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# Chapter 10

## Revolutionizing Edu– Influencers as Minorities Nudging Sustainable Fashion Consumption on Instagram

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### ABSTRACT

*This critical literature review explores sustainable fashion consumption (repurposing) influenced by Edu-influencers on Instagram, addressing the limitations of traditional behavioral change theories on social media. It evaluates various perspectives on consumer behavior, sustainable consumption, and social media, highlighting the shortcomings of current behavioral change theories. The review aims to establish the groundwork for forthcoming theoretical and empirical advancements by critically analyzing and synthesizing recent studies associated with the three distinctive bodies of literature. Additionally, it aims to lay the groundwork for future research endeavors within these domains. The findings could inform consumer education, policy recommendations, and communication strategies for sustainable fashion consumption, laying the groundwork for future research and behavioral interventions.*

### INTRODUCTION

The textile industry is experiencing a significant increase in production and global consumption (Özdil et al., 2023; Shirvanimoghaddam et al., 2020). By 2027, the market volume is projected to reach \$1.45

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trillion, with an annual growth rate of 9.99%. (Statista, 2023). Also, this growth is accompanied by environmental concerns, ranking the industry second-largest contributor to environmental issues after the oil industry. As a result, there is a growing focus on sustainable fashion consumption (SFC), but there is a significant gap in research on this crucial aspect highlighting a substantial need for further investigation (Garcia-Torres et al., 2022; Hasbullah et al., 2022; UN, 2022).

Predominantly, the growing global emphasis on promoting SFC, particularly during the disposal phase, has gained considerable attention in recent years (UN, 2022; Mukendi et al., 2020). In this study, SFC in the disposal stage is defined as the responsible discarding of unwanted fashion items (Testa et al., 2021). Gao (2023) and Sambargi and Tripathi (2023) highlight the significant impact of this critical phase in fashion consumption on the environment, society, and economy, with Millennials and Gen-Z being a key demographic in this context (Kim et al., 2022; Gonçalves and Silva, 2021).

The disposal phase in fashion consumption significantly impacts the achievement of multiple SDGs (Sambargi and Tripathi, 2023). This is due to fostering sustainable consumption practices, responsible resource management, environmental protection, minimizing hazardous materials in textiles, and economic growth that benefits present and future generations (UN fashion alliance, 2023; Dominguez and Bhatti, 2022; UN, 2022; Kidd et al., 2020).

Moreover, the fashion disposal stage involves second-hand clothing (Geegamage et al., 2021), recycling (Desa et al., 2023) and repurposing (Krismawan et al., 2021). Primarily, this study highlights the benefits of repurposing on social media, focusing on shifting consumer behavior toward SFC and the role of social media influencers (SMI) in promoting repurposing. It is crucial because it positively generates environmental and social benefits (Eike et al., 2020), and economic benefits (Sambargi and Tripathi, 2023; Testa et al., 2021; Hassan et al., 2022). Predominantly, repurposing is one of the most effective sustainable fashion strategies that is defined in this study as reusing old items into new products from a consumption standpoint (Eike et al., 2020).

However, despite the relevance of SFC in achieving the United Nations' SDGs, there is a notable scarcity of research focusing specifically on the clothing disposition stage (Mason et al., 2022). This absence of concentrated study is seen as a drawback in understanding and improving sustainable fashion practices leading to criticism of the field being fragmented (Hassan et al., 2022). Besides, while research on upcycling (Lepessant, 2022), repair (Li, 2023), and second-hand clothing (Geegamage et al., 2021; Borusiak et al., 2020), the literature review represents a lack of investigation into repurposing unwanted fashion items, highlighting a knowledge gap.

Furthermore, the United Nations emphasizes the need for contemporary approaches to shift the current unsustainable consumption behavior in fashion presenting four main global calls (UNfashionalliance, 2023; UN, 2020). First, leveraging SMIs as a bottom-up approach to shift behavior. Second, develop a behavioral framework that makes SMIs the default option to drive sustainable consumption behavior. Third, called nations to respond to SDGs. Finally, called academia to collaborate to shift consumption behavior toward sustainable consumption. Furthermore, it acknowledges academia's role in exploring ways to increase sustainable consumption practices, focusing on the negative environmental, societal, and economic impacts of fashion consumption (UNfashionalliance, 2023; UN, 2020).

Parallel to this, there has been a noticeable surge in discussions regarding the influence of sustainable fashion through social media platforms (Marcella-Hood, 2023; UN, 2020). Particularly, through SMIs and their tailored content strategies aimed at shaping consumer behavior (Hudders et al., 2021). This has sparked discussions about the emerging influencers' phenomenon, Educational-influencers (Edu-Influencer) due to their impact on teacher practices, prompting calls for further

exploration and contextualization of this phenomenon within behavioral change literature (Arantes and Buchanan, 2022). Arantes and Buchanan (2022) suggest that future studies on Edu-influencers should be comprehensive, examining their content across various domains and using empirical data from followers. The focus of this study delves into the notion of influencers being likened to minorities, aligning with Moscovici's Minority Influence Theory. Minority Influence Theory suggests that a smaller group within a larger population can influence the majority to accept their views or behaviors (Moscovici, 1980) particularly, in remote areas like online settings (Yilmaz and Younggreen, 2016). In this context, Edu-influencers are perceived as minorities within the realm of influence due to their limited number, yet significant impact on the behaviors of Millennials and Generation-z. This perception stems from their distinct behavioral and thinking styles, as well as their adaptability. Moreover, their strong sense of identification with their followers' community further reinforces their role as minorities' influential figures. Specifically, the study examines Edu-influencers, leveraging Instagram to prompt their followers to adopt minority viewpoints, such as embracing repurposing behaviors. Primarily, the study highlights how Edu-influencers as minorities nudge repurposing behavior, leverage consistency, thinking style, flexibility, and identification to nudge behavioral change among their followers on Instagram.

Recent behavioral change studies highlight the importance of understanding millennials and Generation-Z demographics, as 75% are more likely to adopt sustainable behaviors after watching sustainability content (Unilever, 2023; Mohr et al., 2022; Roozen et al., 2021). Edu-influencers are emphasized for their role in shaping online behavior and contributing to socio-economic transformation in developing nations like Saudi Arabia (Curcio et al., 2023; Theunissen, 2023; Gillespie, 2019; Hickman, 2019). Instagram is a significant social media platform, with Edu-influencers inducing visual and verbal nudges, offering an opportunity to influence sustainable consumption online Curcio et al., 2023; Theunissen, 2023; Madani, 2022; Gil-Quintana and Vida de León, 2021).

This research synthesis sheds light on gaps and limitations within three literature, behavioral changes, sustainable fashion, and social media. Mainly, it critically represents the deficiencies and gaps within behavioral change literature. Specifically, it lacks a diverse range of theoretical perspectives, restricting the scope of findings. Additionally, there is a notable absence of a comprehensive framework for the development of online behavioral interventions. Thus, the study highlights the need for a comprehensive diversification of existing behavioral theories to develop a behavioral intervention that meets both the literature gaps and the United Nations Sustainable Development Goals (SDGs). It addresses the shortcomings of traditional top-down interventions such as government campaigns to achieve the global SDGs (UN, 2022; Gonzales-Arcos et al., 2021). This paper stands out by proposing a conceptual framework for investigating behavioral change in social media through two novel theories, setting itself apart from others in the field. First, Nudge Theory, which is used to guide the selection criteria for visual and verbal posts driving repurposing in Edu-influencers' Instagram content through drawing directly from their followers. Second, to explore Minority Influence Theory through the lens of the selected visual and verbal nudges to reinforce the investigation of behavioral change in social media.

## **The Present Work**

The current chapter aims to bridge a theoretical gap within the realm of consumer behavior, particularly in the field of behavioral change. It serves as a foundational platform for future studies in this area. Tra-

ditional theories of consumer behavior have shortcomings, leading to a lack of new and diverse findings (Duckworth and Gross, 2020; Gilal et al., 2019). This is because the United Nations has called for future research on sustainable consumption to influence consumer behaviors globally, as significant changes in adverse consumer behaviors have not been realized (UN, 2023). Thus, underscoring the necessity for the adoption of new theories in this field and filling a gap in existing literature, emphasizing the need for comprehensive theoretical frameworks to impact behaviors (Paul, and Gray, 2011). Additionally, it emphasizes the role of modern digital technologies that could provide valuable insights into overlooked behavior-change interventions, advancing theories and enhancing understanding of various aspects of altering behavior (Zhang et al., 2021).

