Is Engagement Intimate?

A Process Fluency Perspective on Content Category and Modality across TikTok and Instagram

by

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May 2024

Master's Programme in International Marketing and Brand Management

Word count: 19.750

Abstract

Keywords: Social Media, Platform Intimacy, Content Intimacy, Content Category, Content Modality, Process Fluency, Consumer Engagement

Thesis purpose: The purpose of this study is to analyze how platform and content intimacy affect customer engagement on TikTok and Instagram. Furthermore, it aims to investigate how different content categories (rational, interactional, and transactional) and modalities (video vs. photo) affect engagement levels on both platforms, if there is evidence of distinguished performances across TikTok and Instagram, and what is the theoretical explanation that supports the fragmented behavior of content. The research evaluates consumer engagement indicators such as likes, comments and shares, in conjunction with intimacy levels, for content published on TikTok and Instagram. It also attempts to uncover successful content types for increasing engagement to provide useful information for brands that want to improve their social media presence across platforms.

Theoretical Perspective: The primary theoretical framework used for this study is the Parasocial Interaction Theory in Online Environments. In conjunction with Social Presence Theory to build explain intimacy of platforms and content. Ultimately, the Theory of Process Fluency was employed to investigate the relationship of platform intimacy and content intimacy in consumer engagement.

Methodology: This study utilizes quantitative analysis, that consists of three steps: a pilot study to classify intimacy levels on Instagram and TikTok, primary data collection from content created by two sportswear businesses on both platforms, and hypothesis testing using statistical analysis with Jamovi. For the content analysis, we examined 348 posted videos or images to gain a thorough knowledge of current content trends and their impact on consumer engagement.

Findings/conclusions: In conclusion, this study provides more insight into the relationship between platform intimacy, content type, and consumer engagement on TikTok and Instagram. The findings confirm that TikTok encourages higher levels of intimacy than Instagram, with video-based content revealing more intimacy than image-based content. As well as, in terms of

content category interactional has a higher level of intimacy compared to transactional and rational. On the other hand, there is no significant effect of content category, modality or the platform on consumer engagement levels. Therefore, these findings show the complexities of user-platform behavior, highlighting the need for further research and to improve understanding of how people interact online.

Practical implications: The traditional top-to-bottom marketing funnel is ineffective and it has turned into a continuous cycle with no obvious starting or ending point. Our framework assists managers in keeping consistent branding across platforms like TikTok and Instagram, resulting in a unified presence that stimulates multi-platform engagement. Managers may use this technique to establish a strong, loyal community, raise awareness of the brand, and build deeper relationships with their audience, resulting in follower growth, ongoing engagement, and long-term loyalty.

Acknowledgements

First and foremost, we would like to thank our supervisor, Senior Lecturer Burak Tunca. His helpful guidance, insightful critique, and constant support were fundamental in ensuring the successful finish of our thesis. Dr. Tunca's expertise and dedication have greatly influenced our study, and we are extremely thankful for his guidance throughout this process. We would also want to give sincere appreciation to our examiner, Senior Lecturer Javier Cenamor, for his careful examination and constructive criticism of our work.

We are grateful to our family and friends for their endless support and encouragement, which has provided us with strength and inspiration. Their patience, compassion, and faith in us have been critical in overcoming the difficulties of our project. We are very thankful for their love and support, which helped us through this journey.

Finally, we would like to thank each other for the great teamwork and collaboration that have defined our friendship. Our mutual support, similar aims, and constant dedication to this project have been necessary in bringing this thesis to completion. Working together, we not only met our academic goals, but also formed a close and supportive relationship.

Thank you for your dedication and assistance in making this thesis a reality.

Sincerely,

Lara Frič Zavašnik & Carolina Lass

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1 Introduction

This master's thesis explores how consumer engagement, as a reaction to a brand's positioning on social media platforms, specifically on TikTok and Instagram, can vary depending on content category, content modality, and intimacy levels. By analyzing these factors, the research aims to provide valuable insights for brands on how to build successful communication strategies through social media in the digital era.

1.1 Background

The thesis focuses on two of the fastest growing social media platforms: Instagram and TikTok. The choice of these social media platforms instead of the many others as the focus of the present research, was mainly due to their rapid growth in popularity within the digital market, which has been taking place through image and video content (Ceci 2023). Instagram and TikTok have become essential platforms for brands and advertising due to their ability to reach and engage diverse audiences. With their large user bases and creative features designed for visual storytelling, they offer a robust structure for businesses to display their products and connect with customers on a more personal level (Almubarak et.al 2018). Brands can easily increase awareness and develop meaningful interactions with their target audience by using compelling photos and engaging videos. In the digital age, using Instagram and TikTok is necessary for creating successful marketing campaigns and staying ahead of the competition (Voorveld 2018).

TikTok, a short-form video-sharing app, defines itself as a "destination for short-form mobile videos" (TikTok, 2023), and has garnered immense popularity since its launch in 2016, boasting over a billion users globally each year and becoming the most downloaded social media app in the world as of 2021 (HTTECH 2021). TikTok allows users and brands to be creative and generate content that can serve as inspiration to anyone who is part of that network (Ahlse,

Nilsson, & Sandström 2020). Among the most popular categories of videos are lip-syncing, dancing tutorials, day in the life of influencers, and product discovery (Chu et al. 2024).

TikTok's rise to popularity in the worldwide social media environment has been impressive. Acquiring Musical.ly in 2017 was a milestone moment, adding 80 million users, from the United States, and propelling TikTok to become the most popular app in 2019 and 2020. However, this rapid expansion has not been without controversy, with the app facing bans in countries such as India and Pakistan due to moral issues (Iqbal 2024). TikTok currently has 1 billion monthly active users, who spend an average of 52 minutes every day on the platform. The platform experienced impressive user growth rates of 89 percent in 2019 and 85 percent in 2020 (Iqbal, 2024).

Instagram has a user base of over 2.4 billion people, which is expected to grow to 2.5 billion by the end of 2024 (Iqbal, 2024). Moreover, over 500 million users interact with this platform every day. In addition, 61% of Instagram's audience is between the ages of 18 and 34, which demonstrates a high attraction of younger populations (Shewale 2024). On average, users spend about 24 minutes every day browsing Instagram content (Shewale 2024). Social media platforms are always evolving, innovating to keep up with the changing demands and interests of their consumers. Instagram has added features like Instagram reels and shopping possibilities, taking inspiration from TikTok. This adaptation reflects a broader industry trend of adopting new functionality and imitating successful elements from competitor platforms to improve user experience and engagement (Perth 2024).

The in-depth examination of both Instagram and TikTok has significant implications for brands and advertising, providing essential data related to the possible level of engagement across various content techniques. Understanding how users interact with content on these platforms plays a key role for businesses looking to improve their advertising and develop meaningful connections with their target audience. Through our review of engagement metrics on Instagram and TikTok, brands can accurately adapt their strategies to maximize their influence and create long-term relationships with customers on social media. Instagram and TikTok are two unique platforms, with a unique environment that is seen with different user demographics, content types, and engagement options (Voorveld 2018).

We will analyze the levels of intimacy and engagement on Instagram and TikTok independently. These are key components for analyzing consumer behavior and brand

interactions on social media. Intimacy refers to the emotional connection between consumers and brands, whereas engagement relates to the behaviors and interactions consumers have with brand content. According to Khoury (2013), people have emotional attachments to specific brands because they could represent their thoughts, emotions, and behaviors. Yohn (2014) posits that customer interest extends beyond the products of the brand, resulting in a strong emotional link between the brand and its customers. Finally, Khoury (2013) states that people have emotional attachments to specific brands because they could represent people's thoughts, emotions, and behaviors.

Furthermore, to provide a thorough understanding of engagement patterns across Instagram and TikTok, our analysis was built upon three content categories that are also used within the marketing research field (rational, interactional, and transactional) (Shahbaznezhad et al. 2021), and two modalities (video-based and image-based), as an expansion of text-based and image-based, which were already explored by previous studies. By investigating how several content categories and modalities affect the reactions from people on each platform, we aim to find relationships that can potentially help organizations, marketers and advertisers to make strategic decisions within the digital landscape. Thus, assessing the challenges of consumer engagement in the context of evolving social media, and thereby creating tangible suggestions for optimizing brand communication strategies in the age of the internet (Almubarak, et.al 2018).

To structure the consumer engagement research, the present study operationalizes it as a set of measurable actions that consumers take on social media in response to brand-related content: reacting to content (e.g., likes), commenting on content (e.g., comments, replies) and sharing content with others (e.g., shares, duets). The engagement gap in social media marketing stems from several factors. Firstly, social media as a marketing tool is a new concept which means there is a lack of understanding on how to effectively generate and assess engagement levels. Secondly, the amount of different social media platforms and different formats of content within has led to its fragmentation. This mentioned fragmentation, combined with the saturation of content across channels, imposes high demands on consumers, compelling them to either overlook content or have more selective consumption choices (Barger et al. 2016). Lastly, marketers tend to often prioritize short-term sales gains, excessively relying on social media for promotional activities, which consequently could decrease brand equity (Barger et al. 2016).

1.2 Aim and Objectives

The aim of the present study is to investigate how platform intimacy, content intimacy, content categories, and modalities affect consumer engagement on TikTok and Instagram. Specifically, it aims to understand how diverse categories of content (rational, interactional, and transactional) and modality of content (video vs. photo) may have different engagement levels across the two platforms, due to both platform and content particular features. The objectives are to evaluate consumer engagement metrics such as likes, comments, shares along levels of intimacy on TikTok and Instagram separately, focusing on brands' releases on these platforms. Furthermore, we aim to provide valuable contributions to theories of consumer behavior, thus helping researchers to understand the relevant features of social media content associated with consumers' responses to brand actions digitally. The research also aims to identify the most effective content strategy for increasing consumer engagement on both social media platforms, providing insights for brands looking to improve their digital presence and efficiency.

1.3 Research Purpose

Research Question 1:

Why do consumers engage differently with branded content according to the platform?

We theorize the reasons for this behavior by investigating how platform intimacy, in conjunction with content intimacy, and the influence of the Process Fluency Theory, have an impact on the consumer engagement levels on branded content published by brands on TikTok and Instagram. We start by theorizing how, although both platforms seem similar regarding the type of content published on them, they have distinct levels of intimacy according to the Social Presence Theory, complemented by the Parasocial Interaction Theory extended to online media. Additionally, the Theory of Process Fluency and the concept of content fit helps to build a complete understanding of why some contents are suited better in platforms where there is a higher fit, in this case, according to the level of intimacy (intimate vs. non-intimate). The Process Fluency Theory elucidates the reasons behind higher consumer engagement when there

is a stronger alignment of content and platform in terms of intimacy levels, leading to a greater process fluency.

Research Question 2:

What is the influence of content modality (image vs. video) on the engagement level across TikTok and Instagram?

Additionally, this study utilizes the Parasocial Interaction Theory in conjunction with the Social Presence Theory to assess and measure the levels of intimacy between modalities of video-based and image-based content on social media. Moreover, we aim to investigate how these differences in content intimacy according to the modality may influence engagement levels of brands' post on social media platforms due to the Process Fluency Theory.

Research Question 3:

How does the level of intimacy of the content category differ (rational, interactional, and transactional) and how does that influence the consumer engagement level across platforms?

Finally, the current study aims to explore how the content category within the video modality can influence varying levels of engagement across TikTok and Instagram, analyzing performances of rational, interactional, and transactional content published from the brands. This investigation is primarily backed by the theorization of Parasocial Interaction and the outcomes that may occur by using different settings when producing the video-based branded content.

To test our predictions, the content published by two active-wear brands present on both TikTok and Instagram were taken as the object of study of this research. The content had its engagement metrics collected and was further classified regarding the type of modality (image-based, video-based), content category (rational, interactional, and transactional), level of intimacy (numerical value from 1 to 5). The intimacy of the two social media platforms was also attributed similarly. Finally, based on the Theory of Process Fluency, we provide information on the effect of the platform and content intimacy fit on consumer engagement levels.

1.4 Delimitations

Our master thesis study's limitations include our narrow focus on active-wear brands, which may limit the generalizability of our findings to other brand categories within the larger context of social media engagement. While active-wear brands give valuable insights, our study may overlook major differences found in other brand segments.

The second limitation is that our study fails to consider the influence of the potential brand community size on social media platforms. This overlooks a key aspect of social media engagement dynamics that can be highly affected by the brand's community. By excluding this component, our study may provide an insufficient knowledge of the factors impacting engagement on the brand's social media platforms.

Furthermore, our research could not consider external factors such as changes in social media algorithms or industry trends, which could influence customer engagement with active-wear brands on social media platforms over time. On top of that, changes in user demographics, content choices, and engagement mechanisms between Instagram and TikTok may cause fluctuation in the results, complicating direct comparisons between the two platforms.

Finally, the study's limited time span may limit its capacity to capture long-term trends or shifts in consumer engagement with active-wear businesses using social media platforms.

1.5 Outline of the Thesis

Our thesis is outlined as follows. The second chapter explains the concepts of social media, consumer engagement, and types of content within the digital market. Furthermore, the constructs of Parasocial Interaction Theory, Social Presence Theory and how they build Intimacy, along Process Fluency Theory, are connected to provide insights into why different platforms require distinct modalities of content and content categories in order to have a greater engagement from consumers. The resulting intimacy level of both platform and content is what bring all the theories together to a common place. Subsequently, the methodology is found in the fourth chapter, where the methods and procedures are explained. In chapter five, the results

of the content analysis are explained and compared to the theorization and hypotheses predictions made previously. Following chapter six, the reader will find the study's discussion, and conclusion in chapter 7. As a summary of our main findings, final recommendations for brands and practitioners on how to strategically build the social media advertising and branding strategy are given through a framework. Nevertheless, our study also outlines the contributions to the theories used as foundational knowledge, as well as gives suggestions for future research on how to complement the research field of consumer engagement when interacting with brands on social media. This involves delving into the unique particularities of the platforms, contents and examining consumer responses to the stimuli presented on each.

2 Literature Review

2.1 Social Media as a Communication and Branding Channel

Regardless of our personal actions, social media has become an integral part of our life (Pawlak et al. 2023). According to Statista projections, approximately 4.5 billion people used social media in 2022, and that number is predicted to rise to 6 billion by 2027 (Dixon, S.J. 2023).

Previously, people used the Internet mostly for casual consumption of content that is relevant to their interests. However, the rise of Web 2.0 resulted in an important shift in consumer behavior, from passive consumption to active participation through creating content and posting on social media platforms (Kietzmann et al. 2011). This change was supported by the ease of use given by innovative technologies (smartphones, tablets) which shifted internet conversations from individual to active interactions with others. This interaction includes conversations between consumers themselves and brands to consumers. Additionally, the growth was surprising by 2012, more than half of all mobile subscribers were using smartphones, and Facebook, one of the biggest social media sites, had surpassed 1 billion users in just 8 years (Blackshaw & Nazzaro 2004).

Social media has evolved as an important communication and branding channel for businesses to engage with customers and promote their products and services in many markets. Therefore, consumers can now interact with these offers in a positive or negative way, either directly or by sharing information about a company to their social networks (Olaniran 2018). It operates as a platform for customers to exchange information on a variety of matters of interest. The concept revolves around consumer-generated content. Social media uses mobile and web-based technology to enable the sharing, collaborative creation, discussion, and modification of user-generated content. As a result, customer-to-customer interactions have increased significantly (Kohli, C., Suri, R. and Kapoor, A. 2015).

Many brands use social media to engage and attract consumers globally. Furthermore, in recent years, social networking has also become known as an important marketing tool for businesses, providing increased access to new clients and organizations. In addition, it is no longer regarded only as an option for young people to communicate (Pawlak et al. 2023). From a marketing perspective, social media differs from traditional channels such as television, radio, and newspapers in that communication travels exclusively in one direction: towards the client. In contrast, social media allows for two-way conversation. It is not enough for us to tell the client; we must also listen to what the client says (Voorveld, H.A. 2019). Additionally, most research findings approach numerous social media platforms as a unified communication channel, failing to distinguish between specific platforms, each of which has unique characteristics. Only a small number of studies focus on the usage and efficiency of specific social media platforms, with differences among them (Gartner et al. 2021).

