# Understanding design across platforms: the case of consumption of fashion in Shopee

## Compreendendo o design através das plataformas: o caso do consumo de moda no Shopee

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**Resumo:** *Este artigo tem por objetivo analisar a plataforma de comercialização Shopee, a partir de sua estrutura e dos comentários dos consumidores. Conduziu-se um estudo de caso em duas partes: I) Análise de macrouniverso da plataforma, focado na identificação e discussão das características de plataforma da Shopee, articulando com as funções do Design; e, II) Análise de microuniverso, focado em apenas um dos anúncios, onde se coletou 248 comentários com foco em identificar os valores de design presentes em tais textos. A primeira etapa do estudo revelou a característica de datificação e plataforma como mais possível de influenciar a percepção das funções do Design. O segundo estudo demonstrou que os consumidores se atêm a comentários de valores pragmáticos, evidenciando atributos materiais e da interação consumidor-produto.*

**Palavras-chave:** *plataforma de comercialização; valores de Design; consumo.*

**Abstract:** *This paper aims to analyse the Shopee trading platform, based on its structure and consumer comments. A case study was carried out in two parts: I) Analysis of the platform's macro universe, focused on identifying and discussing Shopee's platform characteristics, articulating with the functions of Design; and II) Microuniverse analysis, focused on just one of the advertisements, where 248 comments were collected with a focus on identifying the design values present in*

*such texts. The first stage of the study revealed the characteristic of datatification and platform as being more likely to influence the perception of the functions of Design. The second study showed that consumers adhere to comments based on pragmatic values, highlighting material attributes and consumer-product interaction.*

**Keywords:** *commercialization platform; Design values; consumption.*

## Introduction

The rise of digital platforms in the contemporary context has transformed how consumers interact with products and services, providing new opportunities and challenges for designers and brands (PARKER ET AL., 2016). These platforms have become crucial spaces for the exchange of information, as well as for building communities and creating shared value (Srnicek, 2017). We take the theoretical perspective known as Platform Studies as a field developed since the 2010s interested in the intersection between social exchanges and issues related to the materiality of platforms and economic and political aspects inherent to the functioning of digital platforms (D'ANDRÉA, 2020). According to Burgess (2021), these investigations focus on the relationships understood around "technologies, interfaces, and affordances, ownership structures, business models, media and self-representations, and the governance of these entities, positioning these elements in a co-evolutionary relationship with the various cultures of platform use" (BURGESS, 2021, P. 26). In Brazil, this theoretical approach has been appropriated by the Communication area, from 2010 onwards, as demonstrated by studies on theses and dissertations in Platform Studies (MONTARDO, FERREIRA, 2022) and on articles published in journals classified in the A and B categories of the Qualis System (MONTARDO, 2023).

Cultural production and consumption (of games, news, image production, audiovisual, and sound) on digital platforms are consistent research topics under platform studies, emerging as two faces of the same coin. On the one hand, infrastructural, market, and governance aspects strongly determine the production and distribution of cultural goods in these platforms (POELL, Nieborg, 2018; POELL, Nieborg, Duffy, 2022). On the other hand, it is a form of consumption that occurs in the form of feedback cycles, where consumers react to the content offered on digital platforms through the features available on the platform in question (likes, comments, reactions, sharing, etc.), thus affecting the resulting production itself (Mountrardo, Valiati, 2021). Caliandro et al. (2024) define the platform of consumer culture as "progressive

penetration of infrastructures, economic processes and platform governance frames (Nieborg, Poell, 2028, p. 2) in the daily life of consumers". (Caliandro et al, 2024, p. 14). Thus, the cultural practices through which consumers use objects to confer collective meaning to their environments and guide their online and offline experiences reorganize (Caliandro et al., 2024). For designers and fashion brands, platforms offer significant potential to achieve broader audiences, obtain direct feedback from consumers, and adapt their offerings to constantly evolving market needs and preferences (Cusumano *et al.*, 2019).

A key aspect of digital platforms is the ability to extract and analyze consumer data, allowing designers and brands to understand their behaviors, motivations, and desires (Mayer-Schönberger; Cukier, 2013). They can use the data to inform the design process, improve the quality and relevance of products, and create more personalized and meaningful consumer experiences (Lupton, 2016). Shopee, one of the largest e-commerce platforms in Southeast Asia, is a notable example of this trend, offering a wide range of fashion products to millions of consumers worldwide (Zhang et al., 2020).

In this context, the hypothesis arises that a general understanding of the structure of a platform like Shopee and consumer feedback can be fed into design practice to understand the receptivity and expansion of product reach. By analyzing and interpreting consumer feedback, designers can gain valuable insights into the expectations, needs, and preferences of their target audience and identify emerging trends and opportunities for innovation (Kozinets, 2002).

The rationale for this approach lies in the growing importance of fashion consumption and the need to create products that are not only aesthetically appealing and functional but also culturally relevant and emotionally engaging. By integrating consumer feedback into the design process, designers can develop solutions tailored to market demands and values, contributing to a more competitive and differentiated product offering (Verganti, 2009).

This article aims to explore the relationship between platform and design values and functions in fashion consumer culture, focusing on the use of Shopee's platform structure and feedback. Through a case study, the article seeks to identify the main opportunities and challenges associated with this approach, providing practical recommendations for designers and brands who wish to harness the potential of digital platforms to improve their products and creative processes, identifying the correlation between functions and values, and the role of the platform offered by Shopee.

## Literature review

### Platforms: introductory concepts

The concepts of platform and platformization are prominent in the current scenario, especially in the digital and business context (D'ANDRÉA, 2020). The term "platform" can be understood as a technological base or infrastructure that allows interaction between different actors, such as consumers, developers, and suppliers, facilitating the exchange of information, resources, and services (D'ANDRÉA, 2020). We can understand the term "platformization" as the process of transforming a product, service, or business into a platform, seeking to create an ecosystem around it and generate value through collaboration and innovation (BALDWIN; WOODARD, 2009). This article focuses on the concept of platform defined by D'Andréa (2020).

