



Review Research

Innovative Visual Merchandising Strategies in the Digital Era: Enhancing Retail Consumer Engagement

Nazma Begum^a, Chowdhury Tauhid Mahmud^b, Md. Estehad Chowdhury^{b,c}, Redoyan Chowdhury^a, Kulsuma Begum^b, Shahriar Kabir Selim^b, Abdullah Al Mozahid^d, Sharif Ahmed Sazzad^{b*}

^a Department of Business Administration, International American University, Los Angeles, CA 90010, USA

^b Pathfinder Research & Consultancy Center, LLC, Delaware, USA

^c Department of Business Administration, Shahjalal University of Science and Technology, Sylhet, Bangladesh

^d Department of Anthropology, University of Chittagong, Bangladesh

* Corresponding author: sazzad139@gmail.com

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ABSTRACT

The review study analyses the impact of innovative visual merchandising tactics, facilitated by evolving technology, on customer engagement at the point of sale, specifically within the fashion sector. As the retail landscape changes toward a digital era, emerging technologies such as augmented reality (AR), interactive displays, and digital signage are transforming the way customers engage with items and the shopping environment. We performed a comprehensive analysis of the current literature, utilizing ideas related to consumer behaviour, purchasing experience, visual communication, and the integration of technology in visual merchandising. Although much contemporary study focuses on Generation Y (Gen Y), the results are relevant to a wider array of cohorts, including Generation Z and older generations, who are increasingly interacting with digital technology in retail environments. The study asserts that visual merchandising, in conjunction with digital technology, may profoundly affect customer behaviour by improving the buying experience across cognitive, emotional, sensory, and behavioural dimensions. The technologies used in visual merchandising are not just utilitarian instruments; they act as influencers, crafting immersive, personalized experiences that cultivate profound emotional ties with the brand. These technologies help merchants to attract new consumers, retain existing ones, and drive purchase choices through a more engaging and memorable shopping trip. The article ultimately finds that the use of digital technology in visual merchandising tactics is revolutionizing traditional retail experiences into dynamic, interactive environments that are crucial for influencing contemporary customer behaviour.

1. Introduction

The digital world of the 2010s is fast developing, resulting in a dramatic alteration of retail surroundings (Sunny et al., 2021a). The emergence of interactive and instantaneous communication networks has transformed customer involvement at the point of sale (POS) beyond traditional static displays and one-way marketing communications (Sazzad et al., 2023). Fashion

enterprises are progressively leveraging digital technology to enhance the purchasing experience by seamlessly merging virtual and real environments (**Kuddus et al., 2022**). This transition underscores the increasing significance of innovative visual merchandising, the discipline of crafting engaging product displays and retail settings that attract consumers' attention and affect their buying choices (**Kawaf & Tagg, 2012**).

Michael Porter, a prominent authority in corporate strategy, contends that technology innovation is a crucial catalyst for competitive advantage. He believes that for firms to endure and prosper in the contemporary economy, they must adopt technology innovations and leverage them for strategic benefit (**Evans, 2010; Carmigniani et al., 2011**). This idea is especially applicable to fashion stores, where the integration of technology with consumer interaction methods is essential rather than optional (**Alam et al., 2023a**). Retailers must adjust to the evolving environment by integrating innovative digital solutions that improve consumer experience and, consequently, increase sales and loyalty (**Sacco et al., 2011**). Despite the growing incorporation of technology in retail, there is still a lack of research examining the direct correlation between novel technological implementations in visual merchandising and customer behaviour (**Sunny et al., 2020**). A significant portion of the current academic work has concentrated predominantly on behavioural intentions, with purchase intentions being the most extensively examined reactions to digital stimuli (**Sorescu et al., 2011; Sunny et al., 2017; Peng, 2021**). While factors such as loyalty, repurchase intention, and switching behaviour are common, the impact of digital visual merchandising on the overall shopping experience and sustained customer involvement has received less attention (**Kuddus et al., 2021**). Moreover, several research studies rely on the approach-or-avoidance theory, which posits that environmental stimuli primarily influence consumer behaviour, thereby influencing a buyer's attraction or aversion to a brand or product at the point of sale (**Oliveira & Lutterbach, 2020**).

The use of technology in visual merchandising presents significant potential, not just for enhancing shop foot traffic but also for delivering critical data that may guide overarching corporate goals. Augmented reality (AR) and interactive digital displays enable fashion firms to obtain instantaneous data regarding consumers' preferences, product interactions, and browsing behaviours (**Chakma et al., 2022**). Fashion firms can use these findings to refine product assortments, enhance shop layouts, and develop targeted marketing efforts (**Khan, 2021; Jakhar et al., 2020**). Digital encounters, both online and offline, progressively influence consumer expectations in the competitive realm of fashion retail. Visual marketing tactics significantly impact the purchasing process by eliciting emotions, igniting interest, and crafting memorable experiences for consumers (**Kuddus et al., 2021; Bari et al., 2023**). Interactive and personalized retail experiences attract contemporary customers, particularly among younger demographics. More immersive and dynamic approaches that integrate digital technologies are replacing conventional visual merchandising methods, which often relied on static displays. These innovations may encompass interactive displays, virtual fitting options, and instantaneous product customization, all of which promote consumer engagement with the brand and thereby enhance

the probability of a purchase (**Li et al., 2022**).