This is because, in conjunction with the recent emphasis on the importance of diversifying behavioral change theories, behavioral economics has emerged as a thriving new subfield to improve consumer behavior (Abhyankar, 2022). This raises the question of whether - and if so, how - insights from behavioral economy (Thaler and Sunstein, 2008) and social influence (Moscovici, 1976) could potentially impact SFC (Nogueira et al., 2023). Thus, the implications of this new field for consumer behavior and achieving the United Nations SDGs have been emphasized by Parashar (2022) and Unilever (2023). Finally, the identified limitations and research gaps serve as catalysts for the present study, which aims to construct a conceptual framework and delineate future research directions, envisioning a transformative impact on SDGs and consumer behavior.

This chapter makes four contributions: first, the critical review identified gaps and limitations, and synthesized recent literature on three distinct fields: consumer behavior, sustainable fashion, and social media. Second, based on the synthesized gaps, it suggested an integrated conceptual framework drawing on two theories: Minority Influence Theory (Moscovici and Lage, 1976) and Nudge Theory (Thaler and Sunstein, 2008) to promote SFC behavior online (see, Figure 5). It reveals the importance of the integration between behavioral economy and social psychology theories into consumer behavior studies to understand the intricate relationship between cognitive biases and social influences on the impact of online complex behavior. Third, the conceptual framework paves the way for academics to empirically investigate how Edu-influencers influence SFC, focusing on repurposing through Nudge Theory and Minority Influence Theory. Fourth, it provides practical implications enabling practitioners such as, marketers, policymakers, and educators to develop effective interventions through Edu-influencers who have the potential to shift consumer behavior as minorities nudging behavioral shift.

## **METHOD**

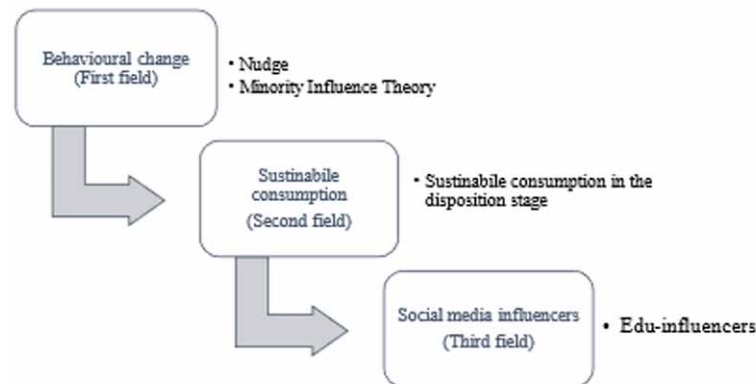
The critical literature review followed six main steps to be conducted:

### **1. Defining Research Objectives and Scope**

The research was conducted according to the objectives outlined in the introduction and its scope was as presented in Figure 1.

### **2. Identification of keywords and search strategy**

*Figure 1. The scope and the concepts of the study within three literature*



In this step, the researcher used all the keywords include terms like “sustainable fashion consumption,” “disposition stage of sustainable fashion,” “behavioral intervention,” “social influence,” “social media Nudging,” “Nudging AND sustainable fashion,” “Minority influence,” “Minority Influence AND social media,” “Edu-influencers AND behavioral change.”

The keywords are derived from previous research and have been adapted to form the core focus of this paper (e.g., Unilever, 2023; Pozharliev et al., 2022; Roozen et al., 2021; Chwialkowska, 2019).

### 3. Selection of database and search engines

Select reputable academic databases (e.g., Scopus, Web of Science, PubMed, Google Scholar, and University of Manchester database) and search engines that cover interdisciplinary research in consumer behavior, environmental science, and behavioral economics.

### 4. Inclusion and exclusion criteria

The research conducted in this study involved the synthesis of contemporary studies pertaining to a specific concept across three selected literature domains. Those concepts are illustrated in Figure 1. In addition, older seminal studies were purposefully integrated into the review process to establish the foundational groundwork for defining and contextualizing each theory. These foundational studies traced the historical evolution, conceptual development, and fundamental principles of the theories examined, providing a robust framework for contemporary interpretations and applications. The paper includes research that specifically examines minority influence and nudging consumer behavior or sustainability context or in social media context. On the other hand, it excludes studies that utilized Minority influence and Nudge Theory in other fields such as psychology or behavioral economy.

### 5. Systematic Search and Screening Process

The systematic search process involves conducting searches using identified keywords, reviewing results, and excluding non-relevant studies to retrieve full-text articles for further assessment.

## 6. Critical Appraisal and Data Extraction

Extracts relevant information such as research methods, key findings, theoretical frameworks, and implications that answer the research aim and objectives.

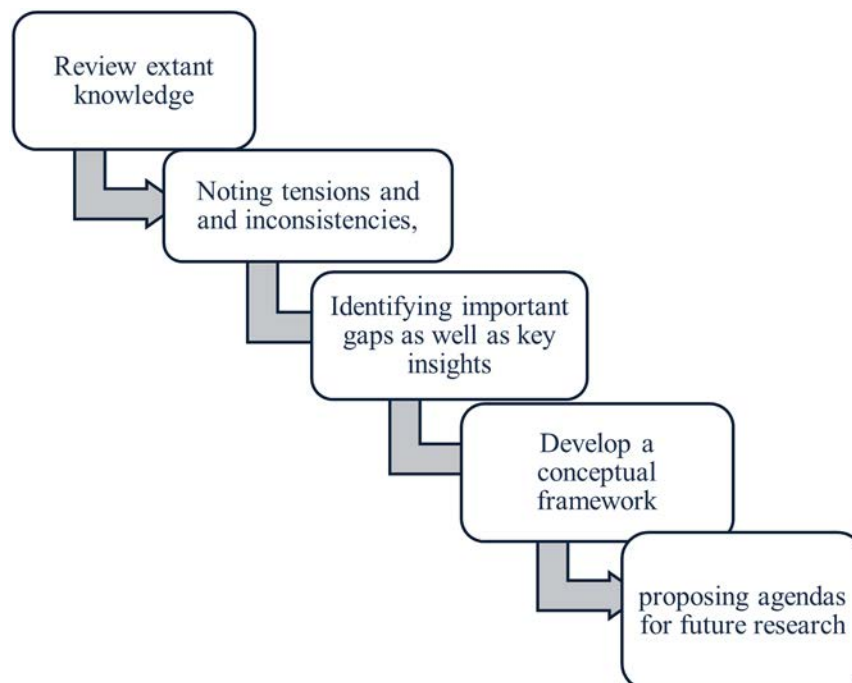
This chapter focuses on theory development, presenting a conceptual framework following the steps identified by Hulland (2020) as presented in Figure 2, presenting theoretical syntheses, and introducing a novel integrative framework (Jaakkola, 2020).

## THEMES AND CONCEPTUAL FRAMEWORK DEVELOPMENT

### Sustainable Fashion Consumption (SFC)

The concept of SFC has evolved from a focus on sustainable production practices to acknowledging the role of consumers in driving positive change in the fashion industry (Hasbullah et al., 2022; Iran, 2018). This shift emphasizes the importance of consumer behavior, choices, and influence on achieving sustainability goals (Dabas and Whang, 2022). This is because it represents the consumption aspects of ‘consumer behavior’ in sustainable fashion (Brandão and da Costa, 2021). The concept now integrates production and consumption aspects, with two distinct study paths (Mukendi et al, 2020; Iran, 2018) as illustrated in Figure 3. Previous studies have primarily examined the supply chain aspect from a garment standpoint (Garcia-Torres et al., 2022; Tam and Lung, 2022), but scholars argue that consumption has a vital impact on sustainable fashion (Hasbullah et al., 2022; Mukendi et al, 2020). As presented by Busalim

*Figure 2. Constructing a conceptual paper: Guided by Hulland’s (2020) steps*



et al. (2022) and Vesterinen and Syrjälä (2022) the scope of sustainable fashion now encompasses not only the production and supply side but also the consumer perspective and behaviors. However, there is a lack of research on SFC, suggesting future research to particularly investigate how to shift consumers' behaviors toward the consumption of sustainable fashion through an effective communication strategy (Dabas and Whang, 2022).

Moreover, SFC involves three stages: Busy, Use, and Dispose (Stål and Jansson, 2017). The disposition stage involves the post-purchase activities that include reusability, reconditioning, recycling, and repurposing (Hassan et al, 2022; Bianchi, and Gonzalez, 2021). Testa et al. (2021) explained that consumers play a significant role in promoting sustainable fashion in different ways, especially during the disposition stage. For example, second-hand clothing (Geegamage et al., 2021), recycling (Koch and Domina, 1999) and repurposing (Krismawan et al., 2021).

