

Effective Presentation of Apparel Products on Ecommerce Platforms

Sushant T Eapen

Symbiosis Institute of Operations Management, Nashik, Symbiosis International (Deemed University), Pune, India

sushant.eapen@siom.in

ABSTRACT

Ecommerce platforms rely heavily on virtual product experience (VPE) to convey product information to online shoppers. Various digital imaging and product presentation techniques are used to enhance the shopping experience. In the past, shoppers relied heavily on showrooms trials to decide on the purchase of apparel products. When selling online, apparel ecommerce platforms need to pick the right presentation value of the options. Experts in photography, digital content creation and website designing are probed to quantify the efforts involved in bringing these options to the shoppers. The research used a value-complexity framework to analyse the options and prioritise them. The results bring out the product presentation options that should be preferred by brands and platforms when they offer apparel products online.

Keywords

ecommerce, product presentation, customer experience, apparel, online shopping, virtual product experience

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

Introduction

Virtual product experience is key to converting online shoppers that land on product pages to customers (Li, Daugherty, & Biocca, 2002). It has been found that product categories with images have higher sales (Davis & Khazanchi, 2008). Photos on ecommerce platforms drive sales by convincing shoppers about the suitability of products to their needs. Other than product ratings, product description and customer feedback, customers depend heavily on the images of the products to decide on the purchase. The number of images and ways in which sellers use them to convey various product features and information differ across ecommerce platforms and product categories (Di, Sundaresan, Piramuthu, & Bhardwaj, 2014).

Product presentation is used to attract the users to various products and convey details about the products (Hise & Szymanski, 2000). Shoppers usually check similar products and use images to develop an understanding about the product. The ecommerce shoppes want to see the product, understand its features and decide to purchase it or not. Shoppers that land on a product page do not purchase if they are not convinced about the fitment of the product to their needs. There are various ways to display apparel products starting from flat product photographs to usage of augmented reality trials. While methods like augmented reality (Caboni & Hagberg, 2019) and 3D rotatable images give an enhanced experience to the shopper (Hewawalpita & Perera, 2017), the complexity involved in setting up these features for all apparel products can be higher. There is a playoff between the shopper experience that ecommerce platforms want to offer and complexity of setting up the experience when sellers offer products online.

This study is limited to the use of images and interactive methods for visual information on individual product pages of ecommerce platforms. Presenting the right set of images and methods to create the best virtual product experience is a key challenge for all ecommerce companies.

Literature Review

The importance of designing product photos to increase sale was analysed by (Huosong Xia, 2020) to find the influence of various elements of a product photograph on product sales. (Riegelsberger, Sasse, & McCar, 2003) showed how photos of people increases the ecommerce website and customer trust. (McCormick & Livett, 2012) identified the product presentation elements on apparel websites that help the interaction between the consumer and the products. According to them, the consumer behaviour and decision-making process is influenced by product viewing and information about the product.

Purchasing decisions are affected by the method of product presentation, including product description, static product photos, and virtual product experiences such as videos and augmented reality interactions. Product images are an important factor in decision-making while shopping online. Images can be used to convey important product information as well as create a virtual product experience (VPE) to enhance customers' intentions to purchase (Algharabat, 2014).

Various elements of product photos from the aspects of information and aesthetics were explored by (Li, Wang, & Chen, 2014). They found that consumers prefer high contrast product photos with a larger key object.

(Di, Sundaresan, Piramuthu, & Bhardwaj, 2014) analysed the effect of product images on dimensions including product categories, user segments and conversion rate. The image quantity and quality have been found to effectively raise product sales. They found that increasing the number of images per product can provide a better visual representation. (Salsify, 2019) found that the shopper expectations for rich media like high quality photos and videos have multiplied after 2016.

3D product presentations present the shoppers with the opportunity to interact closely with the product. 3D rotatable photos are being used widely in ecommerce as the technology required for setting this up has become widely

available and cheaper. (Moritz, 2010) found that 3D product presentations useful when the product has customisable features.

Images with human models using the product have been found to yield greater product choice and purchase intention than pictures without a human model (Bagatini, Rech, & Wagner, 2019). It was also shown that self-image acts as a mechanism which promotes greater purchase intention. According to (Houston, 2020), with technological advancements, virtual photographs have become very realistic and its difficult to distinguish between product photos shot in a studio setting and the virtual rendering.

