How Do Consumers Engage with Sustainability? Comparing Visually-Based and Text-Based Engagement with Fashion Brands

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This study explored consumer engagement with sustainable fashion brands (SFB), sustainably aware fashion brands (SAB), and traditional fashion brands (TAB) across visually-based (Instagram) and text-based (Twitter) social media platforms. A mixed methods approach was utilized including qualitative content analysis for classification of social media posts and multiple regression analysis for hypothesis testing. Results demonstrated that themes impacted consumer engagement via likes and comments in dissimilar manners. For instance, sustainable post significantly affected consumer engagement at the α = .05 level through visual medium but not through text-based medium. Further, the visually-based and text-based platform significantly moderated post theme and consumer engagement. As new social media platforms emerge and sustainability is woven into the threads of the fashion system, insights may be utilized by academicians and practitioners to build lasting relationships with consumers.

Keywords: sustainability; social media; platform; consumer engagement; fashion; brands; quantitative analysis; multiple regression analysis; uses and gratification theory

F ashion retail brands are increasingly using social media to communicate key brand values, such as sustainability (Amed et al., 2022; Nelson et al., 2019; Wang et al., 2021). As brand's rapidly advance their communication strategies to keep pace with consumers social media interests, an opportunity exists to better understand how sustainable messages are perceived depending on the message type, including text-based messages or visual-based messages. A plethora of social media platforms exist, Facebook, Instagram, Twitter[1], TikTok, and YouTube, and have been growth leaders in recent years (We Are Social, 2021), each communicating with consumers

through text, images, videos, sound, or through a combination of mediums. The manner in which brands communicate sustainable messaging may impact consumer engagement (Malhotra et al., 2013). Such engagement may vary across visually-based and text-based brand communications. However, consumers engagement with fashion sustainability messaging through visual messaging in comparison to written word content has yet to be researched.

The purpose of this study was to explore the variation in consumer engagement with sustainable fashion brands, sustainably aware fashion brands, and traditional fashion brands across visually-based and text-based social media platforms (Testa et al., 2020). Specifically, consumer engagement with sustainable messaging on the social media platforms of Instagram and Twitter were compared. Instagram, a visually oriented platform which engages consumers through photos and videos, continues to be the most utilized platform for pictures and graphics (We Are Social, 2021). Twitter, a text-based platform, dominates the short journal entry social media platform format. These two platforms represent contrasting approaches to brand communications with consumers yet yield comparable high-traffic usage and consumer engagement rates. The opportunity exists to understand the nuances and potential advantages across these two platforms.

Fashion brands and retailers represent nearly $3 trillion in annual sales (Amed et al., 2017; Amed et al., 2022), 2% of the world's GDP, and 13% of total global retail sales (O'Connell, 2019). By exploring sustainability engagement within fashion, this study sought to address similarities and differences across some of the largest global retailers as well as some of the most established sustainable fashion brands (Davis, 2018; Gerretsen, 2018; Kantar, 2022). Further, by contrasting social media platforms, the study sought to expand understanding of consumer's varying engagement across brand types and social media platform type (i.e., visual, text). This study builds upon a previous explorations of consumer engagement with brands on social media (e.g., Adegbola et al., 2018) and more specifically engagement with brands' sustainability messages (e.g., Testa et al., 2020). The research makes new contributions by; (a) contrasting social media engagement practices of different brand types; (b) comparing visually-based and text-based social media platforms,

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[1] This study was conducted when now X was called Twitter.

and (c) making suggestions for engagement approached based on different types of brands across visual and text-based social media platforms.

CONCEPTUAL FRAMEWORK

Uses and Gratification Theory (UGT) was the foundation of this study (Ruggiero, 2000). UGT refers to the way individuals choose to interact with media types based on how they are affected, or gratified, by their engagement. UGT has been utilized in both qualitative (Whiting & Williams, 2013) and quantitative research pertaining to framework development of social media engagement (Dolan et al., 2019). Reflecting the integrative nature of a social media experience, the paper aims to examine the relationship between brands and consumer experiences through a UGT perspective.

