EXPLORING THE ROLE OF SOCIAL MEDIA INFLUENCERS IN PROMOTING SUSTAINABLE FASHION ON TWITTER

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EXPLORING THE ROLE OF SOCIAL MEDIA INFLUENCERS IN PROMOTING SUSTAINABLE FASHION ON TWITTER

A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Science in The Department of Textiles, Apparel Design and Merchandising

by

Hannah Landry Short
B.S., Southeastern Louisiana University, 2017
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ABSTRACT

The fashion industry promotes a culture of frivolous consumption, especially with the offering of fast fashion items nearly everywhere. With the rise of social media platforms, ordinary people have been able to create a large following of people who are interested and persuaded by their opinions and lifestyles, thus being deemed a social media influencer. Social media influencers who have utilized their platforms to speak out about the detrimental effects of fast fashion and conspicuous consumption and for the need to shop with sustainable values in mind for the health of society as well as the environment are known as sustainable fashion influencers. The goal of this study is to bring awareness to consumers about the concept of sustainability in the fashion sector.

Data was gathered from eight sustainable fashion influencers on Twitter. These influencers were chosen based on their interest in sustainable fashion, number of followers, number of tweets and language. Nvivo 12 was used to conduct content analysis on a small set of the most recently posted tweets using Ncapture. In addition, supervised content mining was applied to a large set of collected data following the 7P’s of marketing mix. From the data analysis, we were able to identify seven themes: https, fashion, workers, sustainable, brands, industry, and garment. Within the seven themes, we discovered 16 sub themes: https photo, https video, https selling, https blog, fashion industry, fashion brands, fast fashion, sustainable fashion, garment workers, working conditions, sustainable wardrobe, sustainable brands, ethical brands, garment industry, garment factories and fast fashion brands. Based on previous published research on the subject of sustainable fashion the discovered themes align with previous findings. A proposed attitude behavior gap deemed valid in our findings, where sustainable fashion influencers are ultimately continuing to push overconsumption of products weather sustainable
or not. Rather than the traditional 7P’s of marketing mix, the most common marketing mix used by these sustainable fashion influencers focus on people, product and promotion. Our findings indicate that sustainable influencers actually promote consumption more so than promoting sustainable fashions, lifestyles and mindful consumption.
INTRODUCTION

1.1. Statement of the Problem

The fashion industry is one of the fastest growing worldwide (Statista, 2018) but is also one of the most polluting industries in the world (Austgulen, 2015; Guedes et al., 2020). Environmental and societal concerns are rising as overconsumption and fast fashion retailers overpopulate the retail landscape (Ormanski et al., 2021). Fast fashion introduced rapid production and quick turnaround times resulting in fashion items that have significantly shorter lifecycles and are viewed as disposable (Ruppert-Stroescu et al., 2015). Historically, consumers shopped for clothing less frequently and wore their garments for longer amounts of time than in the present (Barnes & Lea-Greenwood, 2016). Given the rising interest in fast fashion over the last decade (McNeill and Moore, 2015), consumers are becoming more conscious about who and what makes their clothing choices (Testa et al., 2020).

For the reasons listed above, the concept of sustainability in the fashion industry has peaked the attention of consumers and retailers alike. According to Gurova and Mormozova (2018), “Sustainability thus refers to balancing human activities vis-à-vis the natural environment for the purpose of reducing the harm on both human beings and the environment caused by these activities” (p. 398). Considering the broad concept of sustainability, there is no singular definition; the outcome, however, is unanimous, to respect the environment and natural resources for present and future generations (Brundtland, 1987).

Originating in the field of forestry, the concept of sustainability is now relevant across all fields of study (Saricam & Okur, 2019). Due to the overwhelming statistics on pollution and the depletion of non-renewable resources, companies are working towards implementing sustainable
practices into businesses of all capacities and in turn, have positioned a new way of conducting business by placing high importance on environmentally conscious behaviors (Kopnina, 2017). Brands prioritize marketing their sustainable efforts to show corporate social responsibility (CSR), to promote sustainable products, and to ultimately drive sales (Kong et al., 2021). In order to positively promote sustainable practices, changes in attitude and purchasing decisions must occur from retailers, through production and supply chain, as well as consumers’ consumption to abolish unsustainable practices from the current state of fashion (Schor, 2005; Gupta et al., 2019).

Social media has become intrinsic to the lifestyle of general consumers. A critical outcome of daily social media usage is the behavioral changes that stem from the influence by observing others online (Adewuyi & Adefemi, 2016). Social media influencers have emerged from popular social networking sites such as Facebook, Instagram and Twitter. From their growing popularity, brands have realized the potential of influencer marketing through online promotion (Linqia, 2019). Influencer marketing occurs when brands hire social media influencers (SMIs) to promote their products in exchange for online interactions (likes and comments), link clicks or money (Orminski et al., 2021). As sole content creators, social media influencers implement the marketing mix of 7Ps into their posts. The 7Ps include product, price, place, promotion, people, process and physical evidence (Singh, 2012). The 7Ps of marketing serve as a framework for influencers to create value in products and for companies to assess consumers’ purchasing decisions (Larashati et al., 2012).

An argumentative topic about social media influencers is if the intention of their posts is to educate their audience on sustainability or to actually promote consumption. It is assumed that a portion of social media influencers positively promotes sustainable fashion brands and
lifestyles; we refer to those as sustainable influencers. However, studies argue whether fashion can be considered sustainable. Independently the concepts of sustainability and fashion are contradicting. Sustainable products are typically consumed at slower rates and in conscious, smaller quantities, while fashion is focused on speed and large amounts of consumption (Griskevicius et al., 2010; Grazzaini et al., 2021). Moreover, some people argue that sustainable influencers encourage consumption and advertise for brands that are not ethical or for greenwashing brands and promote a false idea of sustainability.

It seems that sustainability advocated by those sustainable influencers is becoming less of an actual goal, but more of a marketing strategy for brands. For sustainable influencers to remain relevant, they must continuously produce content for their followers. So, to what degree are those sustainable influencers able to fulfill the mission of promoting sustainable fashion and fashion consumption is questionable.

1.2. Research Questions

The number of social media influencers who claim or label themselves as a sustainable influencer has been increasing. The followers of these influencers have also been increasing. However, to our knowledge, no research has systematically examined the content created and shared by these influencers to see if they actually promote sustainable fashion or sustainable consumption through their created or shared content, or are they simply just painting themselves as sustainable influencers to better influence consumers’ fashion consumption or even encourage more consumption?
To this end, this study aims to examine to what degree the content created by sustainable influencers effectively educates their audience, or promotes sustainable products and brands, as well as mindful fashion consumption.

This research seeks to answer the following questions: what are the main themes of the content created and shared by sustainable influencers? Are sustainable influencers using traditional marketing techniques to simply promote more consumption? To what degree are sustainable influencers promoting sustainable fashion or mindful fashion consumption?

1.3. Research Goal and Objectives

The overall goal of this study is to explore if it is effective for sustainable influencers to increase awareness of, knowledge about, and call for action upon sustainable fashion consumption among their followers on social media platforms. Specifically, the objectives for this study are to (1) identify key dominant themes of content created or disseminated by sustainable influencers; and (2) to examine to what degree the content created and disseminated by sustainable influencers is associated with sustainable fashion and consumption.

In the following section, literature on social media influencers, sustainable fashion and mechanisms of social influencing or social proof from the perspective of observational learning was reviewed to provide justification for our research questions and framework for us to explore answers for our research questions. A qualitative study was designed and implemented. Empirical study results were reported followed by discussions, implications, limitations, and suggestions for future studies.
### 1.4. Assumptions

This study was conducted under the following assumptions:

1. All of the influencers on social media that promote sustainable value and consumption patterns are aware of environmental issues and truly believe sustainable consumption will contribute to problem solving.
2. All content created by social media influencers was factual and represents the authors’ personal opinions.
3. Followers of the social media influencer will understand all the created content, such as tweets.