Digital platforms have become increasingly common and influential, covering various sectors of the economy, such as e-commerce, social media, transportation, and hospitality (Parker et al., 2016). Characteristically, these platforms can connect and integrate different actors and resources, promoting the creation of networks and communities and stimulating cooperation and competition (Rochet; Tirole, 2003). Platform theory suggests the success of a platform depends on its ability to attract and retain a sufficient number of participants, generate network effects,

and increase the value of the ecosystem for all involved (Eisenmann et al., 2006). In this sense, platform management consists of defining strategies and policies that encourage the participation and contribution of participants, as well as the governance and regulation of interactions and transactions (Boudreau; Hagiu, 2009).

The literature on platforms also highlights the importance of architecture and design in the creation and development of successful platforms (Yoo et al., 2010). The architecture of a platform refers to its structure and organization, including the components, interfaces, and protocols that allow interaction and integration between participants (Baldwin; Clark, 2000). The design of a platform, in turn, involves defining its functionalities, characteristics, and experiences, seeking to meet the needs and preferences of consumers and developers (Wareham et al., 2014).

Research and data analysis are fundamental activities for developing and managing platforms, allowing the identification of trends, opportunities, and challenges, besides evaluating the performance and impact of the strategies and policies adopted (Hagiu; Wright, 2015). Data collection and analysis on platforms can involve using big data, artificial intelligence, and machine learning techniques and tools to extract insights and knowledge relevant to decision-making and innovation (Provost; Fawcett, 2013).

Therefore, digital platforms have become valuable structures for capturing data and understanding consumers' wants and needs, allowing companies to develop products and services more aligned with market expectations. Analyzing consumer comments on social media, online forums, and review websites, among others, can provide data on consumer preferences, opinions, and behaviors (Kaplan; Haenlein, 2010). Companies and marketing professionals have widely adopted this approach to identify trends, opportunities, and challenges and to assess customer perception and satisfaction with the products and services offered (Jansen et al., 2009; Stieglitz; Dang-Xuan, 2013).

## Design Concepts: product functions and the role of consumer vision

The concept of design has changed over time and is now understood more broadly than just product development. Design is now seen as a creative process that involves problem-solving and innovation, not just the aesthetics of a product (TORRES, 2017), including identifying an issue, generating ideas to solve it, and implementing the best solution (CROSS, 2006). This iterative process involves a series of steps, including research, idea generation, prototyping, testing, and refinement (BAXTER, 2011).

Design is a critical and creative thinking process that we can apply to any area, not just product development. Design is also a form of communication (Burdek, 2010), entailing the creation of visual messages for consumers or viewers to interpret (Silveira, 2022). Various media disseminate these messages, including digital products, graphics, environments, and systems. Therefore, design plays a crucial role in creating meaningful consumer experiences (Moggridge, 2007).

In this context, design has functions that will guide and attempt to guarantee the consumer satisfaction process regarding consumer-product interaction at different levels (Löbach, 2001). These functions are related to the designer's coding strategies in a product and, therefore, the possible choices of uses for the artifact (Löbach, 2001). More than that, design is also centered on the potential uses made by consumers of that object; in that sense, it is a language beyond the materiality of the product and intertwined with sociocultural and communicative meanings that will change according to the uses that consumers make of these products (Bürdek, 2010). Based on that premise, Löbach (2001) defines the three functions of products: practical (related to function), aesthetic (related to form), and symbolic (related to meaning).

Braida and Nojima (2014) relate the practical dimension of a product's function to the physiological and ergonomic sense for which a designer conceives an artifact or the mechanical sense that takes shape at its base. Thus, Löbach (2001) defines the practical function as

the practical relationships between a product and its consumers, which involve physiological aspects at the organic-bodily level, covering all physiological aspects of its use.

Then, when delving into the products' sensorial aspects, Löbach (2001) presents the aesthetic function, which Braida and Nojima (2014) relate to the form of products, to the elements (visual, tactile, and sound) that make up the artifact. Therefore, these are the psychological aspects that a product's appearance evokes and how it can influence its use (Löbach, 2001). In this context, the meanings of products pertain to their symbolic function (Braida; Nojima, 2014). Löbach (2001) defines it as the function that will stimulate the consumer's spirituality, interconnecting the artifact with the experiences and background of the individual who interacts with the product.

With this in mind, effective communication with consumers is one of the most relevant aspects of product design, and the interconnection between product functions (Löbach, 2001) and consumer desires is strictly necessary. Therefore, companies seek feedback and evaluate customer satisfaction with the products and services (Kotler; Keller, 2012).

From that perspective, companies can use digital platforms to collect data on consumer preferences and needs, assisting in the process of market research and analysis (Kaplan; Haenlein, 2010). For example, exploring social media and online forums can help identify consumer trends, opinions, and behaviors, besides facilitating feedback and customer satisfaction assessments (Jansen et al., 2009; Stieglitz; Dang-Xuan, 2013). The integration of these approaches and the application of data analysis strategies on digital platforms can help companies create products that meet market demands and expectations, promoting differentiation and success in today's competitive scenario.

## Fashion consumption and design values: theories and categories

Fashion consumption is a phenomenon widely studied in academic literature, highlighting the importance of cultural, social, and psychological aspects in the choice and use of clothing and accessories (BARNARD,

2003; SANCHES, 2016). Therefore, Fashion is a form of individual expression and a means of communication and identity building, allowing individuals to position themselves and relate to others within a specific social context (BARTHES, 1967; BARNARD, 2003).