Augmented Reality (AR) is widely used on ecommerce platforms to give an enhanced virtual product experience. AR integrates computer-generated images to a physical environment of the user. Consumers cannot physically touch or see the products when they shop apparel products online. Virtual trials through augmented reality has been able to bridge this gap to an extent. Customer experience with virtual try-on using the AR technology vs. physical try-on was compared by (Chung, Shin, & Baytar, 2020). Compared to physical try-on, the color and size of apparels were conveyed accurately with AR.

According to (Yaskevich, 2018), implementing augmented reality solution for ecommerce involves more time and effort. (Abed, 2018) highlighted various challenges while implementing augmented reality in ecommerce including content management, display device and user challenges. (Go Media Inc., 2013) lists various challenges involved in product photography such as preparation of the product, volume of products and aesthetic factors.

The value vs complexity prioritization technique as explained by (Pavel, 2020), can be used to evaluate options based on their value and relative complexity to implement. This technique is commonly used by product managers. The value score and complexity score for each method is evaluated and the options are plotted on the prioritization matrix.

Methodology

Step 1: The use of product presentation methods to create a virtual product experience for apparel products on Ecommerce platforms were analysed. We conducted secondary research to understand the ways in which apparel products can be presented to the shoppers to create a virtual product experience. Various methods in which the products can be presented to the shoppers are

Table 1: Product presentation methods for apparels on ecommerce platforms

Product presentation methods	Reference
Virtual images	(Houston, 2020)
3D rotatable photos	(Moritz, 2010)
Photos with size and feature reference and labels	(Butcher, n.d.)
Video of the product	(Oru's, Gurrea, & Flavia'n, 2017)
Product photos with models/environment	(Bagatini, Rech, & Wagner, 2019)
Product photos by manufacturer or seller	(Dai, Viken, Joo, & Bente, 2018)
Augmented reality trial	(Chung, Shin, & Baytar, 2020)

Step 2: Based on the product presentation options for apparel ecommerce platforms, identified through existing literature, a questionnaire was created for shoppers in the age group of 18-32 years. This particular age group was selected to include both the generation Y and generation Z (Gherini, 2018), (Miller & Lu, 2018). They were asked to rate the options based on the value the options deliver to the shoppers on a scale of 10. The respondents were asked to take into consideration the virtual product experience, ease of usage, information conveyed to mark scores for the perceived d of the options.

Step 3: For the product presentation options identified, a questionnaire was created for product photographers, image editing professionals and web designers to gauge the complexity involved in capturing, editing, hosting the options on Ecommerce platforms. They were asked to rate the options selected based on the complexity involved in bringing them to the users on a scale of 10. The respondents were asked to take into consideration the costs involved, development hours, risks, training and skills required for implementation of the selected product presentation options for large number of apparel products on the ecommerce websites.

Data Analysis

Of the 400 subjects that participated in this experiment, 260 (65%) were males and 140 (35%) were females. The average age of the participants was 26.24 (SD=1.31). 64% of participants were shoppers who bought at least one item every month from ecommerce platforms.