### 1.5. Definitions of Terms

The following are defined key terms utilized in this study:

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Electronic word-of-mouth (E-WOM)</td>
<td>“A statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet” (Henning-Thurau et al., 2004, p. 39)</td>
</tr>
<tr>
<td>Fast Fashion</td>
<td>“Fast fashion is a global trend that is characterized by the ability of fashion companies to respond quickly to fast-changing fashion trends and consumer tastes while maintaining low prices.” (Hall, 2017, p. 285)</td>
</tr>
<tr>
<td>Observational Learning</td>
<td>“Learning as a continuous interaction between cognitive, behavioral, and environmental influences” (Groenendijk et al., 2013, p.2)</td>
</tr>
</tbody>
</table>
Slow Fashion  “To segment and differentiate garments produced in the growth fashion model in a fresh way; to offer a new marketing angle on products and brands that happen to have a long heritage, durable pieces or classic design.” (Fletcher, 2010 p. 262)

Social Media Influencer  “Personalities with large numbers of followers on social media who generate fashion content and have the power to persuade followers’ opinion and purchase behavior” (Chetioui et al., 2020, p. 361)

Social Power  “[…] the induction of (psychological) forces by one entity b upon another a and to the resistance to this induction set up by a.” (Cartwright, 1959, p.188)

Sustainability  “Refers to balancing human activities vis-à-vis the natural environment for the purpose of reducing the harm on both human beings and the environment caused by these activities.” (Gurova & Morozova, 2018, p. 398)

Sustainable Fashion  “Sustainably produced fashion means that all steps related to the design (neutral look, plain colors and high-quality materials) and the production follow the environmental, social and economic domains of sustainability.” (Ormanski et al., 2021, p.117)

Sustainable Influencer  “Create[s] content that includes information about products, educational posts about sustainable living, and content with entertainment value for the followers.” (Yalcin et al., 2020, p.5)
2.1. Defining Fashion

Fashion is ambiguous, and serves many roles. It can be materialistic, specifically what covers the human body, but it can also be symbolic, such as impacting how an individual define his or her self (Kawamura, 2005; Arvanitidou & Gasouska, 2013; Orminski et al., 2021). Fashion satisfies both sociological and psychological needs for an individual by (a) influencing one’s identity construction (McNeill & Moore, 2015) and (b) allowing an individual to diffuse into social groups to adapt into certain roles (e.g., opinion leader), or to disassociate from others (e.g., nonconformist) (Orminski et al., 2021). Consumers are naturally driven to express themselves through their clothing choices (Berger & Heath, 2007) and possessions (Orminski et al., 2021), and too long to feel a connection to fashion pieces as an integral part of their identity (McNeill & Venter, 2019).

To many consumers the term ‘fashion’ is one and the same with fast fashion (Hall, 2017), and compared to past generations, younger consumers have higher spending power than ever before (Halvorsen et al., 2013). Consumers are interested in fashion- perhaps now more than ever. With the increase of acceptance and diffusion of technology, such as smartphones and laptops, the Internet is available nearly everywhere, heightening the way that fashion is presented and is available to consumers (Barnes & Lea-Greenwood, 2005). Since the introduction of Web 2.0, the source of influence on fashion related items have transferred from fashion magazines onto the Internet (Bannigan & Shane, 2020). With smartphones consumers have purchasing power literally in the palm of their hand, with most clothing brands launching their own
applications for consumers to directly purchase from smart mobile devices (Ormsinski et al., 2021).

The adaptation of fast fashion has shifted from consumers purchasing clothing seasonally to frequently purchasing clothing items with low economic cost that gives minimal value to the consumer (Gabrielli et al., 2013). The success of mass-produced fast fashion has forced department stores (e.g., JCPenney) to offer more clothing options at a speedier turnover rate to rival with competition from fast fashion retailers (e.g., H&M, Shein and Forever 21) (Retail Industry, 2012; Joung, 2014). Fast fashion may be to blame for the changing nature of production, consumption and conception of fashion (Hall, 2017). While the demands of consumerism heighten in the age of instant gratification, the environment and society are paying the ultimate price of unhealthy welfare caused by over consumption and the enormous amount of fashion waste (Guedes et al., 2020).

2.2. The Current Fashion Industry

The current state of the fashion industry is economically pleasing but environmentally damaging. The blame can be shared amongst consumers, the fashion industry, supply chains and the government (Pozniak, 2019). Consumers are overzealous with their fashion consumption, and make frivolous purchases that are rarely worn (Pozniak, 2019), while the fashion industry oversaturates the market with quick changing trends and low costs for consumers (Ormsinski et al., 2021). Ultimately generating too much fashion waste due to over production, and over consumption by consumers. The complex supply chains are rarely transparent to the public and lack of rules and regulations from the government allow inconspicuous production to occur (Pozniak, 2019). More recently, there has been pressure directed towards the fashion industry to
move away from the current state of fashion and to implement sustainability initiatives (Pozniak, 2019).

2.2.1. Fast Fashion

The rise of fast fashion began in the early 21st century (Barnes and Lea-Greenwood, 2006). Cook and Yurchisin (2017) define fast fashion as “a business strategy that reflects quick response to emerging trends by enhancing design and product assortments quickly and effectively to increase product value and demand for short-cycle fashion products” (p. 143). With an emphasis placed on speed, materials, labor and design are compromised. Production time is considered to be more important than the quality and longevity of the garments produced (Bruce & Daly, 2006). Noteworthy retailers in the field of fast fashion include but are not limited to: Zara, H&M, ASOS and Forever 21 (Stringer et al., 2020). These retailers can provide consumers with an overabundance of the latest fashion trends at an unbelievable low price (Choi et al., 2010; Cook & Yurchisin, 2017; Joy et al., 2012) with little to no transparency in regard to the supply chain (Horton, 2018). Consumers who purchase fast fashion items demonstrate the highest level of demand for new items (McNeill & Moore, 2015), causing individuals to purchase more in quantity and frequency (Joung, 2014). The unsustainable fast fashion industry promotes disposability and low-price margins (Rathinamoorthy, 2019). The frequently shortened fashion seasons (Buzzo & Abreu, 2019) allow a garment to have a lifecycle of one month or less from production to purchase (Doeringer & Crean, 2006). Thus, creating additional textile waste from consumers who want the latest fashion trends.

A common approach in fast fashion retailers is to imitate luxury fashion designs (Barnes & Lea-Greenwood, 2006) to lure in consumers who cannot afford the price point of luxury items
to acquire a similar style, but at a fraction of the price (Cook & Yurchisin, 2017). Previous findings from Girel & Huttel (2010) illustrate that both retailers and academic literature operates under the assumption that if items are scarce, then consumers are more likely to perceive the items as attractive. Fast fashion brands use this assumption by operating a smaller scale supply chain to produce a limited number of items to generate the ‘scarcity effect’. This implies that certain items will not be available for purchasing the next time the consumer shops (Girel et al., 2008; Horton, 2018). This approach eliminates the traditional end of season sales and markdowns for fast fashion retailers (Backs et al., 2021).

Due to excessive production as well as overconsumption of fashion items by society, the fashion industry has played a large role in damaging the Earth’s environment (Magunson et al., 2017). There are numerous negative societal and environmental consequences from the acceptance of the fast fashion industry (Backs et al., 2021). Fast fashion outsources labor and materials from developing countries, causing production prices to be low. This allows for savings to be passed directly onto the consumer (Schor, 2005; Bick et al., 2018). The span of production from fiber to garment is hazardous for the environment as well as the human's producing the garments. Occupational hazards are commonplace in low-income countries that produce most of the fast fashions consumed in the United States (Bick et al., 2018). A crucial characteristic of the fast fashion model is the promotion of consumers to view clothing as disposable (Bick et al., 2018). Surges of textile waste are directly correlated to discarded fast fashion items (Schor, 2005), leading fashion to become the second most polluting industry in the world (Austgulen, 2015; Rathinamoorthy, 2019). According to the Environmental Protection Agency (EPA), a single human disposes of an estimated 81 pounds of clothing per year. In 2017 alone, the EPA reported that of all municipal solid waste that entered landfills, 11.2 million tons
were textiles (Environmental Protection Agency [EPA], 2020). If not disposed of, an alternative is to donate used clothing where it will begin the next part of its lifecycle as second-hand clothing. If the clothing is not successfully sold in the United States, it will be baled and shipped overseas to underdeveloped countries to be sorted, resold or to be disposed of (Bick et al., 2018).

