian and Russell, 1974)



Appendix 2 – Brand Personality construct framework (Aaker 1991)




Appendix 3 – Framework of Self-Determination Theory (Deci and Ryan, 2000)



Appendix 4 – Personas

Persona 1 - "Tiago"

Tiago



"I check up on Facebook at least every couple of days with the purpose of being informed"

Age: 31
Work: Real State
Family: Married
Location: Oeiras

Social media needs

Cognitive need: Tiago uses social media with the central motive of getting information and knowledge out of it, as well as satisfying his curiosity on subjects, such as people's social environments and overall exploration of new topics. Seeks particularly for facts.

Interests | Hobbies

- Reading the news
- Watching football and rugby
- Searching investment tips
- Facebook groups on selling-buying opportunities


Lifestyle

- Recently married, starting to constitute a family
- Medium class, average salary, seeking to diversify his financials

Preferred Platforms

Facebook
Instagram
TikTok

Brands & Influencers




Tiago follows brands and news firms that have high international reputation and serve for him as examples and sources of relevant or interesting info.

Traits

Enthusiastic Keen to learn

Persona 2 - "António"

António



"I'm used to share funny posts, follow what's new, communicate with my friends and make new ones"

Age: 19
Work: Student
Family: Single
Location: Porto

Social media needs

Social Integrative need: António uses social media to connect with others and learn. He accesses social media for social support and to share life events, in order to get a sense of community.

Interests | Hobbies

- Watching films
- Playing videogames
- Read
- Sharing videos and tagging his friends


Lifestyle

- Has one older brother
- Economy Bachelor's student

Preferred Platforms

Facebook
Instagram
TikTok

Brands & Influencers




António follows fun brands that incentivize a sharing community that are crucial for social identification with others and networking.

Traits

Introvert Low self-esteem

Persona 3 - "Ana"

Ana



"The platforms I use the most are Instagram and TikTok to relax and see what happens around me. I publish stories and videos to engage with others and express myself"

Age: 18
Work: Student
Family: Single
Location: Lisboa

Social media needs
Affective/ Personal-integrative needs: Ana uses social media mainly because of emotional necessities. They are either pleasure and satisfaction, or to get positive engagement to increase self-esteem. She accesses social media somewhat compulsively, many times even unconsciously for tension-releasing from stressing issues.

Interests | Hobbies

- Paddle Classes
- Video streaming platforms' series and movies.
- Fashion, beauty and health content
- Travelling and trying new restaurants
- Photograph & Video.
- Walking and connecting with nature.

Lifestyle

- Youngest sister with two brothers
- Nurse Bachelor
- Seeking a part-time job
- High-income family




Preferred Platforms

Facebook

Instagram

TikTok

Brands & Influencers

Ana follows brands that provide her with satisfaction and motivation, important for inspiring or relaxing her and giving ideas for her daily life on expressing herself. She is also prone to follow influencers.

Traits

Seeks approval

Creative

Appendix 5 – Professionals’ script

| Category | Questions |
|----------------------|--|
| <p>Market</p> | <ol style="list-style-type: none"> 1. In your opinion, how this study will add value to your industry? How it is helpful for the organizations and for the customers? 2. In your perspective, what essential characteristics are the “Competitive advantage” of each platform? 3. What apps produce the best result for the brands to advertise or sell? Why? With which methods (ads, influencers, etc)? 4. Any future predictions? <p><u>For content creators:</u></p> |

| | |
|------------------------|--|
| | <p>5. In what way is the content you produce the same or different depending on the social media platform and why?</p> <p>6. Your followers are typically the same in all networks or do you have concentration of certain demographics in each?</p> |
| Preferences | <p>7. Based on your perspective, what are the values more valuable in Portugal?</p> <p>8. What are the characteristics that cause to the customers a sense of preference?</p> |
| Attributes | <p>9. What are the essential features in these platforms?</p> <p>10. In your opinion, how do you rate Facebook, Instagram and TikTok in security, credibility, professional vs leisure, ruggedness, sophistication?</p> |
| Recommendations | <p>11. Any suggestions of topics that can be studied?</p> |

Appendix 6 – Personas' script

| Category | Questions |
|---------------------|---|
| Demographics | <p>1. Age</p> <p>2. Gender</p> <p>3. Professional situation</p> <p>4. Location</p> <p>5. Marital status</p> |

| | |
|--|---|
| | <p>6. Family</p> <p>7. Social class</p> |
| Interests | <p>8. Hobbies</p> <p>9. Preferred Brands</p> |
| Persona Segment | <p>10. Describe the aforementioned needs and ask: Which one of these needs do you relate to?</p> <p>11. What social media platforms do you use? (If people do not mention Facebook, Instagram and TikTok, ask directly about them).</p> <p>12. What do you use them for?</p> <p>13. Between these three social media platforms, which one is your favourite? And why?</p> <p>14. How frequently do you use it? (Several times a day, few times a day, once a day)</p> |
| Perceptions for Perceptual maps | <p>15. What do you value the most on these platforms?</p> <p>16. From the following attributes how much do you relate with? <u>Options</u>: Access to information; social interaction; status update; network; online shop; self-expression; entertainment. (If the interviewee adds more there is no problem)</p> |
| Preferences for Conjoint analysis | <p>17. What features do you value the most or the least on these platforms? (If people do not understand what we</p> |

| | |
|--|---|
| | <p>mean about features, provide some examples)</p> <p>18. Or any feature you would like to add?</p> |
|--|---|

Appendix 7 – Perceptual Survey Design : Associations, description and scales

| | Associations | Description | Scale |
|--|-----------------------|---|---|
| Purpose How do you associate each social network to the following attributes regarding their purposes? | Access to Information | Finding information about interests and news, learn about new topics and acquire new skills. | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Social Interaction | Fraternize, communicate, socialize, interact, learn about, connect, and reconnect with relatives, friends, known and unknown people. | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Status update | Sharing information, expressing opinions, and sharing personal and mutual interests, experiences, thoughts, and needs and sharing what you think and do | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Shop Online | The purchase of products through social media, find information about products, find good deals and products to buy and explore. | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |

| | | | |
|---|-----------------|---|--|
| | Entertainment | Having fun, playing, pass the time, relax, find, and share photos, music, and videos | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Networking | Connecting with people for business/professional purposes and promote ourselves for business purposes | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Self-expression | Self-representation and self-disclosure by posting and create videos, photographs, and music on social media networks, having the total control of the personal content uncovered and receiving peer recognition (i.e. creatively expressing yourself through online content) | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| Brand Personality How do you associate each social network to the following attributes regarding brand personality? | Ruggedness | Strong presence/structure, vigor, resistance, firmness | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Sincerity | Honesty, originality, emotional influence, trust | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |
| | Enthusiasm | Challenging, young, creative, unique, independent | 1 -"Completely Disagree" to 5 -"Completely Agree" N/A - "Non-Applicable" |

| | | | |
|--|----------------|---|--|
| | Competence | Coherence, reliability, success, intelligence, confidence | 1 - "Completely Disagree" to 5 - "Completely Agree" N/A - "Non-Applicable" |
| | Sophistication | Modern, charming, elegant | 1 - "Completely Disagree" to 5 - "Completely Agree" N/A - "Non-Applicable" |

Appendix 8 – Attributes and levels

Product attributes

Brand / SKU

This attribute represents the brand name, SKU, or pricing tier.

Feature

This attribute is a feature of the product.

Feature

This attribute is a feature of the product.

Feature

This attribute is a feature of the product.

Feature

This attribute is a feature of the product.

Feature

This attribute is a feature of the product.










Levels (i.e., what the attributes can be like)

- Instagram
- Facebook
- TikTok
- ⊕ Add level
- Images
- Video
- Text
- ⊕ Add level
- Search & explore
- Follows
- Recommendation
- ⊕ Add level
- With time limited content
- No time limited content
- ⊕ Add level
- Tagging other users
- Sharing on groups
- Sending direct messages
- ⊕ Add level
- Less possible
- Intermedium
- All, with no restrictions

Appendix 9 – Survey example (computer and phone)

Example 1 - Computer

Which of the following Social Media Platforms would you choose?


| | A | B | C |
|---|--|--|--|
| Visual content available time (eg. stories) |  No time limited content |  With time limited content |  With time limited content |
| Send content |  Sending direct messages |  Tagging other users |  Tagging other users |
| Get content displayed (profiles/ shopping/ etc.) based on |  Search & explore |  Recommendation |  Recommendation |
| Amount of exposed personal information |  Intermedium |  All, with no restrictions |  Less possible |
| Content media |  Video |  Video |  Text |
| | CHOOSE | CHOOSE | CHOOSE |

Go back X NONE


Example 2 - Phone

B


Amount of exposed personal information


All, with no restrictions


Get content displayed (profiles/ shopping/ etc.) based on


Search & explore


Visual content available time (eg. stories)


With time limited content

Send content


Sending direct messages

Content media


Images

✓ CHOOSE

Appendix 10 – Levels per brand table

| Levels | Instagram | Facebook | TikTok |
|--|---------------------------------------|-------------------------------------|-------------------------------------|
| Content media | | | |
| Images | 2 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Video | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Text | 1 <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Get content displayed (profiles/ shopping/ etc.) based on | | | |
| Search & explore | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Follows | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Recommendation | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Visual content available time (eg. stories) | | | |
| With time limited content | 2 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| No time limited content | 1 <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Send content | | | |
| Tagging other users | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Sharing on groups | 1 <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sending direct messages | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Amount of exposed personal information | | | |
| Less possible | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Intermedium | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| All, with no restrictions | 3 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Appendix 11 - Template

Appendix 12 – Demographic questions

Question 1 - Nationality

Do you have portuguese nationality?

Question 2 - Usage of Facebook, Instagram of TikTok

Do you use any of the following social media platforms: Facebook, Instagram, TikTok?

Question 3 - Age

Age

Question 4 - Gender

Gender

Question 5 - Occupation

Occupation

Question 6 - Education Level

Education level

| | | |
|-------------------|--------------|---------------------------|
| None | Basic school | High school or equivalent |
| Bachelor | Masters | Doctorate |
| Prefer not to say | | |

Go back

Question 7 - Civil Status

Civil Status

| | | |
|---------|-------------------|----------|
| Single | Married | Divorced |
| Widowed | Prefer not to say | |

Go back

Question 8 - Frequency of Facebook usage

With what frequency do you use Facebook?

| | | |
|-------------------|-----------------|------------------|
| Every day | Every other day | Few times a week |
| Few times a month | I don't | |

Go back

Question 9 - Frequency of Instagram usage

With what frequency do you use Instagram?

| | | |
|-------------------|-----------------|------------------|
| Every day | Every other day | Few times a week |
| Few times a month | I don't | |

Go back

Question 10 - Frequency of TikTok usage

With what frequency do you use TikTok?

| | | |
|-------------------|-----------------|------------------|
| Every day | Every other day | Few times a week |
| Few times a month | I don't | |

Go back

Appendix 13 – Perceptual map Survey sample characteristics

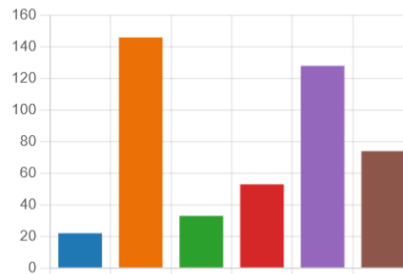
Graph 1 - Age

4. Idade (0 ponto)

[Mais Detalhes](#)

[Informações](#)

| | |
|-------------|-----|
| Menos de 18 | 22 |
| 18-24 | 146 |
| 25-34 | 33 |
| 35-44 | 53 |
| 45-54 | 128 |
| Mais de 54 | 74 |



Graph 2 - Gender

5. Género (0 ponto)

[Mais Detalhes](#)

[Informações](#)

| | |
|-------------------|-----|
| Masculino | 156 |
| Feminino | 297 |
| Outro | 1 |
| Prefiro não dizer | 2 |



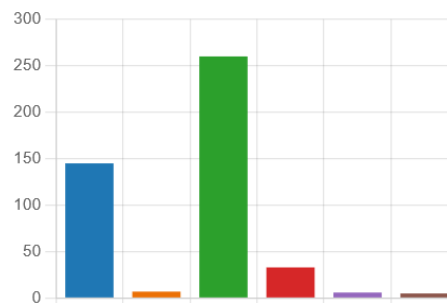
Graph 3 - Occupation

6. Ocupação (0 ponto)

[Mais Detalhes](#)

[Informações](#)

| | |
|-------------------|-----|
| Estudante | 145 |
| Desempregado/a | 7 |
| Empregado/a | 260 |
| Reformado/a | 33 |
| Prefiro não dizer | 6 |
| Outro | 5 |



Graph 4 - Marital Status

7. Estado Civil (0 ponto)

[Mais Detalhes](#)

[Informações](#)

| | |
|---|-----|
| ● Casado/a | 188 |
| ● Solteiro/a | 218 |
| ● Divorciado/a | 40 |
| ● Viúvo/a | 10 |



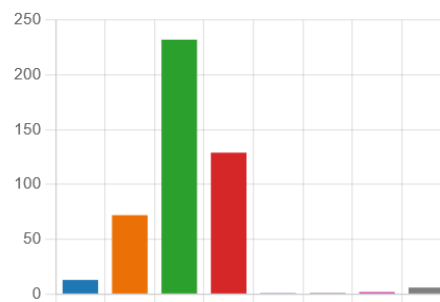
Graph 5 - Education Level

8. Nível de Ensino (0 ponto)

[Mais Detalhes](#)

[Informações](#)

| | |
|--|-----|
| ● Ensino básico | 13 |
| ● Ensino secundário ou equivalente | 72 |
| ● Licenciatura | 232 |
| ● Mestrado | 129 |
| ● Doutorado | 1 |
| ● Nenhum dos acima | 1 |
| ● Prefiro não dizer | 2 |
| ● Outro | 6 |

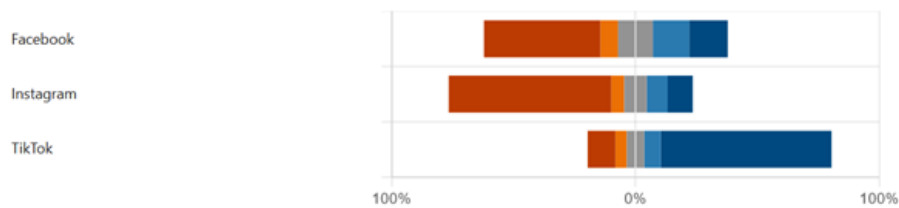


Graph 6 - Frequency of usage

3. Se sim, com que frequência? (0 point)

[More Details](#)

■ Todos os dias
 ■ Dia sim, dia não
 ■ Algumas vezes por semana
 ■ Algumas vezes por mês
 ■ Não uso



Appendix 14 – ANOVA for measuring impact of demographics¹

Table 3 - Access to Information Facebook

| ANOVA - Access to informationFacebook | | | | | | | |
|---------------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 9.03 | 4 | 2.257 | 1.612 | 0.170 | |
| Idade | | 13.36 | 5 | 2.672 | 1.908 | 0.092 | |
| Ocupação | | 1.24 | 4 | 0.310 | 0.222 | 0.926 | |
| Estado Civil | | 2.17 | 3 | 0.722 | 0.516 | 0.672 | |
| Nível de Ensino | | 4.00 | 6 | 0.667 | 0.476 | 0.826 | |
| Residuals | | 540.43 | 386 | 1.400 | | | |

Table 4- Access to Information Instagram

| ANOVA - Access to informationInstagram | | | | | | | |
|--|--|----------------|-----|-------------|-------|--------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 22.20 | 3 | 7.400 | 6.284 | < .001 | |
| Idade | | 9.94 | 5 | 1.988 | 1.688 | 0.136 | |
| Ocupação | | 3.92 | 4 | 0.980 | 0.832 | 0.505 | |
| Estado Civil | | 1.05 | 3 | 0.349 | 0.296 | 0.828 | |
| Nível de Ensino | | 4.75 | 6 | 0.792 | 0.673 | 0.672 | |
| Residuals | | 454.60 | 386 | 1.178 | | | |

Table 5- Access to Information TikTok

| ANOVA - Access to informationTikTok | | | | | | | |
|-------------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Ocupação | | 3.23 | 4 | 0.807 | 0.484 | 0.747 | |
| Estado Civil | | 1.60 | 3 | 0.532 | 0.319 | 0.811 | |
| Idade | | 12.28 | 5 | 2.456 | 1.474 | 0.201 | |
| Residuals | | 288.34 | 173 | 1.667 | | | |

Table 6 - Social Interaction Facebook

| ANOVA - Interação socialFacebook | | | | | | | |
|----------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 5.61 | 4 | 1.401 | 1.053 | 0.380 | |
| Idade | | 4.92 | 5 | 0.984 | 0.739 | 0.594 | |
| Ocupação | | 17.31 | 4 | 4.327 | 3.252 | 0.012 | |
| Estado Civil | | 3.10 | 3 | 1.034 | 0.777 | 0.507 | |
| Nível de Ensino | | 5.22 | 6 | 0.870 | 0.654 | 0.687 | |
| Residuals | | 519.05 | 390 | 1.331 | | | |

¹ Online Shopping refers to Shop Online
Update Status refers to Status Update
Robustness refers to Ruggedness

Table 7- Social Interaction Instagram

| ANOVA - Interação socialInstagram 2 | | | | | | |
|-------------------------------------|--|----------------|-----|-------------|------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Gênero | | 10.74 | 4 | 2.68 | 2.68 | 0.032 |
| Idade | | 11.04 | 5 | 2.21 | 2.20 | 0.053 |
| Ocupação | | 6.52 | 4 | 1.63 | 1.63 | 0.167 |
| Estado Civil | | 6.44 | 3 | 2.15 | 2.14 | 0.094 |
| Nível de Ensino | | 6.78 | 6 | 1.13 | 1.13 | 0.346 |
| Residuals | | 389.04 | 388 | 1.00 | | |

Table 8- Social Interaction TikTok

| ANOVA - Interação socialTikTok 2 | | | | | | |
|----------------------------------|--|----------------|-----|-------------|------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Idade | | 16.10 | 5 | 3.22 | 2.18 | 0.059 |
| Ocupação | | 20.11 | 4 | 5.03 | 3.40 | 0.011 |
| Estado Civil | | 5.99 | 3 | 2.00 | 1.35 | 0.260 |
| Residuals | | 246.88 | 167 | 1.48 | | |

Table 9- Status update Facebook

| ANOVA - Atualizar o statusFacebook | | | | | | |
|------------------------------------|--|----------------|-----|-------------|-------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Gênero | | 8.22 | 4 | 2.056 | 1.170 | 0.324 |
| Idade | | 9.40 | 5 | 1.881 | 1.070 | 0.376 |
| Ocupação | | 2.85 | 4 | 0.713 | 0.406 | 0.805 |
| Estado Civil | | 6.59 | 3 | 2.198 | 1.251 | 0.291 |
| Nível de Ensino | | 22.65 | 6 | 3.776 | 2.148 | 0.047 |
| Residuals | | 666.11 | 379 | 1.758 | | |

Table 10- Status update Instagram

| ANOVA - Atualizar o statusInstagram 3 | | | | | | |
|---------------------------------------|--|----------------|-----|-------------|-------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Gênero | | 15.25 | 3 | 5.085 | 3.434 | 0.017 |
| Idade | | 16.01 | 5 | 3.202 | 2.163 | 0.058 |
| Ocupação | | 2.17 | 4 | 0.543 | 0.367 | 0.832 |
| Estado Civil | | 3.33 | 3 | 1.110 | 0.750 | 0.523 |
| Nível de Ensino | | 10.45 | 6 | 1.741 | 1.176 | 0.318 |
| Residuals | | 559.64 | 378 | 1.481 | | |