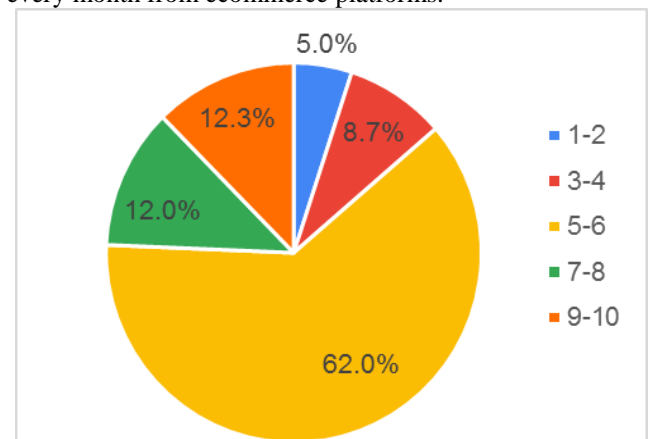


Figure 1: Preference to number of images/presentations per product

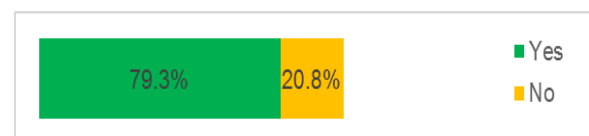


Figure 2: Preference to view product video

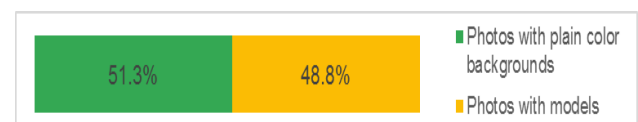


Figure 3: Preference to photos with plain background and models

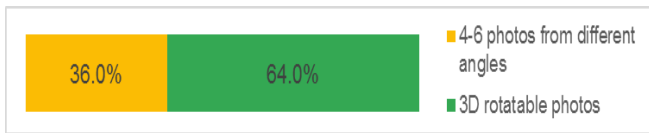


Figure 4: Preference to exploring the product

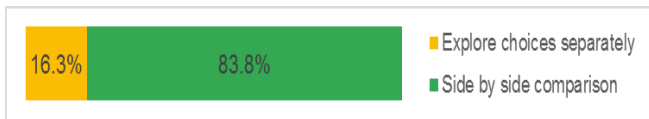


Figure 5: Preference to viewing custom product choices

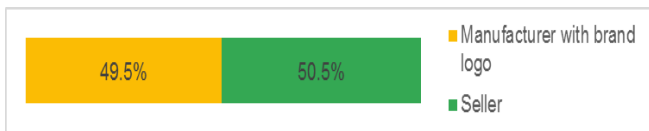


Figure 6: Preference of source of images

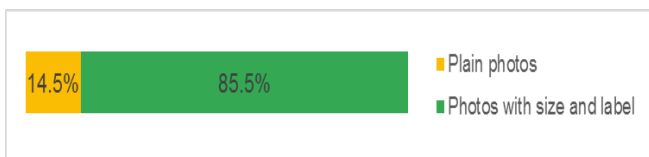


Figure 7: Preference of markings on images

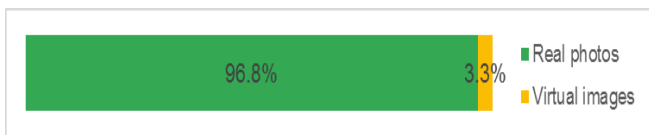


Figure 8: Preference to real photos and virtual images

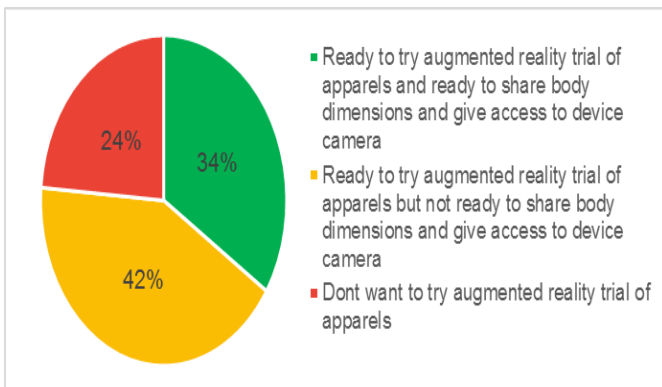


Figure 9: Preferences to using augmented reality trial of apparels

The perceived value for the product presentation options by the shoppers and complexity of implementation by experts were obtained from the survey. The average value for the options were taken to create the value-complexity matrix.

Table 2: Perceived value and complexity of presentation methods

Product presentation method	Average perceived value by shoppers	Average complexity in implementation
Photos from manufacturer with brand logo [A1]	8.79	8.61
Photos captured by seller [A2]	8.62	8.23

3D rotatable images for 360-degree view of product [A3]	9.15	9.06
3-4 images from different angles for complete view of product [A4]	8.80	8.56
Images with models (taken in user environment like home, office, outdoors etc.) [A5]	8.38	8.32
Side by side comparison of custom product options like colors using photos [A6]	8.91	8.64
Photos with plain background colors [A7]	8.26	8.21
Images with size markings and labels [A8]	9.03	8.63
Augmented reality trial of apparels [A9]	8.54	8.92
Video of the product [A10]	8.83	8.56