However, despite these developments, the retail landscape is becoming increasingly crowded, and customers are becoming less receptive to traditional marketing strategies. Numerous firms are finding it challenging to differentiate themselves amid an excessive volume of promotional material. Augmented reality (AR) provides an innovative and captivating method for fashion stores to attract attention and deliver distinctive experiences (**Sunny et al., 2022**). Businesses must reevaluate their strategy and discover novel methods to enhance the consumer experience across various touchpoints as customers increasingly integrate online, mobile, and physical purchasing for optimal convenience. Augmented reality (AR) is a potent instrument enabling consumers to digitally try on apparel, see things within their residences, and engage with a brand in a fundamentally novel manner by merging the physical and digital realms. Ultimately, "innovative visual merchandising" techniques in the digital age transcend mere product sales; they focus on fostering profound relationships with customers through personalized, engaging, and memorable experiences (**Ifty et al., 2023b**). Fashion firms are increasingly using digital technologies such as augmented reality (AR), artificial intelligence (AI), and data analytics, which hold significant promise to transform retail experiences and foster enduring consumer loyalty (**Muñoz-Leiva et al., 2021; Fernandes & Morais, 2021**).

2. Research Methodology

This study employs a literature-based research methodology to critically evaluate and analyse the use of digital technology in visual merchandising in the retail fashion sector. The methodology mixes exploratory research with theoretical analysis to evaluate the effect of innovative marketing tactics on consumer engagement. The research tries to integrate information from numerous disciplines, such as consumer behaviour, purchase experiences, visual communication, and technological improvements, highlighting its significance for the fashion business.

2.1 Research Design

The study employs an exploratory research strategy that is suitable for understanding novel phenomena and clarifying concepts that are insufficiently defined in the existing literature [5]. This design is especially beneficial in this context, where the amalgamation of digital technology and visual marketing represents a nascent field, and the aim is to provide insights that enhance the overall body of information.

2.2 Data acquisition

We acquired the data for this study through a comprehensive review of academic publications, books, industry reports, and conference proceedings. We selected the sources based on their relevance to the key topics of visual merchandising, consumer behavior, and technological innovation in the fashion retail industry. We specifically focused on research papers that explore the use of augmented reality (AR), interactive displays, smartphone integration, and other

technology tools in visual merchandising to engage customers. We applied relevant keywords and search terms, including "digital marketing," "visual marketing," "consumer behavior," "augmented reality," "buying experience," and "fashion retail technology" to query databases like Google Scholar, JSTOR, and Scopus. We established selection criteria for papers based on their publications in peer-reviewed journals or reputable academic sources, prioritizing studies from the past decade to ensure they reflected the latest advancements in the field. The key inclusion criteria included relevance to the fashion business, the application of developing technologies, and an emphasis on customer interaction. We used a systematic process to discover and synthesize important data, concepts, and frameworks related to consumer behavior, purchase experiences, and visual merchandising methods. We favored research using empirical data, or case studies, due to its practical insights.

2.3 Grounded Theory Analysis

To extend the exploration of the highlighted topics, this study employs grounded theory analysis as recommended by Strauss and Corbin. Grounded theory enables the development of a conceptual framework that is directly based on the collected data rather than assessing established concepts. This approach is particularly suitable for exploratory research since it facilitates the identification of patterns, correlations, and themes emerging from the literature (**Strauss & Corbin, 1990; Kim et al., 2020**).

The analytical process includes the following stages:

- **Initial coding:** We detected major themes, subjects, and categories throughout the literature during the preliminary step, which involved open coding. This enabled the creation of a comprehensive inventory of technological tools, consumer responses, and marketing strategies evaluated in the sources.
- **Axial coding:** This step includes the exploration of linkages among distinct themes and categories. For instance, the impact of specific technological advancements such as augmented reality or interactive displays on consumer buying patterns and the incorporation of these innovations into visual communication tactics at the point of sale are examples.
- **Selective coding:** Ultimately, selective coding enabled the identification of the essential themes and structures pertinent to the study. This examined consumer engagement strategies, the impact of evolving technologies on shopping experiences, and the consequences for fashion enterprises.

2.4 Data analysis and interpretation

We analysed the literature-derived data to gain insights into the use of digital technologies in visual merchandising and their influence on customer engagement. The examination focuses on the technical applications that evaluate specific digital instruments and technologies, such as augmented reality (AR), virtual try-ons, and interactive displays, as they gradually integrate into fashion retail environments. We thoroughly evaluated the role of these technologies in enhancing the visual merchandising experience. Consumer conduct. We scrutinized customers' reactions to

these technologies, particularly in terms of engagement, purchase intentions, and loyalty. We investigated the influence of visual communication techniques, like digital signage and 3D displays, on consumer decision-making processes. Strategies employed by retailers: Fashion retailers employ technological advances to engage customers, enhance brand loyalty, and optimize the overall shopping experience. The study evaluated the ROI (return on investment) of these enhancements and their impact on store performance.