Table 11- Status update TikTok

| ANOVA - Atualizar o statusTikTok 3 | | | | | | | |
|------------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 13.1 | 5 | 2.63 | 1.47 | 0.203 | |
| Ocupação | | 25.6 | 4 | 6.39 | 3.57 | 0.008 | |
| Estado Civil | | 17.1 | 3 | 5.72 | 3.19 | 0.025 | |
| Residuals | | 295.4 | 165 | 1.79 | | | |

Table 12- Shop online Facebook

| ANOVA - Compras onlineFacebook5 | | | | | | | |
|---------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 4.71 | 4 | 1.178 | 0.648 | 0.629 | |
| Idade | | 12.92 | 5 | 2.584 | 1.421 | 0.216 | |
| Ocupação | | 12.05 | 4 | 3.012 | 1.657 | 0.160 | |
| Estado Civil | | 1.55 | 3 | 0.517 | 0.284 | 0.837 | |
| Nível de Ensino | | 24.02 | 6 | 4.003 | 2.202 | 0.043 | |
| Residuals | | 603.63 | 332 | 1.818 | | | |

Table 13- Shop online Instagram

| ANOVA - Compras onlineInstagram 4 | | | | | | | |
|-----------------------------------|--|----------------|-----|-------------|-------|--------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 57.91 | 4 | 14.477 | 8.752 | < .001 | |
| Idade | | 9.63 | 5 | 1.926 | 1.164 | 0.326 | |
| Ocupação | | 12.18 | 4 | 3.045 | 1.841 | 0.121 | |
| Estado Civil | | 2.19 | 3 | 0.731 | 0.442 | 0.723 | |
| Nível de Ensino | | 21.35 | 6 | 3.558 | 2.151 | 0.047 | |
| Residuals | | 555.78 | 336 | 1.654 | | | |

Table 14- Shop online TikTok

| ANOVA - Compras onlineTikTok 4 | | | | | | | |
|--------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 1.94 | 5 | 0.388 | 0.261 | 0.933 | |
| Ocupação | | 4.33 | 4 | 1.082 | 0.729 | 0.574 | |
| Estado Civil | | 3.57 | 3 | 1.188 | 0.801 | 0.495 | |
| Residuals | | 218.20 | 147 | 1.484 | | | |

Table 15- Entertainment Facebook

| ANOVA - EntretenimentoFacebook6 | | | | | | | |
|---------------------------------|--|----------------|-----|-------------|-------|--|-------|
| | | Sum of Squares | df | Mean Square | F | | p |
| Género | | 4.71 | 4 | 1.178 | 0.841 | | 0.500 |
| Idade | | 26.61 | 5 | 5.323 | 3.799 | | 0.002 |
| Ocupação | | 2.56 | 4 | 0.641 | 0.458 | | 0.767 |
| Estado Civil | | 5.12 | 3 | 1.706 | 1.218 | | 0.303 |
| Nível de Ensino | | 17.87 | 6 | 2.978 | 2.126 | | 0.050 |
| Residuals | | 518.33 | 370 | 1.401 | | | |

Table 16- Entertainment Instagram

| ANOVA - EntretenimentoInstagram 5 | | | | | | | |
|-----------------------------------|--|----------------|-----|-------------|------|--|--------|
| | | Sum of Squares | df | Mean Square | F | | p |
| Género | | 4.27 | 4 | 1.07 | 1.01 | | 0.402 |
| Idade | | 7.55 | 5 | 1.51 | 1.43 | | 0.213 |
| Ocupação | | 9.24 | 4 | 2.31 | 2.19 | | 0.070 |
| Estado Civil | | 9.71 | 3 | 3.24 | 3.06 | | 0.028 |
| Nível de Ensino | | 29.51 | 6 | 4.92 | 4.65 | | < .001 |
| Residuals | | 399.43 | 378 | 1.06 | | | |

Table 17- Entertainment TikTok

| ANOVA - EntretenimentoTikTok 5 | | | | | | | |
|--------------------------------|--|----------------|-----|-------------|------|--|-------|
| | | Sum of Squares | df | Mean Square | F | | p |
| Idade | | 9.14 | 5 | 1.83 | 1.79 | | 0.114 |
| Ocupação | | 5.99 | 4 | 1.50 | 1.46 | | 0.212 |
| Estado Civil | | 6.43 | 3 | 2.14 | 2.10 | | 0.100 |
| Residuals | | 406.84 | 398 | 1.02 | | | |

Table 18- Networking Facebook

| ANOVA - NetworkingFacebook7 | | | | | | | |
|-----------------------------|--|----------------|-----|-------------|------|--|-------|
| | | Sum of Squares | df | Mean Square | F | | p |
| Idade | | 16.10 | 5 | 3.22 | 2.18 | | 0.059 |
| Ocupação | | 20.11 | 4 | 5.03 | 3.40 | | 0.011 |
| Estado Civil | | 5.99 | 3 | 2.00 | 1.35 | | 0.260 |
| Residuals | | 246.88 | 167 | 1.48 | | | |

Table 19- Networking Instagram

| ANOVA - NetworkingInstagram 6 | | | | | | | |
|-------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 8.22 | 4 | 2.056 | 1.170 | 0.324 | |
| Idade | | 9.40 | 5 | 1.881 | 1.070 | 0.376 | |
| Ocupação | | 2.85 | 4 | 0.713 | 0.406 | 0.805 | |
| Estado Civil | | 6.59 | 3 | 2.198 | 1.251 | 0.291 | |
| Nível de Ensino | | 22.65 | 6 | 3.776 | 2.148 | 0.047 | |
| Residuals | | 666.11 | 379 | 1.758 | | | |

Table 20- Networking TikTok

| ANOVA - NetworkingTikTok 6 | | | | | | | |
|----------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 15.30 | 4 | 3.824 | 2.576 | 0.037 | |
| Idade | | 16.03 | 5 | 3.206 | 2.160 | 0.058 | |
| Ocupação | | 2.17 | 4 | 0.542 | 0.365 | 0.834 | |
| Estado Civil | | 3.33 | 3 | 1.111 | 0.749 | 0.524 | |
| Nível de Ensino | | 10.48 | 6 | 1.747 | 1.177 | 0.318 | |
| Residuals | | 559.59 | 377 | 1.484 | | | |

Table 21- Self-Expression Facebook

| ANOVA - Auto-expressãoFacebook8 | | | | | | | |
|---------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 13.1 | 5 | 2.63 | 1.47 | 0.203 | |
| Ocupação | | 25.6 | 4 | 6.39 | 3.57 | 0.008 | |
| Estado Civil | | 17.1 | 3 | 5.72 | 3.19 | 0.025 | |
| Residuals | | 295.4 | 165 | 1.79 | | | |

Table 22- Self-Expression Instagram

| ANOVA - Auto-expressãoInstagram 7 | | | | | | | |
|-----------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 4.71 | 4 | 1.178 | 0.648 | 0.629 | |
| Idade | | 12.92 | 5 | 2.584 | 1.421 | 0.216 | |
| Ocupação | | 12.05 | 4 | 3.012 | 1.657 | 0.160 | |
| Estado Civil | | 1.55 | 3 | 0.517 | 0.284 | 0.837 | |
| Nível de Ensino | | 24.02 | 6 | 4.003 | 2.202 | 0.043 | |
| Residuals | | 603.63 | 332 | 1.818 | | | |

Table 23- Self-Expression TikTok

| ANOVA - Auto-expressãoTikTok 7 | | | | | | |
|--------------------------------|--|----------------|-----|-------------|-------|--------|
| | | Sum of Squares | df | Mean Square | F | p |
| Género | | 57.91 | 4 | 14.477 | 8.752 | < .001 |
| Idade | | 9.63 | 5 | 1.926 | 1.164 | 0.326 |
| Ocupação | | 12.18 | 4 | 3.045 | 1.841 | 0.121 |
| Estado Civil | | 2.19 | 3 | 0.731 | 0.442 | 0.723 |
| Nível de Ensino | | 21.35 | 6 | 3.558 | 2.151 | 0.047 |
| Residuals | | 555.78 | 336 | 1.654 | | |

Table 24- Ruggedness Facebook

| ANOVA - RobustezFacebook9 | | | | | | |
|---------------------------|--|----------------|-----|-------------|-------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Idade | | 1.94 | 5 | 0.388 | 0.261 | 0.933 |
| Ocupação | | 4.33 | 4 | 1.082 | 0.729 | 0.574 |
| Estado Civil | | 3.57 | 3 | 1.188 | 0.801 | 0.495 |
| Residuals | | 218.20 | 147 | 1.484 | | |

Table 25- Ruggedness Instagram

| ANOVA - RobustezInstagram 8 | | | | | | |
|-----------------------------|--|----------------|-----|-------------|-------|-------|
| | | Sum of Squares | df | Mean Square | F | p |
| Género | | 4.71 | 4 | 1.178 | 0.841 | 0.500 |
| Idade | | 26.61 | 5 | 5.323 | 3.799 | 0.002 |
| Ocupação | | 2.56 | 4 | 0.641 | 0.458 | 0.767 |
| Estado Civil | | 5.12 | 3 | 1.706 | 1.218 | 0.303 |
| Nível de Ensino | | 17.87 | 6 | 2.978 | 2.126 | 0.050 |
| Residuals | | 518.33 | 370 | 1.401 | | |

Table 26- Ruggedness TikTok

| ANOVA - RobustezTikTok 8 | | | | | | |
|--------------------------|--|----------------|-----|-------------|------|--------|
| | | Sum of Squares | df | Mean Square | F | p |
| Género | | 4.27 | 4 | 1.07 | 1.01 | 0.402 |
| Idade | | 7.55 | 5 | 1.51 | 1.43 | 0.213 |
| Ocupação | | 9.24 | 4 | 2.31 | 2.19 | 0.070 |
| Estado Civil | | 9.71 | 3 | 3.24 | 3.06 | 0.028 |
| Nível de Ensino | | 29.51 | 6 | 4.92 | 4.65 | < .001 |
| Residuals | | 399.43 | 378 | 1.06 | | |

Table 27- Sincerity Facebook

| ANOVA - SinceridadeFacebook10 | | | | | | | |
|-------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 10.74 | 4 | 2.68 | 2.68 | 0.032 | |
| Idade | | 11.04 | 5 | 2.21 | 2.20 | 0.053 | |
| Ocupação | | 6.52 | 4 | 1.63 | 1.63 | 0.167 | |
| Estado Civil | | 6.44 | 3 | 2.15 | 2.14 | 0.094 | |
| Nível de Ensino | | 6.78 | 6 | 1.13 | 1.13 | 0.346 | |
| Residuals | | 389.04 | 388 | 1.00 | | | |

Table 28- Sincerity Instagram

| ANOVA - SinceridadeInstagram 9 | | | | | | | |
|--------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 16.10 | 5 | 3.22 | 2.18 | 0.059 | |
| Ocupação | | 20.11 | 4 | 5.03 | 3.40 | 0.011 | |
| Estado Civil | | 5.99 | 3 | 2.00 | 1.35 | 0.260 | |
| Residuals | | 246.88 | 167 | 1.48 | | | |

Table 29- Sincerity TikTok

| ANOVA - SinceridadeTikTok 9 | | | | | | | |
|-----------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 8.22 | 4 | 2.056 | 1.170 | 0.324 | |
| Idade | | 9.40 | 5 | 1.881 | 1.070 | 0.376 | |
| Ocupação | | 2.85 | 4 | 0.713 | 0.406 | 0.805 | |
| Estado Civil | | 6.59 | 3 | 2.198 | 1.251 | 0.291 | |
| Nível de Ensino | | 22.65 | 6 | 3.776 | 2.148 | 0.047 | |
| Residuals | | 666.11 | 379 | 1.758 | | | |

Table 30- Enthusiasm Facebook

| ANOVA - EntusiasmoFacebook11 | | | | | | | |
|------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Género | | 15.30 | 4 | 3.824 | 2.576 | 0.037 | |
| Idade | | 16.03 | 5 | 3.206 | 2.160 | 0.058 | |
| Ocupação | | 2.17 | 4 | 0.542 | 0.365 | 0.834 | |
| Estado Civil | | 3.33 | 3 | 1.111 | 0.749 | 0.524 | |
| Nível de Ensino | | 10.48 | 6 | 1.747 | 1.177 | 0.318 | |
| Residuals | | 559.59 | 377 | 1.484 | | | |

Table 31- Enthusiasm Instagram

| ANOVA - EntusiasmoInstagram 10 | | | | | | | |
|--------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 13.1 | 5 | 2.63 | 1.47 | 0.203 | |
| Ocupação | | 25.6 | 4 | 6.39 | 3.57 | 0.008 | |
| Estado Civil | | 17.1 | 3 | 5.72 | 3.19 | 0.025 | |
| Residuals | | 295.4 | 165 | 1.79 | | | |

Table 32- Enthusiasm TikTok

| ANOVA - EntusiasmoTikTok 10 | | | | | | | |
|-----------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 4.71 | 4 | 1.178 | 0.648 | 0.629 | |
| Idade | | 12.92 | 5 | 2.584 | 1.421 | 0.216 | |
| Ocupação | | 12.05 | 4 | 3.012 | 1.657 | 0.160 | |
| Estado Civil | | 1.55 | 3 | 0.517 | 0.284 | 0.837 | |
| Nível de Ensino | | 24.02 | 6 | 4.003 | 2.202 | 0.043 | |
| Residuals | | 603.63 | 332 | 1.818 | | | |

Table 33- Competence Facebook

| ANOVA - CompetênciaFacebook12 | | | | | | | |
|-------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 57.91 | 4 | 14.477 | 8.752 | <.001 | |
| Idade | | 9.63 | 5 | 1.926 | 1.164 | 0.326 | |
| Ocupação | | 12.18 | 4 | 3.045 | 1.841 | 0.121 | |
| Estado Civil | | 2.19 | 3 | 0.731 | 0.442 | 0.723 | |
| Nível de Ensino | | 21.35 | 6 | 3.558 | 2.151 | 0.047 | |
| Residuals | | 555.78 | 336 | 1.654 | | | |

Table 34- Competence Instagram

| ANOVA - CompetênciaInstagram 11 | | | | | | | |
|---------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 4.57 | 4 | 1.143 | 0.902 | 0.463 | |
| Idade | | 3.85 | 5 | 0.771 | 0.608 | 0.694 | |
| Ocupação | | 4.34 | 4 | 1.086 | 0.857 | 0.490 | |
| Estado Civil | | 3.45 | 3 | 1.152 | 0.909 | 0.437 | |
| Nível de Ensino | | 11.97 | 6 | 1.994 | 1.574 | 0.153 | |
| Residuals | | 486.51 | 384 | 1.267 | | | |

Table 35- Competence TikTok

| ANOVA - CompetênciaTikTok 11 | | | | | | | |
|------------------------------|--|----------------|-----|-------------|------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 8.94 | 5 | 1.79 | 1.27 | 0.276 | |
| Ocupação | | 7.26 | 4 | 1.81 | 1.29 | 0.274 | |
| Estado Civil | | 6.27 | 3 | 2.09 | 1.49 | 0.219 | |
| Residuals | | 270.81 | 193 | 1.40 | | | |

Table 36- Sophistication Facebook

| ANOVA - SofisticaçãoFacebook13 | | | | | | | |
|--------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 1.93 | 4 | 0.482 | 0.494 | 0.740 | |
| Idade | | 10.21 | 5 | 2.042 | 2.093 | 0.066 | |
| Ocupação | | 2.89 | 4 | 0.721 | 0.739 | 0.566 | |
| Estado Civil | | 2.36 | 3 | 0.787 | 0.807 | 0.491 | |
| Nível de Ensino | | 8.86 | 6 | 1.476 | 1.513 | 0.172 | |
| Residuals | | 374.68 | 384 | 0.976 | | | |

Table 37- Sophistication Instagram

| ANOVA - SofisticaçãoInstagram 12 | | | | | | | |
|----------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Gênero | | 6.93 | 4 | 1.733 | 1.625 | 0.167 | |
| Idade | | 3.37 | 5 | 0.673 | 0.631 | 0.676 | |
| Ocupação | | 9.05 | 4 | 2.263 | 2.122 | 0.077 | |
| Estado Civil | | 1.29 | 3 | 0.431 | 0.404 | 0.750 | |
| Nível de Ensino | | 8.14 | 6 | 1.357 | 1.273 | 0.269 | |
| Residuals | | 407.40 | 382 | 1.066 | | | |

Table 38- Sophistication TikTok

| ANOVA - SofisticaçãoTikTok 12 | | | | | | | |
|-------------------------------|--|----------------|-----|-------------|-------|-------|--|
| | | Sum of Squares | df | Mean Square | F | p | |
| Idade | | 15.02 | 5 | 3.00 | 2.235 | 0.052 | |
| Ocupação | | 4.47 | 4 | 1.12 | 0.832 | 0.506 | |
| Estado Civil | | 7.76 | 3 | 2.59 | 1.926 | 0.127 | |
| Residuals | | 257.95 | 192 | 1.34 | | | |

Appendix 15 – Tables of differences in means²

Table 39- Mean Differences for Age

| | Idade | Access to informationF | Access to informationIn | Access to informationTI | Interação socialFacebo | Interação socialInstagra | Interação socialTikTok | Atualizar o statusFacebo | Atualizar o statusInstagra | Atualizar o statusTikTok | Compras onlineFacebo | Compras onlineInstagr | Compras onlineTikTok | Entretenimen toFacebook6 | Entretenimen toInstagram 5 |
|------|-------------|------------------------|-------------------------|-------------------------|------------------------|--------------------------|------------------------|--------------------------|----------------------------|--------------------------|----------------------|-----------------------|----------------------|--------------------------|----------------------------|
| Mean | 18-24 | 3.13 | 3.48 | 2.95 | 3.17 | 4.47 | 2.53 | 2.86 | 3.98 | 2.68 | 2.29 | 3.12 | 2.00 | 2.37 | 4.10 |
| | 25-34 | 3.57 | 3.48 | 2.27 | 3.53 | 4.24 | 2.86 | 3.03 | 3.48 | 2.91 | 2.69 | 3.00 | 1.60 | 2.79 | 4.11 |
| | 35-44 | 3.16 | 2.93 | 1.83 | 4.02 | 3.58 | 2.36 | 3.27 | 3.33 | 2.80 | 3.07 | 3.00 | 1.30 | 3.50 | 3.93 |
| | 45-54 | 3.34 | 3.06 | 1.79 | 4.03 | 3.56 | 2.00 | 3.34 | 3.21 | 2.00 | 2.61 | 3.02 | 1.75 | 3.40 | 3.51 |
| | Mais de 54 | 3.28 | 2.91 | 2.17 | 3.81 | 3.05 | 2.22 | 3.03 | 2.73 | 2.12 | 2.46 | 2.19 | 1.65 | 3.58 | 3.17 |
| | Menos de 18 | 1.86 | 3.73 | 3.10 | 2.14 | 4.62 | 3.37 | 1.86 | 3.86 | 2.94 | 1.80 | 3.24 | 2.23 | 1.17 | 4.00 |

| Entretenimen toTikTok 5 | NetworkingFa cebook7 | NetworkingIn stagram 6 | NetworkingTi kTok 6 | Auto-expressãoFace | Auto-expressãoInst | Auto-expressãoTik | RobustezFace book9 | RobustezInsta gram 8 | RobustezTikT ok 8 | SinceridadeF acebook10 | SinceridadeIn stagram 9 | SinceridadeTi kTok 9 |
|-------------------------|----------------------|------------------------|---------------------|--------------------|--------------------|-------------------|--------------------|----------------------|-------------------|------------------------|-------------------------|----------------------|
| 4.47 | 2.53 | 2.86 | 3.98 | 2.68 | 2.29 | 3.12 | 2.00 | 2.37 | 4.10 | 4.47 | 2.53 | 2.86 |
| 4.24 | 2.86 | 3.03 | 3.48 | 2.91 | 2.69 | 3.00 | 1.60 | 2.79 | 4.11 | 4.24 | 2.86 | 3.03 |
| 3.58 | 2.36 | 3.27 | 3.33 | 2.80 | 3.07 | 3.00 | 1.30 | 3.50 | 3.93 | 3.58 | 2.36 | 3.27 |
| 3.56 | 2.00 | 3.34 | 3.21 | 2.00 | 2.61 | 3.02 | 1.75 | 3.40 | 3.51 | 3.56 | 2.00 | 3.34 |
| 3.05 | 2.22 | 3.03 | 2.73 | 2.12 | 2.46 | 2.19 | 1.65 | 3.58 | 3.17 | 3.05 | 2.22 | 3.03 |
| 4.62 | 3.37 | 1.86 | 3.86 | 2.94 | 1.80 | 3.24 | 2.23 | 1.17 | 4.00 | 4.62 | 3.37 | 1.86 |

| EntusiasmoFa cebook11 | EntusiasmoIn stagram 10 | EntusiasmoTi kTok 10 | Competência Facebook12 | CompetênciaInstagram 11 | Competência TikTok 11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram 12 | SofisticaçãoTi kTok 12 |
|-----------------------|-------------------------|----------------------|------------------------|-------------------------|-----------------------|-------------------------|---------------------------|------------------------|
| 3.98 | 2.68 | 2.29 | 3.12 | 3.24 | 2.92 | 1.98 | 3.91 | 3.48 |
| 3.48 | 2.91 | 2.69 | 3.00 | 3.14 | 3.00 | 2.16 | 3.89 | 3.87 |
| 3.33 | 2.80 | 3.07 | 3.00 | 3.07 | 2.47 | 2.51 | 3.47 | 2.75 |
| 3.21 | 2.00 | 2.61 | 3.02 | 3.08 | 2.29 | 2.41 | 3.54 | 2.81 |
| 2.73 | 2.12 | 2.46 | 2.19 | 2.81 | 2.09 | 2.51 | 3.32 | 2.55 |
| 3.86 | 2.94 | 1.80 | 3.24 | 3.14 | 3.24 | 2.00 | 4.24 | 3.68 |