Social media is increasingly used to deepen the relationship between consumers and brand experience, measurable by engagement from consumers through posts (Afaq et al., 2019; Djafarova & Bowes, 2021). The present study took a brand-based approach to capture engagement tactics, specially looking at ways consumers interact and seek gratification through social media content. As shown in Figure 1, consumer engagement with social media posts can be measured through likes and comments. Additionally, critical variables in this framework include the brand group as antecedent and platform as moderator. Aligned with previous research (e.g., Testa et al., 2020), brand group classified the brand's level of sustainable involvement ranging from sustainable, sustainably aware, or traditional fashion brand demonstrating brands contributions to sustainability in as a part of their purpose, actions, or not fully expressed. The platform may be visually-based or text-based, therefore Instagram and Twitter were utilized as engagement-type representations. Within this study, consumer engagement was measured by evaluating the relationship between the various types of social media messages (uses) and consumer's engagement through Likes and Comments (gratification).
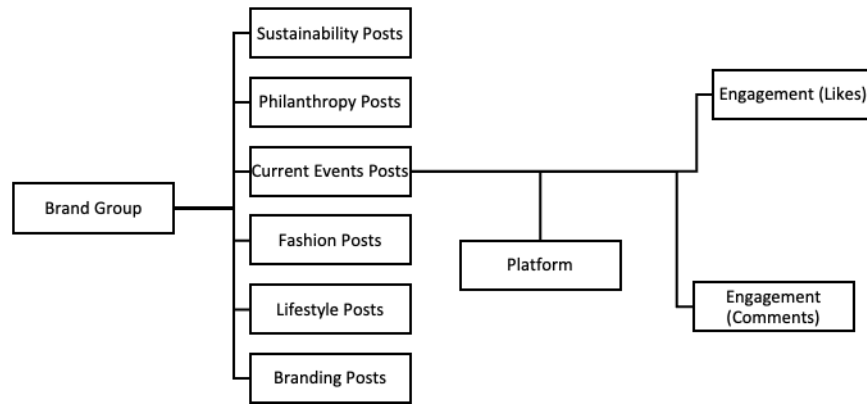
Figure 1. UGT sustainable social media engagement conceptual research framework.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Extant research has explored the relationship between message content and consumer engagement on social media (Nelson et al., 2019; Sangwan & Sharma, 2022). Nelson et al. (2019) explored consumer motivations for using social media and found common motivations of fashion, followers, pictures, and connections drew consumers to Facebook, Instagram, Pinterest, and Twitter. Findings suggest that differences in post theme affect consumer engagement. Li and Dou (2017) explored consumer engagement via Likes based on style of narration, content, and multimedia style finding graphics and connective content to be most engaging. Further, in a study of fashion brands in Sweden, Geissinger and Laurell (2016) explored consumer engagement with brands through blogs and addressed consumer engagement through visits to the blog over time. Brands and researchers use comparisons of Likes and Comments to assess high-impact consumer engagement with fashion posts (Bharti, 2021; Chen, 2021; Kusumasondjaja, 2020; Testa et al., 2020). Therefore, it is proposed:

H1: The theme of social media posts will influence (a) likes and (b) comments.

Researchers have examined the role of social media in communicating brands' sustainability agendas, and engaged diverse consumers (Kim & Kim, 2020). Zhang and Du (2020) investigated how marketing messages were used on social media for business-to-business companies compared to business-to-consumer companies, finding unique methods of engagement and aspects of emotional appeal for business-to-consumer interactions. Willemsen et al. (2018) explored the impact of a brand's communicating real-time marketing messages on consumer engagement through re-tweets on twitter, finding a

positive significant effect. Furthermore, Zhu et al., 2022 examined the effects of social media endorser (i.e., influencers and celebrities), whether the message was a hard or soft sell, and brand type to evaluate the impact on brand attitude finding a significant three-way interaction. Therefore, it is proposed that:

H2: Brand group will influence the relationship between post themes and consumer engagement via (a) likes and (b) comments.

H3: Brand group will influence frequency of posts by theme.

Consumers use social media platforms in various ways. Boyd and Ellison (2007) introduced social network sites (SNS) as a classification explaining the rise and fall of sites and their purpose to connect users. Further, during the time of this study, Twitter was the primary text-based platform used for sharing information, education, and intellectual discourse (Martínez-Rojas et al., 2018; Moon & Hadley, 2014), while Instagram is considered an escape for photos and visual product content in fashion (Alcaraz et al., 2022). Despite a drop in Twitter usage and valuation since data collection, an alternative text-based platform has not taken market leadership, leading the authors to seek insight into the value of text-based engagement as examined in this study. Extant literature has explored individual social media platforms, however limited studies have explored multiple social media platforms and compared consumer interactions across platforms (e.g., Oliveira et al., 2022). Therefore, it is proposed that:

H4: Platform will moderate the relationship between post theme and (a) likes and (b) comments.

