

A Communication-Based Framework of Product Image Effectiveness in Fashion Apparel E-Commerce

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ABSTRACT

Product images serve as primary visual messages in fashion e-commerce, where consumers must evaluate appearance, colour, fit, fabric, texture, and product suitability without physical inspection. This study develops a communication-based framework of product image effectiveness through a structured contextual document review and theoretical synthesis. An initial pool of 78 scholarly sources was screened for direct relevance to product images as visual communication objects. Fifty-seven sources were excluded because they focused primarily on website interfaces, navigation, price or rating displays, general digital marketing, physical retail environments, or non-image issues. The final review included 21 studies, comprising 12 studies of general product images and nine studies of apparel or fashion product images. Data were extracted into a coding matrix covering visual principles, visual elements, recurring image characteristics, product context, and consumer-related outcomes. The thematic synthesis identified four overarching evidence themes: product prominence; clarity and legibility; modality, realism, and visual credibility; and cognitive ease and presentation consistency. Fashion-specific evidence additionally highlighted fit representation, fabric texture, model/body scale, multiple views, close-up details, styling coordination, and size-inclusive model photography. These findings were translated into five core image components: product prominence, clarity, realism and trustworthiness, visual simplicity, and presentation consistency. Ease of comparison was positioned as a consumer evaluation outcome supported by the five components and by fashion-specific diagnostic indicators. The core image components and consumer evaluation outcome were then integrated with the encoding, decoding, interpretation, and feedback processes of the Osgood-Schramm Interactive Model of Communication. The framework positions effective product imagery as an evidence-informed communication mechanism that guides attention, supports comprehension, strengthens credibility, enables comparison, and informs purchase-related responses in Malaysian fashion e-commerce.

Keywords: product images; visual communication; Osgood-Schramm model; fashion e-commerce; purchase intention



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1 INTRODUCTION

E-commerce has transformed how consumers search for, evaluate, compare, and purchase products. Unlike physical retail, online shopping does not permit consumers to touch, try, or directly inspect products before purchase. The absence of physical inspection increases dependence on visual information, particularly in fashion apparel, where consumers must evaluate colour, style, fit, fabric,

texture, construction, scale, and overall suitability through mediated representations (Kim & Lennon, 2008). Product images therefore function not only as promotional materials but also as informational messages that shape expectations and reduce or intensify purchase uncertainty.

In Malaysia, fashion apparel is commonly purchased through major platforms such as Shopee and Lazada. Within these platforms, the product image is frequently the consumer's first point of contact with an item. Images communicate rapidly and create a sense of realism that text alone may not provide (Messaris, 1997). However, the same persuasive capacity becomes problematic when images are unclear, incomplete, inconsistently presented, excessively edited, or inaccurate. A gap between the displayed representation and the received product may weaken trust, contribute to dissatisfaction, and generate negative feedback through complaints, returns, reviews, and non-repurchase.

Although the selected studies were drawn mainly from international scholarship, their findings provide a theoretical basis for developing a framework proposed for Malaysian fashion e-commerce. The Malaysian context is relevant because consumers commonly use visually intensive platforms such as Shopee and Lazada, while incomplete or misleading product information may negatively affect online shopping experiences (Lok et al., 2022; Malaysian Communications and Multimedia Commission (MCMC), 2022).

Existing studies have examined image quality, product photography, visual merchandising, aesthetic appeal, social presence, background composition, model presentation, fabric visibility, and purchase intention. Nevertheless, the literature remains dispersed across communication, design, photography, marketing, information systems, and consumer behaviour. However, previous discussions have not always provided a transparent explanation of how visual characteristics were identified, screened, coded, and translated into a communication-based framework. This study addresses the methodological gap by showing the relationship between the selected studies, thematic findings, and proposed framework components.