Table 40- Mean Differences for Gender

| | Gênero | Access to informationF | Access to informationIn | Access to informationTI | Interação socialFacebo | Interação socialInstagra | Interação socialTikTok | Atualizar o statusFacebo | Atualizar o statusInstagra | Atualizar o statusTikTok | Compras onlineFacebo | Compras onlineInstagr | Compras onlineTikTok | Entretenimen toFacebook6 | Entretenimen toInstagram 5 |
|------|-------------------|------------------------|-------------------------|-------------------------|------------------------|--------------------------|------------------------|--------------------------|----------------------------|--------------------------|----------------------|-----------------------|----------------------|--------------------------|----------------------------|
| Mean | Feminino | 3.33 | 3.36 | 2.80 | 3.70 | 3.93 | 2.66 | 3.14 | 3.56 | 2.84 | 2.63 | 3.21 | 2.01 | 3.12 | 3.82 |
| | Masculino | 3.04 | 3.00 | 2.32 | 3.51 | 3.90 | 2.33 | 2.95 | 3.34 | 2.11 | 2.35 | 2.40 | 1.60 | 2.84 | 3.76 |
| | Prefiro não dizer | 3.50 | 3.00 | NaN | 4.00 | 3.00 | NaN | 3.00 | 3.50 | NaN | 2.50 | 3.50 | NaN | 3.50 | 3.50 |
| | Outro | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 |

| Entretenimen toTikTok 5 | NetworkingFa cebook7 | NetworkingIn stagram 6 | NetworkingTi kTok 6 | Auto-expressãoFace | Auto-expressãoInst | Auto-expressãoTik | RobustezFace book9 | RobustezInsta gram 8 | RobustezTikT ok 8 | SinceridadeF acebook10 | SinceridadeIn stagram 9 | SinceridadeTi kTok 9 |
|-------------------------|----------------------|------------------------|---------------------|--------------------|--------------------|-------------------|--------------------|----------------------|-------------------|------------------------|-------------------------|----------------------|
| 3.93 | 2.66 | 3.14 | 3.56 | 2.84 | 2.63 | 3.21 | 2.01 | 3.12 | 3.82 | 3.93 | 2.66 | 3.14 |
| 3.90 | 2.33 | 2.95 | 3.34 | 2.11 | 2.35 | 2.40 | 1.60 | 2.84 | 3.76 | 3.90 | 2.33 | 2.95 |
| 3.00 | NaN | 3.00 | 3.50 | NaN | 2.50 | 3.50 | NaN | 3.50 | 3.50 | 3.00 | NaN | 3.00 |
| 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 3.00 | 1.00 |

| EntusiasmoFa cebook11 | EntusiasmoIn stagram 10 | EntusiasmoTi kTok 10 | Competência Facebook12 | CompetênciaInstagram 11 | Competência TikTok 11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram 12 | SofisticaçãoTi kTok 12 |
|-----------------------|-------------------------|----------------------|------------------------|-------------------------|-----------------------|-------------------------|---------------------------|------------------------|
| 3.56 | 2.84 | 2.63 | 3.21 | 3.15 | 2.85 | 2.27 | 3.73 | 3.22 |
| 3.34 | 2.11 | 2.35 | 2.40 | 3.03 | 2.50 | 2.28 | 3.62 | 3.37 |
| 3.50 | NaN | 2.50 | 3.50 | 2.00 | NaN | 2.50 | 3.50 | NaN |
| 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 |

² Online Shopping refers to Shop Online
Update Status refers to Status Update
Robustness refers to Ruggedness

Table 41- Mean Differences for Occupation

| Ocupação | Access to informationF | Access to informationIn | Access to informationTi | Interação socialFacebook | Interação socialInstagra | Interação socialTikTok | Atualizar o statusFacebook | Atualizar o statusInstagra | Atualizar o statusTikTok | Compras onlineFacebook | Compras onlineInstagr | Compras onlineTikTok | Entretenimen toFacebook6 | Entretenimen toInstagram 5 | |
|----------|------------------------|-------------------------|-------------------------|--------------------------|--------------------------|------------------------|----------------------------|----------------------------|--------------------------|------------------------|-----------------------|----------------------|--------------------------|----------------------------|------|
| Mean | Desempregado/a | 3.50 | 3.60 | 2.00 | 2.83 | 3.50 | 5.00 | 2.60 | 3.75 | 5.00 | 2.80 | 3.00 | 1.00 | 3.20 | 4.25 |
| | Empregado/a | 3.30 | 3.15 | 2.14 | 3.94 | 3.69 | 2.13 | 3.21 | 3.29 | 2.13 | 2.71 | 2.96 | 1.63 | 3.30 | 3.72 |
| | Estudante | 3.04 | 3.48 | 2.96 | 2.99 | 4.50 | 2.78 | 2.75 | 3.93 | 2.86 | 2.18 | 3.16 | 2.09 | 2.32 | 4.08 |
| | Prefiro não dizer | 3.20 | 2.40 | 2.00 | 4.00 | 2.50 | 1.00 | 3.00 | 2.67 | 1.00 | 1.50 | 1.00 | 1.00 | 2.75 | 1.67 |
| | Reformado/a | 3.35 | 2.71 | 2.57 | 3.87 | 2.84 | 2.43 | 3.16 | 2.64 | 2.67 | 2.45 | 1.77 | 1.80 | 3.67 | 2.85 |

| Entretenimen toTikTok 5 | NetworkingFa cebook7 | NetworkingIn stagram 6 | NetworkingTi kTok 6 | Auto-expressãoFace | Auto-expressãoInst | Auto-expressãoTik | RobustezFace book9 | RobustezInsta gram 8 | RobustezTikT ok 8 | SinceridadeF acebook10 | SinceridadeIn stagram 9 | SinceridadeTi kTok 9 |
|-------------------------|----------------------|------------------------|---------------------|--------------------|--------------------|-------------------|--------------------|----------------------|-------------------|------------------------|-------------------------|----------------------|
| 3.50 | 5.00 | 2.60 | 3.75 | 5.00 | 2.80 | 3.00 | 1.00 | 3.20 | 4.25 | 3.50 | 5.00 | 2.60 |
| 3.69 | 2.15 | 3.21 | 3.29 | 2.13 | 2.71 | 2.96 | 1.63 | 3.30 | 3.72 | 3.69 | 2.15 | 3.21 |
| 4.50 | 2.78 | 2.75 | 3.93 | 2.86 | 2.18 | 3.16 | 2.09 | 2.32 | 4.08 | 4.50 | 2.78 | 2.75 |
| 2.50 | 1.00 | 3.00 | 2.67 | 1.00 | 1.50 | 1.00 | 1.00 | 2.75 | 1.67 | 2.50 | 1.00 | 3.00 |
| 2.84 | 2.43 | 3.16 | 2.64 | 2.67 | 2.45 | 1.77 | 1.80 | 3.67 | 2.85 | 2.84 | 2.43 | 3.16 |

| EntusiasmoFa cebook11 | EntusiasmoIn stagram 10 | EntusiasmoTi kTok 10 | Competência Facebook12 | Competência nstagram 11 | Competência TikTok 11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram 12 | SofisticaçãoTi kTok 12 |
|-----------------------|-------------------------|----------------------|------------------------|-------------------------|-----------------------|-------------------------|---------------------------|------------------------|
| 3.75 | 5.00 | 2.80 | 3.00 | 3.60 | 5.00 | 2.67 | 4.00 | 4.00 |
| 3.29 | 2.13 | 2.71 | 2.96 | 3.06 | 2.47 | 2.36 | 3.57 | 3.04 |
| 3.93 | 2.86 | 2.18 | 3.16 | 3.26 | 2.96 | 2.02 | 3.97 | 3.49 |
| 2.67 | 1.00 | 1.50 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| 2.64 | 2.67 | 2.45 | 1.77 | 2.77 | 2.57 | 2.54 | 3.35 | 3.14 |

Table 42- Mean Differences for Marital Status

| Estado Civil | Access to informationF | Access to informationIn | Access to informationTi | Interação socialFacebook | Interação socialInstagra | Interação socialTikTok | Atualizar o statusFacebook | Atualizar o statusInstagra | Atualizar o statusTikTok | Compras onlineFacebook | Compras onlineInstagr | Compras onlineTikTok | Entretenimen toFacebook6 | Entretenimen toInstagram 5 | |
|--------------|------------------------|-------------------------|-------------------------|--------------------------|--------------------------|------------------------|----------------------------|----------------------------|--------------------------|------------------------|-----------------------|----------------------|--------------------------|----------------------------|------|
| Mean | Casado/a | 3.23 | 3.04 | 2.09 | 3.88 | 3.51 | 2.39 | 3.20 | 3.16 | 2.56 | 2.63 | 2.78 | 1.76 | 3.35 | 3.47 |
| | Divorciado/a | 3.37 | 3.00 | 1.67 | 4.24 | 3.15 | 2.14 | 3.57 | 2.94 | 1.75 | 2.75 | 3.00 | 1.33 | 3.84 | 3.53 |
| | Solteiro/a | 3.20 | 3.45 | 2.86 | 3.27 | 4.40 | 2.65 | 2.87 | 3.85 | 2.67 | 2.40 | 3.13 | 1.98 | 2.51 | 4.12 |
| | Viuvo/a | 3.30 | 2.89 | 2.25 | 4.00 | 2.78 | 1.50 | 2.70 | 2.63 | 1.50 | 2.38 | 2.29 | 1.00 | 3.80 | 2.71 |

| Entretenimen toTikTok 5 | NetworkingFa cebook7 | NetworkingIn stagram 6 | NetworkingTi kTok 6 | Auto-expressãoFace | Auto-expressãoInst | Auto-expressãoTik | RobustezFace book9 | RobustezInsta gram 8 | RobustezTikT ok 8 | SinceridadeF acebook10 | SinceridadeIn stagram 9 | SinceridadeTi kTok 9 |
|-------------------------|----------------------|------------------------|---------------------|--------------------|--------------------|-------------------|--------------------|----------------------|-------------------|------------------------|-------------------------|----------------------|
| 3.51 | 2.39 | 3.20 | 3.16 | 2.56 | 2.63 | 2.78 | 1.76 | 3.35 | 3.47 | 3.51 | 2.39 | 3.20 |
| 3.15 | 2.14 | 3.57 | 2.94 | 1.75 | 2.75 | 3.00 | 1.33 | 3.84 | 3.53 | 3.15 | 2.14 | 3.57 |
| 4.40 | 2.65 | 2.87 | 3.85 | 2.67 | 2.40 | 3.13 | 1.98 | 2.51 | 4.12 | 4.40 | 2.65 | 2.87 |
| 2.78 | 1.50 | 2.70 | 2.63 | 1.50 | 2.38 | 2.29 | 1.00 | 3.80 | 2.71 | 2.78 | 1.50 | 2.70 |

| EntusiasmoFa cebook11 | EntusiasmoIn stagram 10 | EntusiasmoTi kTok 10 | Competência Facebook12 | Competência nstagram 11 | Competência TikTok 11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram 12 | SofisticaçãoTi kTok 12 |
|-----------------------|-------------------------|----------------------|------------------------|-------------------------|-----------------------|-------------------------|---------------------------|------------------------|
| 3.16 | 2.56 | 2.63 | 2.78 | 2.96 | 2.32 | 2.42 | 3.44 | 2.89 |
| 2.94 | 1.75 | 2.75 | 3.00 | 2.88 | 2.08 | 2.45 | 3.47 | 2.18 |
| 3.85 | 2.67 | 2.40 | 3.13 | 3.24 | 2.93 | 2.07 | 3.91 | 3.51 |
| 2.63 | 1.50 | 2.38 | 2.29 | 3.38 | 3.50 | 2.89 | 3.88 | 3.75 |

Table 43- Mean Differences for Education Level

| | Nível de Ensino | Access to informationF | Access to informationIn | Access to informationTi | Interação socialFacebook | Interação socialInstagram | Interação socialTikTok | Atualizar o statusFacebook | Atualizar o statusInstagram | Atualizar o statusTikTok | Compras onlineFacebook | Compras onlineInstagram | Compras onlineTikTok | Entretenimen toFacebook6 | Entretenimen toInstagram5 |
|------|----------------------------------|------------------------|-------------------------|-------------------------|--------------------------|---------------------------|------------------------|----------------------------|-----------------------------|--------------------------|------------------------|-------------------------|----------------------|--------------------------|---------------------------|
| Mean | Douturamento | 3.71 | 3.60 | 3.00 | 3.86 | 3.83 | 3.00 | 3.00 | 3.00 | 3.00 | 3.33 | 3.20 | 1.33 | 2.86 | 2.83 |
| | Ensino básico | 2.60 | 3.77 | 3.42 | 2.33 | 4.67 | 3.50 | 2.33 | 4.08 | 2.91 | 3.00 | 4.00 | 2.86 | 2.25 | 4.38 |
| | Ensino secundário ou equivalente | 3.05 | 3.18 | 2.76 | 3.63 | 3.75 | 2.68 | 3.30 | 3.39 | 2.84 | 2.87 | 2.83 | 1.78 | 3.24 | 3.39 |
| | Licenciatura | 3.23 | 3.22 | 2.63 | 3.60 | 3.92 | 2.42 | 3.18 | 3.56 | 2.51 | 2.47 | 2.86 | 1.87 | 3.02 | 3.80 |
| | Mestrado | 3.31 | 3.27 | 2.25 | 3.71 | 3.95 | 2.38 | 2.81 | 3.38 | 2.37 | 2.45 | 3.14 | 1.82 | 2.97 | 4.04 |
| | Nenhum dos acima | 3.00 | 3.00 | NaN | 4.00 | 3.00 | NaN | 2.00 | 2.00 | NaN | 3.00 | 3.00 | NaN | 3.00 | 3.00 |
| | Prefero não dizer | 3.50 | 1.00 | NaN | 5.00 | 2.00 | NaN | 2.00 | 2.00 | NaN | 2.00 | 2.00 | NaN | 1.50 | 1.00 |

| Entretenimen toTikTok5 | NetworkingFa cebook7 | NetworkingIn stagram6 | NetworkingTi kTok6 | Auto-expressãoFace | Auto-expressãoInst | Auto-expressãoTik | RobustezFace book9 | RobustezInsta gram8 | RobustezTikT ok8 | SinceridadeF acebook10 | SinceridadeIn stagram9 | SinceridadeTi kTok9 | EntusiasmoFa cebook11 | EntusiasmoIn stagram10 | EntusiasmoTi kTok10 | Competência Facebook12 | Competência Instagram11 | Competência TikTok11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram12 | SofisticaçãoTi kTok12 | |
|------------------------|----------------------|-----------------------|--------------------|--------------------|--------------------|-------------------|--------------------|---------------------|------------------|------------------------|------------------------|---------------------|-----------------------|------------------------|---------------------|------------------------|-------------------------|----------------------|-------------------------|--------------------------|-----------------------|------|
| 3.83 | 3.00 | 3.00 | 3.00 | 3.00 | 3.33 | 3.20 | 1.33 | 2.86 | 2.83 | 3.83 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.33 | 3.20 | 2.83 | 2.33 | 2.71 | 3.50 | 2.67 |
| 4.67 | 3.50 | 2.33 | 4.08 | 2.91 | 3.00 | 4.00 | 2.86 | 2.25 | 4.38 | 4.67 | 3.50 | 2.33 | 4.08 | 2.91 | 3.00 | 4.00 | 3.67 | 3.30 | 2.43 | 4.58 | 3.83 | 3.83 |
| 3.75 | 2.68 | 3.30 | 3.39 | 2.84 | 2.87 | 2.83 | 1.78 | 3.24 | 3.39 | 3.75 | 2.68 | 3.38 | 3.39 | 2.84 | 2.87 | 2.83 | 2.79 | 2.75 | 2.44 | 3.54 | 3.38 | 3.38 |
| 3.92 | 2.42 | 3.18 | 3.56 | 2.51 | 2.47 | 2.86 | 1.87 | 3.02 | 3.80 | 3.92 | 2.42 | 3.18 | 3.56 | 2.51 | 2.47 | 2.86 | 3.16 | 2.78 | 2.22 | 3.61 | 3.21 | 3.21 |
| 3.95 | 2.38 | 2.81 | 3.38 | 2.37 | 2.45 | 3.14 | 1.82 | 2.97 | 4.04 | 3.95 | 2.38 | 2.81 | 3.38 | 2.37 | 2.45 | 3.14 | 3.14 | 2.53 | 2.25 | 3.83 | 3.22 | 3.22 |
| 3.00 | NaN | 2.00 | 2.00 | NaN | 3.00 | 3.00 | NaN | 3.00 | 3.00 | 3.00 | NaN | 2.00 | 2.00 | NaN | 3.00 | 3.00 | 2.00 | NaN | 3.00 | 3.00 | NaN | NaN |
| 2.00 | NaN | 2.00 | 2.00 | NaN | 2.00 | 2.00 | NaN | 1.50 | 1.00 | 2.00 | NaN | 2.00 | 2.00 | NaN | 2.00 | 2.00 | 4.00 | NaN | 2.00 | 4.00 | NaN | NaN |

| EntusiasmoFa cebook11 | EntusiasmoIn stagram10 | EntusiasmoTi kTok10 | Competência Facebook12 | Competência Instagram11 | Competência TikTok11 | SofisticaçãoF acebook13 | SofisticaçãoIn stagram12 | SofisticaçãoTi kTok12 |
|-----------------------|------------------------|---------------------|------------------------|-------------------------|----------------------|-------------------------|--------------------------|-----------------------|
| 3.00 | 3.00 | 3.33 | 3.20 | 2.83 | 2.33 | 2.71 | 3.50 | 2.67 |
| 4.08 | 2.91 | 3.00 | 4.00 | 3.67 | 3.30 | 2.43 | 4.58 | 3.83 |
| 3.39 | 2.84 | 2.87 | 2.83 | 2.79 | 2.75 | 2.44 | 3.54 | 3.38 |
| 3.56 | 2.51 | 2.47 | 2.86 | 3.16 | 2.78 | 2.22 | 3.61 | 3.21 |
| 3.38 | 2.37 | 2.45 | 3.14 | 3.14 | 2.53 | 2.25 | 3.83 | 3.22 |
| 2.00 | NaN | 3.00 | 3.00 | 2.00 | NaN | 3.00 | 3.00 | NaN |
| 2.00 | NaN | 2.00 | 2.00 | 4.00 | NaN | 2.00 | 4.00 | NaN |