Bearing this in mind, we delve into the perspective of the value of products and how consumer artifacts can bring in their formal configuration a communicative potential (Burdek, 2010), where the product itself conveys its characteristics and attributes, how it was made, its uses and the target audience it intends to reach (Niemeyer, 2013). In the case of Fashion, consumers use it as a possible channel for a message, sometimes about status or belonging to social groups, that they want to communicate in a sociocultural environment (Barnard, 2003). When configured as a product, such messages use a series of syntactic constructs to achieve the desired effect on the consumer (Silveira, 2022).

Niemeyer (2003) presents a semiotic theory applied to Design that considers four central dimensions: material, syntactic, semantic, and pragmatic, highlighting their interdependence in the product but dividing them for didactic purposes. This theory reverberates the constitutive process of product construction, which starts from its component plastic elements (colors, shapes, and textures, for example), going through the meaning of these elements until reaching the possible contexts of use. These dimensions help us understand product creation (Silveira, 2022). According to Braida and Nojima (2014), there is a relationship between these concepts and the functions of a product, where the syntactic dimension connects with the aesthetic function, the semantic dimension, the symbolic function, the pragmatic dimension, and the practical function of the artifacts.

Based on Niemeyer's (2003) categories, Medeiros (2014) suggests a new approach called "Significant Interaction," which considers the relationships between people, products, and contexts to explain the emotional and pragmatic values that end up being attributed to products, even if unconsciously. In this context, the semantic interaction with products would come from the pragmatic dimension, which

considers the artifact's materiality directly related to physical attributes, and the emotional dimension, which envisions affective and symbolic perceptions from the products. Therefore, the categories proposed by Medeiros (2014) can shed light on the classification of textuality present in the evaluation of products by consumers on marketing platforms such as Shopee.

Considering everything presented in this theoretical foundation, we argue businesses must pay attention to the functions of design, drawing from the structure of the Shopee platform. Therefore, contact awakens consumers' interest in various ways and for different motivations. The elements that sellers choose to promote their products and present in advertisements are responsible for stimulating consumers' interest.

## Materials, methods and techniques

### Technical procedures: the Shopee platform, selected footwear, and data collection

Since its launch in 2015, the Shopee platform has established itself as a relevant name in the e-commerce market, offering a wide range of products, including footwear – the focus of this research – to millions of consumers around the world (ZHANG ET AL., 2020). In this sense, the platform plays a fundamental role in the transformation of footwear retail, facilitating interaction between consumers, designers, and brands and promoting innovation and value creation in the sector (PARKER ET AL., 2016). That is why we chose to investigate the Shopee platform.

For stage 2, which focuses on the comments of one of the publications, we filtered the search on the platform by following these steps: I) Women's shoes; II) "Popular" tab, searching for those with many products sold; III) Product with an average of 4 stars to obtain a variety of comments (positive and negative). Based on these criteria, we selected the product for analysis, a Unisex Flip-Flop (Figure 1).

Figure 1 – Preliminary identification of the object of study

| Calçado[1] | Tipo | Informações técnicas | |
|---|---|---|---|
|  | Chinelo | **Título** | Chinelo Unissex Nuvem Original Lançamento |
| | | **Preço** | R$24,90 |
| | | **Estrelas** | 4,3 |
| | | **Descrição** | *"Essa é a mais nova moda em Chinelos 'Pisando nas Nuvens". Chinelos de Alta qualidade e com um conforto que você nunca viu antes Muita atenção aqui!!! A cor preta e um pouco mais clara, não e um preto tão escuro. Características: 1.Material de alta qualidade, largura de banda, macia e confortável 2. calçados casuais antiderrapante, secagem rápida, respirável Fácil de usar! 3.Bicos de vazamento, alças cruzadas, Esfria, respirável, a melhor escolha da praia 4.Sapato caminhada leve, Design conveniente de slip-on, Solinha selecionada em escova. Informações do produto: Gênero: Unissex Material: microexpandido Função: Respirável, Mensagem, Love,Soft Estilo: Moda ,Encanto fresco, Feminino Forma de Dedo: Cabeça redonda Altura do Salto:3cm Temporada Apropriada: Primavera, Verão Pacote: 1 Par Chinelo Tamanhos Disponíveis: forma padrão 33-34 / 20,00 cm 35-36 / 21,50 cm 37-38 / 22,50 cm 39-40 / 24,00 cm".* |

**Source**: elaborated by the authors (2023) according to Shopee (2023).

We collected the comments manually from the appropriate section of the publication mentioned above (the ad for a Unisex Flip Flop), systematizing them in an Excel spreadsheet. Regarding sampling, considering that redundancy (PANG & LEE, 2008) is not a necessary bias in this investigation, we decided to select a maximum of 50 comments for each evaluation level (1 to 5 stars) to achieve a balance. Therefore, we mapped and considered a total of 248 comments, eliminating those in which respondents only made criticisms in the specific sections referring to "comfort," "quality," and "similar to the advertisement", as these already bore a semantic bias in their coding.

## Interpretive categories and analysis techniques

### Stage 1: Digital platforms and the dimensions of Design

In the first stage of analysis, we combined concepts related to platform characteristics, following D'Andréa (2020), with the relationship with the communication of the attributes of the products, considering the dimensions of Design based on the order of the Shopee platform, analyzed through the functions of the products, which are practical, aesthetic, and symbolic according to Löbach (2001). Figure 2 outlines these guiding concepts.

