

Communicating Sustainable Creativity: A Visual Content Analysis on Instagram

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Article Info Abstract

Original Article

Main Object: Media

Received: 24 January 2025 Revised: 04 February 2025 Accepted: 15 March 2025 Published online: 02 April 2025

Keywords:

brand generated content, color theory, image, speech act theory, Stogram, sustainability, visual content analysis. **Background:** As companies are increasingly committed to sustainability practices in all their activities, they also have the increasing opportunity to communicate it to strengthen the brand through various means. One of them is undoubtedly represented by social media.

Aims: This paper examines the communication of fashion sustainability through social media, and in particular its visual dimension, by undertaking a content analysis of over 600 Instagram photos of two Tunisian brands that are visibly exposed on the sustainability front.

Methodology: Statistical analysis of this communication based on image, caption and hashtag is used to provide interesting insights into the elements that underlie effective online sustainability communication and, more specifically, on visual social media. Three theories are used to explain this topic namely Speech Act Theory, Color Theory, and Technology for Environmental Action Model (TPAM). Nine themes related to sustainability and fashion were extracted from the images of two sustainable brands "Shab Kids", "Triiiza" and "Tommy Hilfiger" accompanied by their captions and hashtags.

Finding: Our findings contribute significantly to understanding the elements used in visual communication of sustainable fashion brands on social media. For brand-generated content, we selected two eco-responsible Tunisian brands elected by "ileycom" (online marketplace) that declare themselves sustainable and are known in the fashion industry and among consumers for their orientation towards sustainable practices. Sustainable brands engage consumers in a conversation about sustainability, which can strengthen brand identity and create an emotional connection with the audience.

Conclusion: It is essential for brands to communicate sustainability while taking full advantage of social media platforms like Instagram. Our study analyzed various communication elements on Instagram such as single image, multiple images, hashtags, and captions.

Cite this article: Jmour A. (2025). "Communicating Sustainable Creativity: A Visual Content Analysis on Instagram". *Cyberspace Studies*. 9(2): 355-367. doi: https://doi.org/10.22059/jcss.2025.389305.1125.



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Website: https://jcss.ut.ac.ir/ Email: jcss@ut.ac.ir |

EISSN: 2588-5502

Publisher: University of Tehran

1. Introduction

Currently, the fashion industry is one of the most polluting industries in the world (Niinimäki et al., 2020; Bailey et al., 2022). Not only does pollution during production (dyeing, printing, finishing, etc.) and transportation contribute greatly to global carbon emissions, but the disposal of used clothing also leads to additional pollution and waste generation (Al Alam et al., 2023; Singh, 2025). It remains in landfills for decades, causing heavy metals such as lead, pesticides, fertilizers, etc. to leach into the soil and groundwater (Brenot et al., 2019).

Although the meaning and forms of sustainability have been widely discussed in the literature, the consistency of the models and behaviors applied to sustainability adopted by companies and the results obtained in such an important field as fashion marketing have not been verified (Akrout & Guercini, 2022). A few fashion brands have challenged the issue such as Marine Serre from France, Gucci from Italy, Tommy Hilfiger from the United States, Stella McCartney from the United Kingdom and Patagonia (Milanesi et al., 2022) who have integrated sustainability into their digital communications strategies.

As a result, sustainability is becoming an imperative for all fashion companies in order to address stakeholders' concerns and meet their expectations. As companies are increasingly committed to sustainability practices in all their activities, they also have the increasing opportunity to communicate it to strengthen the brand through various means. One of them is undoubtedly represented by social media. The social media landscape is increasingly characterized by the use of images as a high-impact means of communication, with image-based social media such as Instagram experiencing significant growth among consumers and businesses (Milanesi et al., 2022).