Appendix 16 – Perceptual map outputs

Table 44 - Attributes Means for each Platform

| | Facebook | Instagram | TikTok |
|-----------------------|----------|-----------|--------|
| Access to Information | 3.23 | 3.24 | 2.61 |
| Social Interaction | 3.63 | 3.91 | 2.54 |
| Updated Status | 3.06 | 3.48 | 2.57 |
| Shop online | 2.53 | 2.96 | 1.88 |
| Entertainment | 3.02 | 3.80 | 3.91 |
| Networking | 2.54 | 3.07 | 3.49 |
| Self-expression | 2.57 | 2.53 | 2.97 |

| | | | |
|----------------|------|------|------|
| Ruggedness | 1.8 | 3.02 | 3.80 |
| Sincerity | 3.91 | 2.53 | 3.07 |
| Enthusiastic | 3.49 | 2.57 | 2.53 |
| Competence | 2.97 | 3.10 | 2.72 |
| Sophistication | 2.27 | 3.68 | 3.27 |

Graph 7- Cumulative Variance Scree Plot

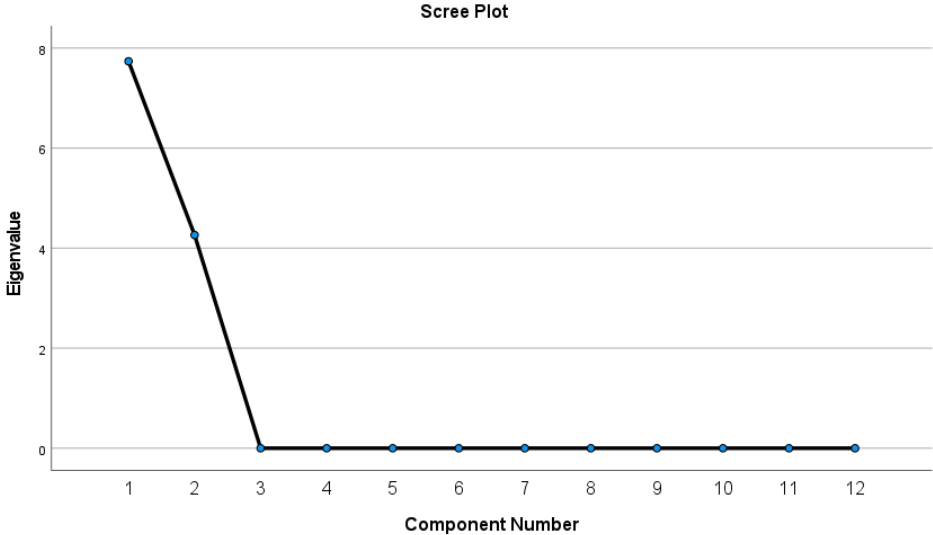
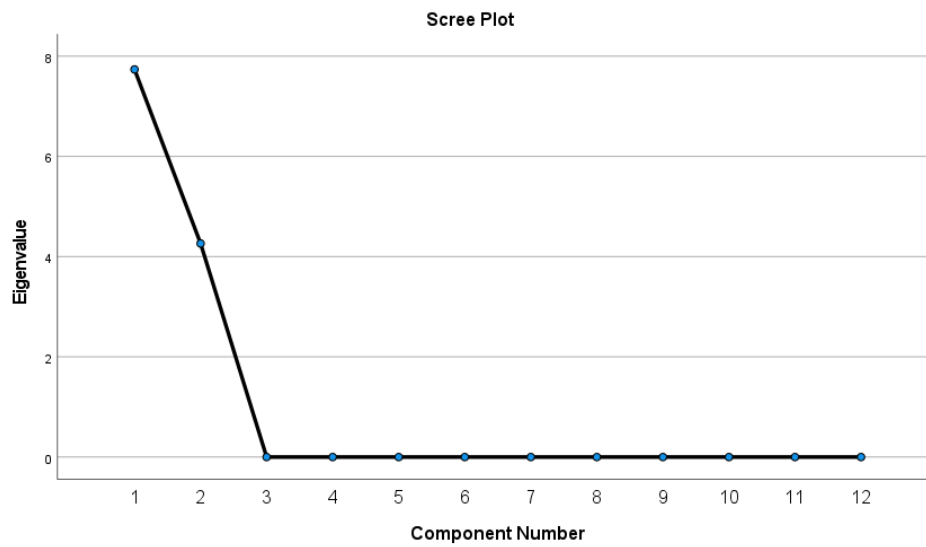


Table 45- Variance and cumulative variance explained, by dimension



Total Variance Explained

| Component | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings ^a |
|-----------|-------------------------------------|---------------|--------------|--|
| | Total | % of Variance | Cumulative % | Total |
| 1 | 7,737 | 64,475 | 64,475 | 6,860 |
| 2 | 4,263 | 35,525 | 100,000 | 5,775 |

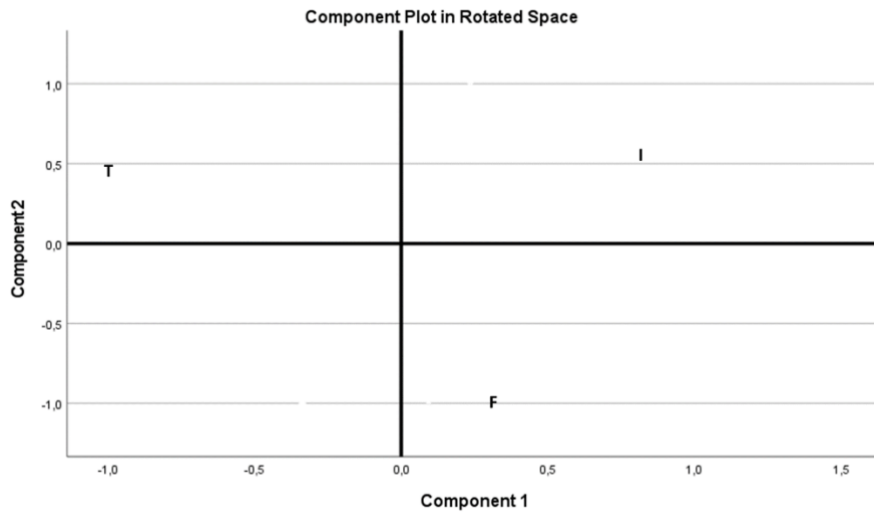
Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

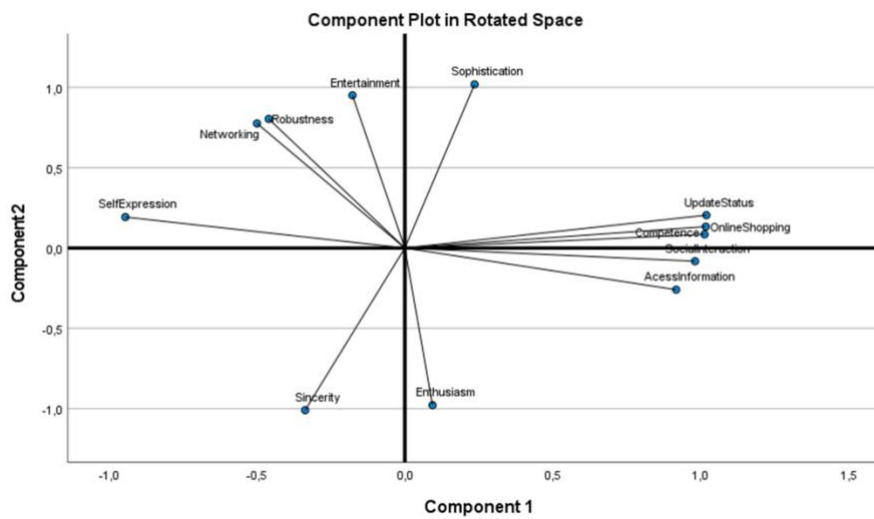
Table 46- Social media platforms coordinate

| | Dimension I | Dimension II |
|-----------|-------------|--------------|
| Facebook | 0,28497 | -1,153 |
| Instagram | 0,82723 | 0,63078 |
| TikTok | -1,1113 | 0,52222 |

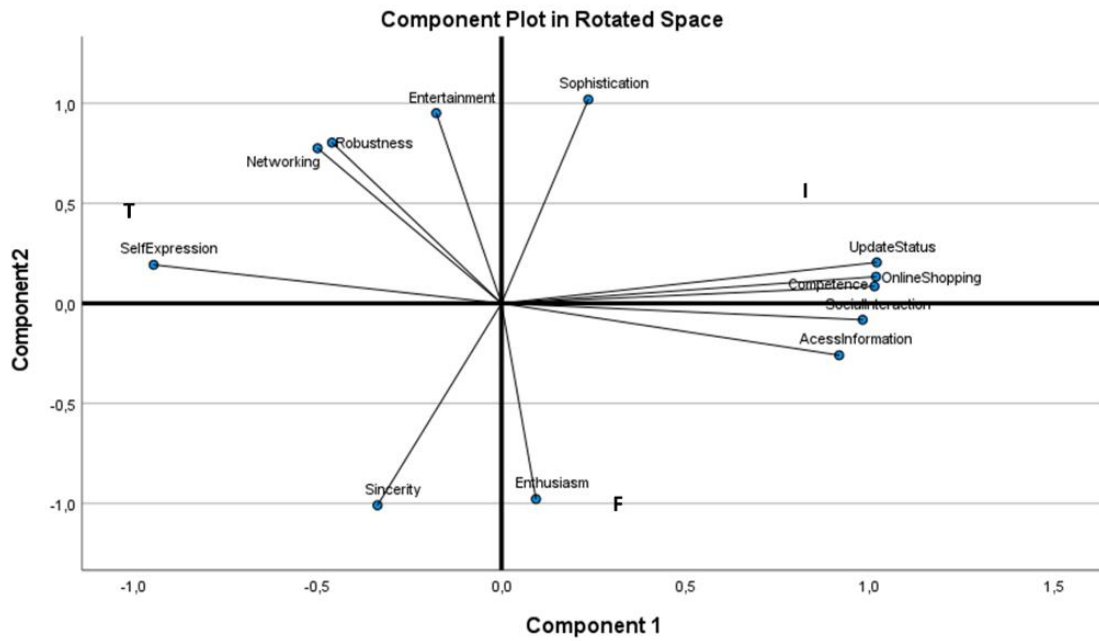
Appendix 17 – Perceptual Map Social Media Platforms



Appendix 18 – Perceptual Map Associations

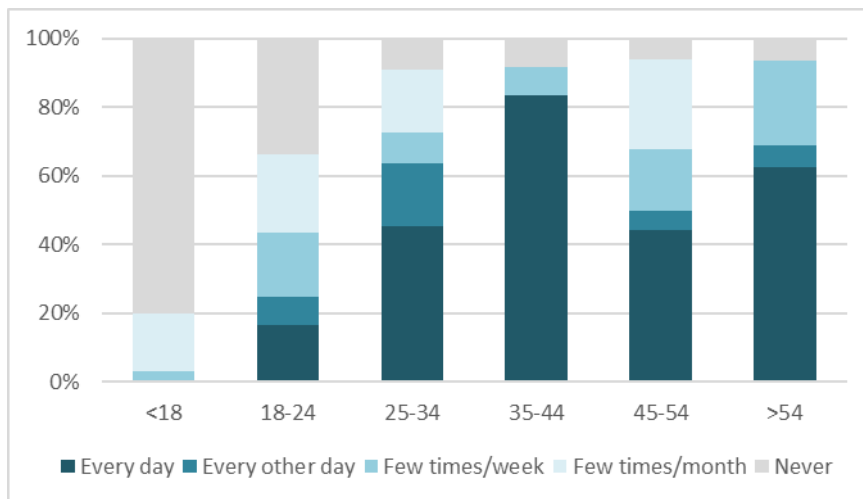


Appendix 19 – Expanded Perceptual Map

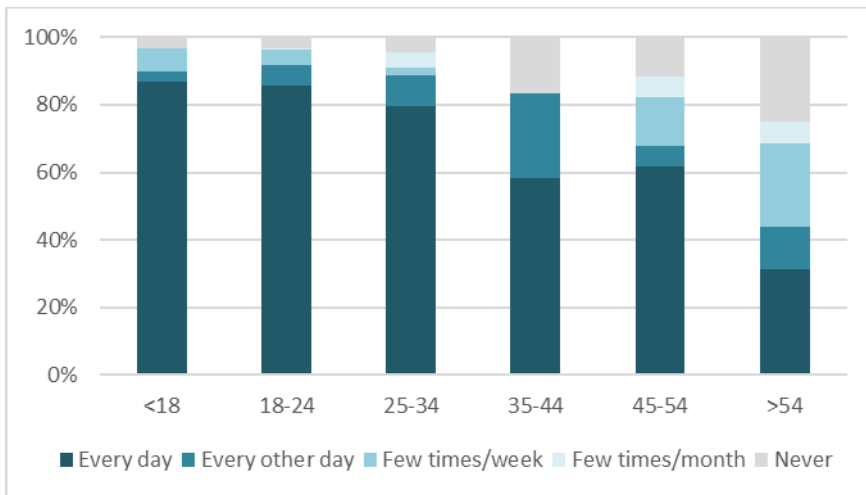


Appendix 20 – Pivot Tables

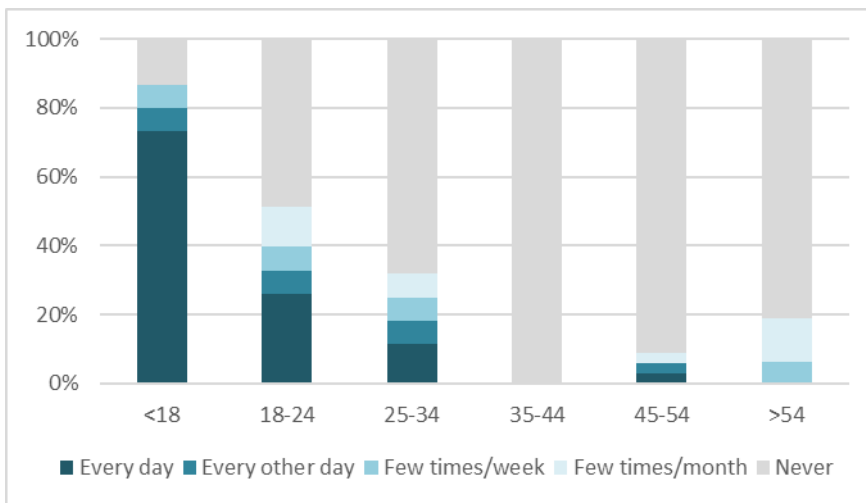
Graph 8 – Facebook's frequency of use per age



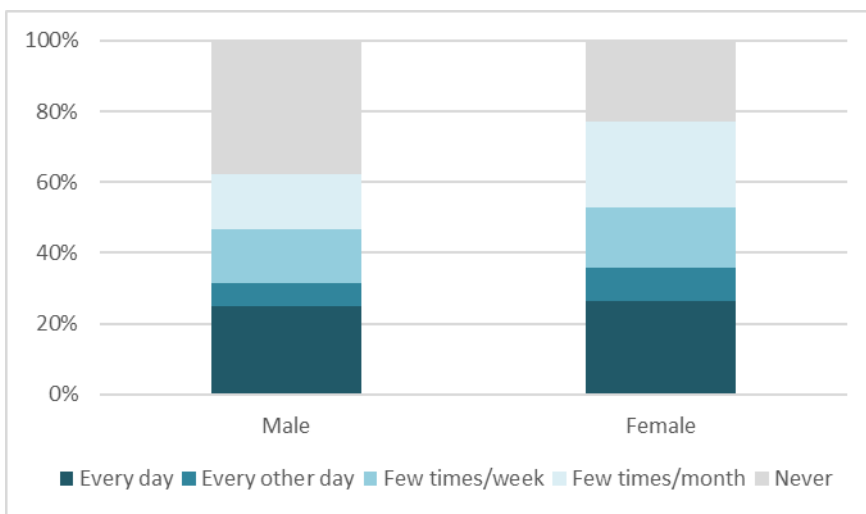
Graph 9 – Instagram’s frequency of use per age



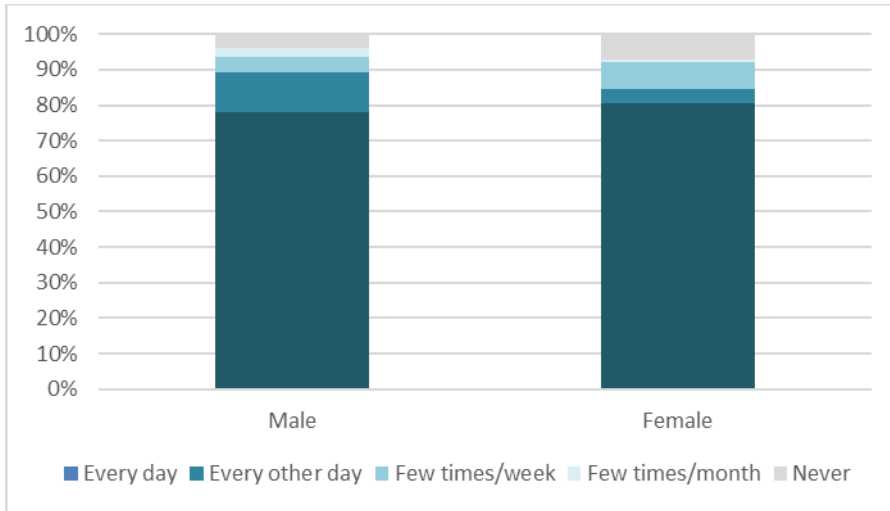
Graph 10 – TikTok’s frequency of use per age



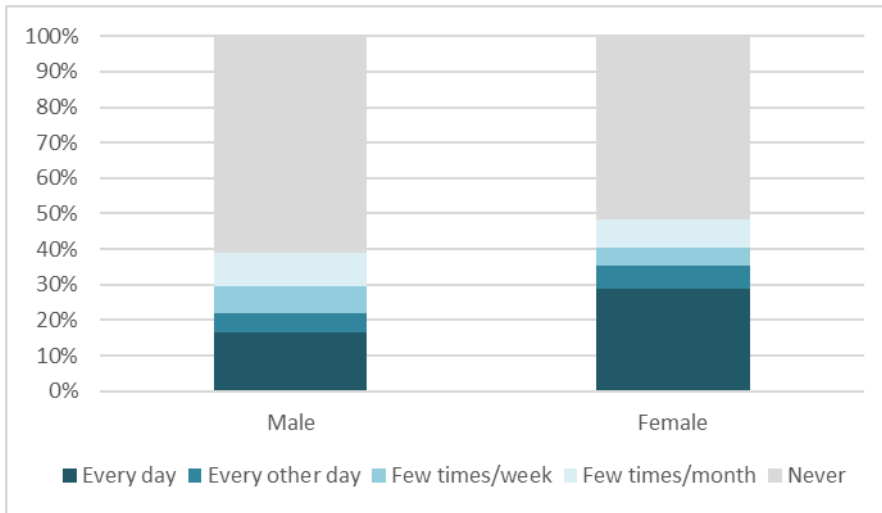
Graph 11 – Facebook’s frequency of use per gender



