Developing A Web-Based Augmented Reality Tool For Promoting Sustainable Fashion Consumption

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ABSTRACT

This study explores the use of Augmented Reality (AR) as an intervention to promote sustainable fashion consumption among Sri Lankan consumers. It also involves developing a web-based AR tool designed to educate users about sustainable fashion and evaluating its acceptance within the target audience. This research identified that young consumers in Sri Lanka demonstrate a low level of awareness regarding sustainable fashion consumption. Therefore, this study addresses an important gap by analyzing how interactive digital tools can influence consumer education and promote green purchase behaviors. To gather requirements for developing the AR tool, a qualitative research method was employed through focus group discussions with 8 Gen Z participants representing diverse fashion preferences. For validation, the tool was further tested with 30 participants to evaluate usability, engagement, and effectiveness. Nine themes relevant to AR tool development were identified through thematic analysis, which highlighted the awareness about sustainable fashion, patterns of digital learning, and sensitivity to AR capabilities. This study revealed a strong consumer intention to engage with visually dense, socially sharable, and mobile-optimized AR applications. To address these points, a prototype web-based AR platform was designed using MyWebAR platform, alongside real time information on garment sustainability through the scanning of QR codes. The results demonstrate that AR can successfully engage consumers, increase awareness of the environmental footprint of fashion, and enable behavioral change when deployed on familiar social media platforms. The research concludes that interactive, culturally relevant AR tool experiences have strong potential to influence sustainable fashion practice among consumers.

KEYWORDS: *Augmented Reality Consumer Behavior; Digital Technologies; Fashion Consumption; Sustainable Fashion*

INTRODUCTION

Fashion is the second-largest polluting industry globally, producing about 92 million tonnes of textile waste each year (Alfie, 2025), most of which ends up in landfills. Consumers always seek new clothing, often influenced by the visual appearance of how garments are displayed on hangers (De Silva & Rupasinghe, 2018). Therefore, it is challenging to change the mindset of fast fashion consumers, as they have become accustomed to constantly pursuing the newest and most disposable garments. Moreover, the fast-growing fashion retail industry failed to achieve corresponding growth regarding sustainability due to a lack of awareness and engagement. Sustainable fashion consumption was described as less purchasing, choosing ethically manufactured clothing, and extending the life of clothing (Schiaroli et al., 2024). Innovation in educating and influencing the consumption pattern for sustainable fashion is thus needed for the tech-savvy consumer. Augmented Reality (AR) is used in retail to enhance product experience and provide more individualized consumer experience for prospective consumers. According to Rumokoy & Frank (2024), that AR is used in retail to improve product experience and enable individualize consumer experiences by aligning technological features with consumer needs with

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increasing perceived value and engagement. However, its application within the fashion industry remains limited. Despite its potential, there is a dearth of studies exploring the opportunities that AR can offer for promoting sustainable fashion consumption. As sustainable fashion is still an emerging concept, the use of AR applications to drive behavioral change toward sustainability remains insufficiently explored.

Sri Lankan fashion consumers were chosen for this study due to accessibility and the rising popularity of AR among the younger generation. The identified gap in research on sustainable fashion consumption in Sri Lanka indicates a number of Sri Lankan consumers have only a limited understanding of the concepts involved in sustainability and are able to recognize major terms such as "green" and "environmentally friendly" but lack any deeper understanding of the sustainable consumption. This represents a knowledge gap that interferes with informed decision-making, since a large part of the population does not feel empowered to act on its positive attitudes about environmental protection. Furthermore, price and product quality factors turn out to be the dominating issues in purchase decisions when compared with sustainability attributes. According to Alhumaid (2020) digital technologies improve the teaching and learning process by offering dynamic, interactive, and student-centered learning experiences that typically lack in traditional methods. Digital technologies improving accessibility and efficacy in developing critical thinking and active engagement.

This research aims to explore the use of AR in stimulating customer awareness in sustainable fashion consumption, and subsequently, developed an AR tool and received responses to confirm the impact. There are three research objectives were addressed, namely, 1) to identify consumers' awareness of sustainable fashion and the use of AR technologies, 2) analyze the requirements for the AR tool, and formulate key constructs in developing the tool, 3) develop and measure the effectiveness of the proposed AR tool in establishing the awareness for sustainable fashion consumption.