3. Results and Discussion:

3.1 The Application of Visual Merchandising in the Digital Age:

Visual merchandising is crucial within the wider context of marketing and marketing communication. It functions as a strategic instrument for identifying, controlling, modifying, and advertising items at the point of sale (POS). This complex field encompasses inside store layouts and displays, as well as exterior components including signage, shopfront design, and window displays. This approach cultivates an immersive retail experience that captivates and engages shoppers on both physical and emotional levels (**Sunny et al., 2023**). A primary responsibility of visual merchandising is to augment product exposure and attractiveness. Visual merchandising specialists use meticulously crafted layouts, colour palettes, illuminations, and product placements to enhance product visibility, thereby maximizing their appeal, increasing sales, and boosting turnover. This approach goes beyond the visual presentation of items; it is vital for sustaining the overarching brand image and strategy. Visual merchandising aligns the product assortment with the store's visual identity, effectively conveying the brand's narrative to the target audience (**Bazaki & Wanick, 2019**).

Moreover, visual merchandising is essential for overseeing the complete lifespan of a product in the retail setting. Visual merchandising offers a holistic strategy for retail management, encompassing the initial product placement and presentation, as well as the assessment of its success and consumer feedback. This ongoing evaluation enables marketing teams to modify the product's presentation to more effectively correspond with consumer preferences, market trends, and competition dynamics. Consequently, visual merchandise has emerged as an essential instrument for marketing teams, serving as a link between consumer behavior, product displays, and sales effectiveness (**Ifty et al., 2023a**). The advantages of proficient visual merchandising are numerous. It may substantially enhance sales by fostering a more captivating and compelling shopping experience that motivates consumers to complete transactions. Moreover, it enhances the brand image, augmenting brand awareness and loyalty (**Xu et al., 2019; Abnett, 2016**). Visual merchandising cultivates a unified and attractive in-store environment, therefore enhancing brand positioning and fostering a relationship between the customer and the brand. Moreover, visual merchandising fosters enhanced connections with suppliers, accelerates stock turnover, and promotes items with significant added value. Visual merchandising significantly contributes to client happiness by facilitating a smooth and pleasurable shopping experience. The meticulous

organization of merchandise and the general ambiance of the store foster a favourable retail environment that encourages repeat patronage and client loyalty. These encompass:

1. **Single-Row Stores:** Stores that arrange a specific category of merchandise, such as apparel, in a linear format.
2. **Proprietary Retail Outlets:** Places where the store's name adorns the merchandise, creating a cohesive brand experience.
3. **Restricted online retailers:** These retailers focus on catering to specific customers, such as jewellery shops or boutiques.
4. **Multi-Line Shops:** Department stores that provide a wide range of items, integrating both conventional and specialized retail selections.

In the digital age, the function of visual merchandising has gone beyond conventional in-store implementations. The proliferation of e-commerce and digital platforms has expanded visual merchandising to online businesses, necessitating that product displays, digital shopfronts, and interactive design features effectively capture and engage consumers (**Mehta & Chugan, 2013; Moniruzzaman et al., 2023**).

3.2 Augmented Reality Technologies:

Augmented Reality (AR) is a revolutionary technology that enriches a user's physical surroundings by overlaying computer-generated virtual information. This enhancement may be direct or indirect and transpires in real time. Augmented reality integrates actual and virtual elements, offering consumers a more immersive and participatory experience (**Ifty et al., 2023a**). Typically, it records in three dimensions (3D), enabling users to perceive virtual objects as an integral part of their physical surroundings. The interplay between virtual and actual worlds differentiates Augmented Reality (AR) from other immersive technologies like Virtual Reality (VR). Paul Milgram and Fumio Kishino's Reality-Virtuality Continuum delineates the range between entirely immersive virtual worlds and the physical world. One end of this continuum represents the real environment, while the opposite end signifies the pure virtual environment (VR). In the middle of this range, augmented reality is closer to the physical world, while augmented virtuality (AV), a related concept, is closer to the virtual realm. The main objective of AR is to streamline and improve the user experience by integrating virtual aspects into the real-world environment. These components may vary from static information to dynamic objects that dynamically respond to the user's activities (**Martin & Morich, 2011**).

