

The Adaptation of Fashion Business through Sustainable Visual Merchandising & Display (VMD) and Omnichannel Strategies in the Digital Era

Siratcha Samleethong¹, Chanoknart Mayusoh² and Thanaphan Boonyarutkalin³

^{1,2} Department of Fashion Design, Faculty of Fine and Applied Arts Suan Sunandha Rajabhat University

³ Faculty of Liberal Arts Program Chair of MED. in Fine Arts, (APC), Shinawatra University

E-mail: ¹siracha.sa@ssru.ac.th ²chanoknart.ma@ssru.ac.th ^{*3}Thanaphan.b@siu.ac.th

^{*3}(Corresponding author)

Abstract

This research investigates the adaptation of fashion businesses to the digital era through sustainable visual merchandising and display (VMD) and omnichannel strategies. The study aims to identify sustainable VMD practices, analyze the integration of omnichannel approaches, and evaluate their impact on business performance and customer engagement. A mixed-method approach was employed, combining qualitative and quantitative research. Data collection included interviews with 10 fashion company professionals, case studies of 3 sustainable fashion brands, and an online survey of 100 consumers.

Key findings indicate that sustainable VMD practices, such as the use of recycled materials, energy-efficient lighting, and virtual displays, enhance brand reputation while aligning with environmental goals. Omnichannel strategies, including seamless online-offline integration and personalized digital tools like AR/VR, significantly improve customer experience and retention. These approaches collectively boost sales and operational efficiency, although challenges, such as high implementation costs, were identified.

This study provides actionable insights into sustainable and innovative strategies for fashion businesses to thrive in the competitive digital era

Keywords: Sustainable VMD, Omnichannel Strategies, Fashion Business, Digital Transformation, Customer Experience

1. Introduction

The fashion industry is undergoing a profound transformation as it navigates the dual pressures of sustainability and digital innovation. As global concerns over environmental impact grow, consumers and businesses alike are prioritizing practices that promote ecological responsibility. This shift has prompted the integration of sustainable principles into visual merchandising and display (VMD), which traditionally focused on attracting and engaging customers through creative and visually appealing retail presentations (Sadachar, A., Konika, K., & Chakraborty, S., (2022)). Sustainable VMD redefines these strategies by incorporating eco-friendly materials, reducing waste, and designing displays that align with ethical and environmental standards.

Simultaneously, the rise of digital technology has revolutionized consumer behavior, with shoppers demanding seamless experiences across multiple channels. Omnichannel strategies have emerged as a vital approach for fashion brands to meet these expectations. by connecting physical stores, e-commerce platforms, and digital touchpoints, omnichannel strategies provide a unified customer journey that blends convenience, personalization, and engagement. These strategies are particularly crucial in the digital era, where the boundaries between online and offline shopping experiences continue to blur (Vinoth, S., & Srivastava, N., 2024).

This research explores the intersection of sustainable VMD and omnichannel strategies in the fashion business, emphasizing their role in addressing the challenges and opportunities of the digital era. by integrating sustainability into VMD and leveraging omnichannel capabilities, fashion brands can enhance customer satisfaction, foster loyalty, and achieve long-term success while contributing to environmental preservation (Bhutto, S. M. S. Z. A., 2024). This paper aims to analyze the adaptation of fashion businesses through these innovative strategies, offering insights into how they can remain competitive and relevant in a rapidly evolving marketplace.

Figure 1: the principles of Visual Merchadising & Display
(1.Merchandise 2.Display Area 3.Prop 4.Lighting 5.Show Card)



Source: Martin M.Pegler.(1998).

*Figure 2 : The importance of visual merchandising.
(1.Interested 2.Like + Want 3.Choose to buy)*



Source: <https://1.bp.blogspot.com>.

1.1 Research Objective

1. To analyze the role of sustainable visual merchandising and display (VMD) in enhancing brand image and reducing environmental impact within the fashion industry.
2. To explore the effectiveness of omnichannel strategies in creating seamless customer experiences and driving business growth in the digital era.
3. To identify best practices for integrating sustainable VMD and omnichannel approaches, enabling fashion businesses to remain competitive and align with contemporary consumer expectations.

2. Body of paper

2.1 Methodology

This research adopts a qualitative approach to explore the adaptation of fashion businesses through sustainable visual merchandising and display (VMD) and omnichannel strategies in the digital era. The following methods will be employed.