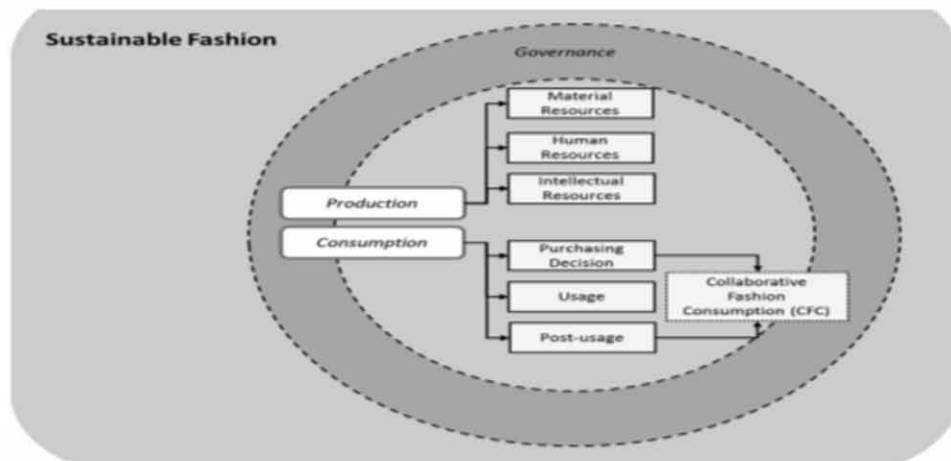
Besides, SFC in the disposition stage is particularly relevant to multiple SDGs. For example, SDGs 12, 13, 11, and 6. This is because it ensures sustainable consumption (SDGs 12), reduces the negative impact of fashion consumption on the climate (SDGs 13), manages waste such as repurposing of fashion items and reduces hazardous material (SDGs 11), reduces fashion consumption, water pollution in textiles (SDGs 6) (UNfashionalliance, 2023; Dominguez and Bhatti, 2022; UN, 2022). Thus, the disposition stage contributes to achieving SDGs (Kidd et al., 2020).

### Repurposing Within The Disposition Stage

Repurposing fashion helps consumers identify and reuse valuable items, as they are often purchased for outdated styles rather than the lack of functionality, thereby bridging the gap between buying and discarding (Eike et al., 2020). Bianchi and Gonzalez (2021) argued that it reduces demand for new clothing production, conserves natural resources, and minimizes pollution. In addition, it promotes circularity, waste reduction, and sustainable production processes, leading to social benefits (Rotimi et al., 2021; Saksena, 2020). Finally, Repurposing clothes during the disposable phase can significantly extend their

*Figure 3. Sustainable fashion source: Adapted from Iran (2018)*

*Note: Reprinted from sustainable fashion: from production to alternative consumption by S. Iran, 2018, Springer Link. Copyright 2018 Springer International Publishing AG, part of Springer Nature.*





lifespan, reduce environmental impacts, and tap into the untapped economic potential of efficient waste use (Zhang and Hale, 2022). Also, it leads to reducing textile waste in landfills which enhances social and economic conditions in the industry, highlighting the untapped economic potential of efficient waste management (Sambargi and Tripathi, 2023; Testa et al., 2021). Thus, the disposition stage particularly repurposing aims to balance environmental, social, and economic factors (Hassan et al., 2022; Bianchi and Gonzalez, 2021; Gonçalves and Silva, 2021). Furthermore, developing countries offer a venue for repurposing fashion as a sustainable practice (Lewis, et al., 2017) due to its social, environmental, and economic benefits (Hassan et al., 2022). This practice challenges the sustainability agenda by balancing environmental protection and economic development and reducing the negative impact of environmental impacts. It also challenges fashion consumption and contributes to environmental protection (Gao, 2023; Krismawan et al., 2021).

## **Revolution of Edu-influencers: Catalysts of Behavioral Change**

Edu-influencers are a growing trend in consumer behavior, with scholars examining their unique attributes from various perspectives (Arantes and Buchanan, 2022; Gil-Quintana and Vida de León, 2021).

Predominantly, those influencers have a great presence in different SM platforms including TikTok (Fiallos, and Figueroa, 2023), Twitter (Carpenter et al., 2022; Marcelo and Marcelo, 2021), and Instagram which serves as the primary platform for these types of influencers (Gil-Quintana and Vida de León, 2021). Moreover, prior research suggests that Edu-influencers exhibit both shared traits and distinct characteristics to other categories of SMIs previously situated within behavioral studies (e.g., Fiallos, and Figueroa, 2023; Marcelo and Marcelo, 2021). Additionally, the unique traits exhibited by these influencers have prompted scholars to advocate for the initiation of contextualizing them within behavioral studies (e.g., Carpenter et al., 2022; Shelton et al., 2020). Thus, it offers potential avenues for future research within the behavioral change context (Arantes and Buchanan, 2022; Gil-Quintana and Vida de León, 2021).

Primarily, some of their distinctive features identified from the review includes their significant contribution to the socio-economic transformation of developing nations like Saudi Arabia through Instagram (Curcio et al., 2023; Hickman, 2019; Theunissen, 2023). Moreover, the study highlights their use of visual and verbal nudges on Instagram which is considered a key strategy used by Edu-influencers to engage with followers (Gil-Quintana and Vida de León, 2021; Shelton et al., 2020). This is due to the growing interest in recent studies focusing on content strategies that integrate visual and verbal nudges to promote SFC and its impact on behavioral change in the online environment (Unilever, 2023; Pozharliev et al., 2022). In addition, their distinctive approach lies in delivering high-quality content to a high-quality audience mainly millennials and Gen-Z (Gil-Quintana and Vida de León, 2021; Shelkton et al., 2020). Millennials and Gen Z represent influential demographics capable of exerting social pressure on other members of society, thereby promoting sustainable behavioral change (Forbes, 2022; Dabija et al., 2019). Moreover, this influence is particularly heightened through SMIs, as both demographics are significantly influenced by SMIs and rank among the highest generations utilizing social media platforms (Mohr et al., 2022; Shin, 2020). In addition, they possess the capability to foster an educational capacity to influence teachers' behavior across online and offline platforms (Arantes and Buchanan, 2022). Also, Curcio et al. (2023) acknowledged the significant influence of a robust educational background on influencing behavior. Additionally, the followers of those influencers range from ages 13 to 45, comprising both

Millennials and Gen Z, with Millennials forming the larger portion at 67% (Gil-Quintana and Vida de León, 2021). Hence, this makes them appropriate target segments for the current study.

### **Edu-Influencers: Minorities Nudging in Instagram**

Correspondingly, Edu-influencers' Instagram content leverages information influence through posting visual and verbal cues (Gil-Quintana et al., 2021), providing a potential venue to test these cues' impact on followers' behavior. Particularly, this research highlights their capabilities to significantly influence millennials' and Gen-Z's behavior (Gil-Quintana and Vida de León, 2021). This is because Gil-Quintana and Vida de León (2021) indicated that millennials and Gen-Z represent the highest number of Edu-influencers' followers in SM platforms, making them a prime target segment for the research.

The influence wielded by these individuals on platforms like Instagram has been documented, primarily in their capacity as educators impacting classroom behavior. However, their unique traits, including a strong educational background (Curcio et al., 2023), high-quality content (Carpenter et al., 2022), and a significant following among millennials and Gen-Z (Gil-Quintana and Vida de León's, 2021) and their educational capacity extends to shaping the behavior of teachers through both online and offline platforms, positioning them as minorities within the Instagram sphere (Arantes and Buchanan, 2022). Also, it offers an opportunity to explore their potential impact on fostering sustainable behavior among millennials and Gen Z (Curcio et al., 2023). Parallel to this, there is a clear call to contextualize them within both behavioral change and sustainability literature to utilize those unique features (Curcio et al., 2023) that intersect with Minority Influence Theory as per this study investigation. Precisely, previous research findings indicate that Millennials and Gen-Z individuals are affected by sustainable fashion portrayed on social media, alongside other elements like brand reputation, trust, and intentions to purchase (Palomo-Domínguez et al., 2023; Bouvier, and Cho, 2022). These demographics, who constitute a significant portion of the consumer market, are likely to drive future consumption patterns, making them key targets for analysis and study (Mohr et al., 2022).

### **Uncovering the Boundaries: Addressing Gaps of Behavioral Change Theories 'Diversifying for Expansion'**

The review of conventional behavioral theories highlights their shortcomings and calls for their expansion in the digital age (e.g., Akhtar et al., 2023; Zhang et al., 2021; Sniehotta, et al., 2014). Correspondingly, the latest studies shed light on behavioral economics that challenges traditional theories and highlight their limitations (Pérez, 2022) specifically within the realm of social media and sustainable consumption (Lotti et al., 2023; Roozen et al., 2021). Strong theory-practice alignment is needed in online behavioral change studies, and a shift in focus from initiation to maintenance is needed as argued by Pera (2023) and Rothman (2000). Besides, other scholars discussed the need to diversify behavioral change theories as crucial for successful interventions and impacting sustainable fashion consumption (e.g., Akhtar et al., 2023; Zhang et al., 2021; Sniehotta, et al., 2014).