LITERATURE REVIEW

Consumer Awareness in Sustainable Fashion Consumption

Connecting consumer awareness and engagement in sustainable fashion presents a major opportunity to encourage more responsible fashion consumption. Unfortunately, Sri Lankan consumers are yet unaware of sustainable fashion practices in the industry (Jimenez-Fernandez et al., 2023). This knowledge gap is critical because it creates limitations for the consumer to make sustainable fashion choices. However, Thilakarathne and Wijesundara (2017) the need for online platforms in shaping how consumers interact with the fashion industry, particularly in influencing their purchasing behavior toward sustainability. These platforms create opportunities for promoting sustainable choices and filling the most important awareness gap in relation to the environmental impacts associated with fast fashion.

The role of technology is increasingly important in enabling sustainable fashion consumption. Mobile applications and other digital tools have proven their value as effective dissemination channels. According to Muralikrishnan et al. (2024), there is a need to discuss the use of smart phone applications as facilitators in sustainable fashion; such applications may offer instant and accessible data about the sustainability aspects of fashion products and thus enable better choices by the consumer. This is particularly relevant in the Sri Lankan context, where ease of access translates into significant potential for awareness, particularly among young, digitally literate consumer.

To foster sustainable fashion, the suitable stimuli that shape consumer behavior and awareness must be understood. According to the published literature, it is evident that a combination of emotional and contextual stimuli is highly effective for sustainable decision making. Chen et al. (2024) recommends green information that is brief, engaging and educates consumers but does not overwhelm them. When such data are offered in interactive or graphic forms, it can increase affective

engagement and perceived value. Zollo (2024) also explains further those consumers usually experience cognitive dissonance if their consumption act is not congruent with their values of sustainability, and tension towards more mindful consumption is created when proper knowledge is offered.

Previous research has highlighted value-based communication, transparency in production processes, and storytelling elements such as ecological footprint narratives, as powerful psychological levers. Gee Gamage et al. (2024) found that secondhand clothing is more fashionable in Sri Lanka because it is not only more affordable but also aligns with eco-friendly values, providing both economic and ethical incentives that serve as potential awareness triggers. In addition, digital media platforms such as Instagram and TikTok support the stimuli based on peer influence and popular narratives. After Kurukula, 2022; Sandunima & Jayasuriya, 2024, influencer activities and user posts are facilitators towards making sustainability familiar and appealing. Thus, leveraging and incorporating those driving

Existing AR tools and their application in the Fashion Industry

Though Augmented reality (AR) technology is an emerging technology, it has been shown to enhance consumer engagement and interest in sustainable fashion worldwide. According to Fan et al. (2019), AR influences online retailing since shoppers' experience interactivity and immersive shopping that influences their attitude toward products. By enabling customers to visualize the product in the relevant environment, AR takes a more experiential format that can engage the attention of Sri Lankan consumers effectively. Besides, according to Gupta & Bhavsar (2024c), AR could lead to a better comprehension of environmental information, somewhat complex for consumers, and develop high intent for sustainable choices. AR's potential in this context is particularly appropriate to bridge the information gap that exists on sustainable fashion in Sri Lanka.

Thus, AR has been effective in consumer behavior change through improvement in the interactive experiences of consumers. This improves the consumer's comprehension and dedication to sustainability. Attri et al. (2024) highlighted that in-store AR builds positive behavior and improves consumer perceptions because of immersive experiences which attach consumers with the product on a deeper level. The more salient and thus relatable the benefits of sustainable fashion become with increased transparency, the more it may foster pro-environmental behavior. Interactivity in AR is crucial to drive buying behavior, specifically in online shopping, because it contains no chance for the consumer to directly interact with the product. Referencing interactivity and visual aesthetics of AR, Konstantoulaki et al. (2024) noted that both led to higher purchase intentions due to a more realistic and interactive product experience. Furthermore, Chen et al. (2024) mentioned "green information" and how it could affect the engagement of people in sustainability. For instance, an AR tool showing precisely how much carbon footprint a choice for a particular sustainable product has reduced will possibly motivate Sri Lankan consumers toward making purchases in an environmentally friendly manner.