The study is guided by two questions: (1) What recurring visual characteristics are identified in previous studies as supporting effective product-image communication in e-commerce? and (2) How can these evidence-based characteristics be integrated with the Osgood-Schramm Interactive Model of Communication to develop a framework for Malaysian fashion apparel e-commerce? The paper contributes by linking a traceable literature dataset to a communication-based framework rather than presenting the framework solely as a conceptual proposition.

2 THEORETICAL BACKGROUND

2.1 Product Images as Visual Messages

Communication theory explains how messages are created, transmitted, interpreted, and responded to. Linear models emphasise the movement of information from a sender to a receiver, whereas Schramm (1954) introduced a more interactive understanding of communication in which participants encode, decode, interpret, and provide feedback. This interactive perspective is appropriate for e-commerce because sellers present product information, consumers interpret the representation, and responses are returned through enquiries, ratings, reviews, purchases, returns, and complaints.

Visual communication scholarship further establishes that images are structured forms of meaning rather than neutral copies of reality. Barthes (1977) distinguished literal and culturally shaped meanings, while Kress and van Leeuwen (2006) explained how salience, framing, composition, and information value influence interpretation. Product images can therefore be understood as deliberately encoded visual messages. Decisions involving lighting, colour, scale, camera angle, background, model, styling, close-up detail, and image sequence determine which attributes become visible and how consumers are likely to interpret them.

2.2 Product Images in Fashion Apparel E-Commerce

Fashion apparel is a visually dependent category because product evaluation requires both aesthetic and functional judgement. Consumers need to imagine how a garment may look and fit on the body while also assessing fabric, construction, texture, proportion, style, and possible use. Boardman and McCormick (2019) showed that product presentation features such as model images, mannequin images, back views, zoom functions, and multiple visual formats support apparel evaluation and decision-making. More recent work demonstrates that close-up and additional fabric information can improve the accuracy of material perception (Creusen et al., 2025), while size-inclusive model photography can reduce perceived fit risk (Zhang et al., 2025).

These findings indicate that fashion images should not be judged only by attractiveness. Effective images must also be visually diagnostic: they should help consumers inspect, recognise, understand, trust, and compare products. Accordingly, the framework developed in this paper distinguishes general image characteristics such as prominence, clarity, realism, simplicity, and consistency from apparel-specific indicators such as fit representation, fabric texture, model/body scale, multiple views, close-up details, styling coordination, and size-inclusive model images.

2.3 Osgood-Schramm Interactive Model of Communication

The Osgood-Schramm model conceptualises communication as a circular process in which communicators continuously encode, decode, and interpret messages (Schramm, 1954). Applied to fashion e-commerce, the seller or photographer initially encodes product information into images. The e-commerce platform operates as the communication channel, the consumer decodes and interprets the image, and purchase-related or post-purchase responses form feedback. The seller subsequently interprets this feedback and may re-encode the product by revising lighting, colour, image angle, model presentation, background, editing, or the number and sequence of images.

The model is useful because product-image effectiveness cannot be determined only by what the seller intends to show. Effectiveness also depends on whether consumers notice the intended product, understand its attributes, perceive the representation as credible, compare available information efficiently, and respond in ways that indicate successful or unsuccessful communication. The framework therefore treats image characteristics as conditions influencing the quality of the visual message within an ongoing feedback cycle.

3 METHODOLOGY

3.1 Review Design

This study employed a structured contextual document review. A contextual document review is appropriate when the purpose is to identify, classify, and interpret concepts across a focused body of scholarly material while preserving the disciplinary and product contexts in which those concepts appear. The method was selected because the selected studies included empirical research, conceptual work, conference publications, a book chapter, and visual or methodological analyses from several related fields. The paper does not claim to be a preregistered or exhaustive systematic literature review; instead, it applies systematic elements, including transparent screening, explicit criteria, a documented corpus, structured extraction, and thematic synthesis, to strengthen the traceability of framework development. The unit of analysis was the individual scholarly source. Each source was examined for its treatment of product images, product photography, visual presentation, image-related cues, and consumer interpretation or response. Foundational books on visual communication and perception were used to interpret the empirical findings but were not counted among the 21 studies included in the analysis.