Recent studies have used various theories to contextualize SMIs in behavioral change literature such as the theory of Planned Behavior (TPB) (Chopra et al., 2021), the Congruity Theory of Attitude Change (Sun et al., 2021), and the theory of Reasoned Action (Hoo et al., 2022). However, these theories have limitations in understanding complex behaviors (Duckworth and Grosa, 2020) like SFC in social media. Some scholars argue that these theories overlook the process of translating intentions into behavioral

changes, use intention as a proxy, and rely on rational decision-making in behavioral change (Sun et al., 2021; Ajzen, 1991). In addition, the research on fashion repurposing as a sustainable fashion consumption method is limited by a lack of theoretical frameworks, primarily focusing on social cognition or reflective processes (e.g., TPB) (Zhang and Halem 2022). Zhang and Hale (2022) have also discussed that within fashion repurposing studies, those theories are too individualistic-centric, structural, and environmental factors can significantly influence material consumption, outweighing individual factors as mentioned. This limits their utility, as many behaviors are governed by routines and habits Zhang and Hale (2022), which brings the Nudge Theory and Minority Influence Theory to discussions.

In addition, traditional behavior change theories lack theoretical integration and a comprehensive framework, hindering their application in behavior change-driven strategies, particularly online. Since 2014, there has been a lack of diversification in these theories (Zhang et al., 2021; Montanaro et al., 2018; Paul, and Gray, 2011), limiting the scope of findings. Moreover, Schlüter et al. (2022) call for the adoption of multiple theories to address the complexity of sustainable behavior. Since 2014, there has been a lack of diversification in behavioral change theories, limiting the scope of findings, as previous studies have mentioned various documentation of these drawbacks (e.g., Akhtar et al., 2023; Sniehotta, et al., 2014). The scientific community is advocating for the retirement of the traditional theories of behaviors such as, TPB due to criticism and concerns about the last time the behavioral field gained new knowledge from traditional theories (Sniehotta et al., 2014). Recent literature on social media and behavioral change often overlooks social and environmental factors, focusing on individualistic decision-making and intention rather than actual behavior (Akhtar et al., 2023; Leclercq-Machado, 2021; Hollebeek et al., 2019; Ajzen, 1991). Future studies should address the gap in the literature by other factors driving behavioral change and expanding conventional theories to diversify findings and interventions (Zhang et al., 2021). Zhang et al. (2021) identified a gap in traditional behavioral change theories, particularly in the impact of digital technology on interventions. Thus, the integration of theory-driven behavioral change interventions with social media is crucial as it offers valuable insights into overlooked interventions, advancing theories, and enhancing behavior alteration understanding (Zhang et al., 2021).

As a first step to doing so, scholarly literature from 2014 such as Sniehotta et al. (2014) to 2023 like Akhtar et al. (2023) and Zhang et al. (2021) consistently supports and strengthens the proposition of broadening or diversifying behavioral theories beyond TPB and TRA with clear contexts and empirical evidence. To do so, previous research emphasizes the importance of understanding the theoretical foundations of combining behavioral change theories with behavioral interventions to enhance their effectiveness and synergy (Prestwich et al., 2014). This is because often, those interventions are designed without reference to theory, neglecting the importance of theory-based interventions to change behavior (Zhang et al., 2021; Dombrowski et al., 2012). As a result, the UN has urged academic collaboration to support the SDGs (UN, 2022). This involves investigating societal shifts towards sustainable consumption, driving substantial changes in behavior (UN, 2022). Simultaneously, recent studies have started to investigate various theories from different fields like behavioral economy and social psychology in consumer behavior (Pozharliev et al., 2022; Chwialkowska, 2019). However, these studies revealed a lack of utilization of those theories within the context of sustainable fashion and social media, indicating a need for further investigation to fully comprehend their potential impact on these areas.

## **The Conceptual Framework: Its Theorizing Lenses**

### **Nudge Theory as a Vehicle to Analyze Instagram Content Through Minority Influence Theory**

Nudge Theory suggests that a subtle change in the presentation of choice or information can influence and change behavior without forbidding or mandating certain actions (Thaler and Sunstein, 2008, p. 6). Nudging is a strategy that utilizes cognitive or heuristic biases and choice architecture representing both internal and external elements to influence behavior (Thaler and Sunstein, 2009).

First, **individual/internal** factors impact behavior. Nudging is a cognitive shortcut method that encourages behavior by addressing instinct or impulsivity rather than rational thinking (Banerjee et al., 2023), challenging conventional theories in behavioral change (Martin and Morich, 2011). Daniel Kahneman's two types of cognitive systems shape human thinking: System-1 (automatic thinking) and System-2 (reflective thinking). Banerjee et al. (2023) and Tzikas and Koulierakis (2023) identified Nudging as part of System-1 thinking, which is influenced by automatic thinking. The debates surrounding the impact of System-1 and System-2 thinking on human behavior and decision-making are crucial. Previous research indicates that System-1 thinking influences consumer decisions which involves sustainable consumption behaviors (Chen et al., 2023; Blackford, 2021; Roozen et al., 2021).

Second, **environmental/external** factors (Choice Architecture). It refers to the design of the environment where the behavior takes place, in this context, Instagram aims to influence choices while maintaining freedom (Thaler and Sunstein, 2009). Ensaff (2021) explained that designing the environment and presenting options using nudges can alter behavior, particularly in promoting sustainable fashion through visual and verbal information (Pozharliev et al., 2022). Choice architecture involves using visual and verbal nudges to guide individuals towards specific behaviors. (Lee et al., 2020). The use of SM nudging automatically influences behavior (Hallsworth, and Kirkman, 2020), challenging the assumption of human rational behavior (Banerjee et al., 2023). Thus, it has the potential to challenge other behavioral theories. Furthermore, despite limited research, recent studies have demonstrated that Nudge can effectively promote sustainable behavior, leading to the positive impact on behavior (Lotti et al., 2023; Tening, and Harder, 2023) (see, Table 1 and Table A1 in Appendix A).

**Visual and Verbal Nudges within Social Media Context.** Visual and verbal nudges on social media platforms like Instagram target behaviors without forbidding choices through SMIs, images, videos, and comments (Pozharliev et al., 2022; Roozen et al., 2021). Primarily, it draws attention (Rettie and Brewer, 2000; Schoormans and Robben, 1997) and drives behavioral change specifically when generated through SMIs' content (Unilever, 2023). Visual nudges are images, graphics, or videos that encourage SFC through visual cues (Gies College of Business, 2023sk). Second, verbal nudges are messages that encourage behavioral shifts through written language (Roozen et al., 2021). Fundamentally, visual, and verbal nudges include the type of information presented (verbal nudge) and the presentation of the information through visualization (visual nudge) (Roozen et al., 2021). For example, use an image of an SMI wearing eco-friendly clothing that nudges consumers toward SFC (Gies College of Business, 2023). Pozharliev et al. (2022) research was one of the limited studies that tested visual and verbal nudging in SM platforms. It indicates that the interaction between verbal and visual cues in influencer advertising and posts significantly impacts behavior, but no studies have explored how those nudges impact SFC within the disposition stage in SM.