The possibility of AR in visualizing sustainable practice and giving real-time feedback on consumer choices makes it an effective tool in the promotion of sustainable fashion consumption. According to Thamoda et al. (2024), Sri Lankan consumers with a preference for secondhand fashion may be more willing to buy sustainable products when clear information about their positive environmental impact is presented visually. Therefore, AR will effectively stimulate consumer behavior for sustainable fashion, however, an effective tool still needs to be developed. The application of AR in sustainable fashion education is one novel method of addressing the awareness gap identified above in this review. As indicated, Sri Lankan consumers are increasingly digitally connected, especially the Gen Z consumers, therefore there is a higher potential to adopt AR in their life style. According to Karagozlu (2021), AR improve learning environments by giving interactive experiences which help users to understand complex topics effectively. When applied this to sustainable fashion, users can get a better knowledge about the issues such as overconsumption, textile wastage, and the environmental impacts of fast fashion.

Abad-Segura et al. (2020) further observe that AR-based learning technologies are sustainable learning environments

in so far as they facilitate active participation and long-term memory retention. These technologies are scalable but flexible and thus adaptable to incorporation in digital platforms Sri Lankan consumers use on a regular basis. As discussed earlier, the use of AR in commercial environments can be directly applied to learning contexts, particularly where the goal is to drive behavior change through increased awareness.

Additionally, Ayer, Messner, and Anumba (2016) observed that AR can facilitate the development of thinking through allowing the user to experience virtual environments where users are directly eyewitness to consequences of design and consumption decisions. Such experience-based, gamified formats of learning are effective in creating sustainable behavior in young consumers and students. Adding AR to educational curricula can thus contribute a great deal towards enabling the pursuit of sustainable fashion in Sri Lanka through the visualization and sense-making of abstract impacts on the environment.

METHODOLOGY

A qualitative research method was adopted in the research design, primarily, Focus Group Discussions (FGDs) were conducted with 8 participants during the requirements gathering stage. A purposive sampling method was adopted to select participants within the age between 18-27 years, who are highly digitally literate and fashion-conscious. They are tech-savvy generation and, hence, are used to tools such as AR and are strongly responsive towards eco-friendly and sustainability measures. The selected participants represented a new generation of digital technology users, and thus exemplify AR's potential contribution to sustainable fashion (Kurukula, 2022; Sandunima & Jayasuriya, 2024). Participant's demographics were collected to tests AR tool suitability for relevance, inclusivity, and flexibility in different socio-cultural contexts and common usage contexts.

A semi-structured questionnaire was employed with stimulating of a discussion on areas of interest such as awareness and knowledge towards sustainable fashion by the participants, present consumption attitude towards fashion, and exposure to AR technology More precisely, this study examines the consumers' attitudes, perceptions, and motivations towards sustainable fashion and AR adoption in Sri Lanka and gathered constructs to develop an effective AR tool. Two rounds of FGDs were conducted during the month of May-June 2025, each session conducted approximately 60 to 75 minutes. All the sessions were audio-recorded and transcribed after the informed participant's consent to ensure accuracy and ethical handling of the data. FGDs are among the most effective research methods for behavioral and educational studies (G. Adekola & E.S. Olumati, 2023) enabling observations on perceptions of sustainable versus fast fashion, preferences for AR feature usage, and the psychological and social norms that influence fashion choices.

All the participants in the study gave their informed consent prior to their involvement. Their identities were totally kept confidential, and any personal details were anonymized to maintain privacy. The data collected was used solely for academic purposes. Participants were made aware of their right to withdraw from the study at any point.

DATA ANALYSIS AND RESULTS

Thematic analysis was used in data analysis to obtain main themes and sub-themes which allowed for the identification of key constructs for the development of the AR tool. Through this approach, key insights were identified, including expectations regarding sustainability-related content. Furthermore, preferences for presenting this information were recognized, including visually compelling, interactive, and easily accessible formats.

Participant 3 and 5 noted a strong inclination for desired technology to be presented in a digital format, delivering visual and interactive learning experiences. Many participants acknowledged that they lacked time to read in-depth articles but were willing to engage with digital content if it was engaging and bite sized. They also suggested gamified learning and AR overlays as attractive features. This shows that the learning process should be quick, intuitive, and visually driven matching current digital content consumption habits. Even though most of the participants did not have previous AR experience regarding fashion related platform, they were interested to experience them. Participants have preference to explore AR features that offered educational, stylistic, and informative value. This suggests that AR's potential goes beyond aesthetics and act as a powerful educational interface. Apart from that, irrespective of the knowledge inputs, participants wanted to engage with AR in meaningful ways. This is positive feedback of interactive visualizations and simulations that guide the user through pathways of decision. For instance, users could clearly visible the resource savings while using these tools. Most participants showed a strong willingness to try a web-based AR tool if it was accessible, easy to use, and relevant. Participant 4 remarked that, it needs to be mobile friendly and not too complicated. These answers point to the importance of developing a light and privacy solution. Participants also expressed app permission and technical performance issues. The participants mainly aged 18-24 gave a positive response to the AR tool. There were 7 out of 9 participants were willing to use similar tools in future. This indicates that minimalization and convenience are key factors in the acceptance of technology. Table 1 depicts the key findings and the expected features of the AR tool, which were extracted from the interview transcripts.