2.1.2 Literature review, relevant academic articles, industry reports, and case studies will be analyzed to provide a theoretical foundation and identify best practices in sustainable VMD and omnichannel strategies.

2.1.3 In-depth interviews, interviews will be conducted with key stakeholders, including fashion brand managers, visual merchandisers, and digital marketing experts. These interviews aim to understand the implementation, challenges, and benefits of adopting sustainable VMD and omnichannel strategies.

2.1.4 Case study analysis, an analysis of fashion brands successfully integrating sustainable VMD and omnichannel approaches will be conducted. This will highlight real-world applications and innovative practices.

2.1.5 Thematic analysis, thematic analysis will be used to identify common themes and insights related to sustainability, customer engagement, and business adaptation strategies.

2.2 Research Results

The study involved data collection, interviews with 10 fashion company professionals, case studies of 3 sustainable fashion brands, and an online survey of 100 consumers. The findings can be summarized as follows.

2.2.1 Current practices in sustainable visual merchandising and display (VMD), fashion businesses are increasingly integrating sustainable principles into VMD to meet consumer demands and environmental goals. Key findings include.

2.2.1.1 Eco-friendly materials, retailers are shifting toward using biodegradable and recycled materials for in-store displays. For instance, one brand introduced recycled wooden mannequins and LED lighting in its flagship stores, reducing energy consumption by 40% annually.

2.2.1.2 Virtual displays, digital technologies such as augmented reality (AR) and virtual storefronts have been adopted to minimize physical waste. For example, AR window displays have allowed customers to interact virtually, resulting in a 25% increase in foot traffic during seasonal campaigns.

Figure 3-4 : showcasing recycled wooden mannequins, sustainable materials, and LED lighting, along with a digital AR fashion display.



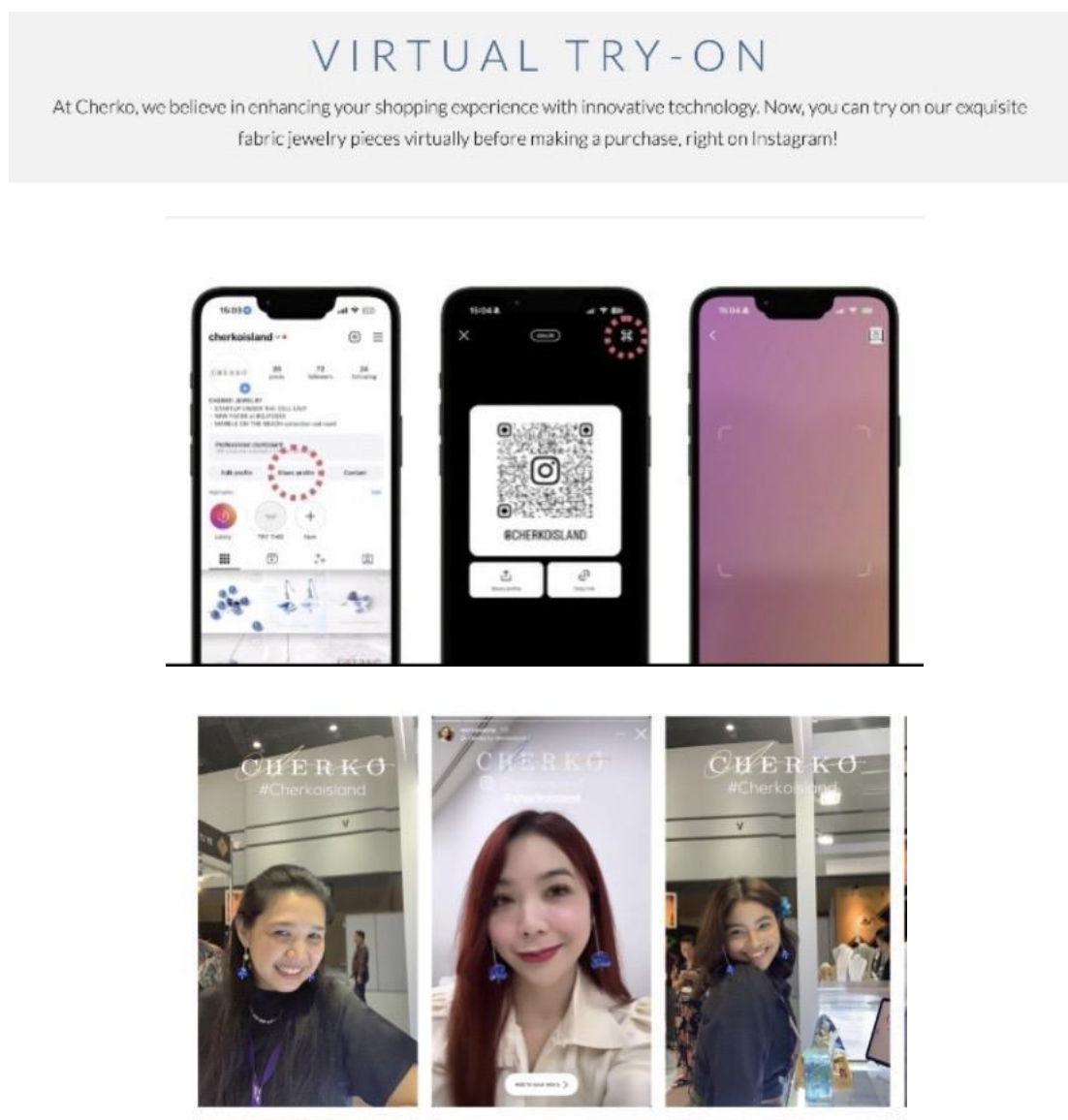
Source: Author team (2024), <https://www.pexels.com>.