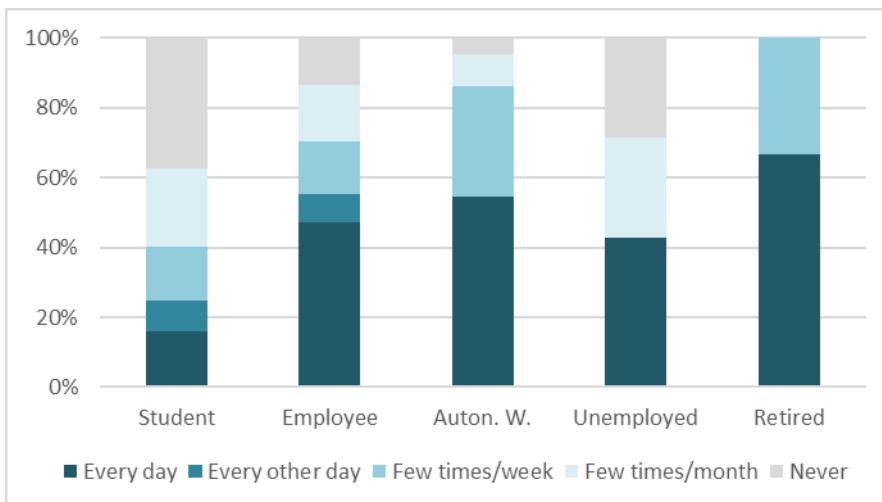
Graph 12 – Instagram’s frequency of use per gender



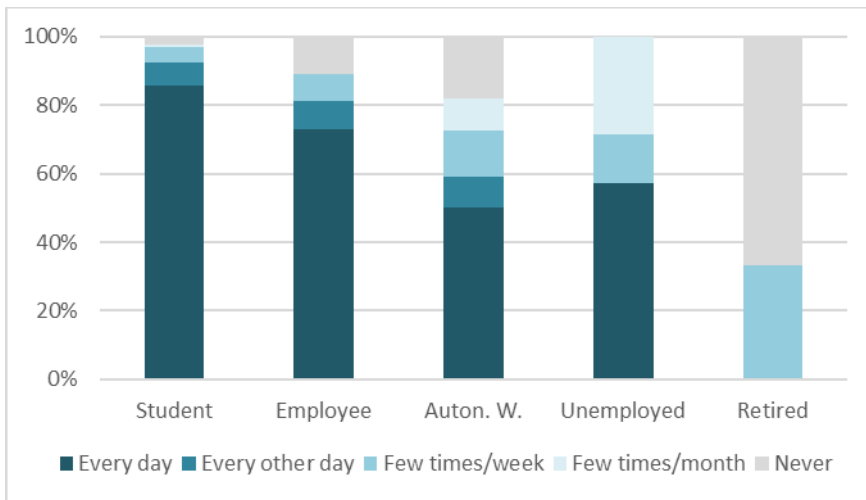
Graph 13 – TikTok’s frequency of use per gender



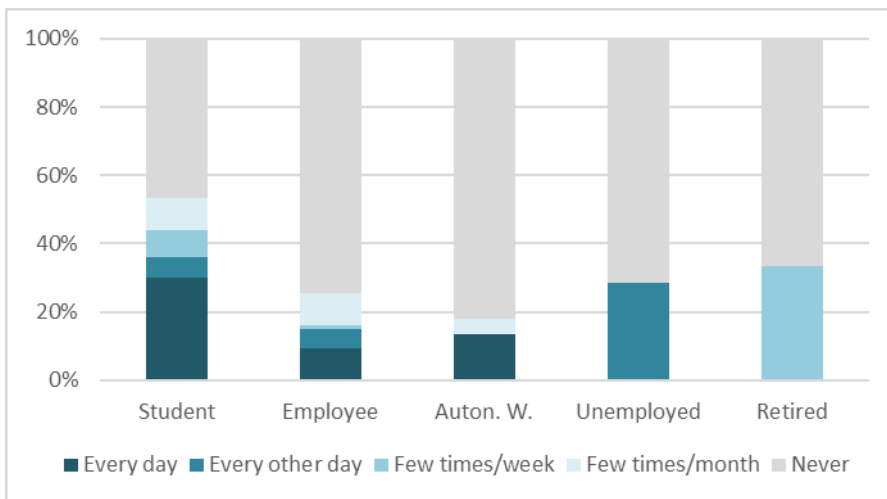
Graph 14 – Facebook’s frequency of use per occupation



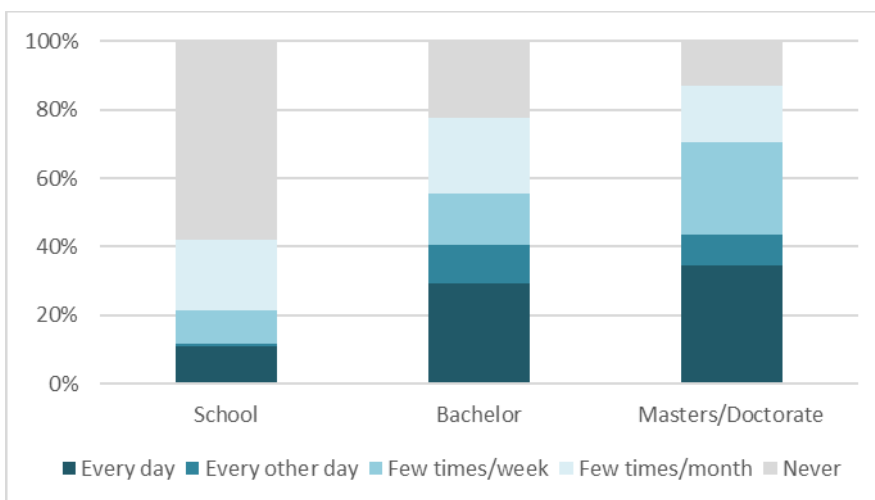
Graph 15 – Instagram’s frequency of use per occupation



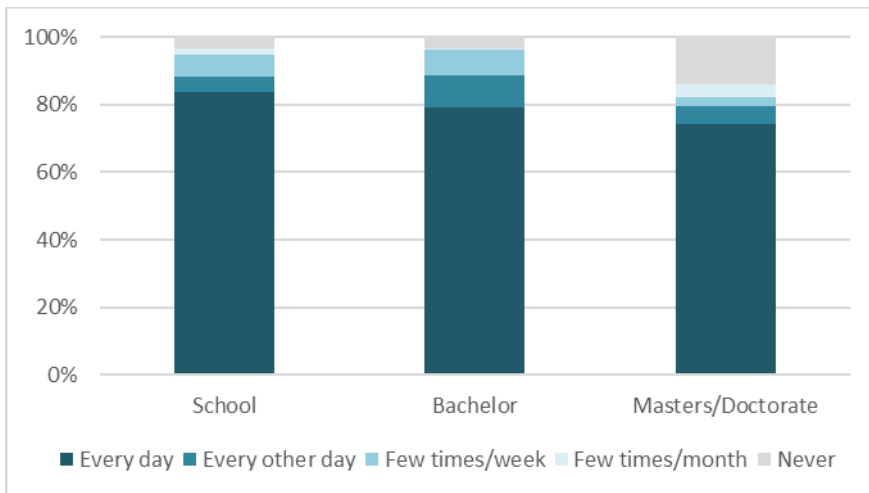
Graph 16 – TikTok’s frequency of use per occupation



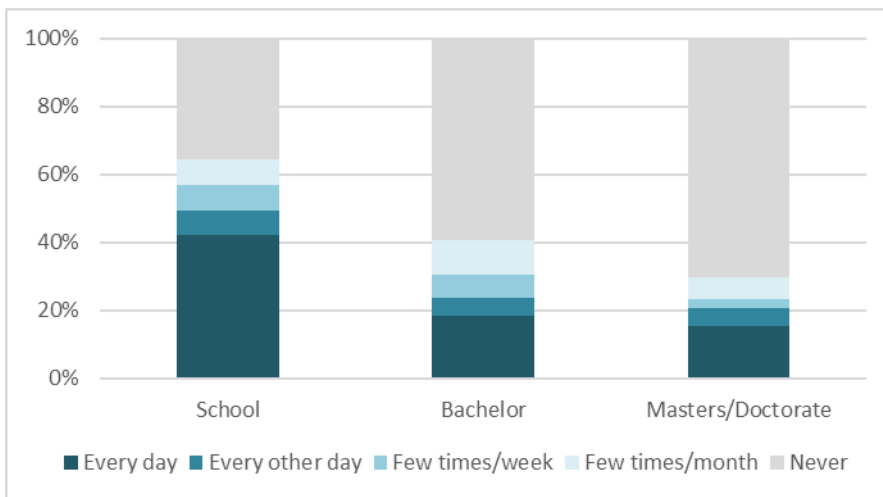
Graph 87 – Facebook’s frequency of use per education level



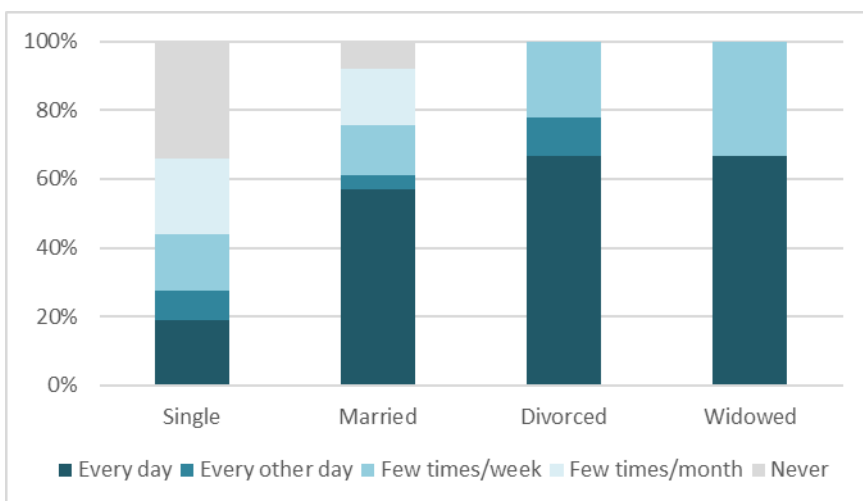
Graph 18 – Instagram’s frequency of use per education level



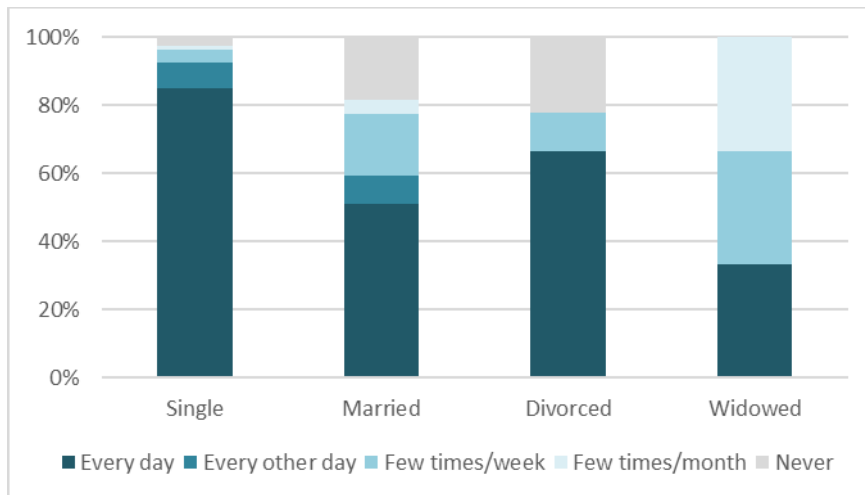
Graph 19 – TikTok’s frequency of use per education level



Graph 20 – Facebook’s frequency of use per marital status



Graph 22 – Instagram’s frequency of use per marital status



Graph 23 – TikTok’s frequency of use per marital status

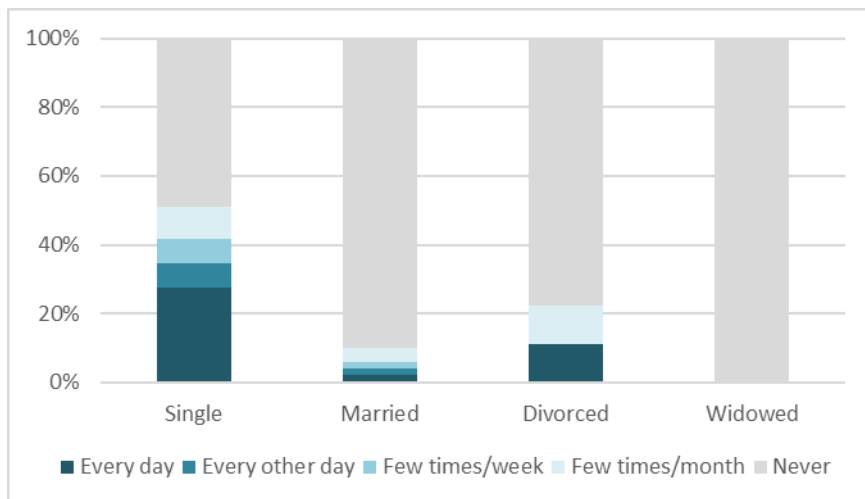


Table 50 – Instagram’s frequency of use per Facebook’s frequency of use

| Facebook frequency | Instagram frequency | | | | |
|--------------------|---------------------|------------|-----------|-----------|-------|
| | Every day | Every othe | Few times | Few times | Never |
| Every day | 68% | 7% | 8% | 3% | 14% |
| Every other day | 86% | 10% | 0% | 0% | 3% |
| Few times/week | 78% | 7% | 7% | 3% | 5% |
| Few times/month | 82% | 10% | 5% | 0% | 3% |
| Never | 86% | 6% | 7% | 1% | 1% |

Table 51 – Facebook’s frequency of use per Instagram’s frequency of use

| TikTok frequency | Instagram frequency | | | | |
|------------------|---------------------|------------|-----------|-----------|-------|
| | Every day | Every othe | Few times | Few times | Never |
| Every day | 91% | 3% | 2% | 0% | 3% |
| Every other day | 81% | 14% | 5% | 0% | 0% |
| Few times/week | 91% | 5% | 0% | 0% | 5% |
| Few times/month | 84% | 6% | 6% | 0% | 3% |
| Never | 72% | 9% | 9% | 3% | 8% |

Table 52 – TikTok’s frequency of use per Instagram’s frequency of use

| Instagram frequency | TikTok frequency | | | | |
|---------------------|------------------|-----------------|----------------|-----------------|-------|
| | Every day | Every other day | Few times/week | Few times/month | Never |
| Every day | 27% | 6% | 7% | 9% | 51% |
| Every other day | 12% | 12% | 4% | 8% | 65% |
| Few times/week | 9% | 5% | 0% | 9% | 77% |
| Few times/month | 0% | 0% | 0% | 0% | 100% |
| Never | 15% | 0% | 5% | 5% | 75% |

Table 53 – Instagram’s frequency of use per TikTok’s frequency of use

| TikTok frequency | Instagram frequency | | | | |
|------------------|---------------------|-----------------|----------------|-----------------|-------|
| | Every day | Every other day | Few times/week | Few times/month | Never |
| Every day | 91% | 3% | 2% | 0% | 3% |
| Every other day | 81% | 14% | 5% | 0% | 0% |
| Few times/week | 91% | 5% | 0% | 0% | 5% |
| Few times/month | 84% | 6% | 6% | 0% | 3% |
| Never | 72% | 9% | 9% | 3% | 8% |

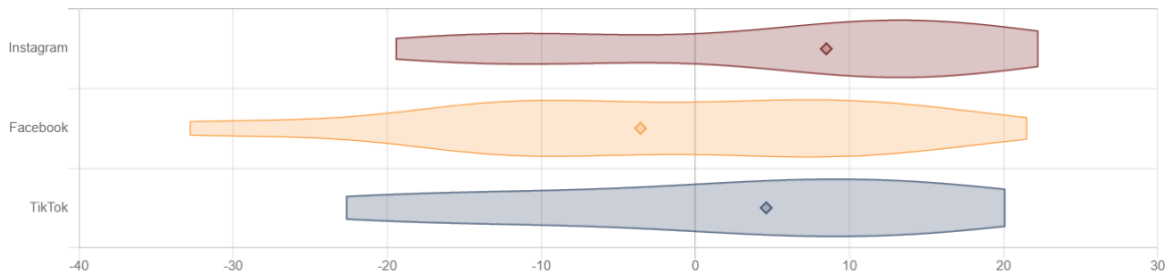
Table 54 – Facebook’s frequency of use per TikTok’s frequency of use

| TikTok frequency | Facebook frequency | | | | |
|------------------|--------------------|-----------------|----------------|-----------------|-------|
| | Every day | Every other day | Few times/week | Few times/month | Never |
| Every day | 14% | 3% | 13% | 19% | 51% |
| Every other day | 5% | 10% | 14% | 33% | 38% |
| Few times/week | 5% | 9% | 23% | 27% | 36% |
| Few times/month | 29% | 13% | 19% | 19% | 19% |
| Never | 35% | 9% | 17% | 19% | 21% |

Table 55 – TikTok’s frequency of use per Facebook’s frequency of use

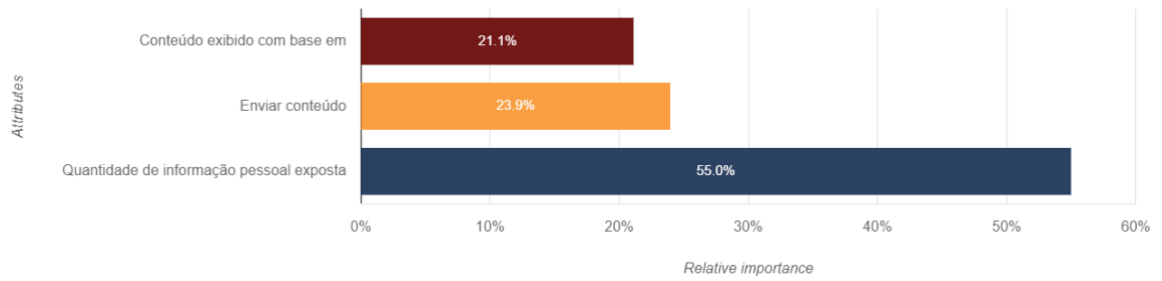
| Facebook frequency | TikTok frequency | | | | |
|--------------------|------------------|-----------------|----------------|-----------------|-------|
| | Every day | Every other day | Few times/week | Few times/month | Never |
| Every day | 13% | 1% | 1% | 10% | 75% |
| Every other day | 10% | 7% | 7% | 14% | 62% |
| Few times/week | 19% | 5% | 9% | 10% | 57% |
| Few times/month | 22% | 10% | 8% | 8% | 52% |
| Never | 41% | 7% | 7% | 6% | 38% |