This study is the first to draw together areas of study in consumer engagement and social media, including the source of the content (i.e., the brand), the message content (i.e., the post theme), and the type of message (i.e., visually-based or text-based).

METHODS

A mixed methods approach was utilized in this study to maximize the strengths of both qualitative and quantitative research traditions and probe the specifics of the findings (Castro et al., 2010; Shekhar et al., 2019). Stieglitz et al. (2018) recognized three key areas of analysis within social media including identifying the trend (i.e., theme), the

sentiment, and statistical analysis. Therefore, each of these three key phases were addressed within the study.

Group Formation

Brand data was utilized from 2018 reflecting twenty-five fashion brands with strong social media presence. Strong social media presence was identified as having verified social media accounts (i.e., a confirmed account of a public figure, celebrity, or global brand) and at least 50,000 followers on Instagram. Aligning with industry ranking and past research by Testa et al., (2020), brands included globally ranked top retailers and established sustainable fashion brands (Almassi, 2018; Davis, 2018; Deloitte & Stores Magazine, 2017).

Fashion brands were classified into the following groups: sustainable fashion brands, sustainably aware fashion brands, and traditional fashion brands (control group). Sustainable fashion brands (SFB) included brands established with sustainable practices as a central construct to the business's mission. Sustainably aware fashion brands (SAB) included brands that did not begin with specifically sustainable ideologies but have made public efforts to take/promote sustainable actions. Traditional fashion brands (TFB) included brands that have not publicly identified sustainability as a business initiative.

Thematic Content Analysis

In the first phase of analysis, a qualitative approach was taken to capitalize on the richness of details included in social media experiences such as emotions and attitudes and to extract trends in thematic content from social media post (Esterberg, 2002). Two coders evaluated social media post across the 25 brands on two platforms, Twitter and Instagram, using content analysis to identify themes. Content analysis allowed the researchers to analyse the content of the visual and verbal content in a systematic, unbiased, and measurable manner (Neuendorf, 2002; Vogt, 1999). To compare engagement based on message type, the central element of the post was analysed, meaning the images posted by the brands were analysed on Instagram and the text content was analysed on Twitter.

The coders first divided the content in half by brand with each coder reviewing all posts across both platforms for half of the brand for all three groups (SFB, SAB, TFB). Coders recorded themes for each post. There was no maximum number of themes per post.

All posts were discussed, validated, and finalized using a back and forth, part-to-whole process to ensure reliability (Spiggle, 1994). In order to capture high post frequency and high consumer engagement, posts were pulled from a 3-week period in the beginning of November 2018, leading into the holiday season.

Sentiment and Engagement

Consumer's sentiment was recorded through engagement via total likes and comments per post. This data was compiled with thematic data. Descriptive statistics were generated of relative distributions of each theme and the distribution of posts across platforms. Based on the thematic coding, quantitative analysis of consumer engagement was utilized to measure specific constructs, compare groups, and test research hypotheses (Castro et al., 2010).

Statistical Analysis

Gathered data was statistically analysed using the Statistical Package for Social Sciences (SPSS) program. Multiple regression analysis was utilized to address all hypotheses. Descriptive statistics including means, standard deviations, and frequencies were also gathered.

RESULTS

Sample Characteristics and Descriptive Results

Brand selection resulted in ten sustainable fashion brands, nine sustainably aware brands, and six traditional fashion brands. The varying number of brands per group was purposeful to maintain consistency of total posts per group (see Table 1). Across the brand groups, Instagram posts including 239 posts from SFB (31%), 195 from SAB (25%), and 336 posts from TFB (44%) were analysed totalling 772 total posts. The high quantity of posts in TFB was a result of the high post frequency, averaging 2.29 times per day. This was in comparison to SFB which posted an average 1.14 times per day and SAB which posted an average of 1.16 times per day (see Table 2). Comparatively, Twitter posts were composed of 196 posts from SFB, 133 posts from SAB, and 190 posts from TFB.