Through the introduction of smartphones, social media has become mobile and found everywhere, which means that it is important for brands to be active on social media. However, this presence comes with a lot of responsibility and hard work to keep up with the desired reputation online.

Branding is the process of distinguishing a product, organization, individual, or location from others by giving it a unique name, design, set of features, and so on (Hutchins & Rodriguez 2018). Personal branding, also known as professional branding, defines an individual's personality, interests, abilities, expertise, and beliefs that create their unique character and distinguish their profile from others. The goal is to capture and hold a target audience's attention (Pawlak et al. 2023). Analyzing how social media can influence all aspects of branding enables us to predict its long-term role in the branding field. Including social media as a branding channel is important, since the number of active users is already large and constantly growing (Jokinen, T. 2016). While some think that a brand's positioning is determined by consumer perception, we believe it is the result of an effective branding strategy. Therefore, successful advertising campaigns must create strong authenticity and reinforce brand recognition through informational and promotional activities. Differentiation requires an intense process that considers consumer preferences and market competitiveness (Kohli, C., Suri, R. and Kapoor, A. 2015).

When a brand is established in the market, social media might also damage its position since marketers have truly little influence over their customers who are more likely to believe what other people say over promoted ads. As a result, branding based solely on marketing messages will be ineffective. Brands are becoming more transparent, and businesses that lack validity or the ability to produce quality will fail to succeed (Jokinen, T. 2016). Perkins (2014) suggests that visual content can increase engagement on social media. Therefore, visual posts that include videos and images are more likely to be shared than non-visual information (Pozin 2014). A well-planned "visual branding strategy" enhances a company's social media presence (Perkins 2014).

2.2 Content Marketing

Social media and content marketing are linked, with content marketing operating as a key element of social media promotions. Content marketing is an important part of engagement on social media platforms through delivering meaningful messages that encourages interactions with user. Brands may increase awareness, develop deeper connections with their audience, and achieve greater influence by integrating content marketing into social media campaigns. The term 'content' was first used in publishing, when components such as words, photographs, and motion graphics must be appealing enough to draw in the target audience to various media types such as newspapers, magazines, television, and radio channels (Holliman and Rowley 2014). Handley and Chapman (2011, p. 21) expand this concept to online and digital marketing, defining content as "anything created and uploaded to a website: the words, videos, images, or other things that exist here". Pulizzi and Barrett (2008, p. 8) presented one of the first definitions of content marketing: "the creation and distribution of educational and/or compelling content in multiple formats to attract and/or retain customers".

For many years, content marketing has been an important part of the web companies' marketing plans. As a result, Joe Pulizzi (2012) formed the Content Marketing Institute (CMI), a global content marketing education and training organization. The Content Marketing Institute defines content marketing as a strategic approach that creates and distributes valuable, relevant, and consistent content to attract and retain a defined audience, driving profitable customer action. The focus of content marketing on consumer interests rather than on straight sales emphasizes

the importance of transparent calls to action, such as guiding readers to specific webpages (Holliman & Rowley 2014).

In fact, Pulizzi (2013) separated the content created and published online from the content marketing: content marketing represents the organization's commercial or financial objectives. Järvinen and Taiminen (2016) claim in their book that content marketing "refers to processes of creating and delivering content (i.e., text messages, pictures, videos, animations) to target customers in ways that add value and engages them in relationships with the company."

I2.2.1 Categories of Content Marketing

According to previous research, social media content released by brands that influence engagement is usually divided into three categories: **rational** (also known as informational, functional, educational, or current event content), **interactional** (which includes experiential, personal, employee, brand community, customer relationship, and cause-related content), and **transactional** (also known as remunerative, brand resonance, or sales promotion content) (Shahbaznezhad et al. 2021).

2.3 Consumer Engagement

The theoretical foundations of the customer engagement concept are found in what Vivek et al. refer to as the "expanded field of relationship marketing." Similarly, Ashley et al. (2011) suggests relationship marketing theory as a larger conceptual framework for analyzing customer engagement. Within this broader relationship marketing field, the company focuses on present and future consumers, as well as consumer communities and their business value co-creative networks. As a result, the consumer engagement concept focuses on unique interactive consumer experiences. Based on this study, Vivek et al. propose customer engagement as a key idea in the marketing system. Similarly, Lusch and Vargo (2010) argue that interactive consumer experiences developed in collaboration with other participants might be viewed as the act of "engaging."

According to Chapman (1997), engagement involves attracting and retaining our attention. Moreover, Brodie et al. (2011) defines 'customer engagement' as "a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g.

a brand)." Two articles investigated user behavior in online communities (Malinen, 2015; Sun et al. 2014). Analyzing more in depth is the consumer 'engagement' concept, which more explicitly accounts for consumers' interactive brand-related dynamics (Brodie et al. 2011). Customer engagement, which is frequently based on intrinsic motivation, implies that consumers are willing to communicate and collaborate with other "community members" or engage within "an online brand community" (Baldus et al., 2015 p. 979). Customer engagement, defined as a psychological state of mind, implies that customers may regard important companies as being essential to their self-concept or experience internal emotional connections through brand attachments (Paruthi and Kaur, 2017, p. 128).

Despite limited direct comparison of social media platforms, we believe people would engage differently across platforms due to differences in functions, interfaces, and content offers. The rise of social media platforms has transformed customers' roles from passive observers of content to active participants who are now also taking the role of co-producers (Lee et al. 2018) and co-creators of content through their online interactions and behaviors (Dolan, Conduit, et al. 2019). Customers who create, contribute to, or consume brand-related material inside a social network indicate social media engagement behavior (Hallock et al., 2019; Muntinga et al. 2011). The level of engagement varies from simple sorts of engagement such as "liking" an Instagram post to more advanced types of customer engagement in co-creation activities such as commenting, writing reviews and co-designing (Malthouse et al., 2013; Muntinga et al. 2011).

Advertisers are integrating social media into their advertising programs to drive digital engagement, by using social media monitoring tools to assess the efficiency of digital engagement strategies. These tools use quantitative measures such as likes, shares, comments, views, followers, and clicks to determine the level or sentiment of engagement, whether positive or negative. Moreover, as social media refers to a range of internet-based platforms built on Web 2.0 ideas and technology innovations, these applications allow users to create and share user-generated content as a demonstration of engagement (Voorveld et al. 2018).

TikTok's algorithm collects content based on user interests and participation, leading to easier virality compared to other platforms. When users engage with the content, TikTok's algorithms take notes of these interactions and may recommend the content to others, leading to further

engagement and potential virality. Instagram is trying to imitate this by introducing reels (Zhang & Liu 2021).

Engagement reflects a broader concept of consumer-brand interaction, with the potential to represent the current situation of complicated interactions based on social media (Dwivedi et al., 2021) and to support the creation, maintenance, and growth of consumer-brand bonds (Zaglia, 2013). Because of social media's technological advantages, brand communities allow consumers and brands to interact as equals. On the one hand, these communities support marketers in developing consumer-brand relationships to accomplish company goals such as brand trust, loyalty, awareness, and profit (Bianchi and Andrews 2018). Communities, on the other hand, enable consumers to communicate with the brand and with one another, reducing the information gap between them and the brand while also creating feelings of connection and relationship between the brand and other community members (Kannan and Li 2017). Consumer engagement with these communities shows the type and depth of connection in which customers are willing to participate.

3 Theoretical Framework

3.1 Parasocial Interaction Theory in Online Environments and Intimacy

The Parasocial Interaction Theory stems from the communications literature to explain the development of consumer relationships with the mass media channels, i.e., radio and television at the time (Horton and Wohl 1956). PSI describes how the interaction of consumers with mediated representations of presenters, celebrities and alike are an illusionary experience (Houlberg 1984; Levy 1979; Rubin, Perse, and Powell 1985), but in fact can develop to the extent that the consumer views the mediated subject as a "real friend" (Stern, Russel, and Russel 2007). Nevertheless, recent research has widened the spectrum of PSI effect to computer-mediated environments, as it can be fostered through the interaction of consumers with brands and influencers through social media platforms (Ballantine and Martin 2005, Hoerner 1999, Goldberg and Allen 2008). There are two message components that underpin the PSI setting in the online environment: interactivity and openness (Lebrecque, 2014).

Interactivity has multiple definitions according to literature, but in the context of how it affects the perception of the consumer towards the brand, it can be understood as the content and cues within the message from the brand that create a perception that the mediated persona is listening to and interacting with the viewer (Lebrecque, 2014). In the traditional PSI literature, interactivity was supported by device settings, such as camera angle and eye contact from persona to viewer, giving the sensation that the communication was built in a two-way setting. Therefore, by addressing the viewers, a more *intimate* connection between these two actors is established (Liu and Shrum 2002).

Openness increases the feelings of PSI, promoting *intimacy* and trust since it is based on the act of sharing and revealing information with the viewer (Lebrecque 2014). Revealing gives the sensation that the consumer has gained privileged information, entering a more *intimate* sphere of the mediated persona (Meyrowitz 1986). Thus, perceived self-disclosure of the mediated

persona to the viewer promotes PSI by heightening sensations of *intimacy* and diminishing feelings of uncertainty within the relationship of the two subjects (Perse and Rubin, 1989).

Conclusively, PSI has a clear intersection with the psychology research fields of *intimacy* as delineated by Horton and Wohl (1956), particularly within the context of social media. In the digital landscape, individuals engage in parasocial interactions with online influencers, celebrities, or even friends, fostering a sense of emotional connection and closeness despite the lack of face-to-face interaction, due to the openness and interactivity, concepts of the PSI theory (Labrecque 2014). Social media platforms can serve as arenas for the cultivation of intimacy, where users share personal thoughts, experiences, and emotions, contributing to the development of online relationships characterized by personal connection, emotional resonance, meaningful interactions, and sense of belonging (Reis & Shaver, 1988).

3.2 Social Presence Theory and Intimacy

To deepen the understanding of how levels of intimacy, both towards the platform and the content released on it, influences the responses from consumers and potentially how they engage with brands online, the theory of Social Presence will also be employed (Rice, 1993). This stream of research describes how several types of media bring about different intimate feelings in consumers (Rice, 1993). The image-based media enriches the level of intimacy due to the "realism heuristic" that it triggers, compared to text-based media (Sundar, 2008).

Furthermore, by building upon the constructs of the PSI theory previously described and unifying it to the Social Presence Theory, a step further to intimacy compared to image-based content is the video-based content. In accordance with the PSI construct, videos on social media platforms employ a highly interactive approach and openness from the brands to the audience, where mediated personas (celebrities, influencers, and brand advocates) make the use of their voice, external sounds, eye-contact and face expression, possibly increasing the level of intimacy.

The Social Presence Theory can also be applied to measure the intimacy level of digital platforms, where these contents are released from the brand to the consumer (Reich and Pittman 2019). Following the criteria used to attribute the intimacy level of content depending on the

type of media, a study ran by Reich and Pittman (2019) classified social media platforms into different intimacy levels. As expected, the more intimate apps were the ones with the most image-rich media releases, Instagram, and Snapchat, whereas text-based content had lower intimacy ratings (Reich and Pittman 2019). However, as of 2019 TikTok, a mostly video-based platform, was still in its initial stages of entering the Western world and was not included in the study. To complement the findings of Reich and Pittman (2019), the present research will conduct a pilot study to rate the intimacy levels of TikTok in comparison to Instagram and further analyze how platform intimacy, when crossed with content intimacy may affect consumer response, leading to higher or lower engagement, as it will be described in the Process Fluency (3.3).

Additionally, the present study proposes that the content category —whether it's rational, interactional, or transactional, as described in the topic 2.2— can have intimacy levels due to the Parasocial Interaction Theory. By considering openness and interactivity as criteria for intimacy as it is described by PSI theory, combined with the psychology underpinnings of intimacy (personal connection, emotional resonance, meaningful interactions, and sense of belonging (Reis & Shaver 1988), we theorize that the interactional content is the most intimate, being followed by rational and transactional categories.

Therefore, in accordance with the Social Presence Theory combined with PSI theory and the concept of *intimacy* from psychology's definition, we propose the following hypothesis:

H1: TikTok is a more intimate platform than Instagram.

H2: Video-based content has a higher level of intimacy than image-based content.

H3: Interactional content has a higher level of Intimacy compared to transactional and rational content.

3.3 Theory of Process Fluency

Processing fluency is defined as "a subjective feeling of ease or difficulty associated with any type of mental processing" (Graf et. al 2018). The definition by Graf et. al (2018) posits that each mental operation, spanning from perception to processing to retrieving information, has

the potential to evoke a sense of fluency, indicating the level of difficulty or ease associated with the mental task. In marketing, the fluency happens when there is a fit between two messages characteristics, or content fit (Graf el. al 2018) and can generate different consumers' responses in relation to branded content (Alter & Oppenheimer 2009; Reber, Schwarz, & Winkielman 2004; Schwarz 2004). Contents with higher fluency processing are liked more (King & Janizeski, 2018), indicating a higher level of engagement (Lee & Aaker 2004), perceived familiarity (Weisbuch & Mackie 2009), positive affection (Krishna & Schwarz), resulting in advantageous attitudes (Lee 2004).

Moreover, previous researches showed that due to the complexity of social media platforms and their singularities, it is too simplistic to assume that the same kind of content, regarding its modality and category, will fit in every platform, resulting in a similar process of fluency on consumers (Reich & Pittman 2019). Thus, following the theoretical contribution made by Reich & Pittman (2019), where it was stated that when the content is in fit with the social media platform according to their levels of *intimacy* a more positive response from social media users occurs, we expand our study by theorizing that the video-based platform TikTok has a higher level of engagement from consumers when videos are released in comparison to Instagram. This assumption is grounded in the Process Fluency Theory (Reinecke & Trepte 2014), given TikTok's enhanced focus on video content and more intimate appeal, as supported by the theory of Parasocial Interaction (Berger & Milkman 2012). Conversely, Instagram, known as an image-based platform (Dhir et al. 2018), tends to elicit better response and higher engagement from consumers when featuring image-based and less intimate content, in alignment with the principles of process fluency theory (Alter & Oppenheimer 2009). Therefore, we state that there is a moderation influence of the social media platform (TikTok or Instagram) leveraging different engagement levels for video-based and image-based modalities of content.

H4: Content modality influences consumer engagement, such that video-based content has higher consumer engagement levels than image-based.

H4a: The social media platform (TikTok, Instagram) moderates the relationship between content modality and consumer engagement, such that on TikTok video-based modality has higher engagement levels, and on Instagram image-based has higher engagement levels, due to process fluency.

Furthermore, expanding upon the theorization of intimacy levels regarding content categories (rational, interactional, and transactional), we aim to test how they differ in driving consumer engagement on TikTok and Instagram. Building upon the assumption that interactional content fosters a higher sense of *intimacy*, particularly on TikTok (Smith et al. 2012), we theorize that interactional content will exhibit better consumer engagement metrics on TikTok compared to Instagram, as the former is proposed as being a more intimate social media platform. Conversely, transactional content, which may elicit a stronger response on platforms conducive to product browsing and purchasing (Chu & Kim 2011), is expected to demonstrate higher consumer engagement on Instagram than on TikTok. Lastly, rational content, characterized by its informative nature and potential lower emotional appeal (Duffett 2015), is anticipated to drive the least consumer engagement on both platforms, yet leveraging higher consumer engagement on Instagram compared to TikTok, due to the hypothesized lower level of intimacy of the former. Through this theoretical framework, we seek to investigate how different content categories have different consumer engagement responses across TikTok and Instagram, therefore:

H5: Content category influences consumer engagement, such that interactional content has higher consumer engagement levels than rational and transactional content.

H5a: The social media platform (TikTok, Instagram) moderates the relationship between content modality and consumer engagement, such that on TikTok interactional content has higher consumer engagement levels, and on Instagram transactional content has higher engagement levels, due to process fluency.