Figure 2 –Concepts/issues guiding platforms and the functions of Design

| Plataformas | |
|---|---|
| **(D'ANDRÉA, 2020)** | |
| Datificação e algoritmos | Como esta plataforma recomenda/disponibiliza conteúdo para os usuários? |
| Infraestrutura | Qual Big 5 está associada à plataforma? E como essa relação se dá? |
| Modelo de negócios | De que forma esta plataforma gera receita? |
| Governança | O que é proibido/desincentivado a se fazer nessa plataforma? E como/onde isso está declarado? |
| Práticas e *Affordances* | O que é proibido de se fazer, mas as pessoas fazem mesmo assim nesta plataforma? Como isso acontece? |
| **Funções do Design** | |
| **(LOBACH, 2001)** | |
| Prática | Como os elementos de plataforma da Shoppe auxiliam na compreensão da função prática dos produtos comercializados? |
| Estética | Como os elementos de plataforma da Shoppe auxiliam na compreensão da função estética dos produtos comercializados? |
| Simbólica | Como os elementos de plataforma da Shoppe auxiliam na compreensão da função simbólica dos produtos comercializados? |

**Source**: elaborated by the authors (2023) according to Lobach (2001) and D'Andréa (2020).

### Stage 2: Design Values

To analyze the comments and understand their potential relationship with design values, we used the method of content analysis, which, according to Bardin (2011), is a systematic and objective approach to text analysis conducted through the formalization of categories. Therefore, this strategy allowed us to identify and quantify the recurring themes related to design present in these comments, identifying patterns and trends. To guide the analysis, making it categorically objective, we used the design values of Medeiros (2014) as observation principles in the method of significant interaction, which considers the pragmatic and emotional views of the semantic dimension of Design (Figure 3).

Figura 3 – Concepts/issues guiding design values

| Valores do Design (MEDEIROS, 2014) | | |
|---|---|---|
| Pragmática | Prático | Associações semânticas do usuário conectadas aos atributos físicos, incluindo as qualidades tangíveis e perceptíveis dos produtos. |
| | Crítico | Julgamentos do usuário e essa dimensão revela como o usuário pode se sentir sobre o uso de um produto. |
| Emocional | Ideológico | Implica associações semânticas que são sustentadas por paradigmas simbólicos atribuídos aos produtos (status, identidade, estilo de vida e/ou personalidade). |
| | Lúdico | As associações semânticas emocionais do usuário, porém abrangem preferências individuais, em vez de valores ou padrões de comportamento baseados em elementos sociais/simbólicos. |

Source: composed by the authors (2023), according to Medeiros (2014).

## Discussions and results

### Micro universe analysis: possible dialogues between Shopee's platform characteristics and the presentation of Design product functions

The first dimension D'Andréa suggests for analyzing platforms concerns "datafication and algorithms," which refers to the operating structures of platforms. This discussion becomes pertinent because "understanding how platforms work based on programmability logic is central to a contemporary and critical approach to the topic" (D'ANDRÉA, 2020, p. 26). Platform design influences how it presents data and, therefore, products to potential consumers. In this context, the process involves two main parties: consumers and sellers. This article focuses on discussions related to consumers and the intersection with posts published on the platform.

Regarding consumers, Shopee explains that it collects basic data related to name, email address, date of birth, billing or delivery address, bank account, payment details, telephone number, and gender. Some of this information is necessary for a secure transaction between the parties involved. However, the platform also collects attributes like data sent or associated with the device(s) used to access Shopee services, information about the internet network, personal information and accounts with which one has interacted, recordings and photos, audio, or videos files, identification documents issued by public authorities, advertising and communications data, service usage and transactional data, and location data. Shopee gathers a comprehensive collection of consumer data for a supposedly personalized experience of advertisements and offers for potential consumers. In this regard, the platform warns that "[...] disabling the collection of location information will result in its location-based features being disabled" (SHOPEE, 2022, N.P.).

We can observe how Shopee personalizes ads, drawing from a profusion of consumer information, through an experience design approach

and how that directly affects the offering of Design functions and the perception of the different values of products. Hence, "[...] users may not realize that the content of a page has been adapted to their interests since web content is always in a state of flux" (Treiblmaier; Pollach, 2011, p. 19, our translation). Therefore, the aesthetic and symbolic dimensions can be related to the interests of specific consumer groups (Löbach, 2001), originally categorized by algorithms that classify information based on the data collected by the platform.

For example, female Generation Z Shopee consumers feel drawn to items endorsed by digital fashion influencers. Therefore, if they do not share information, they will not receive as many ads directly related to the aesthetic interests of that group, seeing items they may consider useless. Therefore, the platform's advertising efficiency tends to decrease, impacting the assimilation of and interest in products' design functions. Shopee collects all data through cookies, which consumers accept when accessing the platform or website page for the first time (Figure 4).

Figure 4 – *Cookies* for personalizing platform experience



**Source**: Shopee (2023).

We can articulate other issues with the topics of datafication and algorithms, such as the use of points to classify buyers/products and reward consumers for comments and shopping consistency. In this first case, the form of monitoring is called penalty points, used "to provide buyers with a great experience and ensure that our sellers enjoy continuous sales [...]" (SHOPEE, [2023?], N.P.), subdividing them between compliance with shipping deadlines, authentic ads, and satisfactory customer service. Every week, the platform gives points to sellers for each of these items.

The penalty points directly impact the configuration of codes in seller classification algorithms since their publications appear less or only on some of the last product pages, which leads to reduced access to their products. On the other hand, there is the loyalty program, through

which consumers receive money and points to promote products on the platform for their friends, creating a data and collaboration network because "Through the affiliate program and affiliates themselves, the company can reach people and markets that would normally not reach with using conventional communication tactics at all or would have to make high finance" (JURIŠOVÁ, 2013, p. 110).

Furthermore, personalized advertising cookies involve sharing information with other platforms – specifically TikTok and Google – for marketing purposes, as shown in Figure 4. This issue also interconnects with the infrastructure dimension of the platforms. According to D'Andréa (2020, p. 33), "[...] infrastructures are even more central to the articulation of communication flows and practices in digital environments". This dimension highlights the relationship between Shopee and the so-called Big 5 (Google, Amazon, Apple, Facebook, and Microsoft). Therefore, at first, the data collected by Shopee is converted into advertising information by Google, though seemingly only for ads related to Shopee itself.