In contrast to VR, which fully immerses viewers in a fabricated environment, AR enhances the actual world by superimposing digital material over it in real time. This interaction generates a composite perspective in which virtual things augment or complement the user's sense of reality. Augmented Reality (AR) may deliver digital overlays that furnish further information about items or locations that would otherwise be undetectable to human perception. In practical applications, this may entail assisting a technician with maintenance duties, such as presenting wiring diagrams

directly on an aircraft's components or superimposing directions on a street image for navigation. Augmented reality has many uses across several sectors. In healthcare, it facilitates medical visualization, enabling physicians to examine 3D scans or diagnostic data in real time during treatments. In entertainment, augmented reality facilitates interactive experiences that integrate virtual and physical environments, exemplified as location-based games and interactive advertising. It plays a crucial role in maintenance and repair, enabling personnel to obtain sequential visual guidance via AR interfaces, as well as in robotics, where it aids in job planning and execution by supplying spatial information. Three principal categories of augmented reality display technologies exist: head-mounted displays (HMDs), portable displays, and spatial displays. While HMDs provide a more immersive experience, handheld and spatial displays typically serve accessible, portable applications. The selection of a display type mostly hinges on the particular application and the degree of user engagement necessitated. Augmented reality technologies are continuously advancing, providing significant opportunities to enhance user experiences across several sectors, including daily activities, education, entertainment, and professional applications (**Touchette & Lee, 2017; Baldo et al., 2015**).

3.3 Innovative Technologies Implemented in Point of Sale (POS):

The fashion sector has led the integration of new technology into Point of Sale (POS) systems, notably through interactive displays and digital upgrades that uniquely engage customers. The emergence of these innovations is a reaction to the intensifying competitiveness of the market, where firms strive to distinguish themselves and provide unique, convenient, and engaging client experiences. Digital exhibitions were the initial manifestation of interactive POS technology. Fashion marketplaces, particularly in Japan and the United States, initiated these innovations by integrating physical retail spaces with digital technology to engage consumers and enhance the shopping experience (**Alam et al., 2023b**). An exemplary instance of this invention is Bloomingdale's in New York, which created an interactive display for trying on sunglasses without requiring entry inside the store. Customers line their faces with markers on a screen, activating facial recognition technology. This enables users to virtually try on several eyewear types, observing them from both frontal and lateral viewpoints. Should a buyer express satisfaction with a model, they may capture an image and transmit it immediately to an in-store sales representative for additional assistance. This technology facilitates an engaging experience while diminishing the friction associated with conventional buying, especially for those hesitant to engage in extended in-store browsing (**Sunny et al., 2021a**).

These technological advancements not only evoke interest among onlookers but also seek to provide a novel and captivating purchasing experience. These tactics target contemporary customers, who prioritize convenience and efficiency. These technologies provide product previews prior to shop entry, minimizing the work needed to locate and try items and therefore catering to a tech-savvy, time-sensitive clientele (**Cant & Hefer, 2012**).

Similarly, British fashion giant Burberry inaugurated an innovative concept shop in London in late

2012. The store, fully connected to the internet, incorporated a diverse array of digital and interactive visual merchandising techniques. A prominent aspect of the flagship shop was the implementation of interactive mirrors that offered clients further information regarding the things under consideration. The mirrors displayed details such as the product's production specifications, the drapeability of the fabric, the available color selections, and videos showcasing the item at fashion events. The mirrors used radio-frequency identification (RFID) technology, allowing them to engage with the displayed apparel. Upon client interaction with a garment, the implanted RFID chip would activate the mirror to showcase pertinent multimedia material, therefore enriching the customer's comprehension and affinity for the product.

The store boasted over one hundred displays and panels, showcasing business movies and digital information, all of which were also accessible online. The seamless integration of the physical store with the brand's online presence established an omnichannel purchasing experience that obscured the distinctions between traditional retail and e-commerce. During checkout, clients enjoyed an efficient digital payment system, obviating the necessity of queuing. These improvements signify an increasing trend in retail, wherein digital technologies enhance the conventional shopping experience, offering both ease and more brand interaction. These examples underscore the growing influence of emerging technology in transforming the shopping experience (**Carmigniani et al., 2011; Sampaio et al., 2017**). Through the integration of digital technologies, like interactive displays, RFID technology, and interconnected systems, fashion firms can provide consumers with a more personal, efficient, and immersive shopping experience. These developments aim to enhance the store's visual appeal while also facilitating a fluid and informative experience that addresses the contemporary shopper's requirements for both physical and digital interactions

3.4 Advanced Acoustic Environment in Retail: Augmenting Consumer Interaction

In the swiftly changing retail environment, incorporating technology into the consumer experience is essential for enhancing engagement and increasing sales. A new method that has garnered notice in the fashion business is the integration of a high-tech auditory environment into the shopping experience. The Gomus agency created the "One-to-One Experience" initiative for numerous fashion labels, serving as an exemplary instance of this. This experiment illustrates the powerful interplay between technology and sensory experiences that shapes customers' behaviors. The system functions using Radio Frequency Identification (RFID) technology, enabling clothing items to interact with their surroundings (**Khan, 2021**). The system integrates RFID tags into garment labels and positions RFID readers in the changing rooms. Upon a customer's selection of a clothing item and entry into the fitting room, the system identifies the garment and activates a tailored playlist that aligns with the selected style. The store meticulously curate's music from a repository of over 10,000 pieces across 16 musical genres to complement the atmosphere and look of the apparel. The store curate's music that aligns with the apparel's style, creating a personalized, immersive environment that enhances the customer's purchasing experience. This creative