Appendix 21 – Brand Preferences

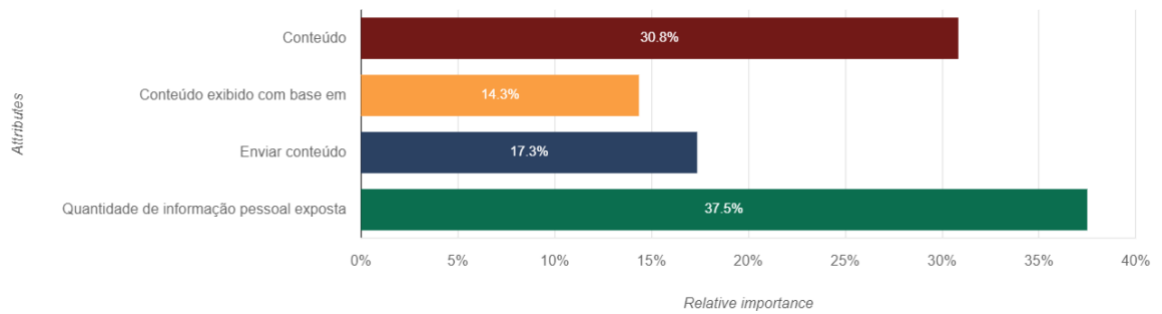


Appendix 22 – Attribute Importance

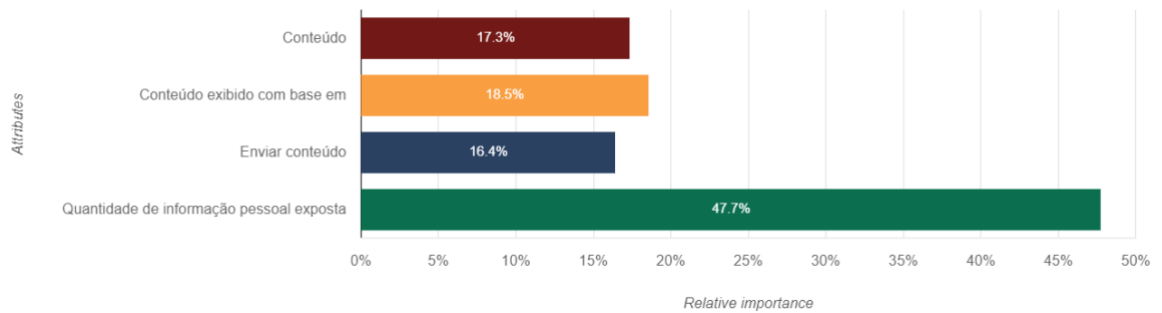
Graph 24 – Relative Importance of TikTok



Graph 25 - Relative Importance of Facebook

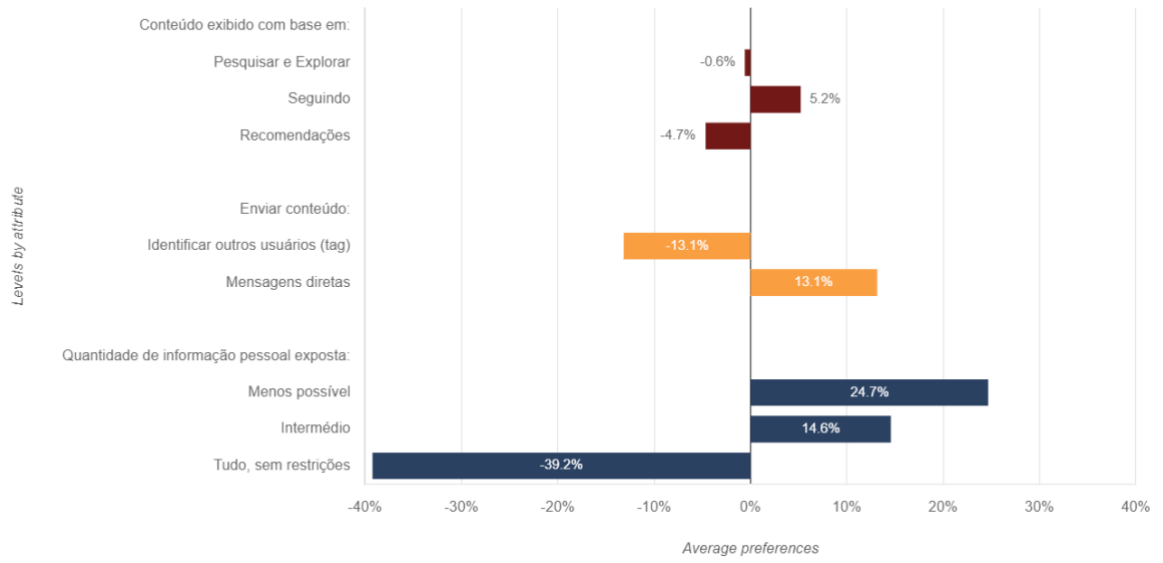


Graph 26 - Relative Importance of Instagram

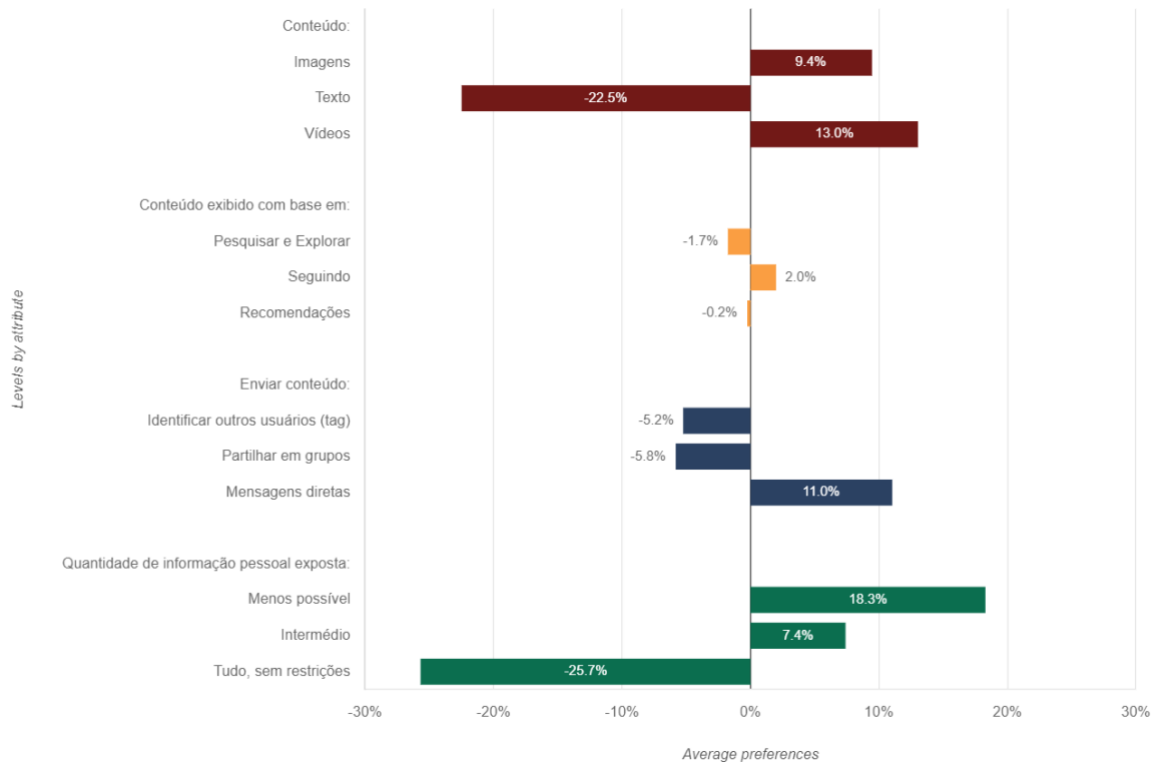


Appendix 23 – Preference for levels

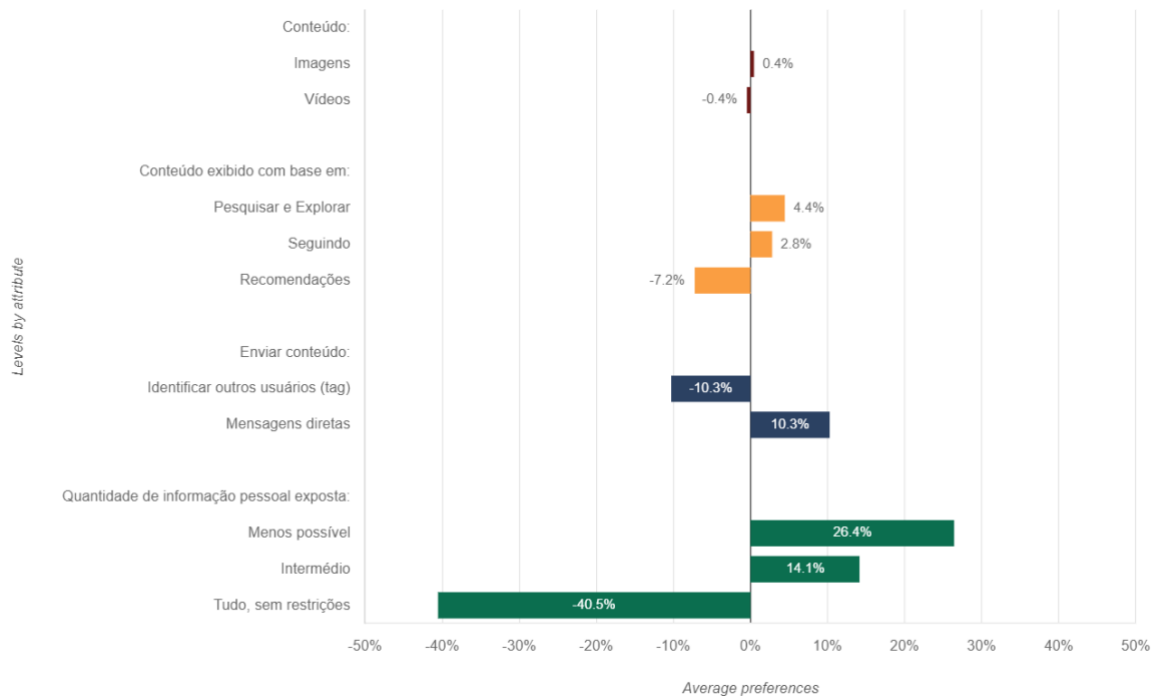
Graph 27 – Average Preferences TikTok



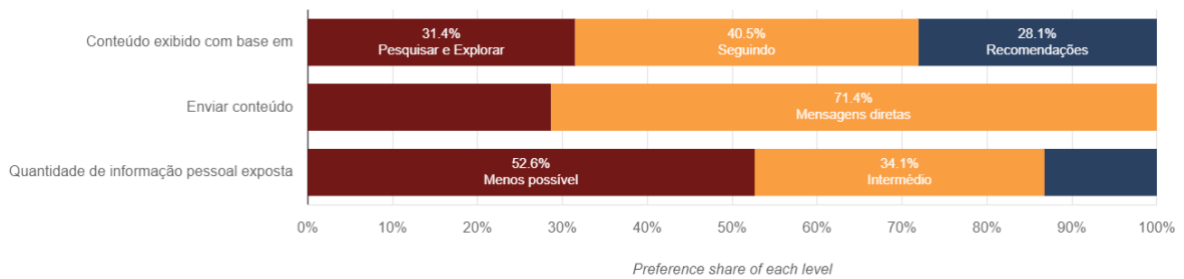
Graph 28 - Average Preferences Facebook



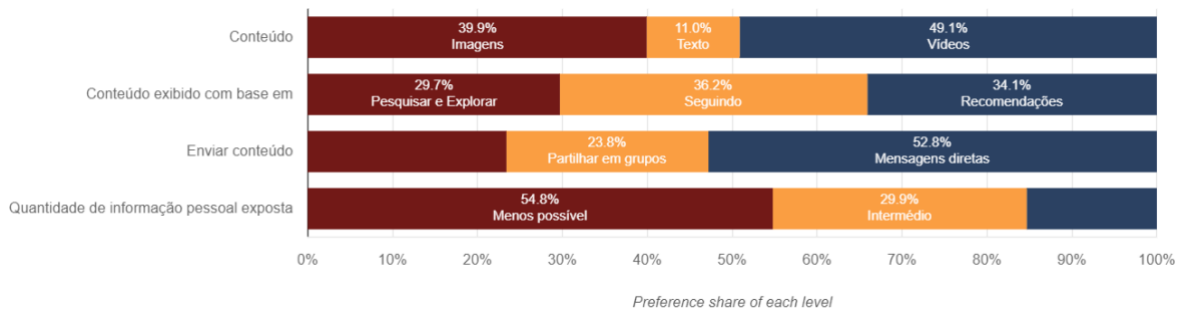
Graph 29 - Average Preferences Instagram



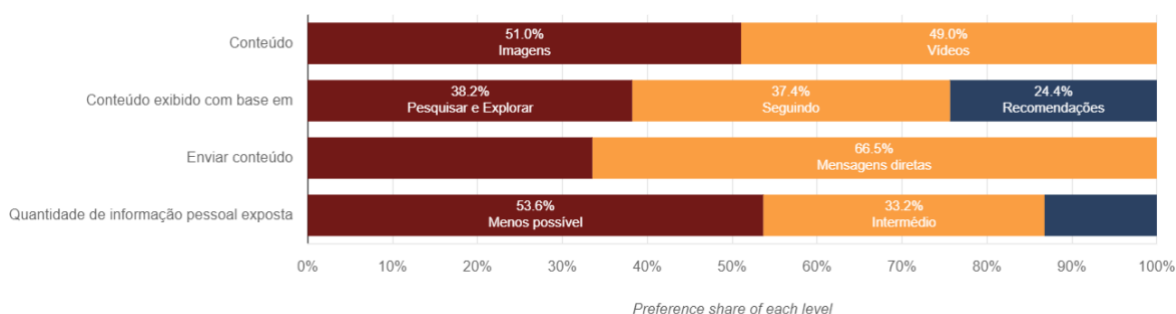
Graph 30 - Preference share for each level TikTok



Graph 31 - Preference share for each level Facebook



Graph 329 - Preference share for each level Instagram



Appendix 24 – Ranked list of concepts

| Redes Sociais | Conteúdo | Conteúdo exibido com base em | Conteúdo com tempo limitado (ex: stories) | Enviar conteúdo | Quantidade de informação pessoal exposta | Value to customers | Rank |
|---------------|----------|------------------------------|---|-------------------|--|--------------------|------|
| Instagram | Imagens | Pesquisar e Explorar | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 22.2 | 1 |
| Instagram | Vídeos | Pesquisar e Explorar | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 21.8 | 2 |
| Instagram | Imagens | Seguindo | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 21.5 | 3 |
| Facebook | Vídeos | Seguindo | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 21.5 | 4 |
| Instagram | Vídeos | Seguindo | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 21.2 | 5 |
| Facebook | Vídeos | Recomendações | Conteúdo com tempo limitado | Mensagens diretas | Menos possível | 20.3 | 6 |
| TikTok | Vídeos | Seguindo | Sem conteúdo de tempo limitado | Mensagens diretas | Menos possível | 20.1 | 7 |

Appendix 25 – Demographics vs Preferences

Table 56 – Brand preferences per age

| Brand | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|-----------|------|---------|---------|---------|---------|-----|---------------|
| Instagram | 6.4 | 8.3 | 11.7 | 8.0 | 6.1 | 5.6 | 8.5 |
| TikTok | 2.8 | 4.8 | 5.0 | -0.9 | 5.5 | 3.6 | 4.6 |
| Facebook | -1.2 | -2.9 | -3.1 | -1.7 | -2.4 | 0.9 | -3.6 |

Table 57 – Instagram's attribute preferences per age

| Attribute | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Media | 21.2% | 16.1% | 18.8% | 19.6% | 22.7% | 10.0% | 17.3% |
| Content Displayed Based On | 21.6% | 18.8% | 15.1% | 16.5% | 19.0% | 19.1% | 18.5% |
| Send Content | 15.5% | 17.4% | 14.7% | 15.9% | 14.6% | 13.0% | 16.4% |
| Amount of Exposed Personal Information | 41.8% | 47.7% | 51.4% | 48.0% | 43.7% | 58.0% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 58 – Instagram’s level preferences per age

| Attribute | Level | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------------------|--------|---------|---------|---------|---------|--------|---------------|
| Content Media | Images | -5.2% | -0.0% | 1.1% | 8.6% | 3.6% | 0.2% | 0.4% |
| Content Media | Videos | 5.2% | 0.0% | -1.1% | -8.6% | -3.6% | -0.2% | -0.4% |
| Content Displayed Based On | Search & Explore | -4.4% | 4.3% | 4.3% | 6.1% | 6.4% | 10.8% | 4.4% |
| Content Displayed Based On | Following | 9.6% | 2.4% | 3.3% | 0.2% | 3.2% | -2.8% | 2.8% |
| Content Displayed Based On | Recommendations | -5.3% | -6.6% | -7.6% | -6.3% | -9.6% | -8.0% | -7.2% |
| Send Content | Tagging | -13.9% | -11.2% | -7.6% | -7.8% | -7.8% | -2.2% | -10.3% |
| Send Content | Direct messages | 13.9% | 11.2% | 7.6% | 7.8% | 7.8% | 2.2% | 10.3% |
| Amount of Exposed Personal Information | Less possible | 6.7% | 26.4% | 29.1% | 19.8% | 24.7% | 34.2% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 20.1% | 13.9% | 12.7% | 15.2% | 11.8% | 8.1% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -26.8% | -40.3% | -41.7% | -34.9% | -36.4% | -42.3% | -40.5% |

Table 59 – Facebook’s attribute preferences per age

| Attribute | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Media | 36.1% | 30.7% | 31.8% | 32.4% | 30.2% | 20.6% | 30.8% |
| Content Displayed Based On | 13.8% | 14.9% | 13.0% | 14.3% | 14.6% | 11.1% | 14.3% |
| Send Content | 17.6% | 17.9% | 16.3% | 15.6% | 17.4% | 13.8% | 17.3% |
| Amount of Exposed Personal Information | 32.5% | 36.6% | 39.0% | 37.8% | 37.8% | 54.5% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 60 – Facebook’s level preferences per age

| Attribute | Level | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------------------|------------|---------|---------|---------|---------|----------|---------------|
| Content Media | Images | 8.6% | 8.9% | 9.2% | 13.1% | 11.2% | 8.5% | 9.4% |
| Content Media | Text | -30.1% | -22.3% | -19.8% | -20.6% | -21.7% | -10.2% | -22.5% |
| Content Media | Videos | 21.4% | 13.3% | 10.6% | 7.5% | 10.4% | 1.7% | 13.0% |
| Content Displayed Based On | Search & Explore | -4.5% | -1.8% | 0.6% | 1.8% | -4.2% | 3.13e-05 | -1.7% |
| Content Displayed Based On | Following | 4.5% | 1.7% | 2.2% | 0.3% | 3.1% | -0.6% | 2.0% |
| Content Displayed Based On | Recommendations | -1.591e-05 | 0.2% | -2.7% | -2.1% | 1.1% | 0.6% | -0.2% |
| Send Content | Tagging | -6.4% | -5.3% | -3.5% | -8.0% | -5.6% | -2.1% | -5.2% |
| Send Content | Partilhar em grupos | -6.0% | -6.3% | -6.6% | -1.6% | -1.0% | -4.0% | -5.8% |
| Send Content | Direct messages | 12.4% | 11.6% | 10.1% | 9.6% | 6.6% | 6.1% | 11.0% |
| Amount of Exposed Personal Information | Less possible | 2.0% | 17.6% | 21.8% | 18.3% | 20.5% | 32.8% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 9.3% | 7.8% | 4.5% | 8.1% | 6.6% | 4.5% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -11.3% | -25.4% | -26.3% | -26.4% | -27.1% | -37.2% | -25.7% |