The Shopee app is available in the Play Store (Google) and App Store (Apple), the two representing the Big 5. Furthermore, when you look at the registration on the platform, you can see Shopee's broader connection with Facebook since it accepts cell phones and Google or Facebook accounts to log into the Shopee platform. The platform accepts card brands, ShopeePay, SParcelado, bank slips, and direct transfers (PIX) (Figure 5).

ARTIGO

Figure 5 – Infrastructure attributes of the Shopee platform



Source: Shopee Homepage (2023).

Regarding the third dimension of the platform, "Business Model", D'Andréa (2020, p. 36) highlights that "The logic and constraints mediated by the platforms shape a market economy based on transnational financial movements of a strong speculative nature and which exacerbate inequalities and asymmetries at local and global levels". That is, the business model dimension comprises the possible ways of generating revenue through the platform. In the case of Shopee, there are two main ways of generating revenue: I) with a seller profile, through the platform's marketplace, from which the company receives around 14% per advertisement/sales made; II) affiliate programs, which consist of consumers being able to generate revenue through advertising the advertisements that interest them most.

Regarding the fourth dimension of platform analysis, namely "Governance", its purpose is to "Establish rules, negotiate conduct, identify and decide what is or is not publishable: all of these are actions that are both strategic and every day and support the functioning of an online platform" (D'ANDRÉA, 2020, p. 41). Understanding Shopee as an e-commerce platform, the control of publications focuses mainly on published advertisements. Sellers must follow the platform's rules to avoid downgrading advertisements in the penalty system. Shopee's policy section prohibits false or misleading advertisements and items prohibited by law in the country where they will be published/offered, besides the sale of products that violate intellectual property and counterfeited goods (SHOPEE, [2023?]).

That becomes a hook for the next dimension of "practices and affordances." In the author's own words, the "[...] notion of affordance especially draws attention to how users constitute their practices based on the political and material possibilities proposed by developers" (D'Andréa, 2020, p. 47, author's emphasis). Affordances was a term proposed by James Gibson (1978) within the scope of ecological psychology to discuss the possibilities of animals' actions in different physical environments. This concept has been appropriated by several fields of knowledge, especially in the area of Design (D'Andréa, 2020). So, "practices and affordances" refer to a vector of analysis that privileges both the interfaces of a platform and how people use it.

Even though Shopee's policies expressly prohibit the sale of counterfeit products, especially with trademark logos, sellers continue to practice it on the platform, for example, when advertising products bearing the visual attributes of internationally known brands (Figure 6).

Figure 6 – Commercialization of fake/counterfeit Fila and Adidas products on Shopee
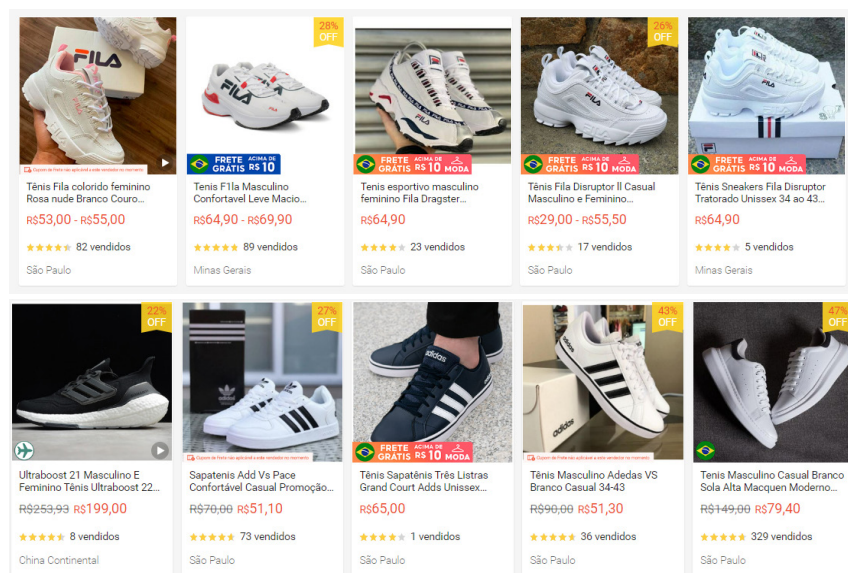


Source: Shopee (2023).

Regarding the actions encouraged by the platform's features, consumers have the opportunity to review the product they have purchased. The platform asks consumers to use a five-star rating scale and consider items that prompt them to answer specific questions, such as quality, comfort, and whether the product is similar to the advertisement. Products with a low number of stars are hard to find on the Shopee interface. During the search, we found shoes with at least four stars. Evidently, such issues are related to the penalty system, with the platform only highlighting products considered "good," which, in this case, means having a high star rating, which, in turn, regulates the entry of information and advertising of products and sellers. Besides this possibility of evaluation, consumers can leave a public comment and post photos of the products (Figure 7).

Figure 7 – Structure of consumer comments on Shopee ads
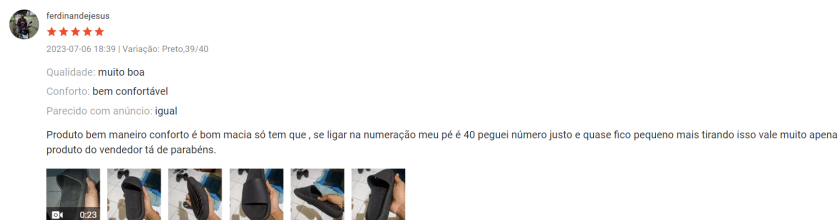


Source: Shopee (2023).