Table 1
Brands by Group

Sustainable Fashion Brands	Sustainably Aware Brands	Traditional Fashion Brands
Stella McCartney	H&M	Forever 21, Inc.
Patagonia	Mango	Chanel
Reformation	Levi's	Alexander McQueen
Everlane	Alo Yoga	Free People
ThredUp	Re/Done	Teva
All Birds	ASOS Marketplace	Converse
Edun	Rachel Comey	
Tome	Kering	
Eileen Fisher		
A Day		

Table 2
Frequencies by Group and Platform

Group	Coding	Instagram	Percent	Twitter	Percent	Aggregate Frequency	Aggregate Percent
SFB	1	239	31.0%	196	37.8%	435	33.7%
SAB	-1	195	25.3%	133	25.6%	328	25.4%
TFB	0	336	43.6%	190	36.6%	526	40.8%
Total		770	100.0%	519	100.0%	1,289	100.0%

Emergent Themes

Coders originally agreed upon sixteen sub-themes. Upon secondary review by three coders, these sub-themes were consolidated into six generalized themes. For example, Environmental Sustainability, Social Sustainability, and Local Sustainability were combined into the general theme of Sustainability. Additionally, Fashion, originally referring to apparel and accessories products, and Beauty, referring to beauty products, were combined into the general theme of Fashion. In the end, themes included Sustainability, Philanthropy, Fashion, Lifestyle, Current Events, and Branding (see Table 3).

Table 3
Descriptions of Emergent Themes

Theme	Description/Examples
Sustainability	Sustainability messages including: social sustainability (ethics, workforce, society), environmental sustainability (natural resource use, materials, pollution), and general sustainability
Philanthropy	Philanthropic deeds, charity, and fundraising
Current Events	Happenings in the public sphere such as wildfires or public elections. Also calls to address inequalities and injustices through actions such as marches and protests
Fashion	Apparel, accessories, footwear and beauty products
Lifestyle	Moments, 'how-to's, images daily life, celebrity happenings
Branding	Promotion of the brand, merchandise, stores, or events

Hypothesis Testing

Multiple regression analyses were conducted to test the hypotheses which stated that post themes will influence Likes (H1a) and Comments (H1b), that brand group would impact post theme (H2 and H3), and that platform (H4) would moderate the relationship between post theme and engagement. Given that, based on the hypotheses, social media post themes may predict consumer engagement via Likes and Comments, Likes and Comments were treated as the dependent variables and posts as the predictor variables in each regression model. Themes were treated as independent variables in the first set of regression analyses. Brand Group (SFB, SAB, TFB) were treated as independent variables in the second set of regression analyses, and platform was treated as a moderator in the final set of regression analyses.

Likes (H1a). H1 pertained to the relationship between post theme and consumer engagement via Likes (H1a) and Comments (H1b). Multicollinearity of independent variables could influence the interpretation of the relationship between independent and dependent variables in the regression analysis, therefore multicollinearity was examined. Each independent variable correlation coefficient was below .40 which was well below the typical cut-off of .80 (Berry & Feldman, 1985). No multicollinearity was found in this study through the Pearson Correlation matrix (see Table 4).

Table 4
Correlation Among Independent Variables

	M	SD	Sustain-ability	Philan-thropy	Current Events	Fashion	Life-style	Branding
Sustainability	0.12	0.322	1					
Philanthropy	0.03	0.161	.090**	1				
Current Events	0.09	0.292	.106**	.212**	1			
Fashion	0.63	0.483	-.241**	-.215**	-.349**	1		
Lifestyle	0.31	0.464	-0.044	-.080**	-0.052	-.295**	1	
Branding	0.39	0.488	0.014	0.007	.123**	-.142**	-.065*	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Multiple regression analysis was conducted to test the relationship between the six post themes (independent variables), and dependent variable of consumer engagement. Beginning with Likes as a dependent variable, it was revealed that approximately 3% of the variance of consumer engagement could be accounted for by the linear combination of the predictors ($R^2 = 0.031$). The regression model was significant in explaining the relationship between post theme and Likes ($F(6,1277) = 6.713$; $p = 0.000$). Therefore, H1a was supported.

Closer analysis of post themes revealed that consumer engagement via Likes was significantly and negatively related to Sustainability posts ($\beta = -0.075$; $p = .009$), Current Events ($\beta = -0.097$; $p = .001$), and Branding posts ($\beta = 0.057$; $p = 0.043$) (see Table 5). Three of the themes including Philanthropy, Fashion, and Lifestyle were not significant in predicting consumer engagement via Likes, therefore they were removed, and the model was reanalysed. The modified model explained approximately 3% of the variance of consumer engagement via Likes ($R^2 = 0.029$; $F(3,1280) = 12.522$; $p = 0.000$).