Table 1. The latest studies explored visual and verbal nudges online

| Reference                | Findings and Nudge type  | Limitations  | Method                                    |
|--------------------------|--|--|---|
| Roozen et al. (2021)     | Verbal nudge influence consumers choice towards SFC online. Providing additional environmental information on fashion items increases consumer willingness to pay more, and verbal nudges in a positive environment drive SFC behaviour. (Online-Website)  | Limited to website, calling to exploring the nudges in social media.   | Quantitative (Online Survey)              |
| Girgis (2022)            | Information nudge through Visual and Verbal Nudge drives sustainable fashion behaviour, 'sustainable clothing shopping' (Online- website).   | Limited to websites.   | Qualitative (semi- structure focus group) |
| Pozharliev et al. (2022) | The study utilized eye-tracking and EEG measurements. It indicates in a positive response to the advertising message. The study found that the product description and the social influencer's photo significantly attract more attention than the influencer's number of followers. Both visual and verbal nudges influence behaviour, but verbal cues have stronger impact on behaviour (SMI in Instagram) | Limited to analyse SMI ads posts to one product. SMI (micro) use of both visual and verbal cues (nudge) draws more attention from followers within Instagram. Called to expand the implication in other aspects in SM and to investigate real content and expand the investigation to other visual and verbal cues within their content to impact behaviour. | Quantitative (Laboratory study)           |
| Lotti et al. (2023)      | It concluded that combining both information with visual nudges significantly improves sustainable consumption behaviour within the disposition stage, recycling clothes. (Offline)  | Limited to offline content and did not draw a conclusion of how nudge work as an intervention giving the nature of eye tracking experiment.  | Quasi-experimental setting                |
| Chen et al. (2023)       | This study did not focus on nudge, rather it draws a conclusion about the theory. It concluded that visual cues combined with social norm are powerful when communicated through SMI, it focused on SMI in Twitter endorse CSR initiatives.  | Limited to CSR initiatives in twitter and type of SMI (Non-CSR SMI) It called for exploring visual and verbal cues in relation to sustainability in SM.  | Quantitative (online survey)              |
| Unilever (2023)          | Visual and Verbal nudges by SMI through text videos and photos change behaviours and drive sustainable consumption. (SMI). It called future action to be taken within SMI and nudges.  | ----   | Experiment                                |

Furthermore, as represented in Table 1, various online studies have been conducted to investigate the use of visual and verbal nudges to encourage behavioral shifts (Chen et al., 2023; Unilever, 2023). Figures 4 represent some examples of visual and verbal nudges that encourage sustainable consumption (Lotti et al., 2023; Roozen et al., 2021). Primarily, the reviewed literature identifies two types of studies focusing on visual and verbal nudges to influence online behavior (See Table 1). First, some studies conducted online on fashion retailers' websites examined the use of visual and verbal cues to drive sustainable fashion behavior (Lotti et al., 2023; Girgis, 2022; Roozen et al., 2021). Those studies reported positive results regarding nudging; nevertheless, they excluded SMI applications and urged further exploration of these nudges across diverse online contexts, such as social media.

Secondly, other studies have examined the influence of social media visual and verbal nudges on driving behavioral change but have not focused on SFC (Chen et al., 2023; Pozharliev et al., 2022; Rossi et al., 2022). Overall, insufficient attention has been given to exploring SMIs implications of various types of nudges, as highlighted by Chen et al. (2023) and Pozharliev et al. (2022). Particularly, to the best of the researcher's knowledge, no study tested visual and verbal nudges to impact sustainable fashion consumption in SM. In addition, Table 1 highlights a significant gap in research on the impact of visual and verbal cues within influencers' content, highlighting the need for further investigation.

**Leveraging influencers' content to shape behavior: Visual and Verbal Content/Nudge Theory.** Mainly, SMIs strategically leverage content strategies as a key marketing tactic (Hudders et al., 2020). In addition, Instagram influencers utilize visual consistency to establish robust connections with their followers, subsequently enhancing their brand engagement (Argyris et al., 2020). Similarly, Edu-influencers leverage both visual and verbal nudges within their Instagram content strategy which captures millennials and Gen-z attention (Gil-Quintana and Vida de León, 2021). These nudges, including visual and

*Figure 4. Visual nudge and verbal nudges in website to drive sustainable fashion consumption in website*  
Note: Adapted from ‘Do Verbal and Visual Nudges Influence Consumers’ Choice for Sustainable Fashion?’ by I. Roozen, M. Raedts, M. and Meijburg, L, 2021, *Journal of Global Fashion Marketing*, 12(4) (<https://doi.org/10.1080/20932685.2021.1930096>). Copyright 2015 by Taylor & Francis.



written content, are instrumental in driving behavioral change within the online sphere (Unilever, 2023; Pozharliev et al., 2022). Furthermore, Pozharliev et al. (2022) study yielded intriguing findings about Instagram influencers’ content indicating that both visual and verbal cues serve as a primary catalyst in capturing followers’ attention.

It’s worth noting that research is advancing on the impact of influencer content on consumer behavior, on the other hand, key areas are being underexplored for further investigations (Apasrawirote and Yawised, 2022; Hudders et al., 2020). Correspondingly, a recent systematic literature review by Hudders et al. (2021) emphasized the lack of research on the content strategies of SMIs and their potential to influence behavior. Hence, the review suggests conducting future studies focusing on influencers’ content to further enrich the existing literature in this field (Hudders et al., 2021). On the other hand, Vrontis et al. (2021) latest systematic literature review on SMIs revealed that although several theories have been employed to investigate SMIs in consumer behavior, these theories possess limitations due to their traditional essence and restricted scope of influence. These limitations hinder the diversification of the findings. For example, the theory of reasoned action, social exchange theory, source-credibility theory, two-step flow of communication, persuasion knowledge model, social comparison theory, and attribution theory (Hudders et al., 2021). It is worth noting that many studies within SMIs lack coherent theoretical underpinning (Vrontis et al., 2021).

## Minority Influence Theory

Minority Influence Theory suggests that a smaller group within a larger population can influence the majority to accept their views or behaviors (Moscovici, 1980), particularly, in remote areas like on-line settings (Yilmaz and Youngreen, 2016). Minority Influence Theory is a social influence concept that focuses on the ability of a minority, like Edu-Influencers, to influence the majority’s behaviors through information, driven primarily by environmental and external factors (Chwialkowska, 2019; Moscovici, 1976).

Previous research has primarily focused on face-to-face settings, indicating a lack of online studies (Brijnath et al., 2022; Kardosh et al., 2022). First, research on minority influence has grown alongside the cognitive orientation in social psychology (e.g., Erb and Bohner, 2001). Primarily, those studies have focused on information processing and persuasion within the field of social psychology granting valuable insights into the nature and outcomes of minority influence, outlining the conditions under which a minority exerts influence (e.g., Brijnath et al., 2022; Stroebe, et al., 2010). Nevertheless, they fall short of providing a comprehensive understanding of minority influence driving social change (Kardosh et al., 2020; Martin, and Hewstone, 2008; Erb and Bohner, 2001).

A further set of investigations of the theory has been explored in the consumer behavior field, mainly in offline contexts (e.g., Kardosh et al., 2020; Martin, and Hewstone, 2008; Erb and Bohner, 2001). However, the literature revealed that limited theoretical studies on SMIs as minorities and their role in peer communication, on the other hand, the recent focus is on SMIs as credible minorities (e.g., Wu et al., 2022). Mainly, Wu et al.'s (2022) study explored the relationship between credibility and identifications within the identity of the minority and the decision-making process of human vs. AI minority. In contrast, Yilmaz and Youngreen (2016) study investigated the behavioral style, anonymity, and status of minorities in computer-mediated communication through a literature review but called to study Minority Influence Theory in an online context to expand the literature.

Nonetheless, one of the latest reviews of the theory is Prislin (2022) study that provided a future research agenda to fill the theoretical gap. His review concluded that research on minority influence, which aimed to understand social change, grew until the 1990s, but it has mainly focused on cognitive processes and attitudinal change in response to minority advocacy or presence. Also, it is concentrated on the role of minorities in decision-making and group tasks. Besides, it has been followed by a decrease and stabilization in the 2000s and 2010s as presented in Prislin (2022) review. Despite a remarkable scientific output, research on minority influence has failed to address its original question about social change and social influence (Prislin, 2022). Correspondingly, Peris' review aligns with current research evaluations of past literature on the implications of the theory.

Extensively, the call raised by Yilmaz and Youngreen (2016) to investigate Minority Influence Theory in social media is underpinned by critical reasons, drawing from its theoretical origins, particularly Moscovici's work in 1976. First, Wood et al. (1994) discovered that studies conducted in face-to-face settings revealed fewer instances of minority influence than those conducted in written or audiotaped contexts, hence demonstrating the contrast between different settings. Despite a few exceptions (e.g., Bazarova et al., 2012) the majority of minority influence research was conducted in face-to-face group settings or environments devoid of contact among group members (Prislin, 2022). Platforms for computer-mediated communication (CMC) provide less immediate and more private interactive venues for group discussions. CMC's distinct properties, such as asynchronous communication and anonymity, create boundary conditions critical for understanding minority-majority influence dynamics (Yilmaz and Youngreen, 2016). As a result, the purpose of Yilmaz and Youngreen (2016) literature review is to show how CMC groups can provide a study environment that meets the objectives of Minority Influence Theory while not compromising its essential principles. On the contrary, urging empirical studies to prioritize investigations within the online context presents a valuable opportunity for in-depth exploration, particularly within the realm of social media (Yilmaz and Youngreen, 2016). Additionally, Yilmaz and Youngreen (2016) and Chwialkowska's (2019) study reveal that social media minorities have a greater impact on behavior in private/social media settings, as clarified by Moscovici in 1976. Also, minorities' influence on social media is attributed to their unique, authentic, and engaging content