3.2 Search Scope and Search Terms

The literature pool was assembled through the academic sources recorded in the study methodology: Scopus, ScienceDirect, SpringerLink, Taylor & Francis Online, and supplementary scholarly retrieval through ResearchGate and reference-list searches. The literature search included relevant publications available through 2026. Search combinations were centred on the terms “product image”, “product photography”, “e-commerce image”, “visual communication”, “online product presentation”, “fashion apparel image”, “model photography”, “fabric perception”, “image clarity”, “image realism”, “background composition”, “visual attention”, “purchase intention”, and “purchase decision”. Terms were combined according to the focus of each disciplinary stream. Because the review originated as a contextual document review rather than a preregistered systematic review, it does not claim exhaustive retrieval. Methodological transparency is instead provided through the named scholarly sources, explicit eligibility criteria, documented screening counts, the complete included-study corpus, structured coding, and evidence-to-framework mapping. A search record containing the databases or scholarly sources, search terms, search date, and retrieved publications was maintained to support transparency in the review process.

3.3 Eligibility Criteria, Screening and Selection

Eligibility criteria were established to ensure that the review retained only academically credible sources that directly examined product images as visual communication objects. Scholarly journal articles, conference papers or proceedings, book chapters, and other relevant academic publications were considered for inclusion when they provided extractable evidence on visual principles, visual elements, image characteristics, product evaluation, trust, purchase intention, or decision-making. Sources were excluded when they focused mainly on website interfaces, page layouts, navigation, price or rating displays, platform usability, general digital marketing, social media strategies, or physical-store contexts without direct product-image analysis. Non-scholarly materials, duplicate records, and sources with insufficient relevance to the review questions were also excluded. The complete eligibility criteria are presented in Table 1.

Table 1 Eligibility criteria used in the contextual document review

Decision	Criterion
Inclusion	Scholarly journal articles, conference papers/proceedings, book chapters, and relevant academic publications.
	Studies directly examining product images, product photography, visual cues within product images, apparel presentation, image characteristics, or consumer responses to product imagery.
	Studies providing extractable evidence on visual principles, visual elements, image outcomes, product evaluation, trust, purchase intention, or decision-making.
Exclusion	Studies focused mainly on website interface, page layout, navigation, price placement, rating display, or platform usability without direct product-image analysis.
	General digital marketing, social media strategy, or physical-store studies in which product images were not the principal visual object.
	Non-scholarly sources, duplicates, or sources with insufficient relevance to the review questions.

Using the eligibility criteria presented in Table 1, the screening and selection process began with 78 scholarly sources related to product images, visual communication, photography, e-commerce,

fashion apparel, and consumer behaviour. Titles, abstracts, keywords, and stated research focus were examined to determine whether product images were treated as the principal visual communication object. A total of 57 sources were excluded because they were too broad, focused on non-image issues, or did not provide evidence directly relevant to the review questions. The final review included 21 studies. To support comparative analysis, the selected studies were divided into 12 studies of general product images and nine studies of apparel or fashion product images. This classification enabled the review to identify transferable visual characteristics while retaining fashion-specific cues such as fit, drape, body scale, fabric visibility, multiple views, styling, and size representation. The complete identification, screening, selection, coding, and framework-mapping process is illustrated in Figure 1.