Table 1: Key Findings of the Focus Group Discussions

Key Findings	Expected Features in The AR Tool	Participant(s)
Awareness and Attitudes gap in Sustainable Fashion. Lack of awareness of what sustainable fashion entails; following global trends without understanding their long-term environmental effects.	AR storytelling of garment lifecycle (e.g., visual storytelling) Infographic overlays of environmental information on product scan.	1 & 2
Challenges to Sustainable Practices. Consumers value affordability and convenience over ethical fashion, citing price and accessibility as main barriers.	Cost vs. impact comparison feature (eco vs. fast fashion) Incentives for sustainable choices (points, badges, discounts)	1,2,3,4 & 5
Education Through Interactivity. Participants showed strong interest in interactive technology, especially when learning is visual and immersive.	Interactive educational modules ("Swipe to learn" quizzes) Clickable hotspot layers on garments (material info, ethical sourcing)	3, 5 & 7
Interest in AR Features. They tend to go to social media for fashion inspiration and selection, and it has a big influence on their shopping habits. The idea of refining fashion decisions through time was appealing to them, but they stressed the tool had to be natural and interactive.	Shareable AR experiences or "Style with Sustainability" filters Instagram/TikTok integration for social challenges or badges Progress dashboard (points, badges, tips for improvement) Weekly sustainability tips via notifications or pop-ups	1,2,3,5,6 & 8
Willingness to Use AR for Fashion. Others are keen on using new technology like AR, especially if it is fun and convenient.	Simple AR scan-to-learn functionality via QR code or clothing label Try-on simulations in real-time with sustainability scoring	4,5,6 & 7
Digital Engagement and learning Preferences. Youth in particular think that digital media can be used to modify behavior if combined with incentives and attractive content. People want good information at the point of purchase but don't wish to read lengthy pieces.	Level-up system for completing eco-learning pathways Animated AR avatars to guide users through lessons. Pop-up cards with bite-sized facts on origin, material, recyclability 5-second animated explainers triggered once a product is scanned	1,2,3,6 & 8

Development of the AR tool and Its Key Features

The participants in the focus group have expressed precisely that they prefer interactive, shorter and visual content instead of traditional educational methods as their main learning method. From gathered information about favorite learning formats, participants in the focus group have expressed high interest in AR simulation, short interactive videos, gamified quizzes formats. Also, moderate interest for infographics and low interest for long form text articles. According to the participants' opinions and the reference to credible academic research, the AR tool suggested can be executed as a website, which will incur no download for the users. Users will be able to make use of a product that is QR code scanned and, upon doing so, an AR real-time multimedia that further adds sustainability information of the product would appear to them. The features directly address participant preferences for visual, quick, and mobile learning. As Participant 3 stated, “If it’s on my phone and easy to use, I’d probably check it while shopping." Similarly, Participant 6 emphasized, "I didn’t know fashion

could use AR previously, but the sound is good, especially for trying things on virtually. “Social validation and peer influence thus become very important. The AR tool's social integration module would allow users to share their "impact stories" or completed sustainable challenges on popular social media platforms like Instagram or TikTok, which have the capacity to initiate a ripple effect within their digital communities, precipitating more sustainable behavior. The key proposed features, as affirmed by participants and literature, are listed below.

AR Prototype Development

Based on the findings obtained from the FGDs, AR prototype was developed using **MyWebAR**, including the user interface and configuration options. It reflects the environment in which the tool’s core structure was created.