Social media, among the different marketing tools, has acquired a central place in the communication activities of fashion marketing brands (Kim & Ko, 2010; Kim & Ko, 2012; Kim & Kim, 2020). The prominent role it plays in engaging fashion consumers has been highlighted in academic research (Dessart et al., 2015). Moreover, the use of social media transcends different generations of consumers. The use of social media has recently been studied by examining the impact of the visual dimension and therefore the use of images to convey messages (Highfield & Leaver, 2016; Pearce et al., 2020). From a business perspective, this has been linked to the increasing use of image-based social media, such as Instagram and the need for businesses to effectively use visual features in social media (Milanesi et al., 2022).

However, while much attention has been paid to content analysis of textual communication on social media, content analysis of visual data is scarce, especially for the fashion industry (Kwon & Lee, 2021). Furthermore, how sustainability can be conveyed through images in social media remains an unexplored area of research. It has recently

been highlighted that a call for academic studies to investigate how social media can be used to support sustainability campaigns has been highlighted (Chu et al., 2020), arguing that social media and sustainability represent an understudied but highly relevant area of research (Kim & Kim, 2020). For his part, Innocent (2024) reported that there is very little research on how visual, aesthetic, and textual elements work in collaboration with the sustainability message of fashion brands. There is a lack of understanding of the contribution of virtual fashion technologies to sustainability and circular fashion. The article positions itself in this debate. We aim to answer the following research questions: How is sustainability represented through images by sustainable fashion companies on image-based social media? or, What visual features are present in sustainable fashion content?

Finally, the article, of an exploratory nature, offers the results of a visual content analysis of more than 600 images published on Instagram by two Tunisian sustainable companies elected by Ileycom (online marketplace). While other research relies on textual content to extract themes, our paper focuses on the analysis of visual content. For these reasons, the article examines the use of images on Instagram by three sustainable fashion brands, "Shab kids", "Triiiza" and "Tommy Hilfiger". The results show the most used image categories to describe sustainability and how these categories generate online interaction with users in terms of digital engagement. Implications for sustainable fashion companies and social media managers are provided.

2. Conceptuel framework

2.1. The rise of image-based social media

With the rise of YouTube, Instagram, Pinterest, Flickr, and other imagebased social media, the social media ecology has shifted toward visual images (Svensson & Russmann, 2017) and the web is increasingly becoming a visual medium (Belk et al., 2005). Visual images are additional modes of communication that complement textual forms and have several characteristics that make them a unique object of research, namely their ability to suggest reality, create causal relationships, and foster interaction (Fahmy et al., 2014), and create meanings independent of a text message (Hand, 2017). This shift toward visuals in social media is not just a simple return to visual communication. This is a more complex phenomenon for which social media is becoming multimodal, as it now hosts different forms of linguistic and paralinguistic communication such as videos, images, emoticons, hashtags and written texts (Milanesi et al., 2022). Rose (2016) reported that images, when shared in online contexts, offer a more direct way to communicate and experience human relationships and allow a better and immediate understanding of events and situations than textual communication.

Zerfass et al. (2017) observed that companies are increasingly

interested in improving their digital communications through visual content, as it is attractive, meets the demand of digital audiences for visual content and has a positive impact on corporate reputation and purchase intentions.

Innocent (2024) perceived that, in the context of CSR and sustainability in fashion, the visual component offers greater advantages than the textual component. The complexity of the messages is more easily represented in visuals, the relatability factor and the sense of belonging are reinforced in visual elements and, above all, in terms of rapid consumption (as is the case with Instagram), visuals are much easier for the public to consume and absorb. His research highlighted that CSR advertising on social media was more effective when the textual and visual components were in harmony in the same media frame and conveyed similar messages.

2.2. Color theory

Zhao et al. (2022) reported that there are many studies on the impact of color on affective, cognitive, and conational states, but there is much less empirical evidence on how the three dimensions of color influence brand communications on social media. This gap highlights the importance of examining the visual information extracted on the three dimensions of color and how these dimensions can be associated with brand sustainability efforts. As color is a component of any form of pictorial communication, knowledge of color selections is essential for advertising practitioners, managers, and executives involved in corporate communications.