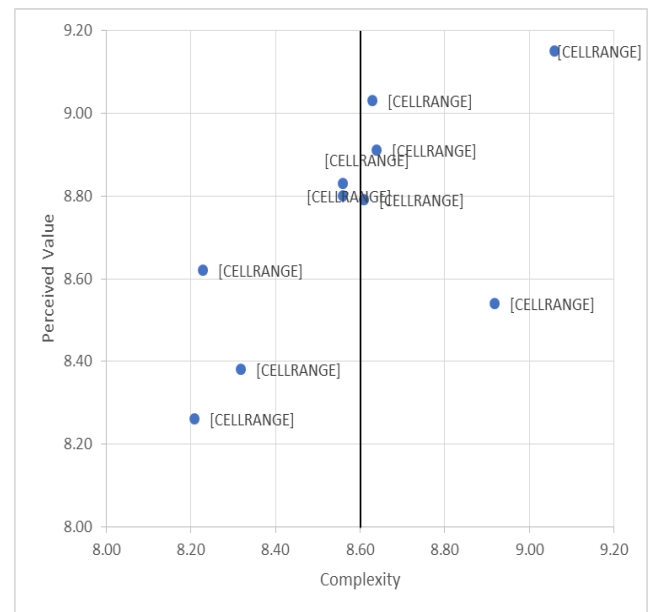


Figure 10: Value vs complexity prioritization matrix for product presentation methods

Results And Conclusions

The most suitable ways of product presentation of apparels for ecommerce were identified and comparisons were made to understand the preference of the shoppers. The preferred set of digital content for the best virtual product experience for apparel products on ecommerce platforms identified through the research are:

- 5-6 images or interactive elements per product
- Flat photos with models
- Side by side comparison of custom product options like colors
- Real studio photos are preferred over computer rendered virtual images

- 3D rotatable photos for exploring the product
- 20 second product video
- Augmented reality trial

A2, A4, A10 are the high value low complexity options.

A1, A3, A6, A8 are the high value high complexity options.

A5, A7 are the low value low complexity options.

A9 is the low value high complexity options.

As suggested in prior research (Jiang, 2007), there is a higher perceived value for product presentation options like video and augmented reality. The preference of shoppers for similar product presentation option have been brought out. This study extends the existing literature by providing a product design approach for apparel product presentation on ecommerce platforms. The findings from the value-complexity framework can be used by ecommerce platforms when adding new presentation features to their websites and apps. The research was limited to particular age group and for apparel products. Other product categories and age groups should be surveyed to generalise the findings.

References

- [1] Abed, S. S. (2018). Opportunities and Challenges of Augmented Reality Shopping in Emerging Markets. In S. S. Abed, Emerging Markets from a Multidisciplinary Perspective (pp. 107-117).
- [2] Algharabat, R. S. (2014). Conceptualising and modelling virtual product experience for online retailers. *Int. J. Internet Marketing and Advertising*, Vol. 8, No. 4.
- [3] Bagatini, F. Z., Rech, E., & Wagner, R. (2019). Human model pictures in e-commerce: exploring the effect of self-image on product choice and consumers' purchase intention. *CLAV - Congresso Latino-Americano de Varejo e Consumo*.
- [4] Butcher, S. (n.d.). How To Reduce Returns: 8 Ways to Decrease Return Orders in Fashion. Retrieved from Sendcloud: <https://www.sendcloud.com/reduce-returns-in-fashion/>
- [5] Caboni, F., & Hagberg, J. (2019). Augmented reality in retailing: a review of features, applications and value. *International Journal of Retail & Distribution Management*, Vol. 47 No. 11, 1125-1140.
- [6] Chung, T., Shin, E., & Baytar, F. (2020). Evaluating garments in augmented reality. *Journal of Fashion Marketing and Management*.
- [7] Dai, Y., Viken, G., Joo, E., & Bente, G. (2018). Risk Assessment in E-Commerce: How Sellers' Photos, Reputation Scores, and the Stake of a Transaction Influence Buyers' Purchase Behavior and Information Processing. *Computers in Human Behavior*.
- [8] Davis, A., & Khazanchi, D. (2008). An Empirical Study of Online Word of Mouth as a Predictor for Multi-product Category e-Commerce Sales. *Electronic Markets*, 18:2, 130-141.
- [9] Di, W., Bhardwaj, A., Jagadeesh, V., Piramuthu, R., & Churchill, E. (2014). When relevance is not Enough: Promoting Visual Attractiveness for Fashion E-commerce.
- [10] Di, W., Sundaresan, N., Piramuthu, R., & Bhardwaj, A. (2014). Is a Picture Really Worth a Thousand Words? - On the Role of Images in E-commerce. *WSDM '14: Proceedings of the 7th ACM international conference on Web search and data mining*, (pp. 633-642).
- [11] Gherini, A. (2018, August 22). Gen-Z Is About to Outnumber Millennials. Here's How That Will Affect the Business World. Retrieved from Inc.: <https://www.inc.com/anne-gherini/gen-z-is-about-to-outnumber-millennials-heres-how-that-will-affect-business-world.html>
- [12] Go Media Inc. (2013, November 11). The Challenges and Rewards of Product Photography. Retrieved from Go Media Inc.: <https://gomedia.com/zine/insights/the-challenges-of-product-photography/>
- [13] Hewawalpita, S., & Perera, I. (2017). Effect of 3D Product Presentation on Consumer Preference in E-Commerce. *2017 Moratuwa Engineering Research Conference (MERCon)*, (pp. 485-490).
- [14] Hise, R. T., & Szymanski, D. M. (2000). E-Satisfaction: An Initial Examination. *Journal of Retailing*, 76, 309-322.