3.4 Chapter Summary

The literature review and theoretical framework chapter of this study begins by examining the significance of social media in marketing and advertising for brands, with a specific focus on TikTok and Instagram. We explore the categories of content and consumer engagement dynamics, highlighting how these may vary across different social media platforms. Building upon this foundation, we introduce the Parasocial Interaction (PSI) theory, which illustrates how various modalities of content foster various levels of intimacy with consumers.

Furthermore, we introduce the Social Presence Theory to deepen our understanding of platform intimacy and its implications for consumer-brand interactions. We establish a connection between the constructs of PSI theory, Social Presence Theory and intimacy, highlighting the importance of these theories in shaping our theoretical framework.

Additionally, we delve into the concept of intimacy from a psychological perspective and its application to platform intimacy and content intimacy, taking as reference previous studies to inform our research approach.

To theorize the effects produced on consumer engagement towards content released by the brands online, when connecting distinct types of content modality, content categories, and platform intimacy levels, we introduce the Theory of Process Fluency. This theory elucidates how the ease of mental processing influences consumer responses, explaining why messages that align well with both the platform and the content generate more positive reactions from consumers, leveraging higher consumer engagement.

Finally, we summarize the hypotheses that guide our study in Table 1, which are designed to address the key research questions on how brands should navigate with their content on social media effectively.

3.4.1 Theoretical Framework Model

The overall theoretical framework and its hypotheses are displayed in Figure 2. The relationship between content modality and content intimacy is grounded in the Parasocial Interactional and Social Presence theories, whereas the content category is explained through the constructs of the Parasocial Interactional theory only. Lastly, the engagement levels of both content modality and content category, moderated by social media platforms, are founded on the theory of Process Fluency.

The hypothesis regarding platform intimacy, H1, is not present in the theoretical framework as it will be tested through a pilot study, and not content analysis, being the first step of this research. The results regarding platform intimacy will pave the way into understanding its relationships with content intimacy and how the theory of process fluency may play an

important influence on the engagement levels. However, it will be primarily the rest of the research. Details of execution will be covered in the chapter of Research Design.

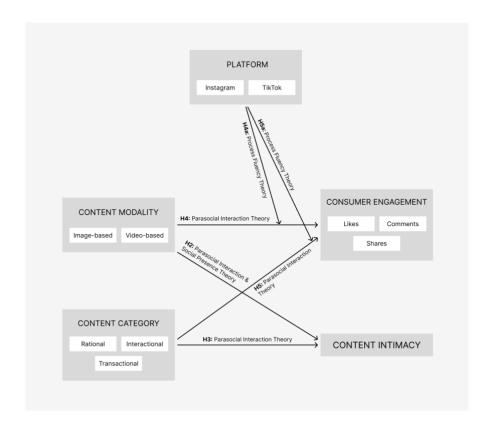


Figure 1: Hypotheses and Theoretical Framework Model for Content Analysis.

Table 1: List of Hypothesis and Theories Assigned.

Hypothesis		Theories	
Н1	TikTok is a more intimate platform than Instagram.	Parasocial Interaction Theory & Social Presence Theory	
H2	Video-based content has a higher level of intimacy than image-based content.	Parasocial Interaction Theory & Social Presence Theory	
Н3	Interactional content has a higher level of Intimacy compared to transactional and rational content.	Parasocial Interaction Theory	

H4	Content modality influences consumer engagement, such that video-based content has higher consumer engagement levels than image-based.	Parasocial Interaction Theory & Social Presence Theory
H4a	The social media platform (TikTok, Instagram) moderates the relationship between content modality and consumer engagement, such that on TikTok video-based modality has higher consumer engagement levels, and on Instagram image-based has higher consumer engagement levels, due to process fluency.	Process Fluency Theory
Н5	Content category influences consumer engagement, in such a way that interactional content has higher consumer engagement levels than rational and transactional.	Parasocial Interaction Theory
H5a	The social media platform (TikTok, Instagram) moderates the relationship between content category and consumer engagement, such that on TikTok interactional content has higher consumer engagement levels, and on Instagram transactional content has higher engagement levels, due to process fluency.	Process Fluency Theory

4 Methodology

In this chapter the methodology adopted to answer the proposed research questions will be explained. It starts by explaining the chosen research philosophy and articulating the connected nature of the adopted ontology and epistemology. This serves as foundation for the subsequent explanation of the data generation methods and the process adopted for data collection, which will follow a primary data procedure. The brands and platforms from which the data was collected for the research will be described. Moreover, we explain the statistical methods used for the treatment of the gathered data and validation of the hypothesis. Finally, ethical considerations and limitations inherent in our methodology are addressed.

4.1 Research Approach

4.1.1 Ontology

In our study approach, we adopted an internal realism ontology, understanding that the phenomena under investigation—how content performs variably across Instagram and TikTok due to the process fluency of intimacy level and fit of the content and the platform—require indirect access through empirical observation and data gathering. This perspective suggests a singular reality yet acknowledges the impossibility for scientists to directly access it. Instead, we rely on indirect evidence to comprehend fundamental physical processes (Putnam 1987). In our case, we acknowledge that while there may be objective realities influencing the performance of content on social media platforms, such as the influence of content-platform intimacy fit on consumer engagement, our access to these realities is mediated through our observations and interpretations within the confines of social media platforms. Thus, our study aimed to explore and understand the patterns and relationships observed within the dynamics of Instagram and TikTok by assessing consumers' response to content released by brands, recognizing the inherent limitations in directly accessing the underlying realities that govern these phenomena.

4.1.2 Epistemology

In alignment with the internal relativism ontology approach, the ways of inquiring into the knowledge were led under a positivist epistemology. The study aimed to uncover objective truths about the relationship between content categories, content modality, consumer engagement levels, and platform-content intimacy fit of Instagram and TikTok. To achieve this, a quantitative methodology was employed for assessing reality, utilizing statistical analyses to examine how several types of content generate varying levels of engagement on these platforms. Specifically, the study assessed how content and platform intimacy, as influenced by the theory of Parasocial Interaction and Social Presence, when analysed under the lens of the theory of Process Fluency, affects consumer engagement levels across the two social media platforms. This approach aligns with the positivist tradition, which emphasizes the use of measurable data and rigorous methodologies to test hypotheses and establish causal relationships (Bryman 2016). The research unfolded in three major phases, as detailed in the research design, allowing for a comprehensive exploration of the dynamics shaping engagement on Instagram and TikTok.

4.2 Research Design

The research design proposed to investigate the effect of content categories, modalities and the effect of platform-content intimacy fit on consumer engagement consisted of three main steps. First, a pilot study to classify the level of intimacy between Instagram and TikTok was conducted. Subsequently, primary data from the content posted by two activewear brands on TikTok and Instagram was gathered to obtain metrics of consumer engagement (likes, comments, and shares). At last, the information was combined into a primary dataset and the hypotheses were tested through a quantitative methodology approach, with the help of the statistics software Jamovi.

4.2.1 Pilot Study: Platform Intimacy

The pilot study aimed to classify the level of intimacy between TikTok and Instagram. The methodology used was inspired by research conducted by Reich & Pittman (2019), which

classified different social media platforms based on their levels of intimacy (intimate, non-intimate) and modality (text-based, image-based) (Reich & Pittman 2019).

The research classified Instagram as a more intimate platform than Twitter, due to the modality used in the former, which is image-based versus text-based in the latter (Reich & Pittman, 2019). However, TikTok, being a new platform at the time of the study, was not included in the analysis. Therefore, as our research aims to understand the differences between Instagram and TikTok, our pilot study fills in this gap by including the latter in the classification process regarding intimacy according to its modality. In the case of TikTok, it is mostly video-based, whereas Instagram followed the same modality adopted by Reich & Pittma: mostly image-based.

The assessment of perceived platform intimacy regarding the platforms under study was conducted via an online questionnaire, released to a diverse sample of respondents. The questionnaire exclusively featured Instagram and TikTok as options for social media platforms and will be completed by participants who actively use both apps. To capture levels of perceived intimacy effectively, the questionnaire included a set of statements derived from relevant dimensions of intimacy pertinent to social media platforms. These statements were carefully prepared to be clear, simple, and suitable with the Likert scale format.

The Likert scale was constructed following guidelines outlined by Likert (1932). Response options and numerical coding were adapted to ensure the reliability and validity of the scale. It ranged from 1 to 5, meaning 1 strongly disagrees and 5 strongly agrees, with a neutral option in between.

Subsequently, quantitative data analysis was conducted using the statistical software Jamovi. At last, perceived levels of intimacy and modality between Instagram and TikTok were obtained.

4.2.2 Content Analysis

4.2.2.1. Measuring Consumer Engagement

The second step of the methodology involved collecting and analyzing data from content published online by two commercial brands, in accordance with the methodology of content analysis.

Content analysis for quantitative research involves a systematic examination and interpretation of numerical data to discern patterns, themes, and relationships within a dataset. It utilizes statistical methods to analyze and quantify the frequency or occurrence of specific variables or categories within the data (Krippendorff 2018). This approach enables researchers to explore various aspects of the phenomena under study and draw statistical inferences from the collected data (Neuendorf 2017).

In the present research design, the aim was to assess the consumer engagement level across TikTok and Instagram, for the three distinct content categories released by brands on their digital platforms (rational, interactional, and transactional), and for the two modalities of content (image-based, video-based). To achieve this, two activewear brands present on both platforms were selected as the objects of study.

Once gathered, the collected data was subjected to quantitative statistical analysis to establish any significant differences in engagement among content categories and modalities across the both platforms.

4.2.2.2. Selection of Brands

Two activewear brands with relevant and similar digital presence on TikTok and Instagram were selected for the primary data collection: TALA® and Crop Shop Boutique. Both have a relevant presence on both TikTok and Instagram, with daily posts and a growing number of followers on their digital accounts.

TALA® is an activewear brand born in London in 2019. At the time of the research, it had 456 thousand followers on Instagram and 75.3 thousand on TikTok. TALA defines its mission as "to bring you sustainably made activewear that delivers performance, fit, quality and style, without the hefty price tag". Crop Shop Boutique (CSB) was founded in Australia in the same year as TALA, 2019. CSB has a slightly different positioning from the latter, defining itself as a functional and stylish activewear brand, as it is stated on its own website "Inside and outside of the gym, our mission is to provide you with pieces that are unique, to compliment your body

and celebrate your beauty!". At the time of the research, Crop Shop Boutique had 514 thousand followers on Instagram and 68.1 thousand on TikTok.

4.2.2.3. Measuring Intimacy of the Content

The level of intimacy of the content posted by the brands was determined by the two researchers for all the posts analyzed through the method of content analysis combined with the Likert Scale. Similarly, to the Likert Scale used for the platform intimacy in the pilot study, here the dimensions of intimacy led to a set of statements to capture the level of intimacy of the content analyzed from TALA and CSB. Once the rating from both researchers was complete, quantitative data analysis was conducted using the statistical software Jamovi.

4.3 Data Collection

4.3.1 Pilot Study for Platform Intimacy

Following the description of the research design of the pilot study for TikTok and Instagram, a questionnaire was answered online by users of both TikTok and Instagram. It contained sentences that addressed the variable of interest: platform intimacy. These statements encompass personal connection, emotional resonance, meaningful interactions, and sense of belonging, aspects that are inherent to intimacy (Reis & Shaver, 1988). The questionnaire is shown in Table 2 and it was made in accordance with the study of Reich & Pittman (2019), combined with the constructs of platform intimacy according to Reis & Shaver (1988).

Table 2: Pilot Study: questionnaire for inferring Platform Intimacy.

Index	Question	Ratings	Variable
1	Often, I feel a strong personal connection with the content released on this platform.	1: Strongly Disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly Agree	Platform Intimacy
2	I perceive the content of this platform as being genuine and well-representative of reality.		
3	I feel comfortable sharing my thoughts and emotions through this platform.		
4	I trust the community of this platform to support me if I share personal and vulnerable content.		

	Content on this platform elicits genuine emotional	
5	responses from me (e.g., laughter, tears).	

The measurement of intimacy across TikTok and Instagram was achieved through the scores obtained from respondents' answers to the questionnaire. The Likert scale, employed to obtain respondents' perceptions and experiences related to intimacy dimensions, provided a numerical value for each participant's level of intimacy for each platform. By aggregating these scores, continuous values representing the overall level of intimacy for TikTok and Instagram, respectively, were obtained.

4.3.2 Content Analysis

4.3.2.1. Measuring Consumer Engagement

To obtain the consumer engagement levels on TikTok and Instagram across the three categories of content that are object of the present analysis (rational, interactional, and transactional), the latest 87 contents posted by TALA and CSB, on both TikTok and Instagram, had their engagement metrics collected by the researchers for posterior analysis. As a criterion to be included in the dataset, the posts had to be online for at least 72 hours (3 full days).

The sample size was determined by the combination of the output from the Jpower tool on Jamovi, with the information obtained from a comparable study conducted by Grure & Rasmussen (2023). With an effect size of 0.2, an alpha level of 0.05, and a desired power of 0.75, we estimated a sample size of 348 posts. As a result, 348 contents from TikTok and Instagram for both brands were analyzed evenly, starting from the most recent post after 3 complete days until the total number of needed posts was reached. This represents 87 contents per platform and brand, providing a thorough overview of current content trends. If the content (whether video-based or image-based) showed no visible engagement metrics on its profile, we proceeded to select the next post.

In the analysis done by Grure & Rasmussen (2023), the authors adopted the sample size of 350 videos using a non-probability sampling method. The study also mentions the constraint of limited time, which we are also encountering in our research.

The information was accessed directly through TikTok and Instagram, since both platforms release publicly the information of likes, shares, and comments, which are the engagement metrics. The data was gathered and will be part of a primary dataset that will be further described in the topic 4.3.3.

4.3.2.2. Measuring Content Intimacy

The method for evaluating the content intimacy from TALA and CSB on TikTok and Instagram involves a Likert scale questionnaire, comprising five statements tailored to measure intimacy. Both researchers conducting this study responded to each statement based on their perceptions and on the theory of intimacy stemmed from psychology, combined with Parasocial Interaction Theory. For each piece of content, a Likert scale ranging from 1 meaning Strongly Disagree to 5 meaning Strongly Agree was employed as options. The statements are grounded on aspects of intimacy, encompassing personal connection, emotional resonance, meaningful interactions, and sense of belonging (Reis & Shaver, 1988) and follow a similar structure adopted by Reich & Pittman (2019). Once the responses were finished, scores were attributed to each content item based on the average response of the two researchers to the five statements.

Table 3: Content Analysis: questionnaire for inferring Content Intimacy.

Index	Question	Ratings	Variable
1	This content represents the reality of most consumers.	1: Strongly Disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly Agree	Content Intimacy
2	This content makes consumers feel understood and represented.		
3	The content fosters meaningful interactions and genuine engagement with the audience.		
4	I perceive this content as authentic and trustworthy.		
5	This content creates a sense of belonging through shared experiences.		

The mean score of answers for each content item was calculated and the level of intimacy was quantified. The higher the score of the content, the more intimate it is. Once all the 348 analyzed contents had their score based on the average grading of both research the information was also included into the primary dataset further described in the topic 4.3.3.

4.3.3 Dataset

After gathering the primary data, the dataset was built considering the relevant variables to test all the hypotheses, except for hypothesis H1 that was tested with the information collected from the questionnaire to measure platform intimacy (Table 2). For the 348 contents analyzed, the following information was considered: content ID, brand (CSB, TALA), platform (TikTok, Instagram), modality (image-based, video-based), content intimacy (from 1 to 5), content category (rational, interactional, transactional), engagement metrics (likes, shares and comments). The specification of each variable is described in Table 4.

Variable	Type of Variable
Content ID	ID
Brand	Categorical
Platform	Categorical
Content Modality	Categorical
Content Intimacy	Continuous
Content Category	Categorical
Likes	Continuous
Shares	Continuous
Comments	Continuous

Table 4: Variables of the Primary Dataset.

4.4 Data Analysis

Following the data collection sequence's structure, the data analysis process unfolded in two stages. It initiated with the platform intimacy analysis, entailing the collection and examination of data obtained from the questionnaire distributed among TikTok and Instagram users. Subsequently, the content analysis was conducted by the researchers utilizing the primary dataset constructed as outlined in chapter 4.3.3.