2.3. Speech act theory

Speech act theory, developed by Austin (1962), is based on linguistics and posits that sentences and spoken words not only convey a message but can also be used to perform or provoke actions. In terms of sustainable fashion marketing, an assertive tone or text could talk about the biological or ecological use of resources in fashion products.

2.4. Theory of Technologies for an Environmental Action Model (TPAM) Ballew et al. (2015) developed a model to explain how social media technologies and Web 2.0 can be used to promote environmentally responsible behavior.

This theory assumes that while there are several mechanisms that lead to pro-environmental behaviors, these three pathways (personal, social, and contextual) are the main sources of influence that produce sustainable actions. Ballew et al. (2015) defined personal factors as a person's internal motivation to care for the environment or have a personal connection to nature and a positive attitude toward environmental stewardship. As for social factors, people often act in a pro-environmental manner to improve their social status or image or

even because of other people's perceptions of them as socially correct. Contextual factors concern external aspects such as communities, regulations, environmental policies, and cultural norms that affect the likelihood that people will adopt environmentally friendly and sustainable lifestyles.

In the context of sustainable fashion, a person who enjoys outdoor activities like hiking are more oriented towards protecting the natural ecosystem like forest and mountains; therefore social media or virtual media engagement regarding the beauty of untouched nature is likely to deepen this connection and encourage environmentally friendly behaviors.

3. Materials and Methods

3.1. Visual content analysis

The methodology adopted in this article is visual content analysis. Indeed, in discussing the shift towards visuals in social media practices, Highfield and Leaver observe that this shift "requires researchers to broaden and diversify the way social media is examined and approached" (Highfield & Leaver, 2016: 49), as most online marketing research has focused on "the textual aspects of online communication or structural elements such as hyperlinks" (ibid: 48), while the analysis of visual content and visual communication is still underdeveloped (Luangrath et al., 2017). Visual content analysis has been used to assess the nature of visual content (Bell, 2001), the results of which should be interpreted by understanding how the codes in an image connect to the broader context in which that image is meaningful (Rose, 2016; Wang et al., 2000). It counts and analyzes the frequency with which certain visual codes appear in a defined set of sample images (Rose, 2016). The use of visual content analysis is not new. However, the study of such a methodology is now even more relevant due to the development and increasing role of visual content online.

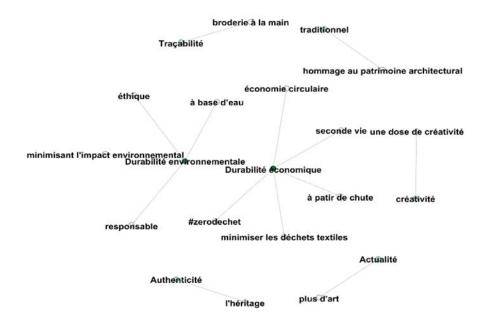
3.2. Data collection

This study used a procedure similar to that of existing social media content analyses (Milanesi et al., 2022; Skinner et al., 2023). For brandgenerated content, we selected two eco-responsible Tunisian brands elected by "ileycom" (online marketplace; Appendix 1) that declare themselves sustainable and are known in the fashion industry and among consumers for their orientation towards sustainable practices. The first fashion brand is "Shab Kids". Shab Kids is a family business, offering wooden psychomotor games and items for children or adults made from ecological and certified materials. The second company is "TRIIIZA by jiji". It is a designer of unique fashion pieces.

For better generalization, we also included the brand "Tommy Hilfiger". According to Innocent (2024), "Tommy Hilfiger" is an American fashion brand that focuses on recycling and remanufacturing

items to reduce waste and promote sustainable fashion practices for customers (Ellen MacArthur Foundation, 2021).

Thus, the images accompanied by their captions and hashtags of the two brands "Shab kids", "Triiiza" and "Tommy Hilfiger" were downloaded using "Stogram". In order to enrich our collection, we also downloaded the content related to the hashtag #sustainablefashion. All this content was downloaded and analyzed using a visual content and network analysis software "Gephi" (Figure 1). This is a data visualization software in the form of graphs and network analyses.



https://www.instagram.com/shabkids/ https://www.instagram.com/triiizabyjiji/ https://www.instagram.com/tommyhilfiger/

Figure 1. Visualization of relationships between categories by Gephi

4. Results

Nine themes were extracted from the images of two sustainable brands accompanied by their captions and hashtags (Table 1).