Comments (H1b). The second regression analysis, with Comments as the dependent variable, revealed that approximately 5% of the variance of consumer engagement via Comments could be accounted for by the linear combination of predictors ($R^2 = 0.045$). The regression model was significant in explaining the relationship between post theme and Comments ($F(6,1276) = 9.960$; $p = 0.000$). Therefore, H1b is supported.

Lifestyle was a significant and positive predictor of consumer engagement via Comments ($\beta = 0.066$; $p = 0.027$). Sustainability ($\beta = -0.060$; $p = 0.034$), Current Events (β

= -0.093; p = 0.002), and Branding (ß = -0.149, p = 0.000) were significant and negative predictor of consumer engagement via Comments (see Table 5). The remaining themes including Philanthropy and Fashion were not significant predictors of consumer engagement via Comments. These themes were removed, and the model was reanalysed. The modified model explained approximately 4% of the variance of consumer engagement via Likes (R^2 = 0.043; $F(4, 1278)$ = 14.421; p = 0.000).

Brand Group (H2). H2 pertained to the relationship between brand group, including SFB, SAB and TFB, and their influence on post theme to consumer engagement via Likes (H2a) or Comments (H2b). Hierarchical multiple regression analysis was conducted to test the relationship between the groups, the six post themes and the dependent variable of consumer engagement. Brand group was a categorical variable and therefore dummy coding was utilized with TFB as the control group coded as zero, sustainable fashion brands coded as one, and SAB coded as two.

Table 5
Multiple Regression Analysis Results for Hypotheses

Variables	df	H1a (Likes) ß*	t value	p	H1b (Comments) ß*	t value	p	df	H2a (Likes) ß*	t value	p	H2b (Comments) ß*	t value	p	df	H3a (Likes) ß*	t-value	p	H3b (Comments) ß*	t value	p
Intercept	6		6.301	0.000		7.803	0.000	7		7.927	0.000		8.462	0.000	7		9.995	0.000		10.236	0.000
Group								7	-0.201	-7.057	0.000	-0.102	-3.550	0.000							
Sustainability	6	-0.075	-2.625	0.009	-0.06	-2.12	0.034	7	-0.057	-2.022	0.043	-0.051	-1.798	0.072	7	-0.084	-3.148	0.002	-0.066	-2.424	0.015
Philanthropy	6	0.008	0.262	0.793	0.018	-0.637	0.524	7	0.001	0.025	0.980	-0.022	-0.761	0.447	7	-0.021	-0.781	0.435	-0.039	-1.399	0.162
Current Events	6	-0.097	-3.215	0.001	-0.093	-3.103	0.002	7	-0.104	-3.503	0.000	-0.096	-3.231	0.001	7	-0.034	-1.192	0.233	-0.048	-1.631	0.103
Fashion	6	0.053	1.613	0.107	0.046	-1.386	0.166	7	0.010	0.288	0.774	-0.068	-2.035	0.042	7	-0.005	-0.162	0.871	-0.087	-2.736	0.006
Lifestyle	6	0.028	0.925	0.355	0.066	2.219	0.027	7	0.015	0.509	0.611	0.059	2.007	0.045	7	0.039	1.402	0.161	0.074	2.583	0.010
Branding	6	-0.057	-2.029	0.043	-0.149	-5.34	0.000	7	-0.105	-3.696	0.000	-0.173	-6.058	0.000	7	0.168	5.513	0.000	0.012	0.392	0.695
Platform															7	-0.448	-14.29	0.000	-0.321	-9.946	0.000

*ß is standardized coefficient.

The first regression analysis was conducted for Likes. The predictor variables accounted for approximately 3% of the variance in consumer engagement ($R^2 = 0.029$) and was significant in accounting for brand group and post theme in predicting consumer engagement via Likes ($F(4,1279) = 9.633$; $p = 0.328$). However, group was not a significant predictor of consumer engagement via Likes ($ß = $ -0.028; $p = 0.326$) (see Table 5), meaning there was not a significant difference between brand groups effect on consumer engagement via Likes. Further analysis was conducted to control for the relationship between brand and post theme. Brand group was recoded using effect coding (TFB = 0, SAB = -1, SFB = 1) to remove the effect of group on post theme. Group became significant (F (7, 1276) = 13.088; $p = 0.000$). Further, this coding more fully explained the model ($R^2 = 0.067$). Therefore, H2a was partially supported.