4.4.1 Pilot Study: Platform Intimacy

After collecting the data regarding the perception of intimacy from social media users towards Instagram and TikTok, the information was subjected to statistical analysis with the software Jamovi.

As the starting point a descriptive analysis of the data was conducted. It provided information concerning the means of platform intimacy levels according to the respondents, the distribution of demographics, particularly age and platform usage among respondents, facilitating a comprehensive understanding of the sample characteristics.

Furthermore, an independent sample t-test was conducted to compare the mean levels of intimacy between both platforms. This statistical method allowed us to determine whether there are significant differences across the two platforms, testing the hypothesis H1:

H1 TikTok is a more intimate platform than Instagram.

4.4.2 Content Analysis

4.4.2.1. Descriptives

The descriptive analysis of the dataset containing 348 contents, divided evenly between TALA and CSB on Instagram and TikTok, was conducted to thoroughly measure variables and understand the central tendencies and variability within the data. This analysis involved calculating means and standard deviations to capture the average values and dispersion of the variables, especially content intimacy and consumer engagement - the dependent variables - across the different content categories, modalities and platforms – independent variables. Also, graphical representations such as histograms and box plots were used to visualize the data distribution and identify potential outliers or patterns.

4.4.2.2. Statistical Model

4.4.2.2.1. Test 1: Independent T-Test for Content Modality and Intimacy

The first test aimed to examine hypothesis H2, which posited that video-based content has a higher level of intimacy compared to image-based content.

H2 Video-based content has a higher level of intimacy than image-based content.

To assess this hypothesis, an independent sample t-test was conducted to determine if there is a significant difference in the perceived intimacy of the two modalities of content, using the computed average scores of intimacies assigned by researchers to each post analyzed. A significant result from the independent samples t-test would suggest that content modality influences the perceived level of intimacy. The statistical model is shown in Figure 2.

4.4.2.2.2. Test 2: ONE-WAY ANOVA for Content Category and Intimacy

In Test 2, we aimed to investigate hypotheses H3, focusing specifically on content classified as video-based modality. Through a ONE-WAY ANOVA analysis, we assessed the intimacy levels of three distinct groups of content categories: rational, interactional, and transactional. The objective was to determine whether there are significant differences of intimacy levels among these content categories. Specifically, to state if the intimacy of interactional content demonstrates higher scores compared to transactional and rational content.

	Interactional content has a higher level of Intimacy compared to transactional
Н3	and rational content.

By subjecting the data to statistical analysis, we aimed to draw conclusions regarding the levels of intimacy associated with different content categories. The statistical model is shown in Figure 2.

4.4.2.2.3. Test 3: TWO-WAY ANOVA for Content Modality and Consumer Engagement

In Test 3, hypotheses H4 and H4a were examined, by conducting a TWO-WAY ANOVA analysis. The independent variable was content modality (image-based, video-based), while consumer engagement metrics (likes, comments, and shares) served as dependent variables. Complementarily, the platforms (TikTok, Instagram) were considered as moderating variables.

H4	Content modality influences consumer engagement, such that video-based content has better consumer engagement levels than image-based.
H4a	The social media platform (TikTok, Instagram) moderates the relationship between content modality and consumer engagement, such that on TikTok video-based modality has higher consumer engagement levels, and on Instagram image-based has higher engagement levels, due to process fluency.

Consumer engagement metrics were assessed based on likes, comments, and shares on both Instagram and TikTok. While previously published studies measured engagement on a single platform (Samuel, L., Kuijpers, K. and Bleakley, A., 2024), our analysis included both. It is worth mentioning that TALA and CSB have had a longer presence on Instagram, resulting in a higher follower count than TikTok. As a result, the engagement metrics may appear skewed, as Instagram's greater user base naturally leads to increased engagement. To overcome this gap, we standardized the engagement metrics by dividing the number of likes, comments, and shares by the follower counts on both social media platforms for each company. This normalization enabled us to determine a percentage, resulting in a more realistic comparison of engagement across platforms.

Subsequently, by conducting a TWO-WAY ANOVA, we examined whether there is a significant relationship between modality and consumer engagement metrics, moderated by the platform. Specifically, we aimed to determine how consumer engagement varies with the content modality across TikTok and Instagram. Our goal was to determine through statistical analysis which modality (image-based or video-based) is more effective for driving consumer engagement on each platform. The statistical model is shown in Figure 2.

4.4.2.2.4. Test 4: TWO-WAY ANOVA for Content Category and Consumer Engagement

Lastly, in Test 4 we aimed to investigate hypothesis H5 and H5a through a TWO-WAY ANOVA analysis, where content category (rational, interactional, and transactional) was the independent variable, consumer engagement metrics (likes, comments, and shares) was the dependent variable, and the platform (TikTok, Instagram) was the moderating variable. The

measurement of the consumer engagement metrics followed the procedure of Test 3. By conducting a TWO-WAY ANOVA, we examined the interaction effects between content categories on consumer engagement metrics, moderated by the platform. Specifically, whether there are significant differences in consumer engagement depending on the content category (rational, interactional, transactional) across TikTok and Instagram. The analysis aimed to show which content category is more effective for driving consumer engagement on each platform. The statistical model is shown in Figure 2.

Н5	Content category influences consumer engagement, in such a way that interactional content has higher consumer engagement levels than rational and transactional.
H5a	The social media platform (TikTok, Instagram) moderates the relationship between content category and consumer engagement, such that on TikTok interactional content has higher consumer engagement levels, and on Instagram transactional content has higher engagement levels, due to process fluency.

4.5 Validity and Reliability

Burns and Burns (2008) emphasize the importance of conducting thorough reliability and validity evaluations in research analyses to ensure overall quality. According to James E. Sallis et al. (2021), regardless of the research design, evaluating a study's reliability and validity is necessary. In this case, validity refers to the precision of measures taken during the analysis. It is divided into distinct types, with internal and external validity being especially important in quantitative research (Pruzan, 2016). Internal validity relates to how much of the study's findings may be assigned to the independent variable rather than external factors. External validity, on the other hand, is concerned with how the study's findings can be applied to distinct categories or situations (Easterby-Smith et al., 2021).

4.5.1 Validity

In this master thesis, we have addressed both internal and external validity to ensure the credibility and validity of our research findings. Internally, our study combines a trustworthy methodological approach that minimizes bias and validated frameworks, such as Parasocial Interaction Theory and Social Presence Theory. These theories provide a solid foundation for our research hypotheses, allowing us to confidently interpret our findings. As well as our content analysis phase, where we employ the standardized data collection and analysis procedures, we enhance our study's internal validity. Moreover, Jamovi provides standardized statistical procedures that are widely recognized and accepted in the research community, contributing to the credibility and validity of our findings.

Externally, our sample processes are aimed to increase the generalizability of our results to wider populations, situations, and platforms. The use of the questionnaire and two different social media platforms in our study improves the external validity of our findings by collecting a wide range of opinions and experiences.

Our content analysis includes information from multiple categories, including rational, interactional, and transactional. By dividing content into these separate categories, we want to capture all aspects of user engagement and platform behavior, with a thorough comprehension of how types of content affect consumer behavior and perceptions on social media platforms such as TikTok and Instagram.

To conclude, by addressing both internal and external validity in this master thesis, we ensure that we generate reliable and meaningful insights that enable practitioners to make informed decisions and develop effective strategies for engaging with consumers on social media platforms like TikTok and Instagram.

4.5.2 Reliability

To ensure the reliability of our research methodology, we completed each step of the process with attention to detail and chose the practices that would be most reliable. Firstly, the use of established research methodologies, such as content analysis and Likert scale questionnaire, provided a detailed framework for our data collection and analysis. The primary purpose of constructing our Likert scale was to gather insight into people's perceptions of intimacy on TikTok and Instagram. We created questions that effectively captured respondents' perspectives and experiences with intimacy, ensuring that the questionnaire adapted to each platform. We

hoped to identify any changes in perceptions between TikTok and Instagram users by segmenting the questions based on platform. The response options were made in a way that provides clarity and consistency. We followed guidelines mentioned by Likert (1932) in the making of Likert scale and by using these established guidelines we enhanced the reliability of our Likert scale responses.

During the content analysis phase, we followed structured procedures to analyze all posted content and interpret the numerical data, categorizing each video/photo into one of three content categories: rational, interactional, or transactional. Importantly, two independent researchers went through the content analysis, which was a key factor in reducing bias and increasing the credibility of our findings. By having two researchers analyze the content separately, we ensured different perspectives were considered.

In addition to all steps employed to ensure reliability, using a statistical tool like Jamovi for quantitative data analysis significantly increased the trustworthiness of our study. Jamovi uses statistical processes to ensure consistent and reliable analysis while reducing the chance of human error. This software simplified difficult statistical calculations, increasing the efficiency and reliability of our data analyzing process.

To conclude, our commitment to the credibility of our research methods was shown at all stages of the process. We kept a high standard of accuracy and trustworthiness in our study by carefully following the established research methodologies, building a solid Likert scale, conducting structured content analysis with independent researchers, and using statistical software such as Jamovi for quantitative analysis. These measurements strengthened the reliability of our findings as well as established a basis to generate valuable insights into intimacy levels and content engagement on TikTok and Instagram.

4.6 Ethical Issues

The present research ensured the ethical issues throughout the entire process, initiating with the Pilot Study, where external participants are involved in the methodology. We adhered to the principles outlined in the Belmont Report, emphasizing respect for participants' autonomy, beneficence, and justice (National Commission for the Protection of Human Subjects of

Biomedical and Behavioral Research, 1979). To guarantee the commitment to these principles, we obtained informed consent from all participants who answered the pilot study questionnaire, providing them with comprehensive information about the research purpose, procedures, and potential risks and benefits. Confidentiality and anonymity of participant data were rigorously maintained to safeguard privacy, and participants are assured of their right to leave the study at any time without penalty.

Regarding ethical issues related to the companies involved, the accessed information was available to the public. There was no use of any proprietary or confidential information without explicit permission.

5 Analysis

The analysis of results chapter begins with an overview of the pilot study to measure platform intimacy results, delineating the demographics of participants who responded to the questionnaire. Moreover, the findings regarding platform intimacy levels between TikTok and Instagram according to the respondents' perceptions are covered. Furthermore, we transition to the content analysis segment, describing and analyzing the results regarding content modality and category and its influence on consumer engagement levels for two activewear brands, TALA and CSB. The chapter shows whether there is a significant effect of content modality and content categories on the consumer engagement metrics (likes, comments and shares divided by number of followers) of the brand's content across TikTok and Instagram, due to the theory of Process Fluency.

5.1 Pilot Study: Platform Intimacy

5.1.1 Descriptives

5.1.1.1. Demographics

The questionnaire to measure platform intimacy was distributed to a variety of respondents from different nationalities, mostly focused on the Western part of the globe. In total there were 60 responses, with participants' ages mostly focused on the range of 23 to 27 years old (58,8%), whereas 18 to 22 years old represented 10% and above 28 years old 31,7%. Out of the 60 responses, 93,3% of the respondents had Instagram, but only 71,7% had TikTok, and half of them stated that they do not post on the latter platform. To answer all the 5 questions regarding platform intimacy, the respondent must use both TikTok and Instagram. Thus, participation in the survey required having an account on both platforms, with respondents who lacked one being excluded from further inquiry. Finally, only 35 respondents had both platforms and provided valid information for the analysis. A summary of the demographic information is displayed in Table 5 and Table 6.

Table 5: Age Distribution Among Respondents

Age Distribution				
Age (Years Old)	% Respondents			
18-22	10%			
23-27	28,30%			
28	31,70%			

Table 6: Usage of Social Media Platform

Usage	Instagram	TikTok
Has	93,3%	36,7%
Does not have	6,7%	28,0%
Has, but does not post	0,0%	35,0%

The mean and standard deviation of platform intimacy of Instagram and TikTok were obtained from the questionnaire. With a standard deviation of 0.73 for Instagram and 0.99 for TikTok, these values represent the extent of variability around the respective mean ratings (Devore & Berk 2011). A low standard deviation suggests that the data points tend to be close to the mean of the set, while a high standard deviation indicates that the data points are spread out over a wider range from the mean (Wackerly, Mendenhall, & Scheaffer, 2008). The obtained values for intimacy standard deviations were low and close to zero, indicating a coherence among respondents.

The mean intimacy rating for Instagram, at 2.56, while TikTok's mean resulted in 3. As a recap, the analysis was conducted on a Likert Scale that ranged from 1 to 5, with 1 being the least intimate and represented "strongly disagree", 3 "neutral" and 5 the highest intimate, represented by "strongly agree". A summary of the mean and standard deviations results is displayed in Table 7.

Table 7: Mean and Standard Deviation of Platform Intimacy

Descriptives						
Group N Mean SD						
Instagram	35	2.59	0.73			

_				
	TikTok	35	3.15	0.99

The meanings of the results of platform intimacy, and the significance of their relationship, will be further analyzed through the outcomes of the independent samples t-tests.

5.1.2 Pilot Study: Independent Samples T-test for Platform Intimacy (H1)

The independent samples t-test is a statistical method employed to determine if there is a significant difference between the means of two independent groups (Matthews & Howell 2012). As mentioned before, the present study aimed to unveil whether social media users perceive the intimacy level of Instagram and TikTok differently. By submitting the responses to the questionnaire displayed in Table 2 from 35 users of both platforms regarding intimacy and adopting an alpha-value of 0.05, the assumption checks resulted in p-values above the threshold, meaning that the results of the homogeneity and normality tests indicate that the data meets the assumptions for conducting independent samples t-test. Detailed information is displayed in Figure 2: Assumptions Checks for Pilot Study of Platform Intimacy.

Homogeneity of Variances Tests

		F	df	df2	р
Average	Levene's	3.88	1	68	0.053
	Variance ratio	0.55	34	34	0.082

Note. Additional results provided by moretests

Tests of Normality

		statistic	р
Average	Shapiro-Wilk	0.99	0.773
	Kolmogorov-Smirnov	0.06	0.932
	Anderson-Darling	0.27	0.678

Note. Additional results provided by moretests

Figure 2: Assumptions Checks for Pilot Study of Platform Intimacy
Source: Jamovi, 2024.

Furthermore, the test's results showed that the intimacy of Instagram (M=2.59; SD=0.73) was significantly lower than on TikTok (M=3.15; SD=0.99; t (68)=-2.73; p=0.004; d=0.65),

accepting H1. The significant difference between the intimacy of both platforms is confirmed by the results of p-value from the independent sample t-test, displayed in Table 8.

Table 8: Pilot Study: Independent Samples T-Test Results

Independent Samples T-Test: Pilot Sudy						
		Statistic	df	р	Effect Size	
	Student's t	-2.73	68.00	0.004	-0.65	
Average	Welch's t	-2.73	62.59	0.004	-0.65	

Therefore, it is correct to say that TikTok is a more intimate platform than Instagram.

5.2 Content Analysis

5.2.1 Descriptives

In total 348 posts, being 174 from TALA and 174 from CSB evenly distributed among TikTok and Instagram, were analyzed and graded regarding the intimacy, its category and modality, and consumer engagement metrics (likes, comments and shares divided by the number of followers). Examples of each content category and content modality for TikTok and Instagram are shown in Appendix A and B.

The intimacy mean for each piece of content was obtained by the average of the grading of the two researchers, resulting in a number between 1 (least intimate) and 5 (most intimate), as it follows a Likert Scale method. Posts that did not have one of the foundational metrics of consumer engagement were replaced by another post of the same brand and from the same platform.

Table 9 shows the mean scores of intimacies and consumer engagement metrics obtained for each content modality (video-based, image-based), and for each content category (interactional, transactional, and rational).

The frequency data reported 235 video-based content were analyzed compared to 113 image-based, showing a higher frequency of the first modality. Regarding content category, interactional was the most frequent with 151 posts, followed by transactional with 127 and rational with 70.

Table 9 also shows mean intimacy within the modality and category and standard deviation. The latter resulted in values close to zero in all cases, proving that the data is not aggressively dispersed from the mean average score of intimacy.