that resonates with their niche audience and the wider online community seeking diverse perspectives and authenticity (Wu et al., 2022; Chwialkowska, 2019). furthermore, Chwialkowska's (2019) study examined how a minority group, sustainable influencers, in Facebook advocacy for sustainable lifestyles influences environmentally conscious behaviors among a larger online community, focusing on how their shared information influences these behaviors. The study analyzed over 8,000 Facebook posts of sustainable influencers via Netnography followed by semi-structured interviews with their followers. Furthermore, the study explored Minority Influence Theory through the lens of information influence, examining four constructs: behavioral style, thinking style, flexibility, and identifications as presented in Table 2. In addition, the study integrated Minority Influence Theory with Social Learning Theory to advance the investigations into normative influence that impacts behavior. To elaborate, Minority influence in online contexts can establish and surpass social learning theories, leading to both information influence and normative influence (Politi et al., 2017; Moscovici, Faucheux, 1972). This influence goes beyond the typical mechanisms of social learning theories, which focus on learning through observation and imitation. Minority influence can challenge existing norms and opinions, making the minority group's perspectives or actions the norm, guiding the behavior of the larger community as explained by Chwialkowska's (2019). This process demonstrates how the influence of a minority group in an online setting can surpass conventional explanations, leading to the establishment of new norms or attitudes within the broader online community (Moscovici, Faucheux, 1972). Chwialkowska (2019) explained that sustainability influencers initiate information influence, stimulating initial modelling behaviors that are spread through peer communication within their profile. Also, it concluded by highlighting that Minority influence is more significant in remote and written interactions than in immediate, public, face-to-face interactions.

*Table 2. Conceptualized definitions of minority influence theory's constructs*

| Reference                | Findings and Nudge type  | Limitations  | Method                                    |
|--------------------------|--|--|---|
| Roosen et al. (2021)     | Verbal nudge influence consumers choice towards SFC online. Providing additional environmental information on fashion items increases consumer willingness to pay more, and verbal nudges in a positive environment drive SFC behaviour. (Online-Website)  | Limited to website, calling to exploring the nudges in social media.   | Quantitative (Online Survey)              |
| Gurgis (2022)            | Information nudge through Visual and Verbal Nudge drives sustainable fashion behaviour. 'sustainable clothing shopping' (Online- website).   | Limited to websites.   | Qualitative (semi- structure focus group) |
| Pozharliev et al. (2022) | The study utilized eye-tracking and EEG measurements. It indicates in a positive response to the advertising message. The study found that the product description and the social influencer's photo significantly attract more attention than the influencer's number of followers. Both visual and verbal nudges influence behaviour, but verbal cues have stronger impact on behaviour (SMI in Instagram) | Limited to analyse SMI ads posts to one product. SMI (micro) use of both visual and verbal cues (nudge) draws more attention from followers within Instagram. Called to expand the implication in other aspects in SM and to investigate real content and expand the investigation to other visual and verbal cues within their content to impact behaviour. | Quantitative (Laboratory study)           |
| Lotti et al. (2023)      | It concluded that combining both information with visual nudges significantly improves sustainable consumption behaviour within the disposition stage, recycling clothes. (Offline)  | Limited to offline context and did not draw a conclusion of how nudge work as an intervention giving the nature of eye tracking experiment.  | Quasi-experimental setting                |
| Chen et al (2023)        | This study did not focus on nudge, rather it draws a conclusion about the theory. It concluded that visual cues combined with social norm are powerful when communicated through SMI, it focused on SMI in Twitter endorse CSR initiatives.  | Limited to CSR initiatives in twitter and type of SMI (Non-CSR SMI) It called for exploring visual and verbal cues in relation to sustainability in SM.  | Quantitative (online survey)              |
| Unilever (2023)          | Visual and Verbal nudges by SMI through text videos and photos change behaviours and drive sustainable consumption. (SMI). It called future action to be taken within SMI and nudges.  | ---  | Experiment                                |



Adopted from Moscovici (1976) and Moscovici, Faucheux (1972) identified two types of influence through Minority Influence: informational and normative influence. Informational influence occurs when a minority presents new and persuasive arguments or information that challenges the majority's existing norms or perspectives. Therefore, the influence of minority information can prompt the majority to reconsider their stance, leading to normative influence and potentially a reevaluation of their stance as explained by Martín et al. (2015) and Moscovici, (1980). On the other hand, normative influence is based on social norms and conformity (Kende et al., 2023). The concept arises when the behavior or opinions of a minority are seen as favorable or suitable by the larger majority (Hardecker et al., 2023). Primarily, this type of influence doesn't necessarily involve new information but stems from a desire to conform to the perceived norms set by the minority group (Moscovici, 1976). Both types of influence can interact and complement each other through a consistent minority (Hardecker et al., 2023).

**Minority Influence Theory: Millennials and Gen-Z Context.** Millennials, born between 1980 and 2000 (Kim and Park, 2020), and Gen Z born between 1997 and 2013 also known as post-millennials, share many traits and bring new behaviors in comparison to previous generations. Future research on social media and sustainability should involve these generations due to their high engagement in these topics (Kovanci, and Karakoc, 2022). On another note, social media platforms are a platform that represents a legitimate venue to explore and induce minority influence (Wu et al., 2022; Cummings et al., 2019; Yilmaz, and Younggreen, 2016), particularly, through information influence presented by minorities such as Edu-influencers in social media context (Chwialkowska, 2019). These influencers' content reinforces behaviors, particularly among millennials and Gen-Z (Gil-Quintana and Vida de León, 2021). However, the examination of existing literature unveiled this area that requires deeper exploration, specifically within the realms of sustainability, social media, and behavioral change. More research is essential to comprehend this overlooked domain.

Millennials and Gen-Z can reinforce both types of influence in different ways. First, informational influence is influenced by their receptiveness to new information and diverse viewpoints (Kovanci and Karakoc, 2022), particularly in the realm of SMI and sustainable consumption. Both generations have exhibited increased awareness of conscious consumption, especially within the fashion industry, displaying a notable inclination towards SFC (Lee et al., 2022). Additionally, SMIs wield significant influence on these topics within these demographics; (Barbe and Neuburger, 2021; Curtis et al., 2019). Millennials and Gen-z have high digital engagement, reliance on peer validation, and endorsements within their networks, and influence family and friends' consumption behavior (Forbes, 2022; Dabija et al., 2019).

In addition, SMIs who significantly impact Millennials and Gen-z's sustainable consumption behavior (Djafarova and Foots, 2022), are frequently viewed as minorities in the realm of sustainability topics (Chwialkowska, 2019). Also, the latest studies about Edu-influencers revealed that those segments represent the highest percentage of their followers, making them a crucial focus for influencing millennials and Gen-Z behavior (Gil-Quintana and Vida de León, 2021). Gen-z's reliance on social media has significantly influenced their values and guided their individual preferences (Kovanci and Karakoc, 2022). They are exposed to ideas related to the collaborative economy, environmentally friendly purchases, and sustainability, which have become ingrained in their social norms (Dahlquist and Garver, 2022; Artese, 2020; Shin, 2020). Normative influence, where individuals conform to societal expectations to gain approval, plays a significant role in shaping Gen-Z's attitudes towards these concepts (Dahlquist and Garver, 2022; Artese, 2020). As a result, Gen-z is more likely to adopt behaviors aligned with collaborative economy practices (Artese, 2020; Shin, 2020), impacting other generations' sustainable lifestyles and consumptions, particularly Gen-z (Djafarova and Foots, 2022). This collective consciousness indeed led

to shaping societal norms and influenced other generations particularly, through social media interactions (Forbes, 2022; Forbes, 2021; Artese, 2020). Similarly, millennial generations are actively advocating the UN SDGs to facilitate sustainable consumption (Mohr et al., 2022). Collectively, their values including sustainable consumption patterns (Djafarova and Fouts, 2022) sustainable fashion, (Williams and Hodges, 2022; Brun and Karaosman, 2020) often valuing economic benefits and using it to express their viewpoints (Shin, 2020; Mohr et al., 2022). Alongside their engagement in social media and with SMIs (Mohr et al., 2022). As a result, these characteristics create a ripple effect that extends beyond those generations impacting other members in the society particularly, Gen-z (Forbes, 2022; Sakdiyakorn et al., 2021). Particularly, normative influence that integrates Gen-z behavior into broader societal norms (Artese, 2020). The growing collectivist emphasis on environmental and sustainable consumerism in society has led to increased awareness and sometimes changes in behaviors among older generations, reinforcing these values within society (Sakdiyakorn et al., 2021).