auditory environment transcends just background music, fostering an emotional bond between the consumer and the business. The customized soundtrack significantly influences the customer's perceptions and emotions toward the merchandise. People have always recognized the impact of music on mood, motivation, and decision-making, which enhances the effectiveness of visual commerce. The experience transcends mere transactions; **(Sacco et al., 2011; Sorescu et al., 2011)** it engages the psychological and emotional dimensions of consumer behavior, especially among younger groups that frequently identify themselves based on their musical preferences and fashion choices. The "One-to-One Experience" initiative illustrates that music can be an effective instrument in establishing brand identity. Using sound to enhance the brand's identity and the collection's theme enables merchants to establish a deeper, more memorable connection with their customers. Furthermore, after completing a purchase, the system sends a follow-up SMS, giving the buyer the option to download the music they heard while putting on the apparel. This not only broadens the brand experience beyond the retail environment but also enhances client loyalty through a personalized approach. Fashion businesses can enhance the purchasing experience by integrating music, encouraging buyers to envision themselves wearing apparel in a social setting, immersed in an idealized atmosphere. This process, wherein music elicits feelings of desire and connection, significantly impacts purchasing decisions. This advanced auditory environment functions as an innovative method of visual marketing, integrating sensory components to captivate consumers on emotional, psychological, and social dimensions and thereby enhancing the shopping experience in the digital age **(Peng, 2021; Oliveira & Lutterbach, 2020)**.

3.5 Crowdsourcing:

Contemporary enterprises have progressively shifted from only selling items to generating value through consumer engagement and empowerment, with the objective of improving the whole customer experience. In the fashion business, several corporations have embraced crowdsourcing, a methodology that leverages the creativity and engagement of customers inside digital networks. Crowdsourcing entails employing both voluntary and motivated cooperation to provide solutions, create designs, collect information, and get client feedback. This strategy is most efficacious for organizations with robust reputations that are receptive to their audience's viewpoints **(Khan, 2021; (Jakhar et al., 2020)**.

Diverse channels facilitate the implementation of crowdsourcing, encompassing internet platforms, contests, feedback systems, and visual merchandising. C&A, a trailblazer in Brazil's retail industry, exemplified a crowdsourcing project inside its visual merchandising approach in 2012. The business launched computerized hangers equipped with "like" buttons for every garment. This enabled buyers to articulate their preferences, with the outcomes shown on the hangers instantaneously **(Cant & Hefer, 2012)**. The brand's Facebook fan page connected the data, facilitating more involvement and engagement. This unique approach produced significant consumer information and highlighted the potential of crowdsourcing to align product offerings with customer preferences. The campaign garnered notable acclaim, receiving four Bronze Lions

at the Cannes Festival and the esteemed World Retail Award in the Innovation Concept category, highlighting its influence on the worldwide retail sector (**Li et al., 2022; Muñoz-Leiva et al., 2021**)

3.6 Cyberquins

The phrase “Cyberquins” refers to the amalgamation of conventional static mannequins with cutting-edge technology, resulting in models that can replicate human motions. The English business ADM LTD has registered the concept since 2011, according to Me Consultoria. First embraced by the fitness industry, the use of cyberquins has proliferated into other fashion sectors due to its capacity to augment visual appeal and attract attention to retail displays. Roberts [37] presents another instance of technical advancement in mannequins, shown by the Italian firm Almax. Almax created mannequins using cameras integrated into their eye sockets, along with facial recognition technology. These mannequins can assess demographic attributes like the gender, age, and ethnicity of viewers while simultaneously monitoring gaze direction. This feature enables retailers to discern the most viewed goods and obtain swift insights into consumer preferences (**Fernandes & Morais, 2021; Kim et al., 2020**). For instance, Almax's Eye See mannequin revealed that children frequently observed a specific shop during the afternoon, which prompted the company to expand its selection of children's clothing. Another shop also analyzed data from these mannequins and identified a substantial percentage of consumers of Asian descent, leading to the recruitment of Chinese-speaking personnel to enhance service for this population. These instances illustrate how the use of technology in mannequins may provide significant customer information and improve retail tactics (**Boardman, Parker-Strak, & Henninger, 2020**).