Lastly, the consumer engagement descriptives followed a similar analysis as of the one conducted for intimacy results. In this case, the metrics representing consumer engagement (likes, comments and shares divided by number of followers) were analyzed separately to obtain their frequency, mean scores, and standard deviation.

Once again, the standard deviation of the metrics was satisfactory for most of them, with likes/followers being the only one that distances itself from zero, meaning that the sample had spread values of likes that can differ from the mean result.

Table 9: Descriptives of Content Analysis Data

DESCRIPTIVES							
		Modality		Category			
Variable		Video- based	Image- based	Interactio nal	Transacti onal	Rational	
	N	235	113	151	127	70	
Intimacy	Mean	3.06	2.65	3.28	2.52	2.73	
	Standard Deviation	0.73	0.68	0.66	0.69	0.65	
Likes/	Mean	0.81	0.53	0.78	0.68	0.66	
Followers	Standard Deviation	1.73	0.96	1.83	1.32	1.2	
Comments/	Mean	0.03	0.01	0.01	0.06	0.01	
Followers	Standard Deviation	0.2	0.01	0.03	0.01	0.36	
Shares/	Mean	0.04	0.02	0.04	0.03	0.03	
Followers	Standard Deviation	0.17	0.05	0.19	0.12	0.07	

5.2.2 **Test 1:** Independent Samples T-Test for Content Modality and Intimacy (H2)

Test 1 explored hypotheses H2, which states that video-based content has a higher level of intimacy than image-based content due to Parasocial Interaction and Social Presence Theory. The data was submitted to Jamovi for assumption checks and resulted in p-values above the

threshold of 0.05, which indicates that the data meets the assumptions for conducting the independent samples t-tests. The results are displayed in Figure 3.

Homogeneity of Variances Tests					
		F	df	df2	р
Total Average	Levene's Variance ratio	2.14 0.87	1 112	346 234	0.144 0.388

Note. Additional results provided by moretests

Tests of Normality

		statistic	р
Total Average	Shapiro-Wilk	0.99	0.086
	Kolmogorov-Smirnov	0.05	0.434
	Anderson-Darling	0.55	0.158

Note. Additional results provided by moretests

Figure 3: Assumption Checks for Test 1

Source: Jamovi, 2024.

Furthermore, the independent samples t-test was conducted to identify the differences between the two modalities of content. The results revealed in Table 10 confirm a significant difference (p<.001) between video based vs. image based, showing that video-based content has higher levels of intimacy (M=3.06, SD=0.73) than image-based content (M=2.65, SD=0.68; t(346)=4.93, p<.001, d=-565). Therefore, the results support hypothesis H2: Video-based content has a higher level of intimacy than image-based content.

Table 10: Results Independent Samples T-test Test 1

Independent Samples T-Test						
		Statistic	df	р	Effect Size	
Total	Student's t	-4.93	346	< .001	-0.57	
Average	Welch's t	-5.06	236	< .001	-0.57	

5.2.3 **Test 2:** ONE-WAY ANOVA for Content Category and Intimacy (H3)

Test 2 had the aim of examining hypothesis H3, which states that different content categories have distinct levels of intimacy due to Parasocial Interaction Theory, specifically hypothesizing

how interactional content has a higher level of intimacy compared to transactional and rational content.

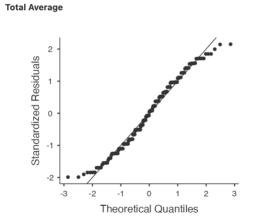
The same dataset used for Test 1 was also employed for Test 2, but with a focus on only video-based content, without the image-based, generating the descriptive information displayed in Table 11. In total 235 videos were analyzed and graded using the Likert Scale method as a response to the questions displayed in Table 3, with answers ranging from 1 to 5, being 1 the least intimacy level (strongly disagree) and 5 the highest (strongly agree). Interactional content scored the intimacy mean of 3.35, rational 2.85 and transactional 2.67. The standard deviations of all categories were near zero, indicating a small variance among responses.

Table 11: Group Descriptives Test 2

Group Descriptives						
Category N Mean SD						
Total Average	Interactional	110	3.35	0.67		
	Rational	95	2.85	0.71		
	Transactional	30	2.67	0.62		

The answers from the two researchers were imputed in Jamovi and a ONE-WAY ANOVA analysis was conducted to identify whether there were significant differences among the intimacy means of interactional, transactional, and rational content categories.

The initial step in the analysis involved conducting assumption checks. The results indicated that both Levene's (p = 0.293) and Bartlett's (p = 0.66) tests yielded p-values higher than 0.05, suggesting no significant deviation from homogeneity of variance. This implies that the assumption of homogeneity of variance is met. Additionally, the normality tests resulted in p-value of 0.158 for Kolmogorov-Smirnov, meeting the requirements. The results are shown in Figure 4 along a Q-Q plot graph displaying the normal shape of the data.



		Statistic	df	df2	р
Total Average	Levene's	1.24	2	232	0.293
	Bartlett's	0.81	2		0.666
Note. Additiona	al results prov	rided by mor	retests		
Normality Tests					
Normality Tests			statistic	р	
Normality Tests Total Average	Shapiro-Wi	lk	statistic	p 0.001	
	Shapiro-Wi Kolmogorov				

Homogeneity of Variances Tests

Note. Additional results provided by moretests

Figure 4: Q-Q Plot and Assumption Check for Test 2

Source: Jamovi, 2024.

Following with the ANOVA outcomes, the test showed a significant effect of content category on intimacy for Fisher's test (F (2, 232) = 19.53, P<0.001), as it is shown in Table 12

Table 12: Results ONE-WAY ANOVA Test 2.

One-Way ANOVA						
Total Average	F	df1	df2	p		
Fisher's	19.53	2	232	< .001		

Moreover, the post-hoc tests (using Tukey correction to adjust p) showed that interactional content has a significantly higher level of intimacy than both transactional (p<0.001) and rational (p<0.001) content. No significant statistical evidence that rational content performs better than transactional content was found (p=0.45). The results are shown in Table 13.

Table 13: Post-hoc results Test 2

Tukey Post Hoc Test – Total Average						
		Interactional	Rational	Transactional		
	Mean difference	_	0.50	0.68		
Interactional	p-value	_	< .001	< .001		
	Mean difference		_	0.17		
Rational	p-value		_	0.45		
	Mean difference			_		
Transactional	p-value			_		

Therefore, according to the results obtained from the ONE-WAY ANOVA test, hypothesis H3 is accepted: Interactional content has a higher level of intimacy compared to transactional and rational content.

5.2.4 **Test 3:** TWO-WAY ANOVA for Content Modality and Consumer Engagement (H4 and H4a)

With Test 3 we aimed to examine H4 and H4a, by first determining whether content modality influences consumer engagement, such that video-based content has higher consumer engagement levels than image-based content (H4). Moreover, it was also examined if there is a moderation effect of the social media platform on the relationship between content modality and consumer engagement, such that on TikTok video-based content has higher consumer engagement levels, whereas on Instagram image-based content has higher consumer engagement levels, due to the theory of process fluency (H4a).

The same dataset employed for Tests 1 and 2 was also the source of information for Test 3. The consumer engagement was measured through the number of likes, comments and shares divided by the number of followers of each brand (Tala, CSB) on each platform (TikTok, Instagram) and submitted to an assumption check, followed by a TWO-WAY ANOVA analysis.

The assumptions check of Homogeneity and Normality for the three consumer engagement metrics (likes, comments and shares divided by the number of followers) showed that, except for the Levene's test result of likes/followers and comments/followers, all the other assumption checks had a p-value lower than 0.001. The detailed results are displayed in Figure 5.

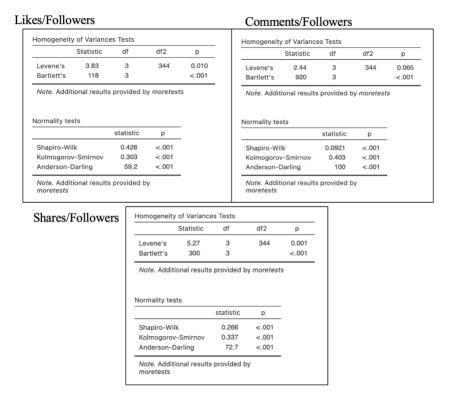


Figure 5: Assumption Checks for Test 3

Source: Jamovi, 2024.

In this case, further examination to verify normality was necessary, therefore a Q-Q plot graph was created. Although some extreme values were identified, they were purposefully left in the dataset to emphasize the importance of some high-performing content. These spikes in engagement are important for understanding the dynamics of social media, where a single post can quickly gain many new followers and attention. Such popular content demonstrates the platform's capacity to quickly increase reach and influence. However, it's worth noting that this form of engagement can often be unstable and unexpected, missing the consistency and stability observed in other measures. The Q-Q plots are shown in Figure 6.

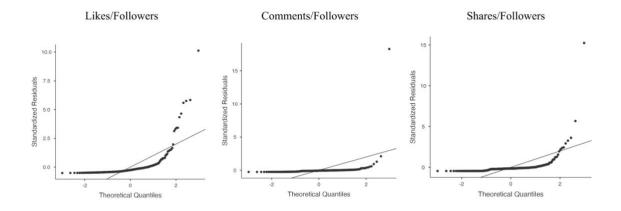


Figure 6: Assumption Checks for Test 3
Source: Jamovi, 2024.

Subsequently, to test H4 and H4a the TWO-WAY ANOVA analysis was conducted on Jamovi. The results are shown in Table 14, Table 15 and Table 16.

Table 14: Results TWO-WAY ANOVA Test 3 | Likes

TWO WAY ANOVA - LIKE/FOLLOWERS						
	Sum of Squares	df	Mean Square	F	р	
Modality	8.67	1	8.67	3.75	0.054	
Platform	2.82	1	2.82	1.22	0.270	
Modality * Platform	2.09	1	2.09	0.91	0.342	

Table 15: Results TWO-WAY ANOVA Test 3 / Comments

	TWO WAY ANOVA - COMMENTS/FOLLOWERS						
	Sum of Squares	df	Mean Square	F	p		
Overall model	0.057	3	0.02	0.83	0.479		
Modality	0.035	1	0.04	1.32	0.251		
Platform	0.014	1	0.01	0.53	0.467		

Modality *					
Platform	0.008	1	0.01	0.29	0.591

Table 16: Results TWO-WAY ANOVA Test 3 | Shares

TWO WAY ANOVA - SHARES/FOLLOWERS						
	Sum of Squares	df	Mean Square	F	р	
Modality	0.06	1	0.06	3.01	0.084	
Platform	0.03	1	0.03	1.47	0.226	
Modality * Platform	0.01	1	0.01	0.50	0.482	

Assuming alpha value as 0.05, according to the results obtained through the TWO-WAY ANOVA for the three dependent variables representing consumer engagement (likes, comments and shares divided by number of followers), there is no significant main effect of the content modality on consumer engagement performance (F(1,344)=3.75, p_likes=0.054, F(1,344)=1.32, p_comments=0.251; F(1, 344)=3.01, p_shares=0.084). Furthermore, results of p-value regarding the relationship of platform and consumer engagement also showed that there is no significant main effect of the platform on consumer engagement performance (F(1, 344)=1.22, p_likes=0.270, F(1,344)=0.53, p_comments= 0.467 F(1,344)=1.47, p_shares=0.226). Therefore, H4 is rejected, meaning that the content modality does not influence consumer engagement in a way that video-based content has better consumer engagement levels than image-based.

Lastly, by analyzing the results of the potential moderation hypothesized by H4a, results show that there is no significant relationship between social media platform and the content modality (F(1,344)=0.91, p_likes=0.342, F(1,344)=0.29, p_comments=0.591; F(1,344)=0.50, p_shares=0.482), denying H4a.

The post hoc test was also conducted to examine in detail the effect of content modality and platform on consumer engagement. Building on the results of the TWO-WAY ANOVA test, the post hoc analysis confirms that no significant effect is detected in any scenario. Detailed information regarding post hoc tests opened by the consumer engagement metrics (likes, shares and comments divided by number of followers), content modality (video-based, image-based)

and platform (TikTok, Instagram) are displayed in Table 16, Table 17, Table 18, Table 19, Table 20, Table 21, Table 22.

Table 17: Likes per Modality Post Hoc Results Test 3

Post Hoc Comparisons - Modality						
Likes/Followers						
Modality Mean Difference ptukey Cohen's d						
Image based	Video based	-0.36	0.054	-0.24		

Table 18: Likes per Platform Post Hoc Results Test 3

Post Hoc Comparisons - Platform						
Likes/Followers						
Platform	Platform	Mean Difference	ptukey	Cohen's d		
Instagram	TikTok	0.21	0.270	0.14		

Table 19: Comments per Modality Post Hoc Results Test 3

Post Hoc Comparisons - Modality						
Comments/Followers						
Modality	Modality	Mean Difference	ptukey	Cohen's d		
Image based	Video based	-0.02	0.251	-0.14		

Table 20: Comments per Platform Post Hoc Results Test 3

Post Hoc Comparisons - Platform							
Comments/Followers							
Platform	Platform	Mean Difference	ptukey	Cohen's d			
Instagram	TikTok	0.01	0.467	0.09			

Table 21: Shares per Modality Post Hoc Results Test 3

Post Hoc Comparisons - Modality						
Shares/Followers						
Modality	Modality	Mean Difference	ptukey	Cohen's d		
Image based	Video based	-0.03	0.084	-0.21		

Table 22: Shares per Platform Post Hoc Results Test 3

Post Hoc Comparisons - Platform						
Shares/Followers						
Platform	Platform	Mean Difference	ptukey	Cohen's d		
Instagram	TikTok	0.02	0.226	0.15		

Similarly, a summary of the moderation effect results tested through the post-hoc comparison of modality and platform are displayed in Table 23 and once again no significant effect is found, with all p-values overcoming the threshold of 0.05.

Table 23: Category*Platform Moderation Post Hoc Comparison Test 3.

	Post Hoc Comparisons Category * Platform								
				Likes/F	ollowers	Comments	/Followers	Shares/Followers	
Modality	Platform	Modality	Platform	ptukey	Cohen's d	ptukey	Cohen's d	ptukey	Cohen's d
		Image- based	TikTok	0.612	0.25	0.999	0.02	0.999	0.06
	Instagram	Video- based	Instagram	0.859	-0.12	0.529	-0.21	0.207	-0.30
Image- based		Video- based	TikTok	0.888	-0.10	0.983	-0.05	0.969	-0.06
	TikTok	Video- based	Instagram	0.248	0.37	0.660	0.23	0.274	0.36
	TIKTOK	Video- based	TikTok	0.254	-0.35	0.980	-0.07	0.912	-0.13
Video- based	Instagram	Video- based	TikTok	0.999	0.02	0.650	0.15	0.293	0.23

5.2.5 **Test 4:** TWO-WAY ANOVA for Content Category and Consumer Engagement (H5 and H5a)

Through Test 4, we aimed to examine H5 and H5a, by firstly determining if content category influences consumer engagement, such that interactional content has a higher engagement level (H5). Moreover, it was also examined if there is a moderation effect of the social media platform on the relationship between content category and consumer engagement, such that on TikTok interactional content has higher consumer engagement levels, whereas on Instagram transactional content has higher consumer engagement levels, due to the theory of process fluency (H5a).

The same dataset employed for Test 1, 2 and 3 was also the source of information for Test 4. The consumer engagement was measured through the number of likes, comments and shares divided by the number of followers of each brand (Tala, CSB) on each platform (TikTok, Instagram) and submitted to an assumption check, followed by a TWO-WAY ANOVA analysis.

The assumptions check of Homogeneity and Normality for the three consumer engagement metrics (likes, comments and shares divided by the number of followers) showed that, except for the Levene's test result of likes/followers and shares/followers, all the other assumption checks had a p-value lower than 0.001, as shown in Figure 7. In this case, as further analysis to check normality was required, a Q-Q plot graph was obtained and once again extreme values were found, similarly to test 3. They were purposefully left in the dataset to show how brands can leverage high-performing content through strategic posts. The graphic is displayed in Figure 8.