In particular, the theoretical basis for category formation was provided by the study of (Maignan & Ferrell, 2004) from which we derived three categories namely economic sustainability, social sustainability and environmental sustainability, as well as by the study of (Stepchenkova & Zhan, 2013) from which we derived a category named "nature and landscape". In a subsequent discussion, we added five additional fashion-related themes such as traditional, authenticity, traceability, art/creativity and current events.

	Table 1. Analyze legends and hashtags
Category	Examples of legends and hashtags
Environmental sustainability	"Made of eco-friendly birch and beech wood, a special water-based children's varnish."
	"while minimizing the environmental impact."
	"while adopting a more ethical and responsible fashion."
	"Classic style, reborn with more sustainable materials.
	#TommyHilfiger #ShawnMendes #PlayItForward #ClassicsReborn"
Economic sustainability	#zerodechet
	"An article made with the aim of minimizing textile waste"
	"made from scraps of white fabric"
	"A second life, but with more art"
	"circular economy"
Social sustainability	"When my sewing machine decides to go on strike, mom's old machine steps in."
Authenticity	"each creation is an invitation to discover the authenticity of Tunisian craftsmanship" "preserve the artisanal heritage"
Traditional	"In the background of the photo you can see an original paper towel holder which presents the water temple in miniature, created by my late father who paid homage to Tunisian architectural heritage with these sculptures."
Actuality	"but with more art"
Traceability	"Follow with me the steps of this hand embroidery."
Art/creativity	"a dose of creativity"

Finally, the extracted themes were divided into two broad categories suggested by Testa et al. (2021) into sustainability and fashion. Sustainability has four themes namely economic sustainability, social sustainability, environmental sustainability (Maignan & Ferrell, 2004) and nature/landscape (Stepchenkova & Zhan, 2013) while fashion has five themes such as traditional, authenticity, traceability, art/creativity and current affairs.

5. Discussion

5.1. Theoretical implications

Our findings contribute significantly to understanding the elements used in visual communication of sustainable fashion brands on social media. Little research has examined visual content in this context. While previous researchers focus on textual elements, in this paper we contribute to the literature by showing that visual content plays a role in sustainability. This study highlights the importance of further exploring the role of visual content on social media, such as Instagram, in sustainability communication, as these platforms have become powerful tools to influence consumers' perceptions and behaviors. Our finding also explores how different types of images (e.g., nature, ethical production, craftsmanship) confer consumers' emotions and attitudes toward sustainable fashion brands. This highlights the impact of colors and visual themes on brand recall and purchase intention. Nature images can evoke feelings of connection to the environment. In this

case, colors play a crucial role in how consumers perceive a brand; Green hues may evoke positive associations with sustainability, while bright colors may attract attention and stimulate interest.

Another direct theoretical implication of the results of this study is that it enriches speech act theory by demonstrating how images can not only convey messages but also prompt environmental actions.

5.2. Managerial implications

The results of this study are relevant for marketers, content creators and practitioners who work in the creation or analysis of images and content such as designers. It allows us to put both some relevant managerial implications as well as environmental reports. In addition, it can be linked to the desire to reach the widest target of customers, raising awareness of sustainability issues through images capable of generating a higher level of attention and engagement.

First, sustainable fashion brands and their social media managers should keep in mind the evocative power of images related to nature, landscape, eco-designed materials and colors related to nature as a visual representation of the environmental dimension of sustainability. In other words, a more sustainability-centric approach should prevail over a more fashion-centric one. However, relying on images not related to the company and its processes, but simply related to a marked environmental dimension can also be a risk. This could be interpreted, by an attentive consumer, as an attempt to divert attention from business practices that are not presented transparently, at least on Instagram. Therefore, brands should evaluate a strategic use of Instagram, in terms of published images, by further valuing brand-defining elements, such as images related to production processes, raw materials and supply chains.