3.7 Purchasing Experience and Its Association with Emerging Technologies in Visual Merchandising:

The use of technology in visual merchandising has profoundly influenced customer behavior and retail strategy, especially for Generation Y (Gen Y), who value distinctive and immersive shopping experiences. Conventional retail models have transformed to prioritize experiential retailing, integrating emotional and rational stimuli to provide immersive and distinct buying settings. Essential study findings emphasize the importance of hedonic and utilitarian incentives in customer behavior, with Generation Y preferring interactive, amusing, and visually engaging retail experiences. The implementation of modern technology, such as digital elements at points of sale (POS), is crucial for improving customization and attracting customer interest, especially with the rise of online shopping. Research highlights that the self-expressive characteristics of clothing and peer influence substantially affect the buying choices of Generation Y (**Bazaki & Wanick, 2019**). Cognitive elements like shop selection affect intended purchases, but the retail atmosphere and emotional conditions impact customer buying behaviour. The hedonic advantages linked to in-store shopping experiences substantially enhance customer motivation and frequency of purchases. Research indicates that consumers motivated by hedonic desires are more prone to impulsive purchases than utilitarian customers, who have a goal-oriented mindset and reduced

purchasing frequency (**Alam et al., 2023a**). Experiential retailing prioritizes establishing significant connections with consumers visiting physical businesses, focusing on interactions rather than just purchases. This method employs a comprehensive strategy for consumption by harnessing both emotional and rational stimuli to promote purchase behavior, catering to consumer aspirations for distinctive retail experiences, and involving customers beyond the mere items (**Mehta & Chugan, 2013; Martin & Morich, 2011**). Such encounters frequently act as differentiators, offering intangible value that sets one retailer apart from another.

Essential elements for enhancing sales conversions among Generation Y customers comprise direct product engagement, attentive sales personnel, and the capacity to share unique experiences with peers. Generation Y increasingly views shopping as a form of pleasure and an expression of their brand identity. The development of "distinctive and unforgettable experiences" frequently entails enhancing service interactions and integrating innovative, technology-based narrative methods akin to Disney's strategy. Sullivan and Heitmeyer assert that consumers are prepared to pay a premium for enhanced shopping experiences, regardless of whether they occur online or in physical stores. Experiential retailing, a novel method, integrates hedonic and utilitarian values using multimodal marketing techniques, serving as a crucial factor in consumer acquisition and retention. (**Xu et al., 2019; Abnett, 2016**).

Apparel shopping is a widely favoured recreational activity worldwide, commonly seen as a sociable and pleasurable endeavour. The self-expressive quality of clothing amplifies its significance to customers, who frequently link clothes to identity development and self-perception. This results in increased customer participation in the buying process, particularly among those aiming to refine their own style and express themselves. Nevertheless, obstacles remain, especially in areas such as Brazil, where enterprises sometimes perceive technology expenditures as costs rather than long-term prospects. The scarcity of trained people and a focus on cost reduction impede the implementation of modern retail systems. Effective tactics for technological integration encompass utilizing data analytics, implementing tailored "one-to-one marketing," and crafting memorable experiences to foster consumer trust and loyalty (**Touchette & Lee, 2017; Baldo et al., 2015**).

5. Conclusion

The advancement of technology has profoundly altered visual merchandising, reshaping customer engagement and retail strategy. Innovative technologies such as augmented reality, interactive displays, and data-driven personalization are essential for developing immersive retail experiences. These technologies improve consumer experience by incorporating emotional and cognitive cues, establishing relationships that extend beyond just transactions. Digital technologies are crucial in the fashion business for improving customer engagement, fostering brand loyalty, and influencing purchasing decisions. Generation Y sees shopping as a sociable and pleasurable activity, preferring interactive and visually stimulating retail environments. Technological

integrations such as virtual try-ons and augmented retail settings satisfy the pursuit of hedonic value and self-expression. Nonetheless, the deployment of these technologies poses hurdles, including expenses and a shortage of skilled labour in regions such as Brazil. Experiential shopping has become a revolutionary influence, employing multimodal marketing strategies to create unique consumer experiences. Data-driven personalization, including RFID, facial recognition, and augmented reality, may enhance store configurations, product selections, and promotional tactics. Innovative visual marketing transcends traditional retail techniques, allowing companies to differentiate themselves, expand their consumer base, and cultivate enduring loyalty. Future studies should investigate the extensive ramifications of these technologies and conduct longitudinal studies on the lasting impacts of digital visual merchandising on consumer satisfaction, loyalty, and sales efficacy.

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Author Contribution

Each author took involved in the creation of the study design, data analysis, fieldwork, and execution stages. Every writer gave their consent after seeing the final work.

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A statement of conflicting interests

The authors declare that none of the work reported in this study could have been impacted by any known competing financial interests or personal relationships.

5. References:

- Abnett, K. (2016). Fashion's fourth industrial revolution: The beginnings of a fundamental transformation in the way we create, communicate and consume fashion are already taking shape. *Fashion-Tech/BoF*. Retrieved October, 13, 2019.
- Alam, K., Jahan, N., Chowdhury, R., Mia, M.T., Saleheen, S., Hossain, N.M & Sazzad, S.A. (2023a). Impact of Brand Reputation on Initial Perceptions of Consumers. *Pathfinder of Research*, 1 (1), 1-10.
- Alam, K., Jahan, N., Chowdhury, R., Mia, M.T., Saleheen, S., Sazzad, S.A. Hossain, N.M & Mithun, M.H. (2023b). Influence of Product Design on Consumer Purchase Decisions. *Pathfinder of Research*, 1 (1), 23-36
- Augmented reality technologies, systems and applications. *Multimedia tools and applications*, 51, 341-377.
- Baldo, D., Parikh, H., Piu, Y., & Müller, K. M. (2015). Brain waves predict success of new fashion