Although fast fashion is wildly popular, consumers need to be aware of the social and environmental damage caused by overconsumption and must demand that the fast fashion industry implements sustainable practices into the supply chain (Lenne and Vandenbosch, 2017). However, the fast fashion industry has not made significant strides towards sustainability. It is detrimental for consumers to take responsibility to switch to sustainable fashions and mindful consumption patterns. The wide acceptance of sustainable fashion and mindful fashion consumption patterns among consumers will drive the industry to eventually change and transform toward a more sustainable path.

2.3. Sustainability in Fashion

2.3.1. Conceptualizing Sustainability

Sustainability “refers to balancing human activities vis-à-vis the natural environment for the purpose of reducing the harm on both human beings and the environment caused by these activities” (Gurova & Morozova, 2018, p. 398). The concept of sustainability can be further conceptualized into three categories: 1) environmental, 2) social, and 3) economical (Balderjahn et al., 2013). Environmental sustainability strives to avoid depleting the earth of non-renewable resources, and decreasing the consumption of fossil fuels and waste (Rathinamoorthy, 2019). In the realm of fashion this category of sustainability covers clothing production. A specific
example is the use of non-renewable resources used to transport clothing items from production to retailer (Caniato et al., 2012). Social sustainability is associated with the well-being of human beings, nature (Balderjahn et al., 2018) and overall quality of life (Orminski et al., 2020). Economic sustainability is achieved when products are producing profit and are stimulating the economy (Balderjahn et al., 2018).

Implementing the principles of sustainability into fashion can potentially alleviate the damage created by the current state of the fashion industry. Fashion brands have begun to address sustainability by acquiring certification from organizations such as Fair-Trade America and the National Council of Textiles Organization (NCTO) (Bick et al., 2018). Certain brands such as Lululemon and Patagonia are implementing sustainable practices by offering a repair program for consumers to get their previously purchased clothing mended by the company, free of charge, in order to extend the life of the garment.

2.3.2 Sustainable Fashion Options

Sustainable fashion is one alternative to fast fashion. There are some inconsistencies in academic research on sustainable fashion with an opportunity to expand on the subject. As the concept of sustainably is still relatively vague, with terms such as: green, eco, organic and ethical used interchangeably within research (Orminski et al., 2021) the blanketed concept has made sustainable fashion difficult to conceptualize. For fashion to be considered sustainable, it must manage and balance all three categories of sustainability, environmentally, socially and economically (Wang et al., 2021).

Clothing brands that specialize in sustainable fashion such as Patagonia and Eileen Fisher apply the three dimensions of sustainability into the designs and production practices of
their fashion products (Lenne and Vandenbosh, 2017; Orminski et al., 2021). To maintain sustainable consumption, it is critical that consumers purchase smaller quantities and only consumes what is deemed necessary per consumer (Orminski et al., 2021). Other than sustainably made clothing, there are other sustainable fashion options available for consumers. For instance, zero-waste design is another sustainable option, which takes place in the design and production stage of a garment (Gam and Banning, 2020). Slow fashion, another form of sustainable fashion, focuses primarily on consumption, but is also related to the production process as well.

Zero-Waste Design

It is pivotal to understand that commercial fashion accepts the aesthetic, fit and cost of clothing with importance over environmental and societal wellbeing (Saeidi and Wimberly, 2018; McQuillan, 2020). Zero-waste design is a method used to reduce excessive waste from the design process (McQuillan, 2020). During clothing manufacturing an average 25% of material goes to waste (Runnel et al., 2017; Rissanen, 2013; Gam and Banning, 2020). Opposed to conventional patterning where the pieces are irregularly placed on fabric, thus creating excess waste (Saeidi and Wimberly, 2018) with zero-waste design, pieces are arranged to interlock closely on fabric. The concept of zero-waste design encourages designers to think creatively in terms of pattern making and design in an effort to conserve textile waste (Gam and Banning, 2020). With the assistance from digital 3D design tools, designers can now construct and reconstruct garments virtually before having to cut the fabric (Saeidi and Wimberly, 2018; McQuillan, 2020). Although zero-waste design requires more time in the design and marking process compared to traditional designs, the advanced technology from 3D design software can
alleviate the overall process of trial and error. Essentially declining the harmful impact of textile waste (Saeidi and Wimberly, 2018).

**Slow Fashion**

The fashion industry has polarized into two competing fashion movements: fast fashion and sustainable fashion. Categorized under sustainable fashion, slow fashion differs from fast fashion, not only in time, but also in quality. There is a focus on durability of clothing and utilizing local materials, specifically in the consumption and production segments (Fletcher, 2010). Inspired by the slow food movement established by Carlo Petrini, slow fashion connects gratification with consciousness and accountability (Fletcher, 2007). Characteristics of this movement include, creating quality garments at a price point that reflects the craftsmanship and locally sourced materials used (Ertekin et al., 2015). As well as designing items that are timeless (Fletcher, 2010) in order to reduce the number of fashion seasons per year (Cataldi et al., 2010). Therefore, encouraging consumption of smaller quantities to reduce excessive waste (Hall, 2017; Orminski et al., 2021). A unique position of slow fashion is that it can also appeal to consumers who want one-of-a-kind pieces that are more exclusive than their mass-produced counterparts (Jung and Jin, 2021).

Multiple studies on slow fashion have concentrated on American consumers (Jung and Jin, 2014; 2016b, Pookulangara and Shepard, 2013; Watson and Yan, 2013). However, Jung and Jin (2021) directed their study on Asian consumers. The results from Jung and Jin (2021) found that from a branding perspective, different aspects of slow fashion should be taken into consideration depending on location being marketed. Branding slow fashion differs from location, regardless of the ethnicity of the target audience (Jung and Jin, 2021). Watson and Yan
(2013) hypothesized the demographic of a slow fashion consumer as one who consumes out of consideration and care. They are willing to spend more money on their clothing items that are versatile, in order to build a long-lasting wardrobe (Watson and Yan, 2013). Slow fashion has been studied from various perspectives in previous literature. By understanding and acknowledging previous findings, we apply that knowledge to our study on the viewpoint of marketing sustainable fashion options.

2.4. Attitude Behavior Gap Among Consumers

A recurring theme in empirical studies on sustainable fashion is the attitude behavior gap. In previous studies, when asked consumers acknowledge having positive interest in environmental values. However, they did not convert their statements into purchasing behaviors (McNeill and Moore, 2015). One explanation could be that because individuals are more influenced by individualistic values rather than social norms (Hannah and Avolio, 2012; Goworek et al., 2012). Park and Lin (2020) found that consumers purchase items to fulfill their own individual needs, and the reasons for purchasing can be divided into three categories: individual characteristics, product characteristics and socio-demographics.

There are several theories as to why the attitude behavior gap exists. Research from Bray et al. (2011) found five product characteristics that can intervene between behavior and consumption. Findings such as price, experience, and lack of information, quality perception and cynicism affect consumers purchasing decisions towards sustainable fashions (Bray et al., 2011; Park and Lin 2020). Consumers are found to prefer lower prices, designs and fit of mainstream fashion, and are unlikely to be influenced solely by ethical credentials highlighted on product packaging (Mckeown and Shearer, 2019).
Present day research remains unable to bridge the attitude gap between consumption and behavior towards sustainable fashion. Research from Park and Lin (2020) suggests that self-interest is the largest driver towards purchasing decisions. Another study found that consumers feel the desire to feel fashionable more so than making conscious and ethical purchases (McNeill & Moore, 2015). McNeill and Venter (2019) reinforced this idea by recognizing the emotional connection that consumers have towards fashion items, which are directly related to their personal identity and fulfillment of self-interests. Whereas sustainable consumption challenges this traditional viewpoint by encouraging sharing and reusing with an emphasis on community and working together for the greater good of the environment (McNeill and Venter, 2019; Orminski et al., 2021).