## The Conceptual Framework

The synthesis of prior studies served as a foundational framework for the current investigation to develop a new framework for analyzing and impacting complex behaviors, SFC, in social media contexts. It fills the literature gaps of three fields as mentioned before through two theoretical lenses: Nudge Theory from behavioral economy popularized by Thaler and Sunstein (2008) and Minority Influence Theory by (Moscovici and Lage, 1976) from social psychology (see, Figure 5). The framework represents the interconnectivity between the two suggested theories to encourage a shift in behavior within social media platforms through SMIs. Influencers provide both visual and verbal cues that can significantly influence and stimulate specific behaviors, like repurposing, which could be reinforced by Minority Influence Theory. The framework indicates that minorities like SMIs generate information influence through four elements: behavioral style, thinking style, flexibility, and identification which reinforces nudging repurposing behavior. It serves as a foundation for the future development of effective behavioral intervention through SM platforms.

*Figure 5. Conceptual framework: A bottom-up process of adopting SFC through edu-influencers (author own conceptual framework)*



## **DISCUSSION AND IMPLICATIONS FOR FUTURE RESEARCH**

Underpinned by a comprehensive critical literature review, this study explored existing research within three fields, behavioral change, social media, and sustainability literature, to identify gaps and propose a conceptual framework that fulfills the theoretical gaps and limitations. The current chapter emphasizes a theoretical gap in behavioral change, especially in social media/sustainable fashion contexts, and calls for academia to address this issue to enhance findings and develop interventions that positively impact sustainable fashion consumption. Particularly, the literature analysis revealed a predominant focus on traditional behavioral theories within SMIs' studies representing a major gap in theoretical contribution and hindering research findings. The behavioral theories that focus on internal/ individualistic factors and assume rational decision-making were the predominant way of the previous works demonstrated herein. Existing studies predominantly utilized behavioral theories that overlook the process of translating behavioral intentions into actual behavioral, hindering theory-driven behavior change interventions, which is like the discussion raised by Sun et al. (2021) and Zhang et al. (2021). Thus, it limits the breadth and depth of understanding, hinders the development of robust and generalizable knowledge, and limits the ability to address complex behavioral shifts effectively. The review also concluded that embracing a variety of theories in the behavioral field can enhance understanding, develop robust knowledge, and effectively address complex human behaviors. It also allows for a more nuanced exploration, contributing to a richer and more dynamic field of study.

Emphasizing the importance of identifying these gaps, this review argues that the suggested framework challenges the current drawbacks of behavioral change theories. It addresses the lack of a comprehensive framework for addressing complex and online behavior, proposing a comprehensive approach for developing effective behavioral interventions in the digital era. Additionally, the objective of the current work is to delineate future research directions through a comprehensive framework utilizing two distinctive lenses: behavioral Nudge and Minority Influence Theory envisioning a transformative impact on SFC and achieving multiple SDGs. The critical literature review encourages future studies within the realm of behavioral change, sustainable fashion, and SMIs' to empirically utilize the framework to diversify the findings yet contribute to multiple SDGs. The offered framework targets both System-1 (automatic thinking) and System-2 (reflective thinking) to impact behaviors.

This study highlights a significant gap in research on the impact of visual and verbal nudges on influencers' content, emphasizing the absence of a theory-based approach to selecting influencers' content. Alternatively, all studies examining influencer content in consumer behavior utilized theory to analyze the content exclusively neglecting the theory-based selection of visual and verbal cues in SM (e.g., Al-Emadi and Yahia, 2020; Ali et al. 2020; Argyris et al., 2020; Karimova, 2020). As a result, the negative impact of a lack of well-defined theoretical foundations on a subject leads to a less structured understanding and affects research design, methodology, analysis, and interpretation of findings as discussed by Filho, et al. (2022) and Vrontis et al. (2021). The discussion in the current chapter emphasizes the importance of using theory-based for selecting and analyzing influencers' visual and verbal content incorporating Nudge Theory. This is because theories provide a systematic method for researchers to understand, interpret, and predict behavioral patterns, aiding in discerning relevant content and its potential impact on audience behavior, thereby enhancing the analysis of SMIs' influence (Filho, et al., 2022).

This study distinguishes itself by adopting a novel approach in its selection process of SMI image and comment, assigning a distinct theory to guide the selection criteria. This approach sets it apart from other SM studies that do not use a theoretical lens. Furthermore, the study addresses the limitations of

behavioral economics particularly, the Nudge Theory, by considering both system-1 thinking through nudge (heuristics, mental shortcuts, and biases) and system-2 thinking through Minority Influence Theory (reflective thinking) and its impact on behavior in a unified framework. Thus, it argues that both types of thinking System-1, heuristic and fast, and System-2, rational, can yield more effective results in providing a holistic approach to understanding and influencing human behavior. This is because the current literature revealed that minority influence is indeed acting as an external stimulus leading to behavioral changes (Henningesen and Henningesen, 2021). Furthermore, Minority Influence Theory posits that external stimuli from a minority group can catalyze behavioral change within a larger population (Moscovici and Lage 1976). This occurs due to the persistent communication of a specific viewpoint or behavior by a dedicated minority group, gradually leading the majority to adopt or conform to those perspectives (Moscovici, 1976).

The current review highlights that Dousay et al.'s 2018 study is the first official study on Edu-influencers within social media platforms. In addition, recent studies carried out in 2020 have initiated the categorization and documentation of the Edu-influencer phenomenon (Fiallos, and Figueroa, 2023; Carpenter et al., 2022; Marcelo and Marcelo, 2021). On the other hand, in 2018, this phenomenon had limited documentation under various diversified names such as Teacher-Influencers (e.g., Dousay et al., 2018). Primarily, in 2020, there was a formal categorization that unified what is known as "Educational influencers" under one comprehensive classification within influencers' marketing literature which has led to a surge in studies conducted under this unified classification, consolidating all research conducted from 2020 onward under this unified name (e.g., Fiallos, and Figueroa, 2023; Shelton et al., 2020). The formal classification of Edu-influencers has sparked in-depth research and scholarly inquiries into their unique characteristics, strategies, content, and effects, making them a new focus for future studies (Arantes and Buchanan, 2022; Gil-Quintana and Vida de León, 2021). As a result, it prompted researchers to explore various dimensions of the phenomenon such as pedagogical methods, learning behaviors, engagement strategies, knowledge dissemination, and their role in reshaping educational paradigms in different platforms. The review of the literature revealed major gaps related to Edu-influencers' studies. First, previous studies of Edu-influencers focused on schoolteachers, leaving a gap to explore higher education influencers like university lecturers, in various dimensions including their impact on behaviors. Secondly, there have been few theoretical and empirical implications of Edu-Influencers (Carpenter et al, 2022). Moreover, Shelton et al. (2020) study suggests future research on Edu-influencers' role in behavioral change. Carpenter et al. (2022) call for empirical analysis of Edu-influencer audiences to explore their content and expand the literature. Hudders et al. (2021) highlight the lack of research on SMIs' content strategies and their potential influence on behavior.

One of the key findings of the current review is that Instagram has significantly contributed to the socio-economic transformation of developing nations like Saudi Arabia, with Edu-influencers using visual and verbal nudges as a key strategy to engage with followers. This approach is particularly relevant to millennials and Gen-Z, who are influential demographics capable of exerting social pressure and promoting behavioral shifts through normative influence. In addition, both demographics are among the highest generations using social media platforms and among the highest demographics that interact and are influenced by SMIs. The current review also concluded that they possess a positive attitude towards sustainable consumption which has the potential to contribute to the SDGs. The study argues that initiating information influence, within Minority Influence Theory, to impact those generations could facilitate a greater behavioral shift toward repurposing behavior due to their unique characteristics that preserved SMIs as minorities impacting behavior. Also, these generations possess the ability to generate norma-

tive influence to spread repurposing behavior. Highlighting the importance of incorporating visual and verbal nudges in the content strategies of SMI is vital to appeal to those generations. This study classified Edu-influencers as minorities based on Moscovici's definition of minority influence, considering their distinctive characteristics and background, which align with this definition. Moscovici's concept refers to the capacity of a small group to wield influence over a larger population (Moscovici, 1976). Primarily, influencers' behavioral styles, thinking styles, flexibility, and identification contribute to their perception of minorities in the realm of online communication. Their distinctive attributes, strategic approach, adaptability, and ability to forge meaningful connections with audiences set them apart from the broader online population, positioning them as select individuals with significant influence and prominence within the digital landscape. Their influence on shaping the perspectives of educators and followers, especially among millennials and Gen-Z, is connected to their distinctive educational background, despite their limited numerical representation. This uniqueness positions them potentially as minorities impacting majorities. This study emphasizes how influencers, as minorities promote SFC through four constructs through the lens of Minority Influence Theory: consistency, behavioral and thinking styles, flexibility, and identification to impact repurposing behavior on social media. This is because the review revealed that when SMIs maintain a consistent presence across platforms, reinforcing the message that a repurposing fashion is compatible with normal life. Their argumentative style encourages systematic thinking among followers, challenging their existing beliefs and prompting them to reconsider their choices. By presenting relatable anecdotes and engaging followers in thoughtful discussions, influencers foster an environment conducive to attitude and behavior change. Also, adopting an approachable demeanor and addressing common concerns, facilitates identification with their audience, making their message more persuasive. Overall, Edu-influencers effectively leverage minority influence tactics to drive behavioral change among their followers.