A subsequent regression analysis was conducted for Comments (H2b). The predictor variables accounted for approximately 7% of the variance in consumer engagement ($R^2 = 0.069$) and was significant in accounting for brand group and post theme in predicting consumer engagement via Comments ($F(7,1275) = 13.572$; $p = 0.000$) (see Table 5). In the analysis utilizing effect coding there was only a slight change in R^2 ($R^2 = 0.054$). It can be interpreted that brand theme had a significant impact on post theme in the Comments regression. Therefore, H2b was supported.

Frequency (H3). H3 addressed brand group's influence on frequency of posts by theme. In the regression analysis conducted to examine the relationship between brand group, theme, and Likes (see Table 5), two themes were significantly different by brand group including Sustainability ($ß = $ -0.070; $p = 0.017$) and Current Events ($ß = $ -0.093; $p = 0.002$). In the analysis of brand group, theme, and Comments (see Table 5), three themes were significantly different by brand group including Current Events ($ß = $ -0.070; $p = 0.019$), Lifestyle ($ß = $ -0.064; $p = 0.030$), and Branding (ß = -0.123, $p = 0.000$). No other themes varied significantly by brand group. Therefore, H3 was partially supported.

Platform (H4). H4 pertained to the moderation of relationship between post theme to consumer engagement via Likes (H2a) or Comments (H2b) by platform (Instagram and Twitter). Platform was a categorical variable with Instagram coded as zero and Twitter

coded as one. Therefore, significance of themes represents a difference between Twitter and Instagram.

A multiple regression analysis was conducted for the dependent variable of Likes testing for a moderating effect of platform (H4a). The predictor variables accounted for approximately 16% of the variance in consumer engagement via Likes ($R^2 = 0.164$) and with post theme moderated by platform ($F(7,1276) = 35.849$; $p = 0.000$). The relationship between Sustainability and consumer engagement via Likes was significantly different by platform with Twitter engagement lower than that of Instagram ($ß = $ -0.084; $p = 0.002$) (see Table 5). Additionally, the relationship between Branding and consumer engagement via Likes was significantly different by platform with Twitter engagement higher than that of Instagram ($ß = 0.168$; $p = 0.000$). No other themes had significant differences in consumer engagement via Likes by platform. H4a was partially supported.

Another multiple regression analysis was conducted for the dependent variable of Comments testing for a moderating effect of platform (H4b). The predictor variables accounted for approximately 11% of the variance in consumer engagement via Likes ($R^2 = 0.114$) and with post theme moderated by platform ($F(7,1275) = 23.324$; $p = 0.000$). The relationship between Sustainability and consumer engagement via Comments was significantly different by platform with Twitter engagement lower than that of Instagram ($ß = $ -0.066; $p = 0.015$) (see Table 5). The relationship between Fashion and Comments was significantly different by platform with Twitter engagement lower than that of Instagram ($ß = $ -0.087, $p = 0.006$). Additionally, the relationship between Lifestyle and Comments was significantly different by platform with Twitter engagement higher than that of Instagram ($ß = 0.074$; $p = 0.010$). No other themes had significant differences in consumer engagement via Comments by platform. Therefore, H4b was partially supported.

DISCUSSION
Post Theme

Six themes were identified across fashion brand social media posts including Sustainability, Philanthropy, Current Events, Fashion, Lifestyle, and Branding. The relationship between the post themes and consumer engagement via Likes and Comments was examined (H1). Consistent with H1, themes were significantly related to consumer

engagement via Likes (H1a) and Comments (H2a). Interestingly, different themes lacked significance via Likes than Comments. For instance, it was found that Lifestyle was a significant predictor of consumer engagement via Comments but not via Likes. This could relate to the different ways in which consumers engage through Likes versus Comments (Lee et al., 2015). Individuals may be interested in sharing personal experiences and connect with the brand via written text when it comes to Lifestyle content and expect to find gratification through such engagement.

Brand Group

Within the study three brand groups, including sustainable fashion brands, sustainably aware fashion brands, and traditional fashion brands were examined as they relate to post theme and consumer engagement. Limited explorations of these relationships exist in academic research (Testa et al., 2020). It was found that group was a significant predictor of post theme on consumer engagement via Comments, which was consistent with authors expectations, but not via Likes. These findings differ from early research which has assumed various measures of consumer engagement (e.g., Likes and Comments) to be equal (Li & Dou, 2017; Nelson et al., 2019).