In summary, the dimensions of "datafication and algorithms," "governance," and "practices and affordances" have a direct influence on the perception of the functions of the products sold, requiring greater attention to these characteristics of e-commerce platforms for the product development sectors. Thus, in this first stage of the study, it is valid to understand the possibilities of customization of the platform so that the attributes of the Design products reach the target audience/consumers in an assertive manner, effectively communicating the marketing intention of the product. We observed that the other characteristics of the Shopee platform have an appeal directed at the marketing and management of the companies involved, bringing little direct contribution to product design.

## Micro-universe analysis: identification of Design values in a Shopee ad and dialogue with the platform

For the second stage of this study, we collected 248 comments from one of the commercial posts made on Shopee. The focus was to mine the text in the comments section to understand the Design values in that material, categorizing them according to Medeiros' procedures (2014). We observed the presence of 339 Design values, with a quantitative predominance of critical (151), practical (144), ideological (40), and playful (4) in that order (Figure 8).

Figure 8 – Design values present in 248 comments on the Shopee ad for a Unisex Flip-flop
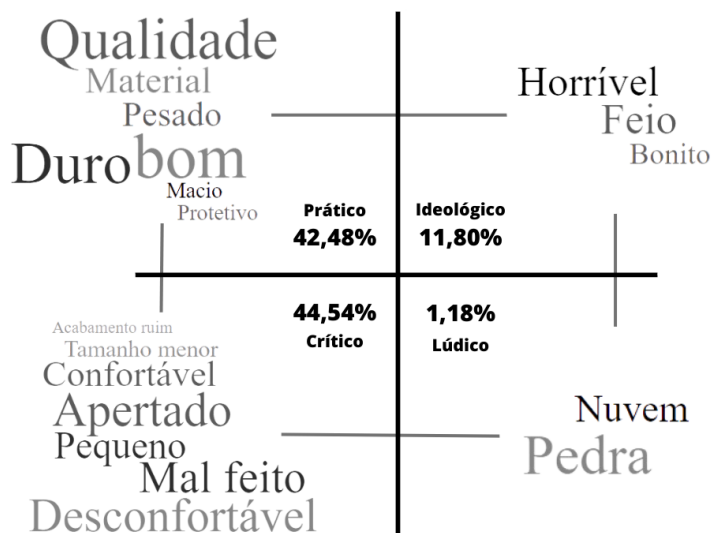


Source: Elaborated by the authors (2023).

Based on the findings, we can see that consumers highlight attributes related to the critical and practical values of design. This result indicates that consumer comments are almost always of a pragmatic nature, focused on reviewing technical qualities and consumer-product interaction.

> [...] **the pragmatic dimension encompasses semantic values related to physical attributes, usability, and functionality, among other values linked to practical issues**. The semantic values that people convey in the pragmatic dimension are denotative-based as they pertain to **the immediate meanings in products related to materiality and use** (MEDEIROS, 2014, P. 24, our translation, emphasis added)

In the post investigated, we observed only a few comments of an emotional nature, and those that did exist were either praising or criticizing the aesthetic aspect of the product or comparing it to other objects, such as a stone.

## Final considerations

Considering the structure of a platform as the central connection between consumers and artifacts, understanding its characteristics can be a gateway to increasing the value of a product. Therefore, this article aims to understand the possible intersections between the Shopee platform's attributes and the functions and values of Design. To this end, we conducted a two-part case study, observing the platform as a system and evaluating the values present in the comments of a post.

Based on our analysis, we could see that when a product is available on a platform like Shopee, it becomes accessible to a broad and diverse audience, which can change the perception of value and the demand for that item. User comments, in turn, function as a form of collective feedback, influencing future purchasing decisions and shaping the product's reputation. Therefore, these comments can also impact the production process, as designers and manufacturers can adjust them based on consumers' opinions and criticisms, promoting a continuous interaction between supply and demand. Thus, the practice of consumption becomes more than a matter of acquiring a product but also of actively participating in its evolution, in line with the understanding that digital platforms reconfigure traditional market dynamics (CALIANDRO ET AL., 2024).

Regarding the first stage, we observed that Shopee's "datafication and algorithm," "governance," and "practices and affordances" characteristics, taken together, directly affect how the value of products is perceived. The personalization attribute, created by modifying the platform's algorithm and authorizing advertising cookies, can directly impact the concrete delivery of technical, aesthetic, and symbolic functions, presenting products that are effectively related to the target audience. Likewise, the application of penalties by Shopee on negative or not-so-positive reviews written by consumers leads to the downgrading of products in terms of visibility on the platform.

Regarding the second stage, understanding the comments on one of the posts on Shopee reveals a tendency towards the analysis of pragmatic

dimensions, more specifically regarding the material quality of the product and how the consumer-product interaction took place. We found almost no comments of an emotional nature (ideological or playful), concluding that comments become valuable material for understanding the ergonomics of the product, aiming to improve it. For future research, we suggest listening to consumers about product delivery and the self-perception of value and functions of Design by potential consumers.

## References

BARDIN, L. *Análise de conteúdo.* São Paulo: Edições 70, 2011.

BALDWIN, C.; WOODARD, J. The architecture of platforms: a unified view. In: GAWER, A. (Ed.). *Platforms, markets and innovation.* Cheltenham: Edward Elgar Publishing, 2009. p. 19-44. Disponível em: https://www.hbs.edu/ris/Publication%20Files/09-034_149607b7-2b95-4316-b4b6-1df66dd34e83.pdf. Acesso em: 29 out. 2024.

BARNARD, M. *Fashion as Communication.* Londres: Routledge, 2003.

BARTHES, R. *The fashion system.* Nova Iorque: Hill and Wang, 1967.