On another note, the study highlights the lack of understanding in the emerging category of SMIs, Edu-Influencers, corresponding to Carpenter and Shelton group findings in 2022 & 2020 respectively. It calls for further research to analyze different types of content developed by different SMIs and contextualize Edu-influencers within behavioral change literature. Future studies should examine content from follower perspectives and fill previous gaps.

The chapter highlights the connection between minorities' information influence and normative influence, highlighting the dual social influences that reinforce behavioral change. It argues that informational social influence, used by SMIs, has a greater impact than normative influence, making it crucial to initiate information influence first by minorities. These findings align with Chwialkowska's (2019) and Lucas et al., (2019). The study concluded that Mutual Reinforcement, where informational and normative influences work together, can lead to a change in behavior. This is through Edu-influencers sharing information influence then millennials and Gen-z sharing normative influence. Also, the current study highlights the significant influence of millennials and Gen-Z on sustainable fashion consumption. Their advocacy not only influences their consumption patterns, but also influences their family and friends' behaviors (Forbes, 2022; Dabija et al., 2019). Initially, exposure to persuasive information presented by the minority group might change individuals' attitudes or behavior (informational influence), and over time, this change could lead to conformity with the group's norms or behaviors (normative influence) as explained by LaTour, and Manrai (1989). Both millennials and Gen-Z could play a vital role through normative influence on family and peers. Those highlights serve as a pivotal point of interest in the current study shedding light on the capacity of Millennials and Gen Z to disseminate normative influence instigated by minorities. Finally, the critical review reveals a previously unexplored gap in three

synthesized fields that has not been previously addressed or mentioned by others which offers valuable insight for utilizing behavioral economy and social psychology in a theoretical framework to develop behavioral intervention in SM.

## **CONCLUSION**

This paper introduces a comprehensive conceptual framework for social media behavioral change. Also, it synthesizes three distinct bodies of literature: consumer behavior, sustainable consumption, and social media while addressing limitations, gaps, and future research directions for developing a comprehensive framework. The framework consists of two distinct theories to address the limitations of those areas.

Although previous research in consumer behavior studied these variables in isolation (Pozharliev et al., 2022; Roozen et al., 2021; Chwialkowska, 2019), research integrating these notions in a unified nomological network is unknown. The critical literature review contributes to academic knowledge and practical applications by: First, the integration of diverse perspectives. The review combines three different literature bodies for a holistic understanding of the subject matter. Secondly, synthesized literature helps to identify connections, overlaps, and intersections among theories and fields. As a result, the review contributes by creating a novel conceptual framework that offers a more comprehensive explanation of impacting sustainable fashion consumption in the disposition stage within social media. This integrated framework provides a new lens through which to analyze and address complex online behaviors. Besides, it offers new insights and perspectives on interconnected fields. The review offers new insights and perspectives beyond individual theories, encouraging a more sophisticated understanding of the subject matter.

Additionally, it highlights practical implications for different stakeholders. Maily, the framework offers practical insights into influencing sustainable fashion consumption behavior through social media, suggesting key messages, content types, and engagement techniques that resonate with the audience and drive positive behavioral changes. This study attempts to reduce the literature gaps mentioned before by exploring the narrative of how to impact SFC such as repurposing behavior through Edu-influencers' content, and providing insights to marketers, policymakers, and government entities to develop behavioral interventions through SM. Also, this insight can be utilized by brands and organizations to create influencer-led initiatives that resonate with the fashion-conscious demographic, potentially leading to significant changes in consumption behavior through Edu-influencers content. The study suggests that marketers and policymakers integrating sustainability messages into Edu-influencers' aesthetic and lifestyle content can enhance their audience's appeal and make sustainability more relatable.

Finally, it offers direction for future research: the review outlines gaps and inconsistencies in the three bodies of literature, urging further investigation into the combined effect of nudging and minority influence to overcome those gaps. It emphasizes the need to validate and expand existing theoretical foundations, adapting them to the unique features and complexities of digital platforms. These insights serve as a catalyst for future investigations, prompting researchers to delve deeper into the framework.

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## **KEY TERMS AND DEFINITIONS**

**Educational Influencers:** Edu-influencers are individuals who offer free video and content beyond formal education programs, often working outside educational institutions.

**Information Influence:** It is based on minorities' behavioural style, thinking style, flexibility, and identification.

**Minority Influence Theory:** Minority Influence Theory posits that consistent minority positions, such as Edu-Influencers, can influence the majority's behaviors through information influence, highlighting the role of environmental and external factors in shaping behavior.

**Nudge:** Nudge Theory suggests that subtle changes in choice or information presentation can influence behavior without forbidding or mandating certain actions, highlighting the influence of environmental, external, and individual internal factors.

**Repurposing:** It is reusing old items into new products from a consumption standpoint.

**Sustainable Fashion Consumption:** It is supporting current and future generations' material and other needs without causing irreversible environmental damage or loss of function in natural systems.

**Sustainable Fashion Consumption in the Disposition Stage:** It is the responsible discarding of unwanted fashion items.

**Verbal Nudge:** Verbal nudges are messages that encourage sustainable fashion consumption through written language.

**Visual Nudge:** Visual nudges are images, graphics, or videos that encourage sustainable fashion consumption through visual cues.

## APPENDIX (A)

Table 3. The recent studies exploring behavioural nudge to towards sustainability

| Reference                | Research aim   | Findings  | Method                                       |
|--------------------------|--|---|--|
| Torma et al. (2018)      | This research explores the concept of 'self-nudging' in the experiences and understandings of customers in an organic food subscription scheme.                                  | A change in behaviour within the context of sustainable food based on self-nudging.   | Qualitative (Interviews)                     |
| Andersson (2019)         | The study aimed to explore the use of digital nudging to promote sustainable decisions on a travel company website, its design, and consumer perception of digital nudges.       | The study found that digital nudges that offers design improvements can influence consumers to make sustainable decisions on a travel company's website, with a majority showing a positive attitude towards digital nudges.                  | Mix method (survey and interviews)           |
| Huifink et al. (2020)    | It investigated the effect of a combination of two nudging strategies in shopping trolleys to increase the likelihood of healthy food purchase.                                  | The results indicated positive change toward buying healthy food due to nudge interventions.  | Quantitative (experiment)                    |
| Kensee et al. (2022)     | This study explores the use of mobile apps for fostering sustainability-oriented corporate culture aiming to promote pro-environmental behaviour.                                | The study suggests the effectiveness of online behavioral change particularly through Apps to promote sustainability.   | Qualitative Analysis                         |
| Chen et al. (2022)       | The study examined consumer perception of food packaging, focusing on portion control features, and gathered nudging ideas for improved healthy eating and downsizing packaging. | The study highlights the role of packaging as visual nudges in trust building, appetite stimulation, and self-identity, while portion control emphasizes structural reminders, healthy prompts, and portion awareness.                        | Qualitative- (Photo-Elicitations Interviews) |
| Barker (2021)            | What nudge techniques work for food waste behaviour change at the consumer level?  | The study suggests that incorporating social norms, reminders, or disclosure as nudges into food waste recycling can effectively raise consumer awareness, potentially leading to positive waste reduction and household policy implications. | Systematic literature review                 |
| Morren et al. (2021)     | It aim to create and evaluate four information nudges aimed at influencing dietary choices among a diverse group of Dutch consumers.   | Pre-intervention knowledge about sustainable diets positively impacts participants' dietary choices, with procedural knowledge on healthier meal preparation influencing behavior, especially for those without prior dietary restrictions.   | Mix-method (Survey followed by interviews)   |
| Lotti et al. (2023)      | Aim to tests whether visual nudges help direct attention towards existing instructions designed to increase waste sorting accuracy.  | It concluded that combining both information with visual nudges significantly improves sustainable consumption behaviour within the setting disposition stage, recycling clothes (Offline).   | Quasi-experimental                           |
| Tening and Harder (2023) | Aim to use prior Nudging, with the aim of increasing their environmentally-themed transformed behaviours.  | It revealed most reported transformative behaviours were environmental, such as waste sorting, water and electricity conservation.  | Qualitative- (Photo-Elicitations Interviews) |