2.2.2 The adoption of omnichannel strategies has significantly improved customer experiences and operational efficiency.

2.2.2.1 Seamless integration, retailers offering integrated shopping experiences across physical and digital platforms have seen measurable success. A “buy online, pick up in-store” system, for example, increased customer retention by 30%.

2.2.2.2 Personalization, advanced technologies, such as AI-driven product recommendations and virtual try-on tools, have significantly enhanced online shopping experiences. These tools have also reduced online return rates by 20% through the implementation of virtual fitting rooms. For example, the brand Cherkoisland, a jewelry brand, has implemented a virtual try-on app, allowing customers to try on jewelry, such as earrings, through the app to assess their suitability. As shown in the following image,

Figure 5 : Virtual Try-On Filters by cherkoisland innovativejewelry.



Source: Author team (2024), <https://www.cherko.com/virtual-try-on>.

2.2.3 Challenges and opportunities in sustainable VMD and omnichannel integration Despite notable progress, businesses face several challenges in adopting sustainable VMD and omnichannel strategies.

2.2.3.1 High investment costs, the upfront investment required for sustainable displays and advanced omnichannel systems can be prohibitive for small and medium enterprises (SMEs).

2.2.3.2 Knowledge gaps, many organizations lack the expertise needed to implement sustainable VMD or omnichannel strategies effectively. Collaborations with industry consultants have been crucial for overcoming these challenges.

3. Discussion

The findings of this study provide critical insights into how fashion businesses are adapting to sustainability challenges and leveraging omnichannel strategies in the digital age. Each objective addressed offers a unique perspective on the evolving landscape of the fashion industry.

3.1 The impact of sustainable VMD Practices, the results underscore the growing importance of sustainability in visual merchandising and display (VMD). Retailers implementing eco-friendly materials, such as recycled wood mannequins and biodegradable props, not only reduce their carbon footprint but also align with the increasing consumer demand for ethical practices. The reduction in energy consumption through LED lighting and augmented reality (AR)-based virtual displays has proven to enhance both brand perception and operational efficiency (**Hsiang et al., 2022**). These findings are consistent with prior research indicating that consumers are more likely to engage with brands demonstrating clear environmental responsibility. For instance, one case study revealed that a retail brand experienced a 25% increase in foot traffic and a 15% rise in sales after adopting sustainable VMD strategies.

3.2 The role of omnichannel strategies in enhancing customer engagement, omnichannel strategies significantly enhance customer experience by offering seamless integration across physical and digital platforms. The study revealed that businesses utilizing technologies such as AI-driven personalized recommendations and AR/VR for virtual try-ons effectively cater to the modern consumer's need for convenience and personalization. These strategies not only drive online engagement but also encourage in-store visits, creating a mutually reinforcing cycle of sales across channels. The integration of inventory management tools, which provide real-time updates across physical and online stores, emerged as a critical factor in maintaining customer satisfaction and operational efficiency (**Kondo & Vicente, 2023**). This aligns with existing literature, emphasizing the value of omnichannel approaches in reducing cart abandonment rates and improving conversion rates.

3.3 Challenges and opportunities in sustainable and omnichannel integration, the study identifies several challenges faced by fashion businesses in adopting sustainable VMD and omnichannel strategies.