2.5. Social Media and Content Marketing

2.5.1. Social Media Influencers

The rise of social media influencers has become a key marketing component in the fashion industry (Vecchi, 2016; Quelhas-Brito et al., 2020). The idea of sharing opinions publicly dates back before the introduction of social media influencers (Katz & Lazarsfeld, 1955; Marcos-García et al., 2020). Social media influencers are online content creators with large amounts of followers. They have the ability to influence followers' opinions and behaviors (Chetioui et al., 2020). These personalities use their voices online to educate, promote and entertain their audience across their social media platforms (Yalcin et al., 2020). Consumers have begun to rely on social media influencers for product information and use their opinions towards purchases (Uzunoğlu and Kip, 2014; Wang et al., 2020).
Social media influencers are responsible for creating their own content, which allows for product promotion to be in line with the views of the influencer (Labrecque, 2014; Kim et al., 2020). Created content posted by an influencer is a combination of organic and sponsored posts (Yalcin et al., 2020). Another form of content, sponsored, is considered to be influencer marketing. Sponsored content is when brands hire social media influencers to endorse their products and increase the brands online presence (Lim et al., 2017; Wibisono and Ruldeviyani, 2021). These posts will typically contain information to the audience that the post is sponsored. The increase in consumption from influencer marketing has become a way for brands to use the barter system or to pay money to influencers to create posts based on their products and services (Yalcin et al., 2020). The success of influencer marketing stems from consumers perceiving the unique positioning of everyday people emerging into influencers as trustworthy (Magno, 2017, Colucci & Cho, 2014; Cheng & Fang, 2015), knowledgeable (Lim et al., 2017), and credible (Cosenza et al., 2015).

Unlike traditional marketing, influencers utilize E-WOM (electronic word-of-mouth) to exchange information omnidirectionally through social interaction to consumers (Du & Wagner, 2006; Halvorsen et al., 2013; Yalcin et al., 2020; Orminski et al., 2021). Orminski et al. (2021) found that audience attitude may be persuaded more by influencers than mass media outlets, due to the active conversations that occur between the user and the influencer (Kim & Ko, 2012). Through E-WOM consumers can spread the marketing message to a significantly larger group of people than traditional WOM, which only reaches the consumers inner circle (Yalcin et al., 2020).
2.5.2. Social Power of Social Media Influencers

Social media users are only considered to be influential if they have power over others. Social power is defined as “the ability of one person to affect other’s beliefs, attitudes, or behaviors” (Perrio et al., 2012, p. 41). Social power is used to analyze the relationship between influencer and follower. There is an “asymmetric power relationship” between the influencer and a group of people (Wang et al., 2021, p. 1066) where one exerts a stronger influence over the other. In this case, the social media influencer controls the power. There are five forms of social power: 1) expert, 2) referent, 3) coercive, 4) reward and 5) legitimate. The social power theory is applied to illustrate the effects of sustainable fashion influencers to their followers.

Expert power suggests that a person is viewed as an expert on a particular subject (French & Raven, 1959; Kim et al., 2020). Social media influencers are considered to be experts on whichever subject they share and create content about (Orminski et al., 2021). On account of their status as experts, the content that they share will create value for others (Kim et al., 2020). For example, sustainable influencers are seen as experts on sustainable products and lifestyles. They provide brand and product knowledge to their followers through the content posted on their social media platforms. Sharing their knowledge establishes credibility with their followers (Jin & Ryu, 2019) and acts as a source of marketing (Balaban & Mustătea, 2019). These influencers are more likely to be trusted by their followers since they feel a close relationship to the influencer (Kretz, 2012). Social media influencers will post experiences organically and sponsored, allowing consumers to accept or decline the influencer’s viewpoint. However, this quick decision from a large group can allow for a brand’s reputation to be praised or tarnished almost instantly (Pauliene & Sedneva, 2019).
Referent power is associated with the identification of an influencer as a respected authority (French and Raven, 1959). Celebrities are a great example of referent power since they already have established their identity and have a strong following. They can influence people to purchase items by using their name or image. Previous studies identified that followers perceived social media influencers as attractive and likeable (Uzunoğlu and Kip, 2014), and their presence was influential in regards to purchasing behaviors (Djafarova & Rushworth, 2017). These findings align with the definition of referent power.

Reward, coercive and legitimate powers are not relevant to this specific study. However, expert and referent power are the most used forms of social power applicable to social media influencers. These asymmetrical interactions are beneficial in order to study the amount of power an influencer can have.

2.5.3. Influencer Marketing and Marketing Mix (7Ps)

In the field of marketing, the 4Ps: 1) product, 2) price, 3) place and 4) promotion are interconnected and considered the base of the marketing mix (Singh, 2012). In 1981, Booms and Bitner expanded to include three additional service components to reach the 7Ps of marketing. The 7Ps include the additional 5) people, 6) process and 7) physical evidence (Altay et al., 2021). The marketing mix theory (7Ps) can cover all products and services in marketing activities, through online and in-person settings (Caliskan et al., 2020). Deriving from previous literature on the topic, the 7Ps of the marketing mix are explained in depth below.

Product is the physical item or service available to a consumer. It assumes that it can fulfill a want or need for a consumer (Altay et al., 2021). Of the 7P’s, product is the most
prominent P as it is the base of the other elements within the marketing mix (Singh, 2012; Caliskan et al., 2020).

Price is the amount for the product that the consumer is willing to pay, weather that be monetarily or the value perception that the consumer believes the product to be worth (Pistol & Țoniș Bucea-Manea, 2017). Price is dependent on the other elements of the marketing mix (e.g., distribution channels, packaging) causing it to vary at any given time (Singh, 2012).

Place is considered the “where” of the 7P’s (Jain, 2013). Place can range from a physical place to electronic interaction between the consumer and the company (Davis, 1997). It is how the product or service arrives to the consumer (Caliskan et al., 2020).

Promotion includes but it is not limited to, advertising, customer communication (public relations) and market exposure (Singh, 2012). Promotion through direct marketing had the highest success with customers in the online world (Pistol and Țoniș Bucea-Manea, 2017).

Employees, consumers, and anyone else included in the lifespan of the product or service falls into the category of people (Caliskan et al., 2020).

The process element of the 7P’s creates resolutions to arising troubles (Caliskan et al., 2020). This ensures that the value proposition is delivered to the customer (Altay et al., 2021).

Physical Evidence describes the overall look of a company, including uniforms, branding and packaging (Loo and Leung, 2018), and plays a central role in the purchasing decisions of customers (Caliskan et al., 2020) based on their perception of a company or a product.

2.5.4. Observational Learning

Individuals are greatly shaped by cues within their surrounding social environment. These cues can vary from visual cues such as observing others, to textual cues such as
advertisements, social media posts or word of mouth communication (Shephard et al., 2016; Chen et al., 2011). Observational learning (OL), a segment of Bandura’s social cognitive theory (SCT) is defined as observing and modeling social interactions that are action or behavior based (Chen et al., 2011), but does not focus on the reasoning behind the action (Bandura, 1977; Bikhchandani et al., 1998). This allows individuals to observe and learn from the actions of others without experiencing the consequences associated with specific behaviors (Yoon et al., 2021). Individuals can then make their own decision to accept or reject the action based on their observations.

Bandura (1986) argues that observational learning is more likely to occur when relevant and influential behavior is witnessed to that individual. Zhang et al. (2015) noted that when consumers participated in observational learning, they were more likely to make purchase decisions based on the agent, which they observed. Within the digital world, actively viewing and following social media influencers’ posts constitutes as observational learning. In applying OL to the current context, individuals observe sustainable fashion influencers on various social platforms such as Twitter, Facebook and Instagram, thus adjusting and mirroring their own behaviors based from the observed behaviors (Stefanone et al., 2019).