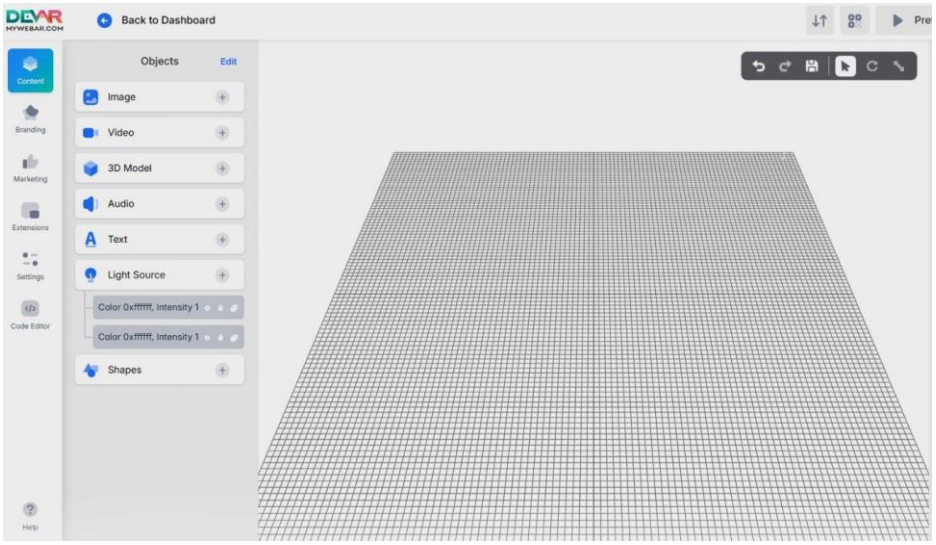

Figure 1: Initial Setup and Configuration in MyWebAR

The following image illustrates the second stage of the AR experience, where interactive features such as 3D models and other components are added.

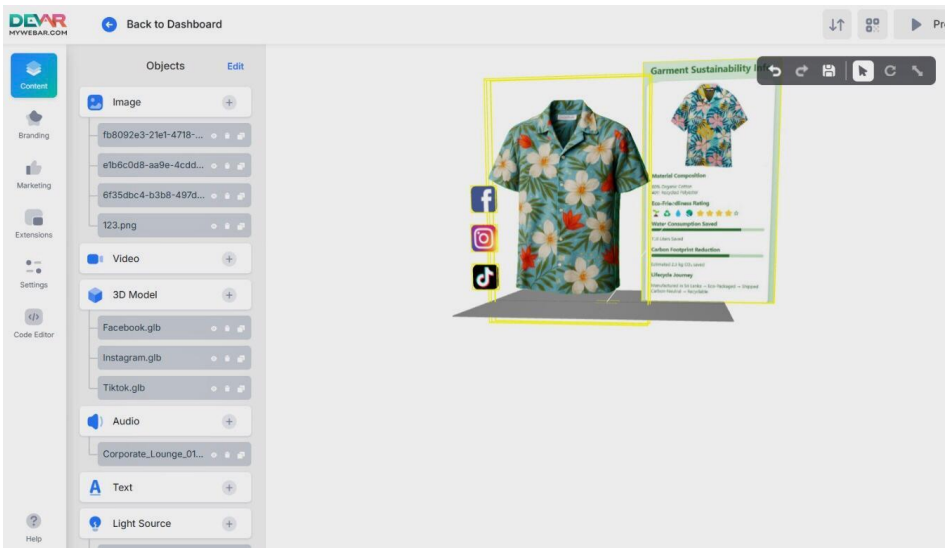

Figure 2: Adding Interactive Elements to the AR Tool

At this stage, the process of adding interactive features to the AR experience, such as a 3D realistic view of the garment and other components, was carried out. The interface is shown with the toolset for integrating these elements. Figure 3 shows the testing phase as the third step, where real-world interactions are used to test how well the AR tool functions in different scenarios.