Homogeneity of Variances	Tests				Homogeneit	y of Variand	es Tests		
Statistic	df	df2	р	_		Statistic	df	df2	р
Levene's 0.98 Bartlett's 63.57	5 5	342	0.43° <.00°		Levene's Bartlett's	4.25 1176.59	5 5	342	<.001 <.001
Note. Additional results p	rovided b	y moret	ests		Note. Addit	tional result	s provided b	y moretest	s
Normality tests					Normality te	sts			
\$	statistic	р					statistic	р	
Shapiro-Wilk	0.41	<.00	1		Shapiro-Wi	ilk	0.11	<.001	
Kolmogorov-Smirnov	0.31	<.00			Kolmogoro		0.40	<.001	
Anderson-Darling	63.82	<.00	1		Anderson-	Darling	94.45	<.001	
Note. Additional results p moretests	rovided b	у			Note. Addit	tional result	s provided b	у	
Shares/Followers	Homo	geneity	of Varianc	es Tests					
			Statistic	df	df2	р	.		
	Leve	ene's	2.43	5	342	0.035			
	Bart	lett's	360.01	5		<.001			
				s provide	d by <i>moretes</i>	ts			
	Norm	ality tes	ts			_			
	l			statisti	с р	_			
		oiro-Wil		0.26					
	1	-	-Smirnov	0.33					
	And	erson-D	arling	74.77	<.001	_			
				provide			ı		

Figure 7: Assumption Checks for Test 4
Source: Jamovi, 2024.

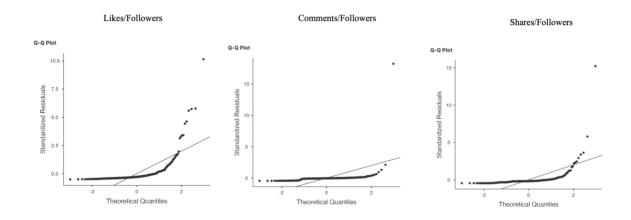


Figure 8: Q-Q Plots for Test 4

Source: Jamovi, 2024.

Moreover, assuming alpha-value as 0.05, according to the results obtained through TWO-WAY ANOVA for the three dependent variables representing consumer engagement (likes, comments and shares divided by number of followers), there is no significant main effect of the content category on the consumer engagement performance (F(2,342)=0.37, p_likes=0.699, F(2,342)=1.2, p_comments=0.302; F(2,342)=0.68, p_shares=0.507). Furthermore, results of p-value regarding the relationship of platform and consumer engagement also showed that there is no significant main effect of the platform on consumer engagement performance (F(1,342)=0.68, p_likes=0.410, F(1,342)=0.55, p_comments=0.460; F(1,342)=2.06, p_shares=0.152). Thus, H5 is rejected, meaning that the content category does not influence consumer engagement in a way that interactional content has a higher consumer engagement compared to rational and transactional.

Moreover, by analyzing the results of the potential moderation hypothesized by H5a, results show that there is no significant interaction between social media platform and the content category on the resulting consumer engagement performance (F(2,342)=0.51, $p_likes=0.633$, F(2,342)=0.71, $p_comments=0.493$; F(2,342)=0.7, $p_shares=0.498$), denying H5a. The detailed results are shown in Table 24, Table 25 and Table 26.

Table 24: Results TWO-WAY ANOVA Test 4 | Likes

	TWO-W	'AY ANOVA - LIK	E/FOLLOWE	RS	
	Sum of	df	Mean Square	F	p

	Squares				
Category	1.75	2	0.87	0.37	0.699
Platform	1.59	1	1.59	0.68	0.410
Category * Platform	2.37	2	1.19	0.51	0.633

Table 25: Results TWO-WAY ANOVA test 4 | Comments

TWO-WAY ANOVA - COMMENTS/FOLLOWERS					
	Sum of Squares	df	Mean Square	\mathbf{F}	p
Category	0.06	2	0.03	1.20	0.302
Platform	0.01	1	0.01	0.55	0.460
Category * Platform	0.04	2	0.02	0.71	0.493

Table 26: Results TWO-WAY ANOVA Test 4 | Shares

TWO-WAY ANOVA - SHARE/FOLLOWERS					
	Sum of Squares	df	Mean Square	${f F}$	p
Category	r	2	0.01	0.68	0.507
Platform	0.04	1	0.04	2.06	0.152
Category * Platform	0.03	2	0.01	0.70	0.498

The post hoc test was also conducted to examine in detail the effect of content category and platform on consumer engagement. Building on the results of the TWO-WAY ANOVA test, the post hoc analysis confirms that no significant effect is detected in any scenario. Detailed information regarding post hoc tests opened by the consumer engagement metrics (likes, shares and comments divided by number of followers), content category (interactional, rational, and transactional) and platform (TikTok, Instagram) are displayed in Table 27, Table 28, Table 29, Table 30, Table 31, Table 32 respectively.

Table 27: Likes per Category Post Hoc Results Test 4.

Post Hoc Comparisons - Category

Likes/Followers						
Category Category Mean Difference ptukey Cohen's d						
Interactional	Rational	0.12	0.804	0.08		
	Transactional	0.19	0.712	0.12		
Rational	Transactional	0.07	0.959	0.04		

Table 28: Likes per Platform Post Hoc Results Test 4.

Post Hoc Comparisons - Platform							
Likes/Followers							
Platform Platform Mean Difference ptukey Cohen's d							
Instagram TikTok 0.15 0.410 0.1							

Table 29: Comments per Category Post Hoc Results Test 4.

Post Hoc Comparisons - Category						
Comments/Followers						
Category Category Mean Difference ptukey Cohen's d						
Interactional	Rational	0	1.000	0		
Transactional -0.04 0.321 -0.22						
Rational	Transactional	-0.04	0.340	-0.22		

Table 30: Comments per Platform Post Hoc Results Test 4.

Post Hoc Comparisons - Platform								
Comments/Followers								
Platform	Platform Platform Mean Difference ptukey Cohen's d							
Instagram	Instagram TikTok 0.01 0.460 0.09							

Table 31: Shares per Category Post Hoc Results Test 4.

Post Hoc Comparisons - Category							
Shares/Followers							
Category Category Mean Difference ptukey Cohen's d							
Interactional	Rational	0.02	0.554	0.13			
	Transactional 0.02 0.648 0.14						
Rational	Transactional	0	0.998	0.01			

Table 32: Shares per Platform Post Hoc Results Test 4.

Post Hoc Comparisons - Platform								
	Shares/Followers							
Platform	Platform Platform Mean Difference ptukey Cohen's d							
Instagram	Instagram TikTok 0.02 0.152 0.17							

A summary of the moderation effect results tested through the post-hoc comparison is displayed in Table 33.

Table 33: Platform*Category Moderation Post Hoc Comparisons Test 4.

	Post Hoc Comparisons Category * Platform								
				Likes/ Followers		Comments/ Followers		Shares/ Followers	
Category	Platform	Category	Platform	ptukey	Cohen's d	ptukey	Cohen's d	ptukey	Cohen's
		Interactional	TikTok	1.000	-0.02	1.000	-0.05	0.711	0.24
		Rational	Instagram	1.000	0.06	1.000	-0.03	0.713	0.26
	Instagram	Rational	TikTok	0.998	0.08	1.000	-0.03	0.808	0.24
		Transactional	Instagram	1.000	-0.03	0.336	-0.40	0.992	0.12
Interactional		Transactional	TikTok	0.913	0.26	0.999	-0.09	0.613	0.40
		Rational	Instagram	0.997	-0.07	1.000	-0.02	1.000	-0.01
		Rational	TikTok	0.993	0.10	1.000	0.02	1.000	0.00
	TikTok	Transactional	Instagram	1.000	0.01	0.340	0.35	0.98	0.13
		Transactional	TikTok	0.858	0.27	1.000	-0.04	0.98	0.16
		Rational	TikTok	1.000	0.02	1.000	0.00	1.000	-0.01
	Instagram	Transactional	Instagram	0.997	-0.09	0.335	-0.37	0.980	-0.14
Rational		Transactional	TikTok	0.965	0.20	1.000	-0.06	0.985	0.14
	TikTok	Transactional	Instagram	0.993	0.11	0.406	0.38	0.988	0.13
	11K10K	Transactional	TikTok	0.983	0.18	1.000	-0.07	0.989	0.16
Transactional	Instagram	Transactional	TikTok	0.875	0.29	0.834	0.31	0.881	0.28

5.3 Summary of Analyses

In summary, we investigated the potential effect of content modality, category and intimacy levels on consumer engagement on TikTok and Instagram. The results supported Hypothesis 1 (H1), Hypothesis 2 (H2) and Hypothesis 3 (H3). However, Hypothesis 4 (H4), and its subhypothesis H4a were rejected. Similarly, Hypothesis 5 (H5), and its sub-hypothesis H5a were also not supported. All these findings are in Table 34.

Table 34: Summary of Hypotheses Tests' Results

	Hypothesis	Theories	Accepted/Rejected
H1	TikTok is a more intimate platform than Instagram.	Parasocial Interaction Theory & Social Presence Theory	Accepted
Н2	Video-based content has a higher level of intimacy than image-based content.	Parasocial Interaction Theory & Social Presence Theory	Accepted
Н3	Interactional content has a higher level of Intimacy compared to transactional and rational content.	Parasocial Interaction Theory	Accepted
Н4	Content modality influences consumer engagement, such that video-based content has higher consumer engagement levels than image-based.	Parasocial Interaction Theory & Social Presence Theory	Rejected
H4a	The social media platform (TikTok, Instagram) moderates the relationship between content modality and consumer engagement, such that on TikTok videobased modality has higher consumer engagement levels, and on Instagram image-based has higher consumer engagement levels, due to process fluency.	Process Fluency Theory	Rejected
Н5	Content category influences consumer engagement, in such a way that interactional content has higher consumer engagement levels than rational and transactional.	Parasocial Interaction Theory	Rejected
Н5а	The social media platform (TikTok, Instagram) moderates the relationship between content category and consumer engagement, such that on TikTok interactional content has higher	Process Fluency Theory	Rejected

consumer engagement levels, and on Instagram transactional content has	
higher engagement levels, due to	
process fluency.	

6 Discussion

The discussion chapter of this thesis serves as a comprehensive exploration of the findings, connecting them to established theories while evaluating the hypotheses proposed. The first hypothesis concerning platform intimacy (H1) tested through a platform intimacy pilot study, positing that TikTok fosters a higher level of intimacy compared to Instagram, was accepted through the analysis of the data, indicating the validity of the constructs of Parasocial Interaction Theory – interactivity and openness - and its interpretation of intimacy, combined with the Social Presence Theory in determining the level of intimacy of a social media platform. As a first contribution to the research field, the Social Presence Theory explained how image-based platforms are more intimate than text-based platforms in the study conducted by Reich and Pittman (2019). The present study expands these findings by positioning TikTok, a mostly video-based platform, as more intimate than Instagram, due to its higher openness and interaction, taking hold of the foundational concepts of the Parasocial Interaction Theory.

According to Lebreque (2014), interactivity manifests within the brand-consumer relationship through the perception of mediated personas as attentive and interactive figures, particularly evident on platforms like TikTok. Here, influencers, brand advocates, and founders frequently address viewers directly, adopting an amiable tone and asking consumers' opinions and feedback. Moreover, consumer experiences are often highlighted through videos posted by the brands, fostering a sense of inclusion. Thus, the concept of openness, as proposed by Lebreque (2014), accentuates how TikTok facilitates a heightened level of intimacy with the audience by encouraging brand self-disclosure and reducing uncertainty within the consumer-brand relationship.

In contrast, Instagram, identified as a less intimate platform in the present study, was found to display content with less interactivity and openness according to the users of the platform who participated in the present research. Content released by brands on Instagram tends to be more formal and distant, aimed at product display, desire generation, and brand positioning. They

usually lack voice sound and present the mediated persona in a more impersonal manner, serving mainly to inspire the desire to purchase and reinforce brand positioning.

Similarly, once again building on the constructs of Parasocial Interaction Theory and Social Presence Theory, the hypothesis regarding video-based content exhibiting higher levels of intimacy compared to image-based content (H2) is supported by the results, as it fosters higher levels of openness and interactivity. According to traditional PSI literature, interactivity is enhanced by using various camera angles and direct eye contact from the persona to the viewer, creating the illusion of two-way communication (Liu and Shrum 2002). Consequently, video-based media, which allows for higher motion through camera work and the inclusion of sound, shows to be a more intimate way to engage with consumers and their emotions compared to image-based media. Furthermore, videos enable the sharing of stories and personal experiences, fostering a deeper level of relatability for viewers. This supports the findings from the content analysis, demonstrating that video-based modalities offer greater openness and, consequently, intimacy.

Furthermore, the hypothesis emphasizing interactional content's superior intimacy over transactional and rational content (H3) is again supported through the results, meaning that the theory of Parasocial Interaction, grounded by interactivity and openness, reinforces the assumption of how the intimacy level of interactional content is higher than transactional and rational. Thus, interactional content fosters higher personal connection, emotional resonance, more meaningful interactions, and a higher sense of belonging - the intimacy underpinnings according to psychology (Reis & Shaver, 1988) - to consumers than transactional and rational content. Often interactional posts on social media platforms create a closer relationship between the brand towards consumers by promoting discussions, showing individual experiences from the brand community, and giving voice to employees or highly involved consumers that participate actively with the brand (Shahbanznezhad et. al., 2021), enhancing openness and promoting interaction. Drawing from the conceptualization done by Shahbanznezhad et. al., 2021, transactional and rational content have a remunerative and informational appeal respectively, which might create a distance from consumers' emotions and intimacy.

Transitioning to the hypothesis concerning the influence of content modality on consumer engagement, the findings were different from the theoretical framework established in this study. Contrary to expectations, the hypothesis that video-based content would yield higher

consumer engagement levels than image-based content (H4) was not supported by the data. These results challenge the assumed effect of Parasocial Interaction Theory, suggesting that content intimacy does not lead to increased engagement, since video-based – a more intimate modality compared to image-based according to H2 – did not present a significantly higher consumer engagement performance. Upon analyzing the data from TALA and CSB across TikTok and Instagram, it was frequently observed that images displaying aspirational content, such as models wearing the brand's apparel, also yielded a high number of likes, comments, and shares, while some of the videos that did not adopt the same appeal performed worse. The reasons behind this outcome can be severalfold, potentially drawing on the absence of a compelling message that resonates with the brand community's interest, the lack of an innovative and attention-catching approach or showcasing faces that consumers do not aspire to become on the opposing videos. An example that reinforces this conclusion is, for instance, the comparison of a successful image from CSB (image 7 in Appendix A), featuring model Isabelle Mathers, the main face of the brand, garnered a 3 times higher engagement level than another post (video 1 in Appendix A) featuring models with more typical bodies and not as famous as Isabelle, despite her distant and hardly achievable physical features and lack of direct interaction with viewers on the photo. CSB rarely speaks up about body acceptance, the brand defines itself as a "Premium athleisure to wear with confidence", which is successfully displayed through the first mentioned post, but not as much in the latter. In this example, a dissonance between the brand's main positioning and the content message led to poor engagement response to video 1. The distance between consumer expectations and the brand's delivery indicated that consumers do not always expect intimacy from the brand. Sometimes, they prefer a more superficial interaction, which can lead them to engage with contents that bring about that feeling.