While observational learning has not been primarily studied in relation to sustainable fashion influencers, it has been used as a framework to study consumer behavior (Bikhchandani et al. 1992), decision making (Yoon et al., 2021) and social networking (Zafar et al., 2021). Zafar et al. (2021) examined observational learning through impulse buying and whether consumers were more influenced by friends or strangers on social media platforms. The study revealed that larger networks of strangers were more effective in pursuing purchases than those of close friends (Zafar et al., 2021). Therefore, sustainable fashion influencers may be more
effective in motivating consumers to consider sustainable fashion than smaller networks composed of friends and family members.

By participating across multiple social media platforms, influencers grow wider audience through showcasing consumption; Bandura (1986) refers to this action as the megaphone effect. Thus, the social power from influencers fosters behavioral changes to the audience, which positions influencers as credible sources of information (Chen et al., 2011). Observational learning occurs through parasocial interactions online where consumers can learn from the model (social media influencers) without the risk of consequences, thus accepting the influencers’ opinion before replicating the action (Yoon et al., 2021).

2.6. Sustainable Fashion Influencers and Research Questions

2.6.1. Conceptualizing Sustainable Fashion Influencers

Sustainable fashion influencers are a subgenre of influencers, who primarily create content that focuses on sustainable lifestyles and fashion. These influencers are viewed as experts in the field of sustainable lifestyle and fashion. Influencers are known to use sustainable jargon such as eco, organic, fair trade and green interchangeably to describe sustainability (Grazzini et al., 2021). Similar to social media influencers, sustainable fashion influencers can be paid by brands to promote their products, or they may promote products with no financial gain in return. An arising concern with paid advertising on sustainable products and brands is greenwashing by brands. Greenwashing is a term used when brands launch products that are labeled as sustainable but are in fact, not (Crabtree and Gasper, 2020). We question if sustainable fashion influencers who are interested in sustainability are knowledgeable about the
products and brands that they are sharing, or are they more focused about receiving brand recognition, payment and growing their following? As sustainable fashion influencers create content that focuses on sustainable lifestyles and fashion, is the intention to educate their followers or actually promote consumption?

2.6.2. Research Questions

Social media influencers may use their social power to promote sustainable fashion to their followers through online information sharing. As consumers’ environmental consciousness is increasing, a group of social media influencers have emerged branding themselves as sustainable fashion influencers. These influencers claim that they are not only passionate about fashion, but also are trying to seek to educate consumers about the many aspects of sustainable fashion, mindful consumption and living. They promote sustainable products and brands to their followers through their self-created content. They advocate themselves as experts in understanding social issues related to the fashion industry and making constructive influence on consumers’ fashion consumption. They are viewed as attractive and trustworthy individuals by their followers and whose behaviors, attitudes and actions are observed through the content that they publish on their social media platforms.

Consequently, consumers are left to grapple with major moral questions: Are those sustainable fashion influencers they follow actually promoting sustainable fashion or sustainable consumption? Or are they just painted that way? To this end, this study aims to examine to what degree the content created by sustainable fashion influencers effectively educate their audience, or promote sustainable products and brands, as well as mindful consumption. Specifically, this research seeks to answer the following questions:
Q1: What are the main themes of the content created and shared by sustainable fashion influencers?

Q2: Are sustainable fashion influencers using traditional marketing techniques to simply promote more consumption? and

Q3: To what degree are sustainable fashion influencers promoting sustainable fashion and mindful fashion consumption?
3.1. Research Design

3.1.1. Twitter

Unlike other social media platforms, Twitter offers public profiles, which allows the ability to gather large amounts of data from a diverse group of people (Al-Rawi et al., 2021). As one of the most popular social media platforms available (Waters & Jamal, 2011), Twitter has upwards of 180 million users worldwide (Iqbal, 2021). These users view themselves as experts that utilize the platform to share news and information (Orminski et al., 2021). The Twitter discourse, “combines news and information and uses hashtags to make different discourses visible” (Orminski et al., 2021 p. 120). This makes it a suitable social media platform to allow for content analysis. Users can choose whom to follow on social media, allowing a social media influencer to be viewed by a broad and diversified audience (Zinonos et al., 2018), where they can effectively communicate and interact with other users in real time (Castronovo & Hung, 2012; Huang et al., 2019). Content posted on Twitter are referred to as “tweets”, and are composed of up to 280 characters, which have increased from the original 140 characters (Rosen & Ihara, 2017). Tweets may also include web links, photos and videos (Makita et al., 2021).

According to Orminski et al. (2021), a larger number of followers signify a stronger relationship between the social media influencer and their followers, illustrating an asymmetric power relationship as proposed by Wang et al. (2021). A working assumption of this study is that all of the social media influencers on Twitter who promote sustainable values through production and consumption are aware of environmental and societal issues and truly believe sustainable practices will contribute to problem solving.
The basis for this qualitative study examines linguistics from the Twitter accounts of social media influencers who have an interest in sustainable fashion, which we refer to as sustainable influencers. The goal of this study is to understand what sustainable influencers are promoting to their followers about sustainable fashion and lifestyles. Content analysis allows us to identify themes from the self-proclaimed experts that are sustainable influencers. Thus, we consider Twitter to be a suitable social media platform for this study.

3.2. Data Collection

To ensure the most fitting tweets for content analysis were found, we first identified relevant sustainable fashion influencers on Twitter. Various sampling methods were used to increase validity. We used the search feature on Twitter to search for tweets in English containing hashtags that related to sustainable fashion: #sustainablefashion, #ecofashion, #ethicalfashion #greenfashion, #slowfashion and #zerowaste. The following four criteria were used: 1) ran an active Twitter account, 2) had tweeted over 1,000 times 3) expressed an interest in sustainability and 4) all tweets were written in English. Afterwards, samples of tweets were randomly selected and read to find any outliers in the data set. Once found, those accounts were removed. The demographic of the sample was made up of adult sustainable influencers from the around the globe, 25% of the sample are from the United States while the other 75% reside in the United Kingdom. From the sample, 87% of sustainable influencers were female. Building from the concepts of social media influencers and social power described in the literature review, we were able to identify 8 influencers with interest in sustainable fashion.
Table 3.1. Characteristics of identified sustainable fashion influencers (information as of April 2021).

<table>
<thead>
<tr>
<th>Name</th>
<th>Username</th>
<th>Account Description</th>
<th>Tweets</th>
<th>Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kat Eves</td>
<td>@Stylethic</td>
<td>brand director @mtoagency &amp; plus stylist pushing fashion to be more ethical + sustainable + inclusive. Not your conscience ½ of @GaudyPositive she/her</td>
<td>13.6K</td>
<td>2.97K</td>
</tr>
<tr>
<td>Daniel Silverstein</td>
<td>@zerowastedaniel</td>
<td>designer / artist / entrepreneur</td>
<td>2.6K</td>
<td>2.80K</td>
</tr>
<tr>
<td>The Sustainable Stylist London</td>
<td>@R0bertaLee</td>
<td>Sustainable Style Expert as seen on (tv emoji) // Start the journey: #100wears &amp; #WearYourValues // Championing #SustainableStyle + #ethics See more on the blog</td>
<td>25.6K</td>
<td>5.64K</td>
</tr>
<tr>
<td>Livia Firth</td>
<td>@LiviaFirth</td>
<td>Founder and Creative director of eco-age.com, founding member of thecircle.ngo and professional agitator. 27instagram.com/liviafirth</td>
<td>20.9K</td>
<td>38.50K</td>
</tr>
<tr>
<td>Sass Brown</td>
<td>@ClothingEthics</td>
<td>Ethical fashion educator, writer, designer &amp; activist celebrating beauty and craftsmanship while striving to effect sustainable change also posting @sassbrown1</td>
<td>8.5K</td>
<td>17.30K</td>
</tr>
<tr>
<td>Orsola de Castro</td>
<td>@orsoladecastro</td>
<td>Founder and Global Creative Director of Fashion Revolution. My feed = my views.</td>
<td>8.4K</td>
<td>14.60K</td>
</tr>
<tr>
<td>Hannah Rochell</td>
<td>@Hannahrochell</td>
<td>Writer</td>
<td>sustainable fashion advocate</td>
<td>author of En Brogue books and @EnBrogue blog</td>
</tr>
<tr>
<td>Alden Wicker</td>
<td>@AldenWicker</td>
<td>Sustainable fashion journalist, founder of EcoCult.com</td>
<td>9.5K</td>
<td>7.06K</td>
</tr>
</tbody>
</table>
3.2.1. Sample 1

To answer our first research question, a set of data was collected from the identified sustainable fashion influencers’ twitter accounts (Sample 1). First, a Qualitative Data Analysis Software (QDAS) Nvivo collected the set of data using the web content collection application Ncapture. The most recent posted tweets were captured from the selected sustainable fashion influencers’ twitter accounts. The information downloaded contained more than just tweets. The data provided each of the influencers account information including their location, URL links, an account description, as well as the number of followers a user has, the number of how many accounts the user follows and the number of tweets posted. Table 3.1 summarizes the characteristics and quantitative information from the identified sustainable fashion influencers.