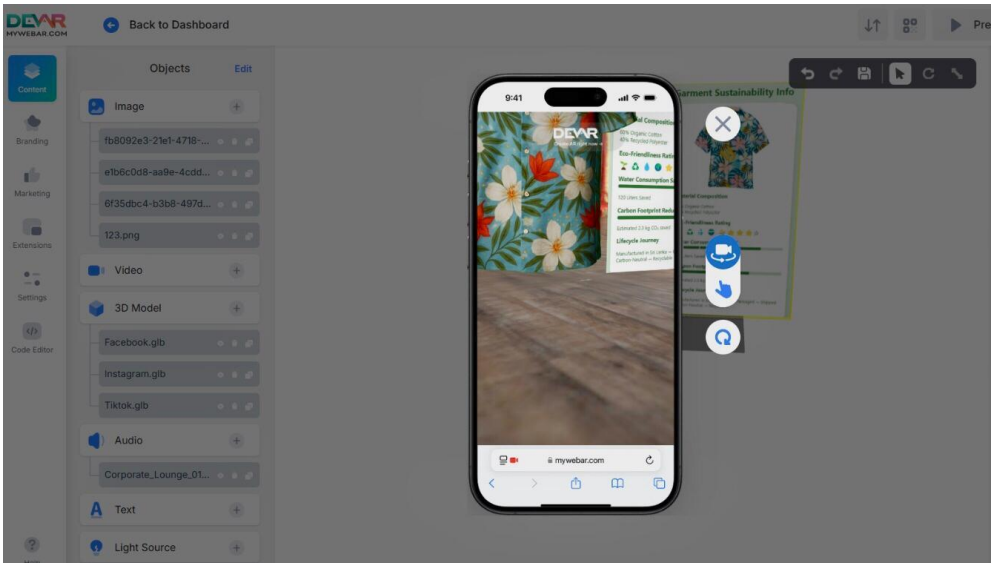

Figure 3: AR Tool Testing with User Input

These features are to fill gaps in transparency and awareness, facilitate aware and knowledge-based decision-making, and enable users for better understanding of sustainable and fast fashion ethics. They are to facilitate engagement through knowledge gamification, leverage peer influence through social sharing, and facilitate long-term use of the platform. The feedback loop also enables evidence-based refinement together with tracking long-term behavioral impact, thus making the tool not only educative but also effective and sustainable change-facilitating.

In the final stage, when the prototype was ready, the QR code and a questionnaire was distributed and feedback was collected from the 30 participants. Notably, 83% of respondents consider that the tool has the potential to impact sustainable

fashion purchase habits, although price, availability, and awareness are issues. The overall experience and likelihood to recommend the tool scored 3.7 and 3.9 out of 5, respectively, reflecting satisfactory user experience and peer recommendation potential. Suggestions for improvement focused on increasing local relevance, applying gamification, provision of Sinhala and Tamil languages, facilities for offline access, and expansion of facilities of social sharing. Although users enjoyed interactive learning and visualize facilities of the AR tool, internet speed, coverage of networks in the rural region, and more locally-oriented and peer-to-peer collaboration deficiencies suggest lines of further improvement and localization.

Prototype Display: Web-Based AR Interface

Figure 4: QR code for AR prototype

The AR prototype was developed for deployment via mobile and desktop web browsers, and consumers were able to use scan QR code scanner to view clothing in real space. While developing this initial prototype, it was focused on creating a clean, natural AR interface that can accurately simulate an in-store retail setting. The prototype developed using key elements such as the sustainability card, and social media logos around the digital apparel.

Using a functioning QR code tagged with the garment, users were allowed to start the web-based AR experience instantly and view product sustainable information in real time. This first prototype was meant to test spatial organization, visual presentation, and user interaction as a preliminary step toward building on to create a more intricate and scalable platform for learning about sustainable fashion.

DISCUSSION

A clear disconnect between consumer preference and actual behavior regarding sustainable fashion in Sri Lanka was identified through the key findings of this study. While participants discussed an awareness on topic such as eco-friendly practices and secondhand clothing, limited understanding was observed in areas like the environmental impact of the garment lifecycle. This reflects a wide global pattern noted in previous studies (Jimenez-Fernandez et al., 2023; Zollo, 2024), where individuals express a preference to make ethical choices but struggle to implement them effectively. To identify these issues, a web-based AR tool has been proposed an educational solution with offering an engaging accessible means of delivering sustainability knowledge. By combine the AR experience into shopping behavior and eliminating the consumer need for separate app installation, the barrier to user engagement is significantly reduced.

Respondents exhibited a fairly positive attitude towards sustainable fashion with understanding it as an ethical necessity and not a trend. Participants have quite understood about facing consequences due to climate change, and how fashion contributes to it. However, some participants acknowledged purchasing attractive and inexpensive clothing, despite experiencing guilt afterward. This suggests that while consumers may align with sustainability values, their ability to make ethical choices is often hindered by external factors such as price sensitivity, limited availability, and inadequate access to relevant information.