Table 61 – TikTok’s attribute preferences per age

| Attribute | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Displayed Based On | 22.3% | 21.1% | 18.7% | 21.8% | 24.2% | 18.7% | 21.1% |
| Send Content | 25.7% | 24.8% | 21.0% | 24.0% | 23.3% | 17.8% | 23.9% |
| Amount of Exposed Personal Information | 52.1% | 54.1% | 60.3% | 54.2% | 52.5% | 63.5% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 62 – TikTok’s level preferences per age

| Attribute | Level | <18 | 18 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | >54 | All responses |
|--|---------------------------|--------|---------|---------|---------|---------|--------|---------------|
| Content Displayed Based On | Search & Explore | -8.0% | -1.0% | 1.6% | 4.8% | -1.7% | 6.8% | -0.6% |
| Content Displayed Based On | Following | 8.9% | 5.1% | 5.0% | 4.3% | 5.2% | 2.2% | 5.2% |
| Content Displayed Based On | Recommendations | -0.9% | -4.1% | -6.5% | -9.1% | -3.5% | -9.0% | -4.7% |
| Send Content | Tagging | -18.8% | -13.7% | -10.1% | -12.2% | -13.5% | -5.7% | -13.1% |
| Send Content | Direct messages | 18.8% | 13.7% | 10.1% | 12.2% | 13.5% | 5.7% | 13.1% |
| Amount of Exposed Personal Information | Less possible | 11.7% | 24.4% | 27.5% | 22.5% | 24.6% | 32.6% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 16.9% | 14.7% | 13.5% | 16.7% | 15.3% | 7.4% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -28.6% | -39.1% | -40.9% | -39.2% | -39.9% | -40.1% | -39.2% |

Table 63 – Brand preferences per gender

| Brand | Male | Female | All responses |
|-----------|------|--------|---------------|
| Instagram | 7.7 | 9.2 | 8.5 |
| TikTok | 5.0 | 4.0 | 4.6 |
| Facebook | -2.5 | -3.2 | -3.6 |

Table 64 – Instagram’s attribute preferences per gender

| Attribute | Male | Female | All responses |
|--|---------------|---------------|---------------|
| Content Media | 18.5% | 16.1% | 17.3% |
| Content Displayed Based On | 18.9% | 18.3% | 18.5% |
| Send Content | 17.2% | 15.9% | 16.4% |
| Amount of Exposed Personal Information | 45.4% | 49.7% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% |

Table 65 – Instagram’s level preferences per gender

| Attribute | Level | Male | Female | All responses |
|--|---------------------------|--------|--------|---------------|
| Content Media | Images | -0.5% | 1.3% | 0.4% |
| Content Media | Videos | 0.5% | -1.3% | -0.4% |
| Content Displayed Based On | Search & Explore | 4.0% | 4.7% | 4.4% |
| Content Displayed Based On | Following | 3.6% | 2.1% | 2.8% |
| Content Displayed Based On | Recommendations | -7.7% | -6.8% | -7.2% |
| Send Content | Tagging | -10.6% | -10.0% | -10.3% |
| Send Content | Direct Messages | 10.6% | 10.0% | 10.3% |
| Amount of Exposed Personal Information | Less possible | 26.0% | 26.0% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 14.1% | 13.9% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -40.2% | -39.9% | -40.5% |

Table 66 – Facebook’s attribute preferences per gender

| Attribute | Male | Female | All responses |
|--|---------------|---------------|---------------|
| Content Media | 30.9% | 30.6% | 30.8% |
| Content Displayed Based On | 14.7% | 14.1% | 14.3% |
| Send Content | 18.3% | 16.6% | 17.3% |
| Amount of Exposed Personal Information | 36.1% | 38.6% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% |

Table 67 – Facebook’s level preferences per gender

| Attribute | Level | Male | Female | All responses |
|--|---------------------------|--------|--------|---------------|
| Content Media | Images | 9.2% | 9.8% | 9.4% |
| Content Media | Text | -23.2% | -21.9% | -22.5% |
| Content Media | Videos | 14.0% | 12.1% | 13.0% |
| Content Displayed Based On | Search & Explore | -2.5% | -1.1% | -1.7% |
| Content Displayed Based On | Following | 2.3% | 1.8% | 2.0% |
| Content Displayed Based On | Recommendations | 0.2% | -0.7% | -0.2% |
| Send Content | Tagging | -5.5% | -5.2% | -5.2% |
| Send Content | Share in Groups | -5.2% | -6.2% | -5.8% |
| Send Content | Direct Messages | 10.7% | 11.4% | 11.0% |
| Amount of Exposed Personal Information | Less possible | 17.3% | 19.0% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 7.3% | 7.5% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -24.6% | -26.5% | -25.7% |

Table 68 – TikTok’s attribute preferences per gender

| Attribute | Male | Female | All responses |
|--|---------------|---------------|---------------|
| Content Displayed Based On | 21.3% | 20.8% | 21.1% |
| Send Content | 25.3% | 23.0% | 23.9% |
| Amount of Exposed Personal Information | 53.4% | 56.2% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% |

Table 69 – TikTok’s level preferences per gender

| Attribute | Level | Male | Female | All responses |
|--|---------------------------|--------|--------|---------------|
| Content Displayed Based On | Search & Explore | -1.2% | -0.0% | -0.6% |
| Content Displayed Based On | Following | 5.5% | 4.9% | 5.2% |
| Content Displayed Based On | Recommendations | -4.3% | -4.9% | -4.7% |
| Send Content | Tagging | -14.0% | -12.7% | -13.1% |
| Send Content | Direct Messages | 14.0% | 12.7% | 13.1% |
| Amount of Exposed Personal Information | Less possible | 23.7% | 25.3% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 14.9% | 14.4% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -38.6% | -39.7% | -39.2% |

Table 70 – Brand preferences per occupation

| Brand | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|-----------|---------|----------|-------------------|------------|---------|---------------|
| Instagram | 8.5 | 8.6 | 8.1 | 11.5 | 9.3 | 8.5 |
| TikTok | 5.2 | 3.0 | 3.5 | 4.3 | -9.4 | 4.6 |
| Facebook | -2.8 | -3.3 | -2.9 | -3.7 | 0.3 | -3.6 |

Table 71 – Instagram’s attribute preferences per occupation

| Attribute | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------|---------------|-------------------|---------------|---------------|---------------|
| Content Media | 16.8% | 17.9% | 20.5% | 21.4% | 15.9% | 17.3% |
| Content Displayed Based On | 18.6% | 18.6% | 19.4% | 14.9% | 21.8% | 18.5% |
| Send Content | 16.7% | 16.7% | 14.5% | 13.1% | 8.0% | 16.4% |
| Amount of Exposed Personal Information | 47.9% | 46.8% | 45.7% | 50.6% | 54.4% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 72 – Instagram’s level preferences per occupation

| Attribute | Level | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------------------|---------|----------|-------------------|------------|---------|---------------|
| Content Media | Images | -0.5% | 2.1% | 4.6% | 2.9% | 3.2% | 0.4% |
| Content Media | Videos | 0.5% | -2.1% | -4.6% | -2.9% | -3.2% | -0.4% |
| Content Displayed Based On | Search & Explore | 4.1% | 3.4% | 8.9% | 6.1% | 11.5% | 4.4% |
| Content Displayed Based On | Following | 2.7% | 3.9% | -0.4% | 3.4% | -0.2% | 2.8% |
| Content Displayed Based On | Recommendations | -6.9% | -7.3% | -8.5% | -9.5% | -11.3% | -7.2% |
| Send Content | Tagging | -10.7% | -10.2% | -6.5% | -8.0% | 0.3% | -10.3% |
| Send Content | Direct Messages | 10.7% | 10.2% | 6.5% | 8.0% | -0.3% | 10.3% |
| Amount of Exposed Personal Information | Less possible | 26.4% | 25.2% | 21.7% | 23.7% | 30.7% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 13.9% | 13.7% | 17.0% | 15.2% | 8.9% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -40.3% | -38.9% | -38.7% | -38.9% | -39.6% | -40.5% |

Table 73 – Facebook’s attribute preferences per occupation

| Attribute | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------|---------------|-------------------|---------------|---------------|---------------|
| Content Media | 31.0% | 31.1% | 29.4% | 34.1% | 21.2% | 30.8% |
| Content Displayed Based On | 14.6% | 13.7% | 14.0% | 13.9% | 10.1% | 14.3% |
| Send Content | 17.3% | 17.9% | 17.3% | 15.9% | 13.2% | 17.3% |
| Amount of Exposed Personal Information | 37.1% | 37.3% | 39.2% | 36.2% | 55.4% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 74 – Facebook’s level preferences per occupation

| Attribute | Level | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------------------|---------|----------|-------------------|------------|---------|---------------|
| Content Media | Images | 8.8% | 10.2% | 13.8% | 10.7% | 9.4% | 9.4% |
| Content Media | Text | -22.7% | -22.1% | -20.5% | -20.7% | -10.7% | -22.5% |
| Content Media | Videos | 13.8% | 11.8% | 6.7% | 10.0% | 1.3% | 13.0% |
| Content Displayed Based On | Search & Explore | -1.7% | -2.4% | -1.5% | 0.4% | 4.4% | -1.7% |
| Content Displayed Based On | Following | 1.9% | 1.8% | 3.2% | 3.2% | -0.6% | 2.0% |
| Content Displayed Based On | Recommendations | -0.3% | 0.6% | -1.7% | -3.7% | -3.9% | -0.2% |
| Send Content | Tagging | -5.0% | -6.3% | -5.7% | -3.3% | 0.9% | -5.2% |
| Send Content | Share in Groups | -6.3% | -4.5% | -2.9% | -6.3% | -7.5% | -5.8% |
| Send Content | Direct Messages | 11.2% | 10.8% | 8.6% | 9.6% | 6.6% | 11.0% |
| Amount of Exposed Personal Information | Less possible | 17.5% | 18.8% | 18.6% | 19.8% | 28.9% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 7.4% | 7.2% | 9.2% | 6.2% | -0.2% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -24.9% | -26.1% | -27.8% | -26.0% | -28.7% | -25.7% |

Table 75 – TikTok’s attribute preferences per occupation

| Attribute | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------|---------------|-------------------|---------------|---------------|---------------|
| Content Displayed Based On | 21.2% | 20.2% | 24.7% | 18.2% | 19.5% | 21.1% |
| Send Content | 24.1% | 24.8% | 21.3% | 25.3% | 9.0% | 23.9% |
| Amount of Exposed Personal Information | 54.7% | 55.0% | 54.0% | 56.5% | 71.5% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 76 – TikTok’s level preferences per occupation

| Attribute | Level | Student | Employed | Autonomous worker | Unemployed | Retired | All responses |
|--|---------------------------|---------|----------|-------------------|------------|---------|---------------|
| Content Displayed Based On | Search & Explore | -0.9% | -0.7% | 0.8% | 3.8% | 9.0% | -0.6% |
| Content Displayed Based On | Following | 5.3% | 5.3% | 4.2% | 6.4% | -4.9% | 5.2% |
| Content Displayed Based On | Recommendations | -4.4% | -4.6% | -5.0% | -10.2% | -4.1% | -4.7% |
| Send Content | Tagging | -13.2% | -13.9% | -13.1% | -9.9% | 1.2% | -13.1% |
| Send Content | Direct Messages | 13.2% | 13.9% | 13.1% | 9.9% | -1.2% | 13.1% |
| Amount of Exposed Personal Information | Less possible | 24.6% | 24.0% | 23.8% | 24.9% | 41.0% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 14.7% | 14.3% | 16.9% | 13.7% | 1.5% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -39.2% | -38.3% | -40.8% | -38.6% | -42.6% | -39.2% |

Table 77 – Brand preferences per education level

| Brand | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|-----------|--------------|------------|----------|---------|-----------|---------------|
| Instagram | 8.0 | 8.4 | 9.0 | 9.0 | 8.6 | 8.5 |
| TikTok | -0.8 | 5.1 | 5.6 | 2.9 | -0.9 | 4.6 |
| Facebook | -1.9 | -2.4 | -4.2 | -3.2 | -1.5 | -3.6 |

Table 78 – Instagram’s attribute preferences per education level

| Attribute | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Media | 16.5% | 17.0% | 17.6% | 16.9% | 20.3% | 17.3% |
| Content Displayed Based On | 19.0% | 22.1% | 17.3% | 18.2% | 13.0% | 18.5% |
| Send Content | 17.3% | 14.8% | 17.1% | 15.7% | 26.1% | 16.4% |
| Amount of Exposed Personal Information | 47.2% | 46.0% | 48.1% | 49.2% | 40.5% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 79 – Instagram’s level preferences per education level

| Attribute | Level | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------------------|--------------|------------|----------|---------|-----------|---------------|
| Content Media | Images | -1.6% | -2.0% | 0.0% | 2.8% | 10.7% | 0.4% |
| Content Media | Videos | 1.6% | 2.0% | -0.0% | -2.8% | -10.7% | -0.4% |
| Content Displayed Based On | Search & Explore | -1.5% | 3.7% | 5.2% | 3.6% | 2.7% | 4.4% |
| Content Displayed Based On | Following | 5.9% | 3.9% | 2.7% | 1.7% | -0.7% | 2.8% |
| Content Displayed Based On | Recommendations | -4.4% | -7.7% | -7.8% | -5.2% | -2.0% | -7.2% |
| Send Content | Tagging | -15.2% | -8.6% | -9.9% | -10.6% | -16.1% | -10.3% |
| Send Content | Direct Messages | 15.2% | 8.6% | 9.9% | 10.6% | 16.1% | 10.3% |
| Amount of Exposed Personal Information | Less possible | -0.7% | 25.7% | 27.6% | 25.0% | 10.3% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 28.5% | 15.6% | 12.0% | 14.6% | 15.7% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -27.8% | -41.4% | -39.6% | -39.6% | -26.0% | -40.5% |

Table 80 – Facebook’s attribute preferences per education level

| Attribute | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Media | 37.6% | 30.5% | 30.5% | 31.2% | 32.3% | 30.8% |
| Content Displayed Based On | 11.9% | 16.8% | 14.0% | 13.5% | 6.5% | 14.3% |
| Send Content | 18.2% | 17.4% | 17.2% | 17.3% | 19.5% | 17.3% |
| Amount of Exposed Personal Information | 32.3% | 35.3% | 38.3% | 38.1% | 41.7% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 81 – Facebook’s level preferences per education level

| Attribute | Level | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------------------|--------------|------------|----------|---------|-----------|---------------|
| Content Media | Images | 9.7% | 8.5% | 9.3% | 9.4% | 15.4% | 9.4% |
| Content Media | Text | -28.2% | -23.5% | -22.0% | -20.6% | -22.1% | -22.5% |
| Content Media | Videos | 18.5% | 15.0% | 12.6% | 11.2% | 6.6% | 13.0% |
| Content Displayed Based On | Search & Explore | -2.3% | -3.2% | -1.5% | -1.2% | 2.1% | -1.7% |
| Content Displayed Based On | Following | 5.5% | 2.2% | 1.8% | 1.7% | -0.3% | 2.0% |
| Content Displayed Based On | Recommendations | -3.1% | 0.9% | -0.3% | -0.5% | -1.9% | -0.2% |
| Send Content | Tagging | -7.7% | -4.7% | -4.4% | -6.6% | -11.8% | -5.2% |
| Send Content | Share in Groups | -4.3% | -5.6% | -6.4% | -4.5% | -2.2% | -5.8% |
| Send Content | Direct Messages | 12.0% | 10.3% | 10.8% | 11.1% | 14.1% | 11.0% |
| Amount of Exposed Personal Information | Less possible | -1.5% | 16.1% | 19.3% | 19.7% | 9.4% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 13.2% | 8.0% | 6.3% | 8.1% | 11.6% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -11.8% | -24.1% | -25.6% | -27.8% | -21.0% | -25.7% |

Table 82 – TikTok’s attribute preferences per education level

| Attribute | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Content Displayed Based On | 20.3% | 23.4% | 20.9% | 19.3% | 20.8% | 21.1% |
| Send Content | 28.4% | 23.0% | 23.6% | 24.8% | 31.7% | 23.9% |
| Amount of Exposed Personal Information | 51.2% | 53.6% | 55.5% | 55.9% | 47.5% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 83 – TikTok’s level preferences per education level

| Attribute | Level | Basic school | Highschool | Bachelor | Masters | Doctorate | All responses |
|--|---------------------------|--------------|------------|----------|---------|-----------|---------------|
| Content Displayed Based On | Search & Explore | -5.9% | -2.1% | 0.4% | -1.1% | 0.6% | -0.6% |
| Content Displayed Based On | Following | 0.3% | 7.0% | 4.8% | 5.6% | -6.8% | 5.2% |
| Content Displayed Based On | Recommendations | 5.6% | -5.0% | -5.3% | -4.5% | 6.2% | -4.7% |
| Send Content | Tagging | -19.9% | -12.3% | -12.2% | -14.2% | -21.5% | -13.1% |
| Send Content | Direct Messages | 19.9% | 12.3% | 12.2% | 14.2% | 21.5% | 13.1% |
| Amount of Exposed Personal Information | Less possible | 6.3% | 24.4% | 25.7% | 23.7% | 9.9% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 21.1% | 14.5% | 14.1% | 14.1% | 17.1% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -27.5% | -38.9% | -39.8% | -37.8% | -27.0% | -39.2% |

Table 84 – Brand preferences per marital status

| Brand | Single | Married | Divorced | Widowed | All responses |
|-----------|--------|---------|----------|---------|---------------|
| Instagram | 8.4 | 9.0 | 6.1 | 0.5 | 8.5 |
| TikTok | 4.7 | 3.7 | 2.7 | 11.5 | 4.6 |
| Facebook | -2.4 | -0.2 | -1.7 | 6.0 | -3.6 |

Table 85 – Instagram’s attribute preferences per marital status

| Attribute | Single | Married | Divorced | Widowed | All responses |
|--|---------------|---------------|---------------|---------------|---------------|
| Content Media | 17.1% | 19.1% | 16.5% | 10.5% | 17.3% |
| Content Displayed Based On | 18.8% | 16.3% | 23.6% | 18.4% | 18.5% |
| Send Content | 16.9% | 14.6% | 13.6% | 5.9% | 16.4% |
| Amount of Exposed Personal Information | 47.2% | 50.0% | 46.2% | 65.2% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 86 – Instagram’s level preferences per marital status

| Attribute | Level | Single | Married | Divorced | Widowed | All responses |
|--|---------------------------|--------|---------|----------|---------|---------------|
| Content Media | Images | -0.1% | 1.9% | 8.9% | 1.8% | 0.4% |
| Content Media | Videos | 0.1% | -1.9% | -8.9% | -1.8% | -0.4% |
| Content Displayed Based On | Search & Explore | 3.7% | 6.7% | 8.6% | 12.3% | 4.4% |
| Content Displayed Based On | Following | 3.5% | -0.5% | 3.1% | -3.7% | 2.8% |
| Content Displayed Based On | Recommendations | -7.2% | -6.1% | -11.7% | -8.6% | -7.2% |
| Send Content | Tagging | -11.0% | -6.9% | -6.1% | 0.2% | -10.3% |
| Send Content | Direct Messages | 11.0% | 6.9% | 6.1% | -0.2% | 10.3% |
| Amount of Exposed Personal Information | Less possible | 26.1% | 28.6% | 19.9% | 33.9% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 14.6% | 12.3% | 10.1% | 7.4% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -40.6% | -40.9% | -30.0% | -41.3% | -40.5% |