BRAIDA, F.; NOJIMA, V. L. *Tríades do Design: Um Olhar Semiótico Sobre a Forma, o Significado e a Função.* Rio de janeiro: Rio Books, 2014.

BOUDREAU, K. Open platform strategies and innovation: granting access vs. devolving control. *Management Science*, v. 56, n. 10, p. 1849-1872, 2010. Disponível em: https://pubsonline.informs.org/doi/10.1287/mnsc.1100.1215. Acesso em: 29 out. 2024.

BOUDREAU, K.; HAGIU, A. Platform rules: multi-sided platforms as regulators. In: GAWER, A. (Ed.). *Platforms, markets and innovation.* Edward Elgar Publishing, 2009. p. 163-191. Disponível em: https://ideas.repec.org/h/elg/eechap/13257_7.html. Acesso em: 29 out. 2024.

BURDEK, B. *Design: História, Teoria e Prática do Design de Produtos.* São Paulo: Blucher, 2010.

BURGESS, J. Platform Studies. In: CUNNINGHAM, Stuart; CRAIG, David (org.). *Creator Culture.* New York: NYU Press, 2021. Disponível em: https://nyupress.org/9781479817979/creator-culture/. Acesso em: 29 out. 2024.

C CALIANDRO, A.; GANDINI, A.; BAINOTTI, L.; ANSELMI, G. The platformization of consumer culture: A theoretical framework. *Marketing Theory*, v. 24, n. 1, p. 3-21, 2024. Disponível em: https://journals.sagepub.com/doi/10.1177/14705931231225537. Acesso em: 29 out. 2024.

CROSS, N. *Designerly Ways of Knowing.* Londres: Springer, 2006.

D'ANDRÉA, C. F. B. *Pesquisando plataformas online: conceitos e métodos.* Salvador: EDUFBA, 2020.

ARTIGO

EISENMANN, T.; PARKER, G.; VAN ALSTYNE, M. Strategies for two-sided markets. *Harvard Business Review, v. 84, n. 10, p. 92-101, 2006. Disponível em: https://hbr. org/2006/10/strategies-for-two-sided-markets. Acesso em: 29 out. 2024.*

GIL, A. C. *Métodos e Técnicas de Pesquisa Social.* 6. ed. São Paulo: Editora Atlas, 2008.

HAGIU, A.; WRIGHT, J. Multi-sided platforms. *International Journal of Industrial Organization*, v. 45, p. 162-174, 2016. Disponível em: https://papers.ssrn.com/sol3/papers. cfm?abstract_id=2794582. Acesso em: 29 out. 2024.

JANSEN, B.; ZHANG, M.; SOBEL, K.; CHOWDURY, A. Twitter power: tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology*, v. 60, n. 11, p. 2169-2188, 2009. Disponível em: https://onlinelibrary.wiley. com/doi/abs/10.1002/asi.21149. Acesso em: 29 out. 2024.

JURIŠOVÁ, V. Affiliate marketing in the context of online marketing. *Review of Applied Socio-Economic Research*, v. 5, n. 1, p. 106-111, 2013. Disponível em: https://reaser.eu/ RePec/rse/wpaper/R5_12_Jurisova_p106_p111.pdf. Acesso em: 29 out. 2024.

KAPLAN, A.; HAENLEIN, M. Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, v. 53, n. 1, p. 59-68, 2010. Disponível em: https://ideas.repec.org/a/eee/bushor/v53y2010i1p59-68.html. Acesso em: 29 out. 2024.

KOTLER, P.; KELLER, K. L. *Marketing management.* 14. ed. Nova Jersey: Hall, 2012.

KOZINETS, R. *Netnography:* doing ethnographic research online. Londres: Sage Publications, 2010.

KOZINETS, R. The field behind the screen: using netnography for marketing research in online communities. *Journal of Marketing Research*, v. 39, n. 1, p. 61-72, 2002. Disponível em: https://journals.sagepub.com/doi/10.1509/jmkr.39.1.61.18935. Acesso em: 29 out. 2024.

LÖBACH, B. *Design industrial:* bases para configuração dos produtos industriais. São Paulo: Blucher, 2001.

LUPTON, D. *The quantified self: a sociology of self-tracking.* Cambridge: Polity Press, 2016.

MARCONI, M. A.; LAKATOS, E. M. *Fundamentos de metodologia científica.* 5. ed. São Paulo: Atlas, 2003.

MAYER-SCHÖNBERGER, V.; CUKIER, K. *Big data:* a revolution that will transform how we live work and think. Boston: Houghton Mifflin Harcourt, 2013.

MEDEIROS, W. G. Meaningful Interaction with Products. *Design Issues, v. 30, n. 3, p. 16–28, 2014. Disponível em: https://ftp.isdi.co.cu/Biblioteca/BIBLIOTECA%20 UNIVERSITARIA%20DEL%20ISDI/COLECCION%20DIGITAL%20DE%20 REVISTAS/01%20-%20Revistas%20suscritas%20por%20la%20Biblioteca/DesignIssues/2014/V30NO3/P16-28.pdf. Acesso em: 29 out. 2024.*

MOGGRIDGE, B. *Designing Interactions.* Cambridge: MIT Press, 2007.

MONTARDO, S. P. *Estudos de Plataforma no Brasil: levantamento de artigos científicos. In: 46º Congresso Brasileiro de Ciências da Comunicação. Anais [...]. Belo Horizonte: PUC Minas, 2023.*

MONTARDO, S. P.; FERREIRA, A. *Estudos de Plataforma no Brasil: mapeamento de teses e dissertações. In: MONTARDO, Sandra Portella. Sobre plataformas digitais: apropriações interdisciplinares dos Estudos de Plataforma.* Porto Alegre: Editora Fi, 2022. *pp. 14-33.*

MONTARDO, S. P.; VALIATI, V. A. D. Streaming de conteúdo, streaming de si? Elementos para análise do consumo personalizado em plataformas de streaming. *Revista FAMECOS, v. 28, n. 1, p. e*35310, 2021. *Disponível em: https://revistaseletronicas.pucrs. br/revistafamecos/article/view/35310. Acesso em: 29 out. 2024.*

NIEMEYER, *L. Elementos da Semiótica Aplicados ao Design.* Rio de Janeiro: 2AB, 2003.