Participants identified several barriers that limit their engagement in sustainable fashion choices, with cost emerging as the most commonly cited obstacle. Some participants expressed a desire to purchase sustainable clothing but noted that such items are often expensive and difficult to find. Beyond affordability, concerns were also raised about limited product availability and a narrow range of styles. For instance, constraint affecting the practicality of making sustainable fashion decisions.

When the effectiveness of key AR features; the AR prototype that highlighted the garment's sustainability values was identified as one of the strongest features. The breakdown of material composition and the eco-friendliness star rating were liked by the participants. In addition, the participants were enabled to intuitively trace the flow of information through the quantitative environmental data provided. The social media logos (Facebook, Instagram, TikTok), which were displayed on the left side of the clothing, were seen as a smart touch. This feature was to be appealing to the behaviors of Gen Z and Millennials. It was suggested by the models that peer-to-peer sharing the visibility of sustainable products would be increased, as screenshots of the AR view were likely to be captured and shared by buyers on their own platforms. However, it was proposed by some participants that social media links should be shown only after user interaction (e.g. clicking a "Share" button) rather than being always displayed, in order to minimize digital clutter. When the technological and cultural suitability in Sri Lanka was considered, it was explained by respondents that the AR experience was culturally appropriate for Sri Lanka's tech environment. Although smartphones were found to be widely used, concerns were raised about data availability in rural areas. Therefore, a light, web-based AR (as opposed to app- based platforms) was recommended as the most suitable option for this market.

Participants, especially those from Generation Z, mentioned that sharing on social media could influence and encourage sustainable behaviors in their peer groups. The power of AR technology has been recognized for its potential to turn people into micro-ambassadors of sustainability through aesthetically appealing and accessible content. As a result, an impact towards ethical consumption was considered possible. As a next step, user-generated content (UGC) has been proposed, where people can post their reviews or stories about sustainability. This was done to add an increased level of interaction and authenticity.

CONCLUSION

A web-based AR tool was developed to raise awareness about sustainable fashion as a means of promoting behavioral change and serving as an educational tool. The requirements of the tool have been gathered and analyzed using focus group discussions, thematic analysis and iterative AR prototype development. The findings indicated that Sri Lankan youth are increasingly receptive to technology facilitated experiences, particularly those that are interactive, visual, and socially shareable. The AR prototype met these needs by allowing users to scan QR code in garment labels and access real time sustainability information, effectively embedding learning at the point of purchase. This user-friendly tool demonstrated strong potential to positively influence purchasing attitudes and help consumers make more informed choices. This research demonstrated that AR technology has the potential to enhance the fashion industry, emphasizing the need for meaningful content creation to maximize its effectiveness.

REFERENCES

[1] Alfie. (2025c, January 14). *Fashion Waste – 2025 Facts & Statistics*. Waste Management Services | Recycling | WasteManaged. https://www.wastemanaged.co.uk/our-news/retail/fashion-waste-facts-and-statistics/

[2] De Silva, R. K. J., Rupasinghe, T. D., & Apeagyei, P. (2018b). A collaborative apparel new product development process model using virtual reality and augmented reality technologies as enablers. *International Journal of Fashion Design Technology and Education*, *12*(1), 1–11. https://doi.org/10.1080/17543266.2018.1462858

[3] Schiaroli, V., Fraccascia, L., & Dangelico, R. M. (2024b). How can consumers behave sustainably in the fashion industry? A systematic literature review of determinants, drivers, and barriers across the consumption phases. *Journal of Cleaner Production*, *483*, 144232. https://doi.org/10.1016/j.jclepro.2024.144232

[4] Rumokoy, F. S., & Frank, B. (2024b). Retail value creation through augmented reality: The role of task-technology fit, consumer knowledge, and personality. *Journal of Retailing and Consumer Services*, *84*, 104173. https://doi.org/10.1016/j.jretconser.2024.104173

[5] Alhumaid, K. F. (2020b). Qualitative evaluation: Effectiveness of utilizing digital and social media in education. *Utopía Y Praxis Latinoamericana: Revista Internacional De Filosofía Iberoamericana Y Teoría Social*, *25*(6), 466–476. https://doi.org/10.5281/zenodo.3987663