Table 87 – Facebook’s attribute preferences per marital status

| Attribute | Single | Married | Divorced | Widowed | All responses |
|--|---------------|---------------|---------------|---------------|---------------|
| Content Media | 31.6% | 28.2% | 26.7% | 13.5% | 30.8% |
| Content Displayed Based On | 14.4% | 13.7% | 13.7% | 9.7% | 14.3% |
| Send Content | 17.6% | 16.6% | 14.9% | 5.3% | 17.3% |
| Amount of Exposed Personal Information | 36.3% | 41.5% | 44.6% | 71.5% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 88 – Facebook’s level preferences per marital status

| Attribute | Level | Single | Married | Divorced | Widowed | All responses |
|--|---------------------------|--------|---------|----------|---------|---------------|
| Content Media | Images | 9.2% | 9.5% | 17.6% | 5.5% | 9.4% |
| Content Media | Text | -23.1% | -18.5% | -14.6% | -7.2% | -22.5% |
| Content Media | Videos | 13.9% | 9.0% | -3.0% | 1.7% | 13.0% |
| Content Displayed Based On | Search & Explore | -1.7% | -2.4% | 1.5% | 3.0% | -1.7% |
| Content Displayed Based On | Following | 2.0% | 1.8% | 1.9% | -0.7% | 2.0% |
| Content Displayed Based On | Recommendations | -0.3% | 0.6% | -3.5% | -2.3% | -0.2% |
| Send Content | Tagging | -5.2% | -4.7% | -6.2% | -2.8% | -5.2% |
| Send Content | Share in Groups | -6.3% | -3.8% | 0.6% | 2.3% | -5.8% |
| Send Content | Direct Messages | 11.5% | 8.5% | 5.7% | 0.5% | 11.0% |
| Amount of Exposed Personal Information | Less possible | 17.1% | 24.1% | 22.0% | 35.2% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 7.4% | 6.4% | 6.4% | 6.4% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -24.5% | -30.5% | -28.4% | -41.7% | -25.7% |

Table 89– TikTok’s attribute preferences per marital status

| Attribute | Single | Married | Divorced | Widowed | All responses |
|--|---------------|---------------|---------------|---------------|---------------|
| Content Displayed Based On | 21.1% | 20.3% | 21.8% | 26.5% | 21.1% |
| Send Content | 24.6% | 21.5% | 20.0% | 11.5% | 23.9% |
| Amount of Exposed Personal Information | 54.3% | 58.2% | 58.1% | 62.0% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table 90 – TikTok’s level preferences per marital status

| Attribute | Level | Single | Married | Divorced | Widowed | All responses |
|--|---------------------------|--------|---------|----------|---------|---------------|
| Content Displayed Based On | Search & Explore | -1.1% | 2.0% | 2.8% | 6.3% | -0.6% |
| Content Displayed Based On | Following | 5.6% | 3.6% | 0.3% | 6.1% | 5.2% |
| Content Displayed Based On | Recommendations | -4.5% | -5.6% | -3.1% | -12.4% | -4.7% |
| Send Content | Tagging | -13.5% | -10.7% | -13.0% | -2.9% | -13.1% |
| Send Content | Direct Messages | 13.5% | 10.7% | 13.0% | 2.9% | 13.1% |
| Amount of Exposed Personal Information | Less possible | 24.0% | 28.3% | 25.2% | 32.9% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 14.8% | 12.8% | 17.7% | 9.7% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -38.8% | -41.1% | -42.9% | -42.6% | -39.2% |

Appendix 26 – Segmentation results

Table 91 – Platform’s frequency of use by personas

| | Ana (N = 11) | António (N = 42) | Tiago (N = 12) | All responses (N = 359) |
|---|--------------|------------------|----------------|-------------------------|
| Q13: With what frequency do you use Facebook? | | | | |
| Every day | 0.0% | 16.7% | 50.0% | 25.6% |
| Every other day | 0.0% | 11.9% | 0.0% | 8.1% |
| A few times a week | 0.0% | 21.4% | 25.0% | 16.2% |
| A few times a month | 18.2% | 19.0% | 25.0% | 20.3% |
| Never | 81.8% | 31.0% | 0.0% | 29.8% |
| Q14: With what frequency do you use Instagram? | | | | |
| Every day | 90.9% | 76.2% | 66.7% | 79.4% |
| Every other day | 0.0% | 19.0% | 8.3% | 7.2% |
| A few times a week | 9.1% | 2.4% | 16.7% | 6.1% |
| A few times a month | 0.0% | 0.0% | 8.3% | 1.7% |
| Never | 0.0% | 2.4% | 0.0% | 5.6% |
| Q15: With what frequency do you use TikTok? | | | | |
| Every day | 81.8% | 16.7% | 0.0% | 24.0% |
| Every other day | 9.1% | 0.0% | 0.0% | 5.9% |
| A few times a week | 0.0% | 4.8% | 0.0% | 6.1% |
| A few times a month | 0.0% | 19.0% | 8.3% | 8.6% |
| Never | 9.1% | 59.5% | 91.7% | 55.4% |

Table 92 – Brand preferences per persona

| Brand | Ana | António | Tiago | All responses |
|-----------|------|---------|-------|---------------|
| Instagram | 4.0 | 7.8 | 5.6 | 8.5 |
| TikTok | 8.2 | 8.7 | -4.8 | 4.6 |
| Facebook | -0.6 | -3.5 | 0.0 | -3.6 |

Table 93 – Instagram’s attribute preferences per persona

| Attribute | Ana | António | Tiago | All responses |
|--|---------------|---------------|---------------|---------------|
| Content Media | 26.4% | 18.8% | 24.4% | 17.3% |
| Content Displayed Based On | 21.0% | 15.9% | 15.7% | 18.5% |
| Send Content | 14.9% | 18.8% | 17.6% | 16.4% |
| Amount of Exposed Personal Information | 37.7% | 46.5% | 42.3% | 47.7% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% |

Table 94 – Instagram’s level preferences per persona

| Attribute | Level | Ana | António | Tiago | All responses |
|--|---------------------------|--------|---------|--------|---------------|
| Content Media | Images | -12.8% | -2.9% | 7.1% | 0.4% |
| Content Media | Videos | 12.8% | 2.9% | -7.1% | -0.4% |
| Content Displayed Based On | Search & Explore | -5.7% | 4.8% | 4.0% | 4.4% |
| Content Displayed Based On | Following | 6.9% | 2.5% | 0.8% | 2.8% |
| Content Displayed Based On | Recommendations | -1.1% | -7.3% | -4.8% | -7.2% |
| Send Content | Tagging | -14.3% | -9.2% | -13.5% | -10.3% |
| Send Content | Direct Messages | 14.3% | 9.2% | 13.5% | 10.3% |
| Amount of Exposed Personal Information | Less possible | -11.5% | 27.5% | 12.2% | 26.4% |
| Amount of Exposed Personal Information | Intermedium | 21.9% | 8.7% | 18.9% | 14.1% |
| Amount of Exposed Personal Information | All, with no restrictions | -10.4% | -36.2% | -31.1% | -40.5% |

Table 95 – Facebook’s attribute preferences per persona

| Attribute | Ana | António | Tiago | All responses |
|--|---------------|---------------|---------------|---------------|
| Content Media | 42.6% | 29.4% | 36.1% | 30.8% |
| Content Displayed Based On | 12.4% | 13.2% | 9.4% | 14.3% |
| Send Content | 16.3% | 19.0% | 17.8% | 17.3% |
| Amount of Exposed Personal Information | 28.7% | 38.4% | 36.8% | 37.5% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% |

Table 96 – Facebook’s level preferences per persona

| Attribute | Level | Ana | António | Tiago | All responses |
|--|---------------------------|--------|---------|--------|---------------|
| Content Media | Images | 5.1% | 6.7% | 12.9% | 9.4% |
| Content Media | Text | -29.7% | -19.5% | -28.8% | -22.5% |
| Content Media | Videos | 24.6% | 12.8% | 15.9% | 13.0% |
| Content Displayed Based On | Search & Explore | -4.6% | -3.4% | -1.4% | -1.7% |
| Content Displayed Based On | Following | 4.0% | 2.6% | 3.2% | 2.0% |
| Content Displayed Based On | Recommendations | 0.6% | 0.8% | -1.8% | -0.2% |
| Send Content | Tagging | -4.7% | -3.0% | -9.7% | -5.2% |
| Send Content | Share in Groups | -5.3% | -7.3% | -0.6% | -5.8% |
| Send Content | Direct Messages | 10.0% | 10.3% | 10.3% | 11.0% |
| Amount of Exposed Personal Information | Less possible | -9.8% | 19.2% | 10.9% | 18.3% |
| Amount of Exposed Personal Information | Intermedium | 12.0% | 5.7% | 8.6% | 7.4% |
| Amount of Exposed Personal Information | All, with no restrictions | -2.2% | -24.9% | -19.5% | -25.7% |

Table 97 – TikTok’s attribute preferences per persona

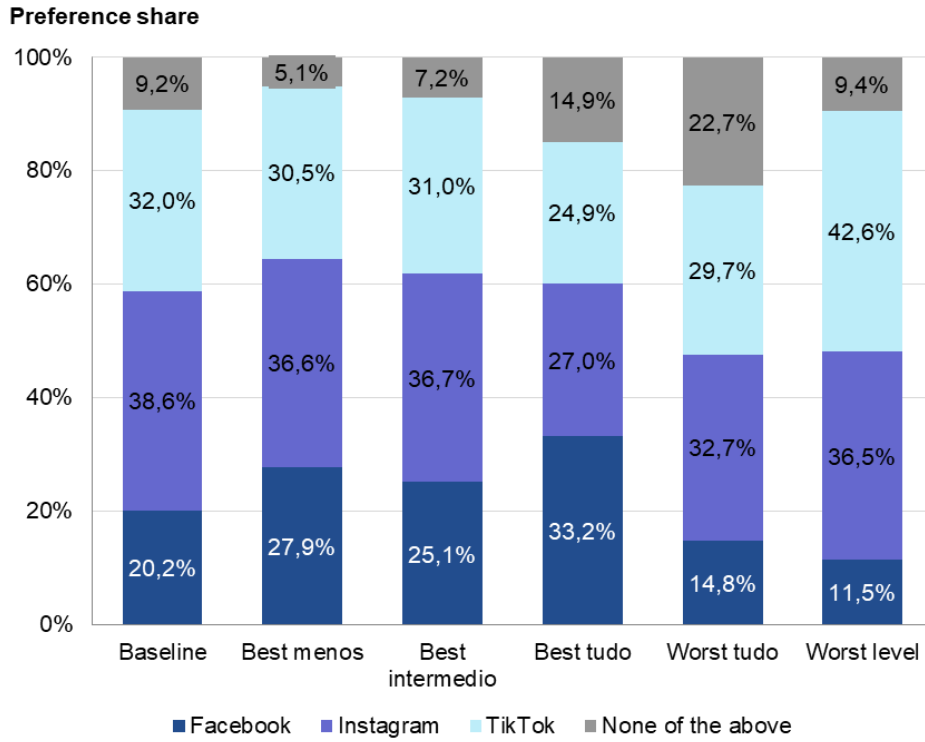
| Attribute | Ana | António | Tiago | All responses |
|--|---------------|---------------|---------------|---------------|
| Content Displayed Based On | 25.6% | 21.9% | 19.8% | 21.1% |
| Send Content | 28.0% | 24.6% | 26.9% | 23.9% |
| Amount of Exposed Personal Information | 46.4% | 53.5% | 53.3% | 55.0% |
| Sum | 100.0% | 100.0% | 100.0% | 100.0% |

Table 98 – TikTok’s level preferences per persona

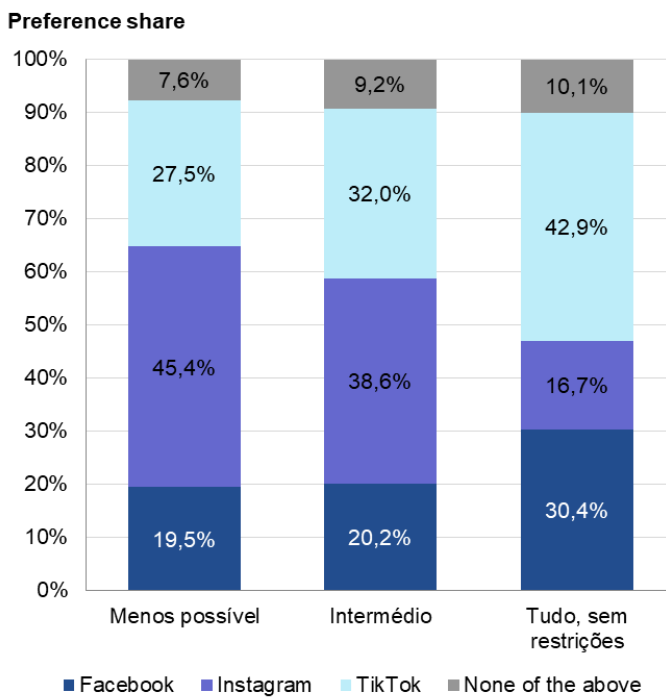
| Attribute | Level | Ana | António | Tiago | All responses |
|--|---------------------------|--------|---------|--------|---------------|
| Content Displayed Based On | Search & Explore | -11.3% | -0.2% | 0.8% | -0.6% |
| Content Displayed Based On | Following | 2.1% | 5.3% | -1.7% | 5.2% |
| Content Displayed Based On | Recommendations | 9.1% | -5.2% | 0.9% | -4.7% |
| Send Content | Tagging | -20.8% | -12.5% | -19.3% | -13.1% |
| Send Content | Direct Messages | 20.8% | 12.5% | 19.3% | 13.1% |
| Amount of Exposed Personal Information | Less possible | -4.5% | 25.8% | 19.5% | 24.7% |
| Amount of Exposed Personal Information | Intermedium | 21.2% | 13.1% | 19.6% | 14.6% |
| Amount of Exposed Personal Information | All, with no restrictions | -16.7% | -38.8% | -39.1% | -39.2% |

Appendix 27 – Simulations

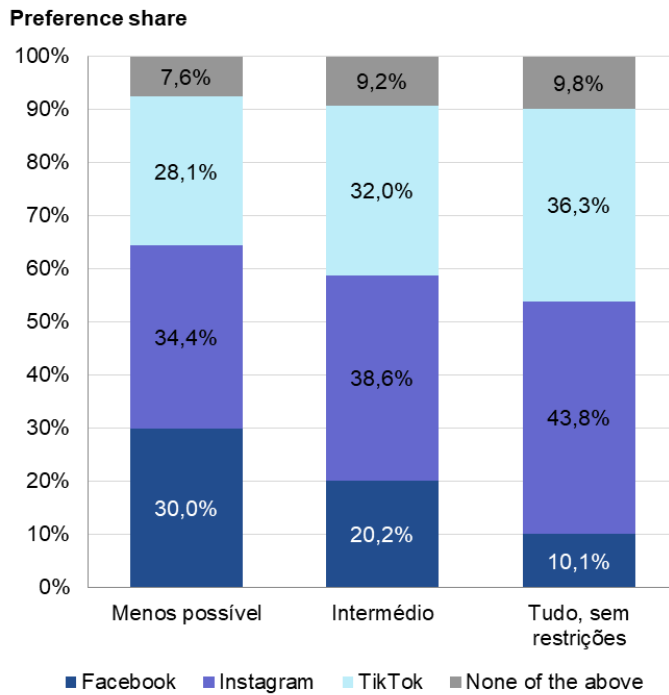
Graph 33 – Baseline, best and worst combinations



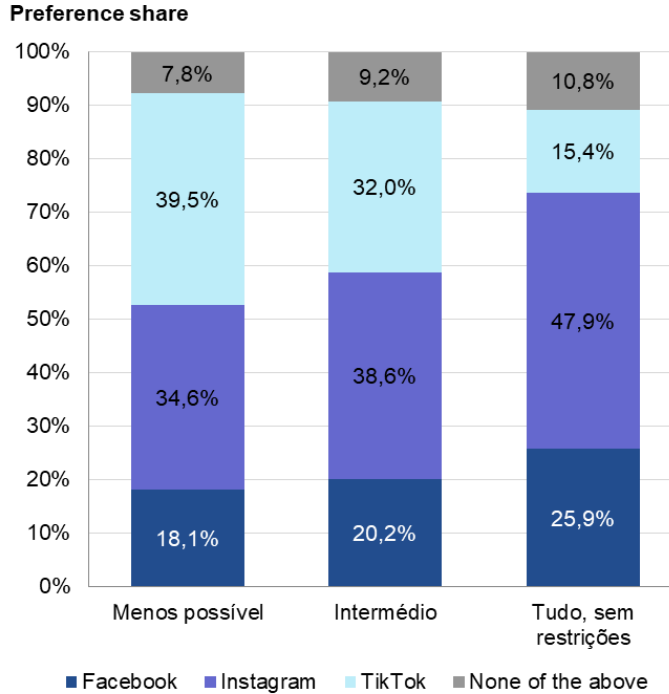
Graph 34 – Instagram Sensitivity to Exposed Personal Information



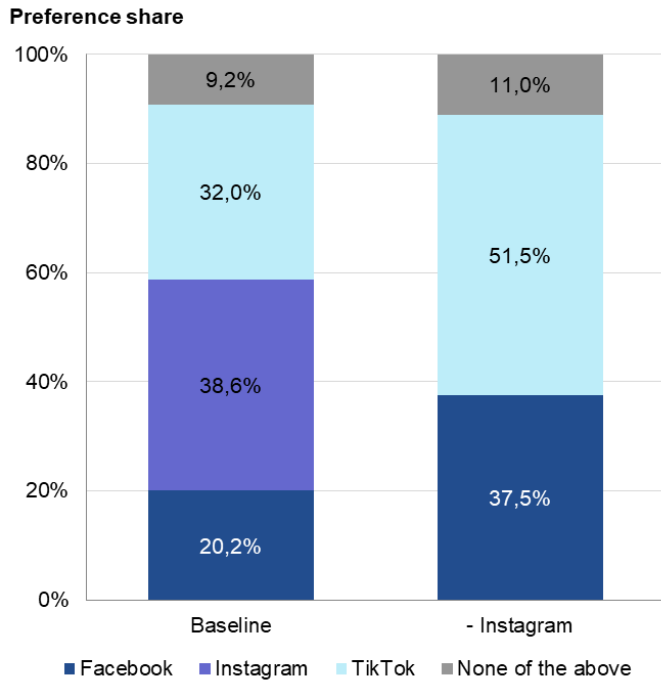
Graph 35 – Facebook Sensitivity to Exposed Personal Information



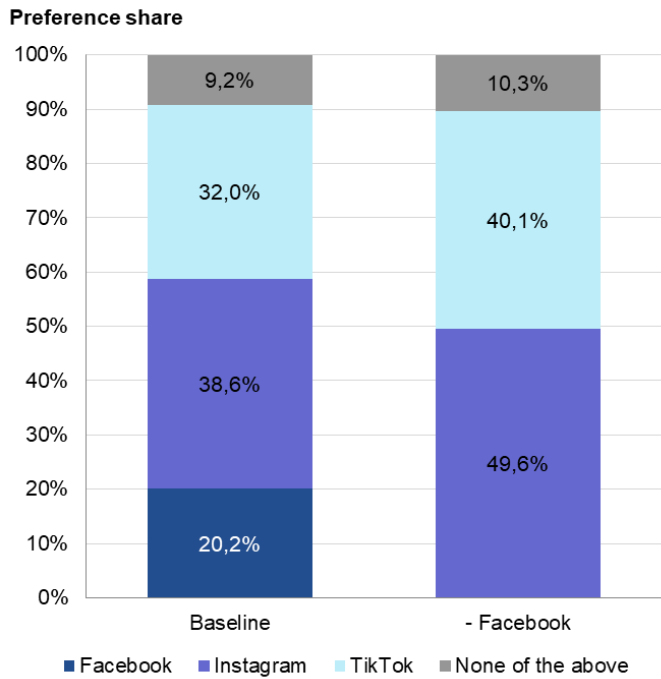
Graph 36 – TikTok Sensitivity to Exposed Personal Information



Graph 37 – Instagram Removal Scenario



Graph 38 – Facebook Removal Scenario



Graph 39 – TikTok Removal Scenario

Preference share