3.3.1 High costs, the upfront investment required for sustainable materials and advanced omnichannel systems can be prohibitive for small and medium enterprises (SMEs).

3.3.2 Knowledge gaps, many organizations lack the expertise needed to execute sustainable VMD or omnichannel strategies effectively. Collaborations with industry consultants have been crucial in overcoming these barriers.

However, these challenges also present opportunities for innovation. Collaborating with local communities and suppliers to source sustainable materials can reduce costs while strengthening brand authenticity. Furthermore, investments in digital transformation, supported by government incentives or industry partnerships, can help overcome financial and technical constraints.

3.4 Broader implications and future directions, the findings suggest that adopting sustainable VMD and omnichannel strategies not only addresses immediate business needs but also contributes to long-term brand resilience. Fashion businesses that embrace these approaches are better positioned to navigate regulatory changes, shifting consumer preferences, and global sustainability goals.

Figure 6-8 : Sustainable VMD and Omnichannel Strategies guideline



Source: Author team (2024), <https://www.pexels.com>.

4. Conclusion

This study demonstrates that the adaptation of sustainable visual merchandising (VMD) and omnichannel strategies is essential for the fashion industry's success in the digital era. Sustainable VMD practices, such as the use of eco-friendly materials and energy-efficient technologies, not only reduce environmental impact but also align with evolving consumer expectations. Similarly, omnichannel strategies enhance customer experiences by seamlessly integrating physical and digital platforms, driving engagement and sales.

Despite challenges such as high costs and technical complexities, these approaches present significant opportunities for innovation and long-term growth. The findings suggest that adopting sustainable VMD and omnichannel strategies addresses immediate business needs while also contributing to long-term brand resilience. Fashion businesses that embrace these strategies are better positioned to navigate regulatory changes, shifting consumer preferences, and global sustainability goals.

Future research could explore the role of emerging technologies, such as blockchain for supply chain transparency, or the impact of generative AI on enhancing customer engagement. In conclusion, the adaptation of sustainable VMD and omnichannel strategies offers a pathway for fashion businesses to thrive in the digital era while addressing critical environmental and social challenges (Akhilendra & Aravendan, 2023). By aligning with consumer values and

leveraging innovative technologies, the industry can create a more sustainable and customer-centric future.

5. Acknowledgment

The research team wishes to convey heartfelt gratitude to Suan Sunandha Rajabhat University and the Faculty of Fine and Applied Arts for their invaluable support in facilitating this research project. We extend our sincere thanks to everyone who contributed to the success of this research. Your participation played a crucial role in achieving the objectives.

References

- Akhilendra, S. P., & Aravendan, M. (2023). *A review on apparel fashion trends, visual merchandising and fashion branding*. *Intelligent Information Management*, 15(3), 120-159.
- Bhutto, S. M. S. Z. A. (2024). *Sustainability in business management: Strategies for long-term success*. *Journal for Business Research Review*, 2(1), 39-50.
- Hsiang, E. L., Yang, Z., Yang, Q., Lai, P. C., Lin, C. L., & Wu, S. T. (2022). *AR/VR light engines: Perspectives and challenges*. *Advances in Optics and Photonics*, 14(4), 783-861.
- Kondo, K., & Vicente, Â. J. B. (2023). *The coordination imperative: A comprehensive approach to align customer demand and inventory management for superior customer experience in retail* (Doctoral dissertation, Massachusetts Institute of Technology).
- Martin M.Pegler.(1998). *Visual merchandising & display*, fairchild publications,NewYork.98.
- Sadachar, A., Konika, K., & Chakraborty, S. (2022). *The role of sustainable visual merchandising practices in predicting retail store loyalty*. *International Journal of Fashion Design, Technology and Education*, 15(3), 257-266.
- Taechit Cheuypoung. (2024). *Media design project to promote and convey the story of silk in the culture of the lower northeastern provinces (Nakhonchai Burin Group)*.*Art Pritas Journal*, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, 12(2), 76–89.
- Vazquez, D., Cheung, J., Nguyen, B., Dennis, C., & Kent, A. (2021). *Examining the influence of user-generated content on the fashion consumer online experience*. *Journal of Fashion Marketing and Management: An International Journal*, 25(3), 528-547.
- Vinoth, S., & Srivastava, N. (2024). *Unveiling the power of omni-channel retail strategies. In Augmenting retail reality, Part B: Blockchain, AR, VR, and AI* (pp. 85-112). Emerald Publishing Limited.