Brand Group and Post Theme

The impact of brand on post themes was assessed through the regression models for both Likes and Comments (H3). It was found that Sustainability and Current Events posts were impacted by brand group. The only difference between the models for Likes and Comments regarding brand group impact on post theme was that a significant difference was found in post theme for branding through Comments but not through Likes. However, it was approaching significance through Likes ($\beta = $ -0.053; $p = 0.065$). The finding that Sustainability and Current Events post themes would vary by group was consistent with the authors expectations. It was expected that SFB would post more sustainable content while TFB would post less sustainable content, which aligned with results. Further, since sustainable brands tend to be socially and environmentally aware based on user observation, it was also expected that they would have high posts frequency regarding Current Events, further aligning with research findings.

Engagement By Platform

The final hypothesis examined varying consumer engagement by theme based on visually-based or text-based social media engagement as measured through two platforms, Instagram and Twitter. It was found that consumer engagement via Likes and Comments varied for Sustainability, with consumers engaging more on Instagram than Twitter. This demonstrates a higher demand for gratification from visual content (i.e., photos) relating to sustainability than from text content as evidenced through consumer use. Consumer engagement via Likes was also significantly different by platform for Branding, with consumers seeking gratification from Twitter more than Instagram as evidenced through consumer engagement. This preference is likely because brands posted information about new store openings, new collections, sales and promotions and Twitter enabling consumers to easily ask for additional information.

Consumer engagement via Comments was significantly different by platform for Fashion, with consumers engaging more on Instagram than Twitter. Consumers may expect more gratification from visual posts which emphasize garments and collections and can be more easily communicated on a visually-based verses a text-based platform. Consumer engagement via Comments was also significantly different by platform for Lifestyle, with consumers engaging more on Twitter than Instagram. This may be driven by consumers interest in engaging in written conversation regarding personal experiences, life events and other Lifestyle topics. The difference in engagement by platform demonstrates the various uses and gratifications sought by platform-type, whether it be visually-based or text-based.

MANAGERIAL IMPLICATIONS

Several implications exist for fashion marketing practitioners including increasing consumer engagement and identifying optimal marketing strategies. The findings demonstrate that usage/engagement with visually-based, and text-based social media platforms vary based on the sought gratification. Select themes will engage consumers via visually-based platforms while alternative themes will more aptly engage consumers on a text-based platform. As new platforms continue to emerge, text-based and visually-based social media platforms continue to be prevalent and highly utilized for marketing

messages. However, findings from this study suggested that visual messages are more engaging platform for brands seeking to communicate a sustainable message. These insights can be utilized by practitioners to engage their audience via the desired method and for various durations. Further, aligned with extant research (Testa et al., 2020), findings suggest that fashion brand content varied based on the brand type. For instance, posting sustainable content on a visually-based platform (Instagram) is likely to yield higher engagement than posting sustainable content on a text-based platform (Twitter). This demonstrates an important implication for managers in a highly competitive marketplace that wish to post social media content regarding sustainability in a manner that will maximize consumer engagement.

ACADEMIC IMPLICATIONS

This study builds on research that has examined consumer engagement on alternative and singular social media platforms (e.g., Molina-Prados et al., 2022; Testa et al., 2020). The present study provides researchers with an expanded basis of knowledge for consumer engagement across common social media channels including Instagram and Twitter. It opens a realm of research opportunities to compare methods of engagement across various sensory platforms including textual, static visual, dynamic visual, and auditory. Specifically, the presented framework may be tested across future emergent platforms to further compare consumer engagement and identify optimal marketing strategies.

LIMITATIONS AND FUTURE RESEARCH

Findings of this study suggest significant differences in consumer engagement by message type, brand type, and social media platform. Future research may explore the multi-level relationship of posts nested within brands. Based upon a one-way ANOVA, this has been found significant and suggests a future research opportunity ($F(23,1259) = 12.896$, $p =0.000$). This study took a brand perspective, therefore future research may also delve into the experiential aspect of social media. In a time when more social media platforms are becoming available with varying means of engaging with consumers, additional platforms could be examined, such as TikTok, which is growing in relevancy

with young, sustainably minded consumers (Bhandari & Bimo, 2022). Specifically, the study results present an opportunity for continued research to understand the uses and gratification of additional social media types, such as audio-based and video-based. Further, the relationship between these emerging social media platforms and consumer relationships with sustainability presents ongoing opportunities for exploration.

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