Additionally, the presumed moderation effect exerted by the social media platform on the relationship between content modality and consumer engagement level yielded insignificant results, leading to the rejection of hypothesis H4a and thus refuting the foundational role of process fluency in consumer responses to various content modalities. Previous research by Reich & Pittman (2019), focusing on Twitter and Instagram, demonstrated that advertisements matching the intimacy level of the platform where they were released garnered higher consumer engagement compared to mismatched content due to process fluency. For instance, text-based content, possessing a lower intimacy level than image-based content, performed better on

Twitter (text-based) than on Instagram (image-based). However, this pattern was not replicated in the current study's data. The unexpected outcome may be attributed to the increasing similarity between TikTok and Instagram as social media platforms. While TikTok has traditionally been associated with video-based content, recently the platform has been incentivizing content creators to produce image-based posts as well, especially when it comes to advertisements (TikTok 2024). In 2023 TikTok introduced the carousel modality, through which posts with up to 32 can be uploaded. One of the reasons behind this new feature is to allow users to tell a *deeper story* (TikTok 2024). In essence, to generate content that, while not relying on videos, still elicits a sense of intimacy. As speaking and moving in front of the camera can be intimidating to some people, giving space for image-based content to thrive within the algorithm enables creators who do not feel comfortable with video to also become part of the platform. Conversely, Instagram has promoted the creation of reels, thereby encouraging users to spend more time on the platform, according to the CEO Adam Mosseri (2024). Reels were introduced after TikTok's successful launch in the Western World, signaling Instagram's proactive stance to keep pace by incorporating a comparable feature. Instagram seeks to constantly refine its algorithm to align with user preferences, fostering increased engagement and extending user time spent on the platform (Mosseri 2021).

Likewise, the hypothesis stating that interactional content's superiority in driving higher consumer engagement (H5) is not supported. Similarly, to the outcomes obtained from the influence of modality on consumer engagement, the interactional content, though more intimate as supported by the confirmation of H2, does not yield to a better consumer engagement. Throughout the content analysis it was found a balanced performance among interactional, rational and transactional. Every content category has its relevance depending on the consumers' journey and throughout the touchpoints with the brand, meaning that the reasons why users engage with the content released by the brand go beyond the intimacy level they transmit. A potential theory that can be applied to explain this phenomenon is Construal Level Theory, which posits that the psychological distance of an event affects how abstractly or concretely individuals think about it (Trope & Liberman 2010). This theory suggests that users at different stages of their purchase journey perceive and interact with content differently based on how close or distant they feel to the brand and the decision-making process (Humphreys et. al 2021). For instance, users in the early stages of the purchase journey might engage more with informational, thus rational content that helps them form a broader understanding of the brand,

while those closer to making a purchase might respond better to concrete, thus transactional content that addresses immediate needs and details (Trope & Liberman 2010). Furthermore, interactional content, by establishing closer relationships with consumers, might be more effective during consideration phases or repurchase, when consumers are already familiar with the brand. Effective engagement, therefore, dependes not just on the intimacy of content but also on its ability to meet consumers' psychological distance and abstract or concrete thinking needs at different stages of their journey.

Once again, the hypothesized moderation effect applied by the social media platform on the relationship between content category and consumer engagement levels yielded insignificant resulted effects, leading to the rejection of hypothesis H5a, and thus refuting the foundational role of process fluency in consumer responses to different content categories. Despite the supported higher intimacy of interactional content (H2) in comparison to the other content categories, akin to TikTok (H1) in comparison to Instagram, there was no considerable evidence of better performance of interactional content on the latter. Thus, not supporting the constructs of process fluency to explain the engagement levels across platforms for distinct categories of content released by the brands. The explanation behind these results also draws upon the latest adaptations made in the platform features, indicating that while differences persist, the trend is towards convergence and similarity between Instagram and TikTok by adopting best practices from each other. Although consumers perceive the two platforms differently in terms of intimacy, as confirmed by H1, their technical features are quite similar. Instagram's Reels are a direct response to TikTok videos, while TikTok's carousel pictures are equivalent to Instagram feed posts. Also, TikTok has recently incorporated stories for creators to release activities in real time with their followers, a feature Instagram has used since 2014. The strategy for paid advertisements is also quite similar on both platforms, with ads appearing between stories and within the feed, requiring users to encounter them as they scroll indefinitely through their algorithm. Although there is still some adaptation of how consumers respond to all these features, our results show that they have been engaging with content similarly through the likes, comments, and shares on both TikTok and Instagram. Furthermore, most of the followers that are present on Instagram may also be present on TikTok, leveraging similar responses to the branded content they encounter. Potentially, the brand community built around these brands is similarly present and responsive on all the social media platforms that are related to it due to brand loyalty.

The concept of processing fluency, defined as the "ease or difficulty associated with any type of mental processing" (Graf et al., 2018), is challenged by the way users effortlessly switch between Instagram and TikTok. This seamless navigation blurs the lines, making it difficult to distinguish the consumer's responses to content categories and modalities on each platform. Additionally, the process fluency theory may not fully capture the theorization proposed by this research regarding the engagement of different categories of content, due to the adaptation of the language and structure of the content according to the social media platform where it is published. Two interactional posts may differ considerably across TikTok and Instagram and still belong to the same category. That is shown through videos 2 and 5 in Appendix B published by Tala. Both are classified as interactional, but there is a clear difference of the PSI constructs among them: in video 2, there is no eye-contact from the mediated persona to the camera, nor voice sounds, creating a distance from the audience – less *intimate*. On the other hand, video 5 has the mediated persona holding the camera and bringing it close to the face, while talking in a friendly tone with empathetic language, creating a higher sense of understanding and shared emotions with the audience – more intimate. Hence, these videos meet the mental cues of the users of the platforms they are released on, which makes it more challenging to prove the process fluency application to content category and how, as proposed by this study, interactional content would perform better on TikTok than on Instagram. In fact, it is not the same interactional content type. At last, as mentioned before, other mental cues that go beyond matching the intimacy level of the platform and content category, such as the constructional level of consumers throughout the journey, might impact on how they engage with the posts released by brands on social media. It's plausible that TikTok users at a certain point of their purchase journey might be searching for content with more tangible and transactional attributes, which could lead to increased engagement if encountered on the platform. However, a similar reaction might not occur with interactional content due to a mismatch in mental construal (Humphreys et. al 2021).

In conclusion, our findings provide new insights into the connection between platform features, content qualities, and user behaviors in the social media field. While some ideas are consistent with previous theoretical frameworks, others need revising and improving existing models to fully capture the complexities of digital interactions. This research helps to provide a broader perspective of user-platform dynamics in the online space by examining these findings within a theoretical framework and evaluating the larger implications for platform intimacy, content

categories, content modalities, and consumer engagement in relation to brands. Further research is needed to better understand the complexities of these connections and change theoretical models accordingly.

7 Conclusion

The study began with a comprehensive literature review focused on social media and consumer engagement, particularly emphasizing brand positioning and presence across digital platforms. A review of TikTok and Instagram emphasized their importance for businesses looking to have a strong online presence, with TALA and CSB serving as excellent examples because of their regular posts on both platforms. Drawing from previous studies, the research aimed to enrich understanding of consumer engagement and its relation with intimacy levels, by examining different modalities of content (video-based, image-based) and categories (interactional, transactional, rational) on Instagram and TikTok, released by brands.

Contribution to Theory

Openness and Interactivity, the constructs of Parasocial Interaction Theory, were applied as the foundational theoretical framework to assess levels of platform intimacy, by comparing TikTok and Instagram, and to uncover the intimacy of the relevant content categories for digital branding (interactional, transactional, rational). Furthermore, building upon the Social Presence Theory used in previous works, PSI was also employed in the understanding of the intimacy levels across content modalities (video-based, image-based).

The findings of the pilot study regarding platform intimacy provide strong support for the Parasocial Theory when comparing TikTok to Instagram. The study revealed that TikTok is perceived as a more intimate platform compared to Instagram, primarily due to the constructs of interactivity and openness. TikTok's design and algorithms encourage users to share personal experiences, thoughts, and vulnerabilities, fostering an environment of intimacy and relatability, reinforcing one of the constructs of PSI - openness - among consumers. Moreover, TikTok's predominantly video-based modality enhances interactivity, another key concept of the Parasocial Interaction theory. The proximity of the mediated persona to the camera, the frequent use of words as sound, and the presentation of real-life situations all add to a deeper feeling of intimacy (and interactivity). Thus, we support existing research through the applicability of PSI theory, expanding the knowledge from the traditional communication

literature to computer-mediated environments like social media platforms, specifically TikTok: a growing relevant digital platform for brands still under investigation within academia and scholars.

Furthermore, regarding content modality and its levels of intimacy, we contribute to the application of Social Presence Theory to elucidate content modality and its different levels of intimacy, by incorporating the constructs of PSI theory for this understanding: interactivity and openness. Previous research has demonstrated that image-based content fosters a greater sense of intimacy compared to text-based modalities, attributed to the "realism heuristic" central to Social Presence Theory. By broadening our investigation to include video-based content, we went deeper into understanding the levels of intimacy across content modalities. This expansion reinforces the assumptions of Social Presence Theory, highlighting how media that employs a higher realism approach can evoke more intimate perceptions among consumers. The results demonstrate that this realism can be grounded by the constructs of the Parasocial Theory, namely openness and interactivity. Hence, it highlights how the integration of these two theories can mutually enhance our understanding of the nuanced aspects of content modalities and their effects on consumers' intimacy perception. Thus, the present research paves the way for future exploration of video-based modality and its impact on digital branding, as well as for further exploration of the conjunction of PSI theory and Social Presence Theory.

Similarly, we contribute to the understanding of how content categories are perceived differently in terms of intimacy levels, influenced by how interactivity and openness are employed - once again, PSI constructs. This includes considerations such as camera angle, language choice (or lack thereof), storytelling approach, and whether content adopts a personal tone. Previous studies had not explored how these content types might elicit distinct emotional and intimate responses from consumers, nor had they examined whether such responses vary depending on the social media platform on which the content is shared. Therefore, the present study successfully expands the understanding of how content categories may arise different intimacy perceptions on consumers, enhancing the linkage between the digital marketing domain and the area of consumer psychology.

Additionally, drawing from prior research the theory of Process Fluency was applied to investigate whether platform interferes with consumer engagement with different modalities and categories of content. However, its applicability was not significant by the results of this

research. This suggests that consumer engagement with branded content cannot be fully attributed to process fluency alone, particularly concerning the matching of content intimacy along platform intimacy. Instead, it entails consideration of additional mental cues and factors, such as the consumer journey and how users of social media platforms can be at different stages of this funnel, which can significantly influence engagement response in relation to what is published by the brands. Furthermore, the frequent changes made to social media applications to fulfil users' demands in the constantly shifting environment of digital platforms may make it difficult to evaluate how people respond to content. TikTok and Instagram adapt their apps' structure to meet consumers' and brands' needs, covering every phase of the purchase journey to benefit both stakeholders. As a result, they evolve into comparable platforms, posing a challenge in discerning how users interact with the content they release solely through the lens of Process Fluency Theory.

Managerial implication

In today's digital world, the traditional and linear top-to-bottom marketing funnel is ineffective. Instead, it has turned into a continuous cycle with no obvious starting or ending point. Therefore, this requires companies to build multiple ways to communicate with consumers at all phases of their journey.

Consumers engage in multiple journey phases, often revisiting stages before establishing a solid relationship with a brand. Moreover, not every consumer wants to be intimately connected with the brand, which also evokes the need to present content with diverse intimacy levels. Therefore, the present study proposes a framework through which brands can visualize how they act on social media platforms, by developing a content strategy that utilizes effective and multifaceted offers for users. The framework proposed is inspired by the updated marketing funnel with its non-linear cycle, but it can be effectively integrated into the process of attracting and retaining followers on social media platforms, as shown in Figure 9.

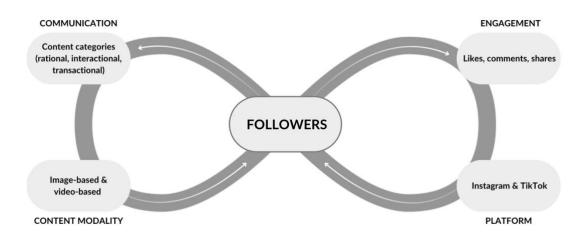


Figure 9: Framework: The Cyclical Digital Brand Positioning Funnel

Source: Present Study, 2024.

Followers, usually the first information shown on a social media account, are interpreted as an indicator of a brand's size and trustworthiness in the online community. The higher the number of followers, the stronger the sense of perceived trust among customers in relation to the brand. As a result, one of a brand's key goals is to grow its overall number of followers across all its platforms. However, collecting followers is only the first step towards creating a deeper relationship with consumers. The goal of the business is converting them into the brand's loyal customers, and potential buyers.

To retain and increase the following they have, companies must follow a strategy that includes a variety of content modalities and categories, by encouraging followers to interact with them on different social media networks, whilst maintaining a consistent branding across platforms. By doing so, companies can establish a stronger community and build loyal customers. This approach not only increases brand awareness, but it also develops customer connections and encourages long-term involvement.

According to the proposed framework regarding digital brand positioning, we advise managers to use both TikTok and Instagram to promote their business, following a loop process that includes the constant creation of compelling content. The different content categories (transactional, rational, and interactional), and modalities (image-based, video-based) explored through this research can be strategically used to target customers at various stages of their journey. By adapting content to their audience's individual requirements, mental cues, intimacy

level and interests at each step, marketers can effectively direct customers from initial awareness to active engagement and, eventually, purchase.

Businesses that constantly produce content that connects with consumers can strengthen connections, stimulate continued interaction, and increase follower growth and loyalty. Therefore, this technique will allow businesses to maintain an effective presence on both social media platforms, resulting in gaining and retaining followers, deeper engagement, and long-term audience interest.

Limitations

Due to the limited capacity of time and human resources, the methodology for testing the hypothesis had certain limitations. Moreover, relying on primary data collected from content introduces limitations such as time constraints within the platforms, algorithm changes, and differences in brand community size and followers, which may impact the representativeness of the sample.

Our study focused entirely on Instagram and TikTok, two of the most popular social media platforms; however, this approach has a limitation in that we did not analyze other platforms such as Facebook, X (Twitter), Pinterest, or Snapchat, which could provide different patterns of engagement and insights. Secondly, the unpredictable structure of social media algorithms on Instagram and TikTok creates another limitation, since these changes can have an important effect on content visibility and user engagement.

Furthermore, the study's findings can be impacted by seasonal trends or special events that cause temporary changes in user behavior. For example, the holiday season can result in increased social media activity and engagement. Lastly, our analysis was further limited by concentrating only on certain brand communities in the sportswear industry. Because of this limited focus, the findings may not be applicable to other industries such as cosmetics and skincare, technology, where customer behavior and engagement dynamics could vary greatly.

Future Research

Future research should broaden its inquiry by investigating additional market sectors and brands on social media platforms beyond activewear. This exploration may yield varied consumer engagement responses, particularly if the field of interest elicits deeper emotional cues similar to those found within the fitness area. Delving into consumer engagement with brands in market sectors such as beauty and cosmetics, luxury fashion, wellness and self-care, presents an opportunity to explore the intricacies of emotional responses to brand content on social media platforms due to the personal and potentially intimate appeal that these sectors evoke. To make sense of consumers feelings and perceptions towards the content released by the brands and thoroughly investigate consumer engagement reasons behind it, future researchers could employ a mixed-methods approach, combining qualitative and quantitative methodologies.

As a complementary approach to this study, adopting qualitative methods, such as in-depth interviews or focus groups, could be used to uncover the underlying emotional drivers and motivations behind consumer interactions with brand content and its relation with the perception of intimacy. Participants could be asked to reflect on their emotional responses to specific brand campaigns or advertisements, exploring how these responses influence their engagement and purchasing decisions. Furthermore, through qualitative analysis, researchers can identify these common themes and emotional triggers that resonate with consumers that might be applicable for further testing through the Process Fluency Theory.

Additionally, it is recommended to expand the understanding of Process Fluency Theory and Parasocial Interaction Theory associated with content modality and category to other platforms that are relevant for the digital marketing landscape, such as Facebook, Pinterest and Podcast-streaming apps. Although the first one represents a more obsolete way of interacting socially and does not show the same growth levels as TikTok and Instagram, it is still relevant to achieve brand reach and awareness (Haenlein et. Al 2020), as Facebook is the most used social media platform as of 2023 (Meltwater 2023). Moreover, Pinterest, classified as the third most used platform for brand and product research (Meltwater 2023) has not been fully explored regarding consumers' interaction with brands on it. Pinterest offers a distinct opportunity for brands to engage with consumers in innovative ways that may significantly impact brand awareness, consideration, and purchase behavior. Unlike more traditional social media platforms, Pinterest operates as a visual discovery engine, where users actively seek out inspiration and ideas across a wide range of interests. Therefore, understanding how brands can effectively leverage Pinterest to connect with consumers and drive engagement is crucial for unlocking its full potential as a marketing tool and should be included in future research agendas.