- [15] Houston, B. (2020, February 5). Virtual Photography: The Future of eCommerce Product Images. Retrieved from Threekit Inc: <https://www.threekit.com/blog/virtual-photography-the-future-of-ecommerce-product-images>
- [16] Huosong Xia, X. P. (2020). Creating the best first impression: Designing online product photos to increase sales. *Decision Support Systems*.
- [17] Jiang, Z. &. (2007). Jiang, Z., & Benbasat, I. (2007). The Effects of Presentation Formats and Task Complexity on Online Consumers' Product Understanding. *MIS Quarterly*, 31(3), 475-500.
- [18] Li, H., Daugherty, T., & Biocca, F. (2002). Impact of 3-D Advertising on Product Knowledge, Brand Attitude, and Purchase Intention: The Mediating Role of Presence. *Journal of Advertising*, 31:3, 43-57.
- [19] Li, X., Wang, M., & Chen, Y. (2014). The Impact Of Product Photo On Online Consumer purchase Intention: An Image-Processing Enabled Empirical Study. *PACIS 2014 Proceedings*. 325.
- [20] McCormick, H., & Livett, C. (2012). Analysing the influence of the presentation of fashion garments on young consumers' online behaviour. *Journal of Fashion Marketing and Management*, Vol. 16 Iss 1, 21-41.
- [21] Miller, L. J., & Lu, W. (2018, August 20). Gen Z Is Set to Outnumber Millennials Within a Year. Retrieved from Bloomberg: <https://www.bloomberg.com/news/articles/2018-08-20/gen-z-to-outnumber-millennials-within-a-year-demographic-trends>
- [22] Moritz, F. (2010). Potentials of 3D-Web-Applications in E-Commerce - Study about the Impact of 3D-Product-Presentations. 9th IEEE/ACIS International Conference on Computer and Information Science.
- [23] Oru's, C., Gurrea, R., & Flavia'n, C. (2017). Facilitating imaginations through online product presentation videos: effects on imagery fluency, product attitude and purchase intention. *Electronic Commerce Research*, 17(4), 661-700.
- [24] Pavel. (2020). Value vs Cost and Value vs Complexity | Hygger University. Retrieved from Hygger University: <https://university.hygger.io/en/articles/1635183-value-vs-cost-and-value-vs-complexity>
- [25] ProductPlan. (n.d.). Value vs. Complexity Prioritization Model | Definition and Overview. Retrieved from ProductPlan: <https://www.productplan.com/glossary/value-vs-complexity/>
- [26] Riegelsberger, J., Sasse, M., & McCar, J. D. (2003). Shiny Happy People Building Trust? Photos on e-Commerce Websites and Consumer Trust. *CHI '03: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, (pp. 121-128).
- [27] Salsify. (2019, March). 2019 Consumer Research: 5 New Rules to Tackle Shoppers' Rising Expectations on Your Brand.
- [28] Yaskevich, A. (2018, December 7). Addressing the Challenges of Augmented Reality Content for Retail Apps. Retrieved from Multichannel Merchant: <https://multichannelmerchant.com/blog/addressing-the-challenges-of-augmented-reality-content-for-retail-apps/>