- products: a practical application for the footwear retailing industry. *Journal of Creating Value*, 1(1), 61-71.
- Bari, K. F., Salam, M. T., Hasan, S. E., & Sunny, A. R. (2023). Serum zinc and calcium level in patients with psoriasis. *Journal of Knowledge Learning and Science Technology ISSN: 2959-6386 (online)*, 2(3), 7-14.
- Bazaki, E., & Wanick, V. (2019). Unlocking the potential of the salesperson in the virtual fitting room: Enhancing the online retail experience for fashion brands.
- Boardman, R., Parker-Strak, R., & Henninger, C. E. (2020). *Fashion buying and merchandising: The fashion buyer in a digital society*. Routledge.
- Cant, M. C., & Hefer, M. Y. (2012). Visual merchandising displays: wasted effort or strategic move? The dilemma faced by apparel retail stores. *Journal of Applied Business Research (JABR)*, 28(6), 1489-1496.
- Carmigniani, J., Furht, B., Anisetti, M., Ceravolo, P., Damiani, E., & Ivkovic, M. (2011).
- Chakma, S., Paul, A.K., Rahman, M.A., Hasan, M.M., Sazzad, S.A. & Sunny, A.R. (2022). Climate Change Impacts and Ongoing Adaptation Measures in the Bangladesh Sundarbans. *Egyptian Journal of Aquatic Biology and Fisheries*. 1;26(2):329-48.
- Europe, (2 (128), 8-12.
- Evans, C. (10). *Examples of Augmented Reality in Retail. Creative Guerrilla Marketing*.
- Fernandes, C. E., & Morais, R. (2021). A review on potential technological advances for fashion retail: smart fitting rooms, augmented and virtual realities. *dObra [s]–revista da Associação Brasileira de Estudos de Pesquisas em Moda*, (32), 168-186.
- Ifty, S.M.H, Bayazid, H., Ashakin, M.R., Tusher, M.I., Shadhin, R. H., Hoque, J., Chowdhury, R. & Sunny, A.R. et al. (2023b). Adoption of IoT in Agriculture - Systematic Review, *Applied Agriculture Sciences*, 1(1), 1-10, 9676
- Ifty, S.M.H., S.M., Ashakin, M.R., Hossain, B., Afrin, S., Sattar, A., Chowdhury, R., Tusher, M.I., Bhowmik, P.K., Mia, M.T., Islam, T., Tufael, M. & Sunny, A.R. (2023a). IOT-Based Smart Agriculture in Bangladesh: An Overview. *Applied Agriculture Sciences*, 1(1), 1-6. 9563, 10.25163/agriculture.119563
- Islam, M. R., Sunny, A. R., Sazzad, S. A., Dutta, A., Hasan, N., Miah, M. F., ... & Prodhan, S. H. (2023). Environmental Jeopardy and Coping Strategies of the Small-Scale Fishers in the Bangladesh Sundarbans: The Precedent of the World's Largest Mangrove. *Egyptian Journal of Aquatic Biology & Fisheries*, 27(6). Doi:10.21608/ejabf.2023.330198
- Jakhar, R., Verma, D., Rathore, A. P. S., & Kumar, D. (2020). Prioritization of dimensions of visual merchandising for apparel retailers using FAHP. *Benchmarking: An International Journal*, 27(10), 2759-2784.
- Kawaf, F., & Tagg, S. (2012). Online shopping environments in fashion shopping: An SOR based review. *The marketing review*, 12(2), 161-180.
- Khan, M. K. R. (2021). Online Visual Merchandising for Apparel & Fashion Industry.
- Kim, H. S., Lee, J. H., & Yoo, S. H. (2020). Is consumer neural response to visual merchandising types different depending on their fashion involvement?. *Plos one*, 15(12), e0241578.
- Kuddus, M. A., Alam, M. J., Datta, G. C., Miah, M. A., Sarker, A. K., & Sunny, M. A. R. (2021). Climate resilience technology for year round vegetable production in northeastern Bangladesh. *International Journal of Agricultural Research, Innovation and Technology*