Additionally, it is crucial to delve deeper into the differences among various aspects of the content posted on these platforms. Factors such as language, culture, and communication styles, although they may be categorized under major segments considered in this study, can significantly vary and influence outcomes within the same category (interactional, transactional, and rational). The language used in content plays a significant role in shaping consumer perceptions and engagement. Whether content adopts a formal or informal tone, or is directed towards a specific brand tribe using their lingo, it can greatly influence how consumers relate to and interact with the brand. Moreover, cultural differences further impact consumer responses to branded content. For instance, distinguishing between the Western and Eastern worlds reveals variations in communication styles, values, and societal norms, impacting how consumers may react and engage with the content. Understanding these cultural nuances is essential for brands to effectively communicate with diverse audiences and drive meaningful engagement across global markets. Furthermore, within the same category, such as interactional content, there can be distinct communication styles across different social media platforms. For instance, interactional content on TikTok may involve short, creative videos with quick cuts and trendy music, fostering a sense of spontaneity and entertainment. In contrast, interactional content on Instagram might feature longer captions and carefully curated visuals, emphasizing aesthetic appeal and storytelling. Despite these differences in presentation, both types of content are still interactional in nature, aiming to engage and connect with audiences. Thus, future research should explore the nuances of communication styles across different social media platforms and cultural contexts to enable brands to tailor their content strategies effectively. Understanding these differences allows brands to resonate with their target audiences, navigate international markets, and develop inclusive marketing approaches that drive meaningful engagement and eventual purchase.

Furthermore, future research should also consider ad performance across the social media platforms, focusing on the characteristics that differentiate successful ads from those that underperform by adopting the Parasocial Interaction theory constructs —openness and interactivity— in influencing ad performance. These constructs, alongside platform intimacy differences, contrary to the results obtained for non-paid content released by brands, may show differences in consumer responses when examined through the lens of process fluency theory. Hence, researchers can assess how the ease of processing an ad's content affects user engagement and actual conversion rates. Understanding the interplay between Parasocial

Interaction, platform and content intimacy, and Process Fluency can provide insights into optimizing ad strategies to enhance performance and drive conversions across diverse social media environments.

Lastly, future research should also focus on identifying which of the content modalities and categories are most effective in converting awareness into actual purchases. Identifying the specific content that not only attracts attention and engagement, but also compels users to act is relevant for driving revenue for organizations, a variable that was not the focus of the present research but is worth investigating. By understanding these dynamics, researchers can provide valuable insights into optimizing social media marketing strategies to achieve both high engagement and tangible business outcomes.

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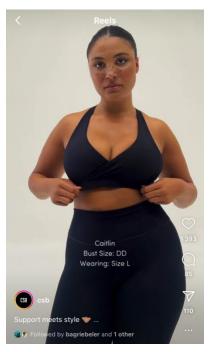
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9 Appendix A: CSB

Content Examples Videos



1) CSB's Rational Video on Instagram

Category: Rational Content

Modality: Video-based

Brand: CSB

Platform: Instagram

The shows models wearing the new collection and video provides information to the customers about the launch of the new color.



2) CSB's Interactional Video on Instagram

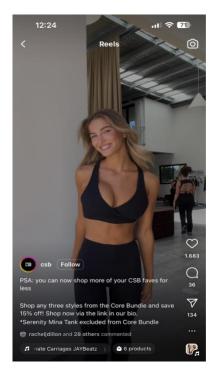
Category: Interactional

Modality: Video-based

Brand: CSB

Platform: Instagram

The video shows behind-the-scenes footage and employees. People featured in the video are interacting with them and explaining the process.



3) CSB's Transactional Video on Instagram

Category: Transactional Modality: Video-based

Brand: CSB

Platform: TikTok

The video shows a range of products available for purchase and includes a unique promotional discount code to take advantage of the cheaper prices. A clear call to action encourages customers to take advantage of the deal and make a purchase.



4) CSB's Interactional Video on TikTok

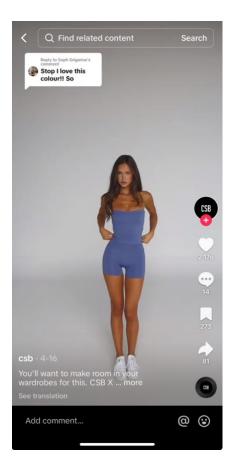
Category: Interactional

Modality: Video-based

Brand: CSB

Platform: TikTok

The video shows the brand and brand community running a 10km path and sharing their experiences together.



5) CSB's Rational Video on TikTok

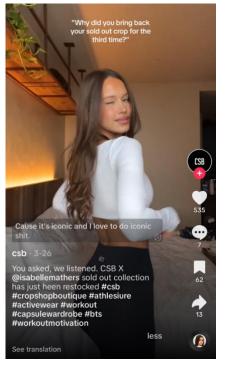
Category: Rational

Modality: Video-based

Brand: CSB

Platform: TikTok

The video shows the main model of the brand wearing the new collection.



6) CSB's Transactional Video on TikTok

Category: Transactional

Modality: Video-based

Brand: CSB

Platform: TikTok

The video shows the main model of the brand wearing the restored collection sold-out that had sold out in the past.

Images



Liked by pamela_rf and others isabellemathersx 4w · steel. 17.4.24

theoliviachristine_ Where's the Celine bra in this color that she's wearing here?! Don't hold out on me CSB

View all con

<

7) CSB's Rational Image on Instagram

Category: Rational

Modality: Image-based

Brand: CSB

Platform: Instagram

The image shows the main model of the brand Isabelle Mathers wearing the new collection, with the release data as caption.



CSB Posts

csb 6w - Two-tone looks so good on you. View all comments 7 April

♥ 1298 Q 9 ₹ 53

8) CSB's Interactional Image on Instagram

Category: Interactional

Modality: Image-based

Brand: CSB

 \square

Platform: Instagram

The image shows a personal experience of the one of the consumers wearing some of the clothes of the brand.

csb 7w · The freedom staple crop + 4" freedom shorts. fl you haven't tried our freedom fabric yet, consider this lsabelle Mathers collection restock your sign. Lightweight, silky & stretchy.

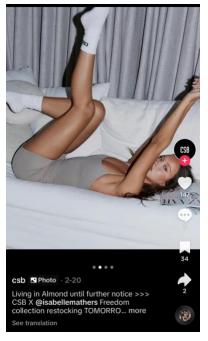
9) CSB's Transactional Image on Instagram

Category: Interactional Modality: Image-based

Brand: CSB

Platform: Instagram

The image shows a personal experience of one of the consumers wearing some of the clothes of the brand.



10) CSB's Rational Image on TikTok

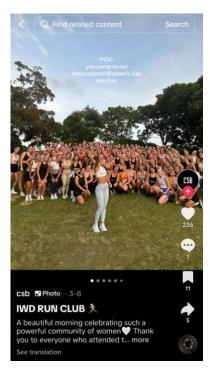
Category: Rational

Modality: Image-based

Brand: CSB

Platform: TikTok

The image shows the main model of the brand wearing the new collection and announces its launch date.



11) CSB's Interactional Image on TikTok

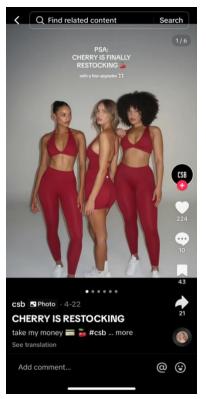
Category: Interactional

Modality: Image-based

Brand: CSB

Platform: TikTok

The image shows the brand community with the brand founders running together and sharing their own experiences with the audience.



12) CSB's Transactional Image on TikTok

Category: Transactional

Modality: Image-based

Brand: CSB

Platform: TikTok

The image shows the restocking of a collection with a call to action.

10 Appendix B: TALA

Content Examples Videos



1) TALA's Rational Video on Instagram

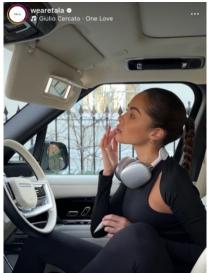
Category: Rational

Modality: Video-based

Brand: TALA

Platform: Instagram

The video shows an explanation of how the new collection was developed.



2) TALA's Interactional Video on Instagram

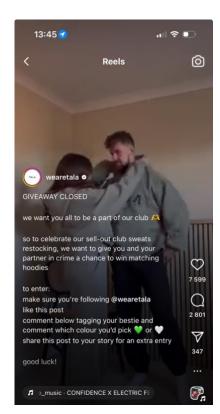
Category: Interactional

Modality: Video-based

Brand: TALA

Platform: Instagram

The video shows a personal experience of a presumably consumer, who is wearing the clothes from the brand and getting ready to go for a run.



3) TALA's Transactional Video on Instagram

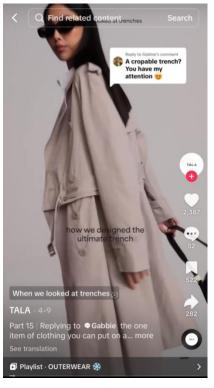
Category: Transactional

Modality: Video-based

Brand: TALA

Platform: Instagram

The video invites consumers to participate in a giveaway of the brand, whilst showing a couple wearing some pieces of apparel from the brand.



4) TALA's Rational Video on TikTok

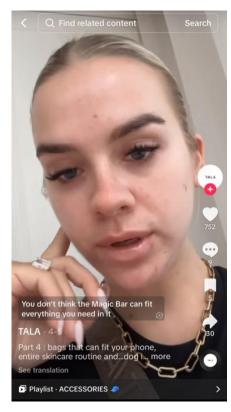
Category: Rational

Modality: Video-based

Brand: TALA

Platform: TikTok

The video explains how one of the pieces of the brand was developed.



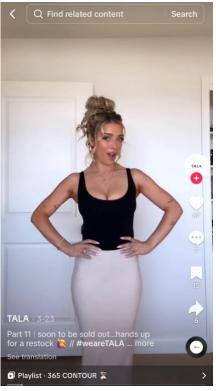
5) TALA's Interactional Video on TikTok

Category: Interactional Modality: Video-based

Brand: TALA

Platform: TikTok

The video is an interactive dialog of the founder with the consumers regarding one of the bags from the brand.



6) TALA's Transactional Video on TikTok

Category: Transactional

Modality: Video-based

Brand: TALA

Platform: TikTok

The video shows an influencer wearing the piece and interacting with the audience, with a caption explicitly calling for purchase.

Images



View all comments

7) TALA's Rational Image on Instagram

Category: Rational

Modality: Image-based

Brand: TALA

Platform: Instagram

The image shows models wearing the new collection release and informing that it is now live on the website.



8) TALA's Interactional Image on Instagram

Category: Interactional

Modality: Image-based

Brand: TALA

Platform: Instagram

The image shows an influencer wearing clothes from the brand, referring to a shared experience with consumers: running.



wearetala 18w · pov: our pilates (and coffee run) uniform

it's all about olive. shop this colour way now in our winter sale, up to 60% off $\underline{\mathring{m}}$

// #weareTALA #teamTALA

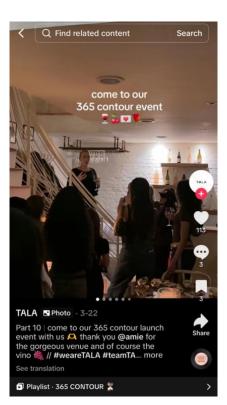
9) TALA's Transactional Image on Instagram

Category: Transactional Modality: Image-based

Brand: TALA

Platform: Instagram

The image shows a model wearing clothes from the brand and the caption refers to the promotional discount available.



10) TALA's Rational Image on TikTok

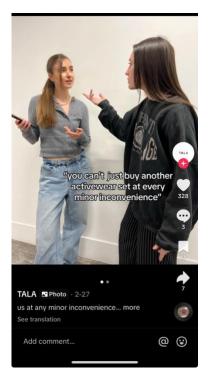
Category: Rational

Modality: Image-based

Brand: TALA

Platform: TikTok

The carousel image shows one of the events of the brand.



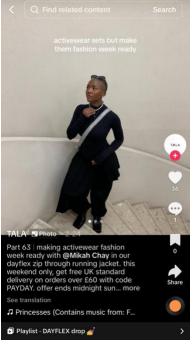
11) TALA's Interactional Image on TikTok

Category: Interactional Modality: Image-based

Brand: TALA

Platform: TikTok

The carousel image evokes shared and relatable experiences and thoughts of consumers.



12) TALA's Transactional Image on TikTok

Category: Transactional

Modality: Image-based

Brand: TALA

Platform: TikTok

The carousel image shows an influencer wearing clothes from the brand and reminds consumers of the free shipping deal on that specific weekend.

11 Appendix C: Questionnaire for Platform Intimacy

Platform intimacy questionnare

We are conducting a comparison between TikTok and Instagram's intimacy levels. Our survey consists of 13 questions. Thank you for taking the time to participate. Your input is essential for our research measures.

Please know that your participation in this survey is entirely voluntary and that all responses will be kept strictly confidential. We will not collect any personally identifiable information. The information we collect will be used solely for research purposes.

Your sincere and thoughtful responses will provide useful information for our research on the intimacy levels of the two platforms. Completing the survey should take about 5 to 7 minutes. We sincerely appreciate your participation and feedback.

	Thank you again for your significant contribution, Carolina and Lara				
*	ndica uma pergunta obrigatória				
1.	What is your age? * Marcar apenas uma oval.				
2.	Do you have Instagram? * Marcar apenas uma oval. Yes Yes (but I don't post) No				

Platform intimacy questionnare 2024-05-24, 11:22

3.	Do you have TikTok? *					
	Marcar apenas uma oval.					
	Yes					
	Yes (but I don't post)					
	◯ No					
U	Intitled Section					
4.	Often I feel a strong personal connection with the content released on TIKTOK. *					
	Marcar apenas uma oval.					
	1 2 3 4 5					
	Stro Strongly agree					
5.	Often I feel a strong personal connection with the content released on INSTAGRAM. *					
	Marcar apenas uma oval.					
	1 2 3 4 5					
	Stro Strongly agree					
6.	I perceive the content on TIKTOK as being genuine and well-representative of reality. *					
	Marcar apenas uma oval.					
	1 2 3 4 5					
	Stro Strongly agree					
	Site of Site o					

https://docs.google.com/forms/u/0/d/1yfWpj7V3n4DYCAVcoSci5xcNAmwDl2AqMgprGExuWsU/printform

Page 2 of 5

7. I perceive the content on INSTAGRAM as being genuine and well-representative of reality. *

Marcar apenas uma oval.

	1	2	3	4	5	
Stro			\bigcirc	0		Strongly agree

8. I feel comfortable sharing my thoughts and emotions on TIKTOK. *

Marcar apenas uma oval.

	1	2	3	4	5	
Stro		0	0	0	\bigcirc	Strongly agree

9. I feel comfortable sharing my thoughts and emotions on INSTAGRAM. *

Marcar apenas uma oval.

	1	2	3	4	5	
Stro			0	0		Strongly agree

10. I trust the community on TIKTOK to support me if I share personal and vulnerable content.

Marcar apenas uma oval.

Platform intimacy questionnare 2024-05-24, 11:22

11.	I trust the community on INSTAGRAM to support me if I share personal and vulnerable content.						
	Marcar apenas uma oval.						
	1 2 3 4 5						
	Stro Strongly agree						
12.	Content on TIKTOK elicits genuine emotional responses from me (e.g., laughter, tears). *						
	Marcar apenas uma oval.						
	1 2 3 4 5						
	Stro Strongly agree						
13.	Content on INSTAGRAM elicits genuine emotional responses from me (e.g., laughter, tears).						
	Marcar apenas uma oval.						
	1 2 3 4 5						
	Stro Strongly agree						
	Este conteúdo não foi criado nem aprovado pelo Google.						
	Google Formulários						
	Google Formularios						