Second, marketers should choose natural color palettes and ecodesigned materials that reflect the company's commitment to sustainability. This could include the use of greens and blues to symbolize nature and cleanliness, as well as digital textures imitating wood or recycled paper. These choices help establish a coherent and credible image.

Third, by choosing hues like green, blue, and earthy tones (as illustrated in the images in Category 1 "Landscape and Nature" in Appendix 2), brands can convey powerful messages about ecology, stability, and authenticity. Green, for example, is often associated with sustainability and environmental preservation, evoking growth, harmony with nature, and social responsibility. Blue, on the other hand, symbolizes stability and trust, a key message for brands concerned about their impact on society and the environment. Earthy tones like browns and beiges embody authenticity and connection with natural resources, reinforcing the image of an environmentally friendly brand. By incorporating these colors into their visuals, sustainable brands

create a cohesive visual language that resonates deeply with sustainability values.

Finally, by compressing images and using optimized formats, designers can reduce file sizes. This means less data to be transferred over the Internet, which reduces the energy consumption of servers and networks, contributing to a lower carbon footprint.

In this way, sustainable brands engage consumers in a conversation about sustainability, which can strengthen brand identity and create an emotional connection with the audience.

5.3. Limitations and future research directions

This study also has limitations. From a methodological point of view, the visual dimension only concerns images accompanied by their hashtags and captions, while the many videos published by the brands studied were not analyzed. This represents a future research direction aimed at integrating all visual components of communication on Instagram. Finally, "Shab kids", "Triiiza" and "Tommy Hilfiger" have a different positioning and there could be differences in the way they communicate with their target markets. This issue was only partially considered in the article, whose main focus was on the relationship between images and sustainability, and future research could also build on these differences.

6. Conclusions

This paper explored how sustainable fashion brands have leveraged social media to convey sustainability through visual content.

In fact, it is essential for brands to communicate sustainability while taking full advantage of social media platforms like Instagram. Our study analyzed various communication elements on Instagram such as single image, multiple images, hashtags, and captions.

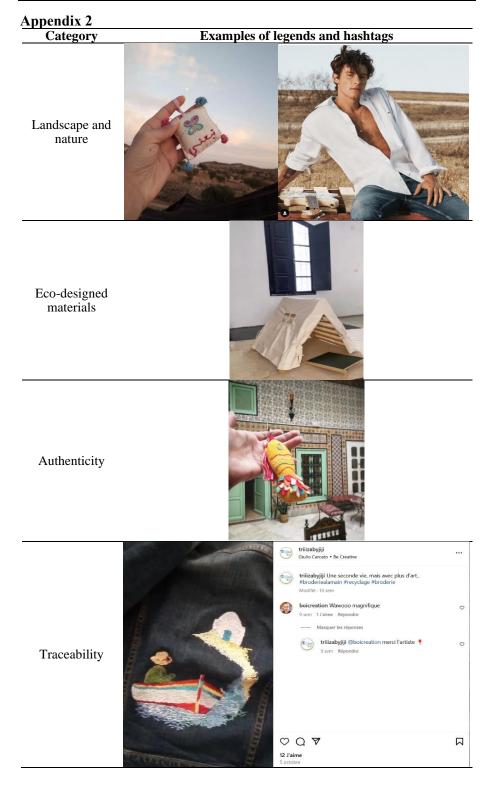
Appendex

Appendix 1. The three best ecological products elected by "ileycom" (online marketplace)

THE WINNERS ARE



https://ileycom.com/2023/12/04/la-gagnante-du-produit-eco-responsable/



Conflict of interest

The author declared no conflicts of interest.

Ethical considerations

The author has completely considered ethical issues, including informed consent, plagiarism, data fabrication, misconduct, and/or falsification, double publication and/or redundancy, submission, etc. This article was not authored by artificial intelligence.

Data availability

The dataset generated and analyzed during the current study is available from the corresponding author on reasonable request.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

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