- (*IJARIT*), 11(2355-2021-1223), 29-36.
- Kuddus, M. A., Datta, G. C., Miah, M. A., Sarker, A. K., Hamid, S. M. A., & Sunny, A. R. (2020). Performance study of selected orange fleshed sweet potato varieties in north eastern bangladesh. *Int. J. Environ. Agric. Biotechnol*, 5, 673-682.
- Kuddus, M. A., Sunny, A. R., Sazzad, S. A., Hossain, M., Rahman, M., Mithun, M. H., ... & Raposo, A. (2022). Sense and Manner of WASH and Their Coalition with Disease and Nutritional Status of Under-five Children in Rural Bangladesh: A Cross-Sectional Study. *Frontiers in Public Health*, 10, 890293.
- Li, P., Pan, M., Qu, H., & Wu, C. (2022). The effects of visual-audio merchandising elements on consumers' impulsive purchase intentions in apparel e-customization. *Textile Research Journal*, 92(23-24), 4678-4694.
- Martin, N., & Morich, K. (2011). Unconscious mental processes in consumer choice: Toward a new model of consumer behavior. *Journal of Brand Management*, 18(7), 483-505.
- Mehta, D. N., & Chugan, P. K. (2013). A Study of Consumer's Perception for Apparel Retail Outlets in Terms of Visual Merchandising in Ahmedabad. *New Perspectives in Marketing Communications*, Eds. Sanjay Jain, Jayesh Aagja, Ashwini K. Awasthi, Institute of Management, Nirma University, Himalaya Publishing House, Mumbai, 16-36.
- Moniruzzaman, Sazzad, S. A., Hoque, J., & Sunny, A. R. (2023). Influence of Globalization on Youth Perceptions on Changing Muslim Rituals in Bangladesh. *Pathfinder of Research*, 1 (1), 11-22.
- Muñoz-Leiva, F., Rodríguez López, M. E., Liebana-Cabanillas, F., & Moro, S. (2021). Past, present, and future research on self-service merchandising: a co-word and text mining approach. *European Journal of Marketing*, 55(8), 2269-2307.
- Oliveira, P. H. P., & Lutterbach, M. F. T. (2020). How visual merchandising can improve fashion retail stores to adapt themselves to next generations. *Independent Journal of Management & Production*, 11(6), 1991-2004.
- Peng, Q. (2021). A system of digital visual merchandising for innovative textiles and fashion.
- Sacco, M., Mottura, S., Greci, L., & Vigan, G. (2011). Institute of Industrial Technologies and Automation. *National Research Council, Italy*.
- Sampaio, J. P., Zonatti, W. F., Mendizabal-Alvarez, F. J. S., Rossi, G. B., & Baroque-Ramos, J. (2017). New technologies applied to the fashion visual merchandising. *Modern Economy*, 8(3), 412-429.
- Sazzad, S. A., Billah, M., Sunny, A. R., Anowar, S., Pavel, J. H., Rakhi, M. S., ... & Al-Mamun, M. A. (2023). Sketching Livelihoods and Coping Strategies of Climate Vulnerable Fishers. *Egyptian Journal of Aquatic Biology & Fisheries*, 27(4).
- Sorescu, A., Frambach, R. T., Singh, J., Rangaswamy, A., & Bridges, C. (2011). Innovations in retail business models. *Journal of retailing*, 87, S3-S16.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research* (Vol. 15). Newbury Park, CA: sage.
- Sunny, A. R., Alam, R., Sadia, A. K., Miah, Y., Hossain, S., & Mofiz, S. B. (2020). Factors affecting the biodiversity and human well-being of an ecologically sensitive wetland of North Eastern Bangladesh. *Journal of Coastal Zone Management*, 23(1), 471.
- Sunny, A. R., Hassan, M. N., Mahashin, M., & Nahiduzzaman, M. (2017). Present status of hilsa

- shad (*Tenualosa ilisha*) in Bangladesh: A review. *Journal of Entomology and Zoology Studies*, 5(6), 2099-2105.
- Sunny, A. R., Hoque, J., Shadhin, R. H., Islam, M. S., Hamid, M. A., & Hussain, M. 2023. Exploring the Socioeconomic Landscape of Dependent Communities in Hakaluki Haor. *Pathfinder of Research*. 1 (1), 37-46
- Sunny, A. R., Mithun, M. H., Prodhan, S. H., Ashrafuzzaman, M., Rahman, S. M. A., Billah, M. M., ... & Hossain, M. M. (2021a). Fisheries in the context of attaining Sustainable Development Goals (SDGs) in Bangladesh: COVID-19 impacts and future prospects. *Sustainability*, 13(17), 9912.
- Sunny, A. R., Reza, M. J., Chowdhury, M. A., Hassan, M. N., Baten, M. A., Hasan, M. R., ... & Hossain, M. M. (2022). Biodiversity assemblages and conservation necessities of ecologically sensitive natural wetlands of north-eastern Bangladesh. *Indian Journal of Geo-Marine Sciences (IJMS)*, 49(01), 135-148.
- Sunny, A. R., Sazzad, S. A., Prodhan, S. H., Ashrafuzzaman, M., Datta, G. C., Sarker, A. K., ... & Mithun, M. H. (2021b). Assessing impacts of COVID-19 on aquatic food system and small-scale fisheries in Bangladesh. *Marine policy*, 126, 104422.
- Touchette, B., & Lee, S. E. (2017). Measuring neural responses to apparel product attractiveness: an application of frontal asymmetry theory. *Clothing and Textiles Research Journal*, 35(1), 3-15.
- Xu, J., Cui, Y., Wu, Q., Zhang, J., Zhang, C. X., Haibo, L. I. U., & Fang, K. (2019). *U.S. Patent No. 10,373,244*. Washington, DC: U.S. Patent and Trademark Office.