When analyzing Tweets, retweets and mentions are an imperative insight into discussions and arguments about sustainable fashion that occur between users (Al-Rawi et al., 2012).

Table 3.2 summarizes the number of tweets captured from each Twitter account, and time period for those captured tweets posted. For this study, there were a total of 25,243 tweets sampled from the eight identified influencers. Of the eight influencers sampled, Daniel Silverstein (@ZeroWasteDaniel) had the lowest number of tweets, while Alden Wicker (@AldenWicker) had the largest number of tweets. Table 3.2 shows Hannah Rochell (@HannahRochell) has been active on the social media platform Twitter for the longest amount of time.

Once the Sample 1 was established, we identified the most frequently used words within the tweets, and then generated a word cloud chart (see Figure 3.1). To further identify themes of content posted from the sustainable fashion influencers, we ran auto coding on all of the
collected tweets. NVivo identified codes, representing concepts related to sustainable fashion, which were then combined and grouped into themes to interpret the data set.

Table 3.2. Sample 1 captured via Napture

<table>
<thead>
<tr>
<th>Influencer</th>
<th>Username</th>
<th>No. of Tweets</th>
<th>Percentage</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alden Wicker</td>
<td>@AldenWicker</td>
<td>3249</td>
<td>12.87%</td>
<td>10/07/19-11/10/21</td>
</tr>
<tr>
<td>Daniel Silverstein</td>
<td>@zerowastedaniel</td>
<td>2622</td>
<td>10.39%</td>
<td>11/25/12-11/10/21</td>
</tr>
<tr>
<td>Hannah Rochell</td>
<td>@Hannahrochell</td>
<td>3213</td>
<td>12.73%</td>
<td>02/15/14-11/10/21</td>
</tr>
<tr>
<td>Kat Eves</td>
<td>@Styleethic</td>
<td>3229</td>
<td>12.79%</td>
<td>09/12/20-11/10/21</td>
</tr>
<tr>
<td>Livia Firth</td>
<td>@LiviaFirth</td>
<td>3241</td>
<td>12.84%</td>
<td>06/03/20-11/10/21</td>
</tr>
<tr>
<td>Orsola de Castro</td>
<td>@orsoladecastro</td>
<td>3239</td>
<td>12.83%</td>
<td>04/22/15-11/10/21</td>
</tr>
<tr>
<td>Sass Brown</td>
<td>@ClothingEthics</td>
<td>3204</td>
<td>12.69%</td>
<td>11/19/15-10/28/21</td>
</tr>
<tr>
<td>The Sustainable Stylist</td>
<td>@R0bertaLee</td>
<td>3246</td>
<td>12.86%</td>
<td>01/27/20-11/10/21</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>25243</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

3.2.2. Sample 2

The second sample of tweets were captured using computer programming. The collected tweets were dated from January 8\textsuperscript{th}, 2010, until July 21\textsuperscript{st}, 2021. A total of 128,569 tweets were collected, from that total 75,718 were initial tweets. To answer the second research question, we applied a supervised data mining approach.

First, the researchers read through all the tweets and labeled each of the tweets following the 7Ps marketing mix, including: product, price, place, promotion, people, process and physical evidence (Singh, 2012). 0.5\% of the initial data was randomly extracted from the collected data pool to create a sample (n=379). It should be noted that due to the complexity of a single tweet, there is a chance that a tweet could be categorized under more than one topic.
Then, we used Skik-Learn API to train Random Forest Classifiers for the 7Ps marketing mix categories separately. To analyze word frequencies among the categories of the 7Ps marketing mix, Python Language Script was used (Figure 3.1).

Next, the sample was split into training (50%) and test (50%) sets randomly. The remaining non-labeled data was then classified using the trained classifiers.
RESULTS

4.1. Word Frequency from Sample 1

Before conducting content analysis on Sample 1, it was insightful to examine word frequency of the coded tweets found using NCapture. A word cloud was generated using word frequency that was captured from the sampled Tweets (Figure 4.1). The most frequently appearing words include: today, people, fashion, great, sustainable and brands. People, fashion, sustainable and brands are all directly related to the focus of this paper. A limitation of analyzing word frequency is being unable to determine the context of the terms found in word cloud (Figure 4.1).

Sustainable influencers used the word ‘today’ as a marking of time. These tweets were typically associated with an event or for marketing. For example, Sass Brown prepares her followers for an interview that she will be participating in, “Looking forward to participating later today on a live Instagram interview with @KoolnKonscious, as part of their Quarantine Club series! https://t.co/Q9pwbwdA5S” (SassBrown, 6.12.20). These types of tweets allow the readers to be involved in real time of the life events and promotions happening within the influencer’s life. Additionally, the term was also used as a marketing tool to promote consumption as seen in Hannah Rochell’s tweet. “So...this is pretty exciting. You can pre-order my book from @Waterstones today! *explodes* http://t.co/Djcxb9zu41 http://t.co/uFZbGb1BRXs” (HannahRochell, 6.27.14)

Within the discourse, the topic of people appears frequently as industry workers, consumers, and peers. The data also provides evidence of multiple contexts of the word fashion: fast fashion, sustainable fashion, and fashion brands. The discourse of fashion encompasses the
fashion industry and focuses on both production and consumption aspects of fashion items. This particular tweet from Kat Eves addresses multiple facets of fashion, “Fast fashion could also be called fast fashion because the people who make those clothes have to work at rapid pace just to make very little money. I know it’s complicated but I’m tired of reminding y’all of the human cost. It’s not a cute look on you.” (StyleEthic, 10.11.21). Fashion was also found in many of the hashtags used by sustainable influencers. The data had no mentions of slow fashion from sustainable influencers.

The term ‘great’ was commonly used in identified tweets to describe an article, or an item. In some cases, the word was used to promote an external link. For example, Orsola de Castro tweeted, “LOVED CLOTHES LAST a great piece by @JessC_M https://t.co/XEVMQMwMA2” (10.1.21). The positively framed message encourages readers to follow the link to the shared information. The data indicated that tweets that mention brands reflect the concerns and desires of consumers. Previous literature has confirmed that consumers trust the information presented to them by outside influences (Cheng & Fang, 2015). The data showed that consumers are willing to share and participate in discussions initiated by sustainable influencers. An example is illustrated in this tweet to sustainable influencer Alden Wicker from another Twitter user, “@Aldenwicker 1 million % yes!!! Nothing annoys me more than brands that make vague statements about sustainability. You can do better and us customers deserve more than that” [SoumiaMaldji, 4.17.20]. Examining the most frequently used words found helpful insights of the context within sustainable influencers tweets.
4.1.1. Themes from Sample 1

In order to answer research question one (RQ1), content analysis was used on the collected data. The content analysis of the data identified 7 main themes and 16 sub themes of content created and shared from the sample of tweets of identified sustainable fashion influencers. Any duplicated sub themes were counted only once. We then pooled the 7 main themes into 3 interconnecting overarching themes: the fashion industry, brand promotion and working conditions. The 7 main themes and 16 sub themes discovered are interrelated to the concepts and theories presented previously in the literature review. Table 4.1 displays the number of references from the themes within the data set. The sample shows the theme “https”, which links to third party websites was the most referenced theme of all, with “fashion”
following behind. Surprisingly, “sustainable” ranked as the fourth largest theme of the content created by sustainable fashion influencers (Figure 4.2). Therefore, answering RQ3 that the sustainable fashion influencers are promoting sustainable fashion to a low degree.