PANG, B.; LEE, L. Opinion mining and sentiment analysis. *Foundations and Trends in Information Retrieval*, v. 2, n. 1-2, p. 1-135, 2008. Disponível em: https://www.cs.cornell. edu/home/llee/omsa/omsa.pdf. Acesso em: 29 out. 2024.

PARKER, G.; VAN ALSTYNE, M.; CHOU, S. P. *Platform revolution*: how networked markets are transforming the economy and how to make them work for you. W. W. Nova Iorque: Norton & Company, 2016.

POELL, T.; NIEBORG, D.; DUFFY, B. E. *Platforms and Cultural Production.* Cambridge, UK: Polity Press, 2022.

POELL, T.; NIEBORG, D.; VAN DIJCK, J. Plataformização. *Revista Fronteiras – Estudos Midiáticos, v. 22, n. 1, p. 2-10, jan./abr. 2020. Disponível em: https://revistas.unisinos. br/index.php/fronteiras/article/view/fem.2020.221.01. Acesso em: 29 out. 2024.*

POELL, T.; NIEBORG, D. The platformization of cultural production: Theorizing the contingent cultural commodity. *New Media & Society*, v. 20, n. 11, p. 4275-4292, 2018. Disponível em: https://pure.uva.nl/ws/files/31895348/The_platformization_of_cultural_production.pdf. Acesso em: 29 out. 2024.

PROVOST, F.; FAWCETT, T. Data Science and its Relationship to Big Data and Data-Driven Decision-Making. *Big Data, v. 1, n. 1, p. 51-59, 2013. Disponível em: https:// www.liebertpub.com/doi/10.1089/big.2013.1508. Acesso em: 29 out. 2024.*

ROCHET, J.C.; TIROLE, J. Platform competition in two-sided markets. *Journal of the European Economic Association*, v. 1, n. 4, p. 990-1029, 2003. Disponível em: https:// academic.oup.com/jeea/article/1/4/990/2280902. Acesso em: 29 out. 2024.

SANCHES, M. C.  F. O *Projeto Do Intangível Na Formação De Designers De Moda. Tese de Doutorado. Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo, 2016.*

SHOPEE. *Normas & Políticas de Desempenho do Vendedor. Shopee: Central de Ajuda, 2022. Disponível em: https://help.shopee.com.br/portal/article/76428-Normas-Pol%C3%ADticas-de-Desempenho-do-Vendedor?previousPage=secondary%20 category. Acesso em: 22 jul. 2023.*

SHOPEE. *Central de ajuda. 2023. Disponível em: https://help.shopee.com.br/portal. Acesso em: 22 jul. 2023.*

SILVEIRA, N. B.  M. *Morfologia do objeto: fundamentos e análise visual dos artefatos tridimensionais.* Curitiba: Appris, 2022.

SRNICEK, N. *Platform capitalism*. Cambridge: Polity Press, 2017.

STIEGLITZ, S.; DANG-XUAN, L. Social media and political communication: a social media analytics framework. *Social Network Analysis and Mining*, v. 3, n. 4, p. 1277-1291, 2013. Disponível em: https://www.academia.edu/7079815/Stieglitz_Stefan_Dang_Xuan_Linh_Bruns_Axel_Neuberger_Christoph_2014_Social_Media_Analytics_An_Interdisciplinary_Approach_and_Its_Implications_for_Information_Systems_In_Business_and_Information_Systems_Engineering_6_Jg_H_2_S_89_96. Acesso em: 29 out. 2024.

TREIBLMAIER, H.; POLLACH, I. The influence of privacy concerns on perceptions of web personalisation. *International Journal of Web Science, v. 1, n. 1/2, p. 3-20, 2011. Disponível em: https://www.inderscienceonline.com/doi/abs/10.1504/IJWS.2011.044079. Acesso em: 29 out. 2024.*

TORRES, P. M. A. Design for Socio-technical Innovation: A Proposed Model to Design the Change. *The Design Journal*, v. 20, sup1, p. S3035-S3046, 2017. Disponível em: https://www.tandfonline.com/doi/abs/10.1080/14606925.2017.1352811. Acesso em: 29 out. 2024.

VERGANTI, R. *Design-driven innovation:* changing the rules of competition by radically innovating what things mean. Boston: Harvard Business Press, 2009.

YOO, Y.; HENFRIDSSON, O.; LYYTINEN, K. Research commentary - the new organizing logic of digital innovation: an agenda for information systems research. *Information Systems Research*, v. 21, n. 4, p. 724-735, 2010. Disponível em: https://www.jstor.org/stable/23015640. Acesso em: 29 out. 2024.

WAREHAM, J.; FOX, P.; GINER, J. L. C. Technology Ecosystem Governance. *Organization Science*, v. 25, n. 4, p. 1195-1215, 2014. Disponível em: https://www.jstor.org/stable/43660930. Acesso em: 29 out. 2024.

ZHANG, M.; GUO, L.; HU, M.; LIU, W. Influence of customer engagement with company social networks on stickiness: mediating effect of customer value creation. *International Journal of Information Management*, v. 30, n. 3, p. 244-257, 2020. Disponível em: https://ideas.repec.org/a/eee/ininma/v37y2017i3p229-240.html. Acesso em: 29 out. 2024.

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