[6] Jimenez-Fernandez, A., Aramendia-Muneta, M. E., & Alzate, M. (2023b). Consumers' awareness and attitudes in circular fashion. *Cleaner and Responsible Consumption*, *11*, 100144. https://doi.org/10.1016/j.clrc.2023.100144 [7] Wanniarachchi, T. M., Thilakarathne, B. L. S., & Wijesundara, B. (2017). Factors influencing purchasing intention of fashion clothing through online platforms. *Sri Lankan Journal of Marketing*, 3(2), 16–36. https://fcms.kln.ac.lk/dep/dmm/images/SLJM/3-2/T.M-Wanniarachchi-B.L.Sanjaya-Thilakarathne-Bimali-Wijesundara----Online-Publish-Article.pdf

[7] Muralikrishnan, N., Sehgal, N., & Kumar, T. (2024b). A smartphone application facilitating sustainable fashion. *Procedia CIRP*, *128*, 55–60. https://doi.org/10.1016/j.procir.2024.05.093

[8] Chen, L., Haider, M. J., & He, J. (2024b). Should "green information" be interactive? The influence of green information presentation on consumers' green participation behavior for driving sustainable consumption of fashion brands. *Journal of Cleaner Production*, *470*, 143329. https://doi.org/10.1016/j.jclepro.2024.143329

[9] Zollo, L. (2024b). Ethical identity, social image and sustainable fashion: still an impossible deal? A sociopsychological framework of ethical consumers' attitude-behavior gaps. *Journal of Consumer Marketing*, *41*(5), 564–582. https://doi.org/10.1108/jcm-08-2023-6213

[10] Geegamage, P. H. T., Ranaweera, H. R. A., & Halwatura, R. U. (2024). As Good as New: A Study on Sri Lanka Consumers' Secondhand Fashion Consumption. In *A study on Sri Lanka consumers' secondhand fashion consumption* (pp. 143–165). https://doi.org/10.1007/978-981-97-0569-6_6

[11] [12] Kurukula, U. (2022b). *Impact of social media influencers on sustainable fashion purchasing a study on buying behavior of gen Z in Sri Lanka*. http://dlib.iit.ac.lk/xmlui/handle/123456789/1526

[12] [13] Sandunima, K. C., & Jayasuriya, N. (2024b). Impact of firm-created and user-generated social media marketing on customers' purchase intention in the fashionwear industry: evidence from Sri Lanka. *South Asian Journal of Marketing*, *5*(1), 61–73. https://doi.org/10.1108/sajm-04-2023-0029

[13] [14] Fan, X., Chai, Z., Deng, N., & Dong, X. (2019b). Adoption of augmented reality in online retailing and consumers' product attitude: A cognitive perspective. *Journal of Retailing and Consumer Services*, *53*, 101986. https://doi.org/10.1016/j.jretconser.2019.101986

[14] Söderström, C., Mikalef, P., Landmark, A. D., & Gupta, S. (2024b). Augmented reality (AR) marketing and consumer responses: A study of cue-utilization and habituation. *Journal of Business Research*, *182*, 114813. https://doi.org/10.1016/j.jbusres.2024.114813

[15] Attri, R., Roy, S., & Choudhary, S. (2024b). In-store augmented reality experiences and its effect on consumer perceptions and behaviour. *Journal of Services Marketing*, *38*(7), 892–910. https://doi.org/10.1108/jsm-01-2024-0005

[16] Konstantoulaki, K., Rizomyliotis, I., Ang, E., & Quynh, N. T. (2024b). Augmented reality characteristics as drivers of consumers' purchase intention. *EuroMed Journal of Business*. https://doi.org/10.1108/emjb-04-2023-0114

[17] Karagozlu, D. (2021b). Creating a Sustainable Education Environment with Augmented Reality Technology. *Sustainability*, *13*(11), 5851. https://doi.org/10.3390/su13115851

[18] Abad-Segura, E., González-Zamar, M., La Luque-De La Rosa, A. L., & Cevallos, M. B. M. (2020b). Sustainability of Educational Technologies: An approach to Augmented Reality research. *Sustainability*, *12*(10), 4091. https://doi.org/10.3390/su12104091

[19] Ayer, S. K., Messner, J. I., & Anumba, C. J. (2016b). Augmented reality gaming in sustainable design education. *Journal of Architectural Engineering*, *22*(1). https://doi.org/10.1061/(asce)ae.1943-5568.0000195

[20] Adekola, G., & Olumati, E. (2023b). Focus group discussion: A Research Method in Community Development. *International Journal of Research and Innovation in Social Science*, *VII*(V), 392–399