Table 4.1. Identified themes, subthemes and related reference numbers

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-themes</th>
<th>Number of references</th>
<th>Percent of total References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Htts</td>
<td>Photo https, video https, selling https, blog https</td>
<td>2181</td>
<td>33.68%</td>
</tr>
<tr>
<td>Fashion</td>
<td>Fashion industry, Sustainable fashion, Fast fashion, Fashion brands</td>
<td>1432</td>
<td>22.12%</td>
</tr>
<tr>
<td>Workers</td>
<td>Garment workers, Working conditions</td>
<td>731</td>
<td>11.29%</td>
</tr>
<tr>
<td>Sustainable</td>
<td>Sustainable fashion, Sustainable wardrobe, Sustainable brands</td>
<td>658</td>
<td>10.16%</td>
</tr>
<tr>
<td>Brands</td>
<td>Fashion brands, Ethical brands, Sustainable brands, Fast fashion brands</td>
<td>564</td>
<td>8.71%</td>
</tr>
<tr>
<td>Industry</td>
<td>Fashion industry, Garment industry</td>
<td>444</td>
<td>6.86%</td>
</tr>
<tr>
<td>Garment</td>
<td>Garment workers, Garment factories, Garment industry</td>
<td>465</td>
<td>7.18%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6475</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
The first overarching theme, the fashion industry encompasses the production and consumption aspects of fashion. Tweets from the data mention the terms “fast fashion” and “sustainable fashion”, and includes news about the fashion industry (Table 4.2). Sustainable fashion influencers use their personal platforms to exchange industry information with their peers and to their followers. They maintain a community atmosphere by retweeting and mentioning other influencers who share their same beliefs and values. These tweets display that these sustainable influencers are open to sharing their opinions and knowledge about the fashion
industry to the public. For example, sustainable fashion influencer Alden Wicker tweeted, “(whispers) Hey, everything you think you know about cotton is wrong. https://t.co/Mwagi2yt4E” (AldenWicker, 10.7.21). A hot topic amongst the sustainable fashion influencers is fast fashion, but surprisingly few mention of the environmental benefits of sustainable fashion. Instead, the influencers promote places (i.e., stores and websites) to purchase sustainable fashions, and highlight the wrongdoings of the fast fashion industry. Thus, continuing to promote consumption of goods.

Table 4.2. Selected quotations representing the fashion industry

<table>
<thead>
<tr>
<th>Sub theme</th>
<th>Illustrative Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast Fashion</td>
<td>“The fashion industry is a huge contributor to the climate-and ecological emergency, not to mention its impact on the countless workers and communities who are being exploited around the world in order for some to enjoy fast fashion that many treat as disposables. 1/3 <a href="https://t.co/pZirCE1uci%E2%80%9D">https://t.co/pZirCE1uci”</a> (AldenWicker, 8.8.21)</td>
</tr>
<tr>
<td>Sustainable Fashion</td>
<td>“The ethical and sustainable fashion movement is still taking shape, and in this nascent trend there is a chance to make the fashion industry more responsible and more responsive to consumers' realities” @AjaSaysHello @CNNStyle <a href="https://t.co/OM1djko0yi%E2%80%9D">https://t.co/OM1djko0yi”</a> (OrsoladeCastro, 9.3.20)</td>
</tr>
</tbody>
</table>

**Sustainable Fashion Options**

An initial hypothesis to this study is that sustainable fashion influencers would provide solutions and education on fast fashion alternatives within their created content. However, the data discovered that there is very little educating towards sustainable fashion and zero-waste designs within the tweets. Although sustainable fashion influencers focus their content on sustainability, we found that the concept remains broad, which can leave the reader confused and overwhelmed, and that each influencer provides their own perspective of sustainability.
Zero-waste is becoming a trending topic from consumers having become fascinated in this type of lifestyle as an effort to alleviate their environmental footprint. Literature refers to zero-waste as a lifestyle as well as a way of fashion. In terms of lifestyle, zero-waste is defined as eliminating wasteful behaviors and essentially living waste-free. The objective of zero waste within fashion is to create garments free of excess waste in both the designing and production phases (McQuillan, 2020). From the dataset, only one sustainable influencer, Daniel Silverstein (@ZeroWasteDaniel) refers to the sustainable alterative of zero-waste design in his tweets. “Every scrap thrown away by the fashion industry can be used so let's use it #fashionrevolution #zerowaste #zwd https://t.co/mbyqVF8mvD” [ZeroWasteDaniel, 7.13.16]. Although his tweets promote a sustainable fashion alternative, hyperlinks within his tweets are directed towards his own online storefront where he sells zero-waste designed garments made from designer fabric scraps. Therefore, we conclude that his tweets are geared to promoting consumption more than sustainability.

**Working Conditions**

The of working conditions included tweets that discussed the unethical side of the fashion industry where the working conditions and environment are poor and the well-being of factory garment workers is undermined (Table 4.3). A news article shared by Sass Brown illustrates the dark side of fast fashion for factory workers, “An investigation by @guardian found that over the past 4yrs audits reported critical issues @boohoo suggesting workers across @boohoo supply chain may be paid as little as 3-4 pounds per r - again OVER THE PAST FOUR YEARS! via @FashionUnited https://t.co/ZL4NekmDdb” (ClothingEthics, 8.31.20). Other influencers use their status and platforms to educate others on who is making clothing items, “I think it's so
important to share the stories of the garment workers to raise awareness of the way fast-fashion brands are treating them. Read the full article: Why is Fashion Activism Important? •

https://t.co/CGQMusyEf9 #fastfashion #fashionactivism #EthicalBrands

https://t.co/dfgK9TczPi” (R0bertaLee, 6.2721). Not all tweets negatively painted workers or working conditions, in fact some celebrated the pay raises and laws introduced to protect garment workers.

Table 4.3. Selected quotations on working conditions

<table>
<thead>
<tr>
<th>Sub theme</th>
<th>Illustrative Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garment Workers</td>
<td>“Garment worker was the 7th deadliest job in the US during the pandemic, after cooks, agricultural workers, construction workers and bakers. <a href="https://t.co/gY4KuQmbfk%E2%80%9D">https://t.co/gY4KuQmbfk”</a> [AldenWicker, 7.11.21]</td>
</tr>
<tr>
<td>Garment Factories</td>
<td>“Conditions in @HM best in class garment factories in Cambodia far from decent report describes labour violations <a href="https://t.co/n2IdzpHMP6%E2%80%9D">https://t.co/n2IdzpHMP6”</a> [Clothingethics, 9.23.16]</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>“India is celebrated for its rich textiles, but unfair wages and abysmal working conditions are still a glaring concern. @orsoladecastro, founder of @Fash_Rev pens down her thoughts on why it's cool to care about what you wear.<a href="https://t.co/fKsS2OgSzM">https://t.co/fKsS2OgSzM</a> #fashionrevolution #saribari” [Sari_Bari_India, 12.23.18]</td>
</tr>
</tbody>
</table>

**Brand Promotion**

The results show that sustainable fashion influencers promote brands in their online content. Certain influencers use specific fashion brands to market garments to their readers while others use the term “brand” in a generalized concept (Table 4.4). For example, “Why are there not more plus size sustainable fashion brands? My girl Alden at @ecocult investigates. https://t.co/vAYKi3Fxgf” (ZeroWasteDaniel, 4.6.16). Influencer Roberta Lee compiled a list for
her readers to have easy access to the ethical brands that she promotes and features on her social media platforms. “I founded Ethical Brand Directory to provide a platform where conscious customers can find a curated collection of ethical and sustainable fashion brands. Click on the link to find out more #RobertaStyleLee #EthicalBrandDirectory #EthicalBrands https://t.co/9PXTi22RV5” (RobertaLee, 8.27.21). Brand promotion is fulfilled on Twitter with the help of https (hypertext transfer protocol secure), these links direct readers onto other websites or platforms. In turn, influencers can gain traffic to their blog or online shop by adding these into their tweets.

Table 4.4. Selected quotations representing brand promotion

<table>
<thead>
<tr>
<th>Sub theme</th>
<th>Illustrative quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical Brands</td>
<td>“Take a look at these stunning ethical brands that have an artisanal touch &amp; support worker: <a href="https://t.co/FMZcFxOqZz">https://t.co/FMZcFxOqZz</a> @maivet @okhtein <a href="https://t.co/AJWM7B902n%E2%80%9D">https://t.co/AJWM7B902n”</a> (Eluxemagazine, 5.12.17)</td>
</tr>
<tr>
<td>Https</td>
<td>“Just posted a photo <a href="https://t.co/HXI638cAau%E2%80%9D">https://t.co/HXI638cAau”</a> (Liviafirth, 3.5.21)</td>
</tr>
</tbody>
</table>

4.2. Findings from Sample 2

A data mining approach was used to collect 128,569 tweets. Of that total, 75,718 were considered initial tweets. Of the 75,718 tweets, 0.5% were used to create a sample size of 379 to categorize the data by each of the 7Ps of marketing mix. The following 3P’s product, promotion and people had a large enough sample size to use as eligible data, thus eliminating price, place, process and physical evidence due to inadequate sample sizes. For the data analysis of Sample 2, all tweets classified under the marketing mix of product, promotion and people (n=379) were examined through a text-based analysis to search for any common themes within each category
(Table 4.5). It is critical to note that although they appear in the tweets, the author did not take into consideration links to websites, as it was purely text based (Orminski et al., 2021).

4.2.1. Data Testing

The program Scikik-learn API used random forest classifiers to train the sample into each category: product (20/379), promotion (29/379) and people (31/379). Kho (2018) explains the advantages of random forest classifiers as applicable as it can handle categorical features and has quick predictions and computation times. Then the trained classifiers (population) were used to classify the initial data (128,269). The findings are as followed: 2,555 were labeled into the product category, 2,052 fell into the promotion category and 1,341 were labeled as the people category (Table 4.5).

Table 4.5. Classification based on random forest classifiers

<table>
<thead>
<tr>
<th></th>
<th>Sample</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>25%</td>
<td>14%</td>
</tr>
<tr>
<td>Promotion</td>
<td>35%</td>
<td>11%</td>
</tr>
<tr>
<td>People</td>
<td>40%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Due to the small sample size, there was the chance of having false-positive labels. Interestingly enough, random forest classifiers used on both the sample and the population found the marketing mix of people to be the largest group. However, the other categories of product and promotion do now follow the same pattern. In the sample group, promotion is the second largest group opposed to being the smallest group in the population.
4.2.3. Frequencies and Accuracy

Using the language software Python Script, we were able to view word and symbol frequencies used in each category of product, promotion and people (Figure 4.3). Our findings determined ten words that were repeated throughout the three categories: age, amp (&), clothing, eco, fashion, favourite, style, sustainable, waste and zero. Most of the repeated words are directly related to the topic of sustainable fashion, with the exception of ampersand (&), age, and favourite. It is critical to note that Python Script individually analyzes each word and lacks the ability to understand the context of the tweet.

Figure 4.3. Frequency word cloud for product
Figure 4.4. Frequency word cloud for promotion

Figure 4.5. Frequency word cloud for promotion
To test for effectiveness, the sample data was randomly separated into two sets, training (50%) and test (50%). Scikit-learn API program was used to find the model accuracies. The model accuracies for each group are as follows: product (0.927), promotion (0.932) and people (0.906). It is important to note that although the levels of accuracy are high, they may not yield to be powerful due to the small sample size (n=379) (Figure 4.6).

![Model Accuracies](image)

Figure 4.6. Model accuracies
CONCLUSION

A cohesive description of sustainability ceases to exist based on the data analysis. Each of the sampled sustainable fashion influencers were found to focus on a different facet of sustainability. Since there are multiple facets of sustainability within the fashion sector from the supply chain all the way to packaging, it is disappointing that in this case, that sustainable fashion influencers have not defined the concept in less broad terms. For example, it is especially evident in the facet of zero-waste, where Daniel Silverstein (@ZeroWasteDaniel) mainly creates content around zero-waste design and selling his one-of-a-kind products.

Although an influencer may deem him or herself as a sustainable fashion influencer, the concept of sustainably becomes less clear to the reader. While sustainable fashion influencers discuss themes within sustainable fashion practices each sustainable influencer uses vague terminology and hashtags. Thus, leaving the consumer more confused rather than educated and allows room for interpretation on the concept of sustainability as a whole. Until all of the gathered tweets from sustainable fashion influencers were reviewed as a whole, then were we, as the researchers able to grasp the entity of sustainable fashion (Orbinski et al., 2021).

This study successfully answered all 3 posed research questions. In response to RQ1, of the created content shared by sustainable fashion influencers manifested 7 main themes and 16 subthemes. Altogether these themes aligned with the theories and concepts discussed previously in the literature review. Observational learning as discussed in the literature review, is reflected in the largest theme, https, and is shown how the users will learn and replicate what the sustainable fashion influencer is promoting (i.e., purchasing from certain brands via website).

The sampled sustainable fashion influencers are using portions of the traditional marketing mix in order to promote sustainable fashion and personal opinions on sustainability in the fashion
industry. The study showcases that product, promotion, and people are the main components of the 7Ps marketing mix used by sustainable fashion influencers to convey sustainable practices and consumption to consumers. These findings could be beneficial to marketing firms to best target consumers interested in sustainability. Sustainable fashion influencers should also be interested in these findings for their content creation. Although the external web links (https) added in tweets may lead consumers to sustainable fashion brands, the pressure to purchase cheaply made fashions at lower costs outweighs the sustainable factor of those garments. Hence, why the attitude behavior gap that was shown in the literature review is still present in modern day consumers.

Sustainable fashion influencers are promoting sustainable fashion and mindful consumption at a low degree. The data indicates that sustainable fashion influencers are using their social media platforms, mainly twitter to share knowledge on sustainable fashion to their followers. While knowledge on certain aspects of sustainability is shared, the sustainable influencers are more so promoting fashion consumption through external weblinks.

As with any qualitative research, there is always room for the interpretation of data. This study only touches a small portion of sustainable fashion influencers based on the parameters set. Therefore, there is the opportunity to expand this study using a larger or more diverse sample size, or even studying sustainable influencers on a different social media platform. With the rise of fast fashion, we have witnessed the well-being of the environment decline while the economy increases. It is important to recognize the potential of sustainable practices and fashions in the fashion industry to decrease our environmental footprint. Although changing viewpoints in a society deeply rooted in consumerism seems nearly impossible, it is important to spread awareness on the damaging fashion environment.
5.1. Limitations

The greatest limitation to this study is the small sample size available at the time of data collection. There could be more sustainable influencers who were not identified in the initial collection of data. Examining a larger sample size could provide more data to satisfy collections of tweets featuring all 7Ps of marketing. In fact, the small sample size featured allowed for false-positive labels.

Secondly, the study did not consider sustainable influencers across other social media platforms, resulting in a small insight of sustainable influencers. Future research should take into consideration examining other social media platforms to compare results.

Furthermore, the exponential growth of social media makes any platform at risk to no longer be as popular as it once was. Although Twitter is a major social network with the ability to promote and advertise to users, a downfall is that Twitter is not a direct purchasing outlet. The use of links within tweets redirects the reader to a different website for purchasing. In this study, the hashtags in Tweets made identifying word frequencies less accurate, since a hashtag is composed of a sentence or idea without using punctuality or spacing correctly. The software Python Script was unable to detect the difference between a hashtag and individual words.


Pozniak, H. (2019). FASHION CRISIS: A need for change: Sustainability is a big fashion industry talking point in our current climate - but how can brands deliver on such expectations? *Engineering & Technology* (17509637), 14(11/12), 44-47.


VITA

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