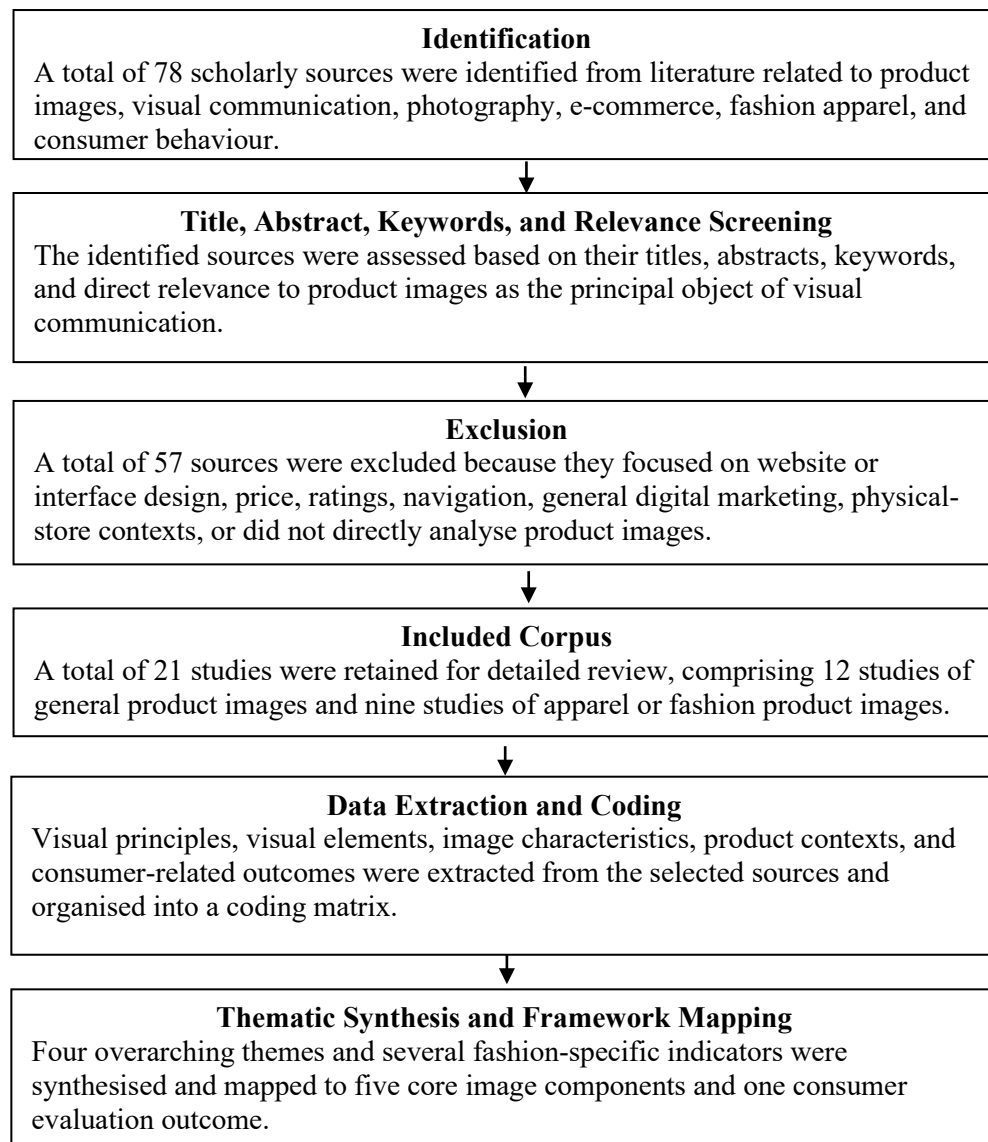


Figure 1 Flow of literature identification, screening, selection, coding, and framework mapping

3.4 Data Extraction and Thematic Synthesis

Following the screening and selection process, each of the 21 scholarly sources listed in Table 2 was treated as an individual unit of analysis. Table 2 provides a descriptive record of the included studies by presenting the title and year of publication, publication type, and authorship of each source. This documented corpus establishes the bibliographic basis for the subsequent coding and thematic synthesis and provides a transparent audit trail showing which studies contributed to the framework development.

Table 2 Studies Included in the Contextual Document Review

No	Title/Year	Publication Type	Author
1	A Stimulus–Organism–Response Eye-Tracking Survey of How Background–Foreground Images Drive Image Appeal, Product Perception, and Willingness to Pay in E-Commerce. (2026)	Journal Article	Chaudhuri, N., Gupta, G., & Lim, W. M.
2	The Impact of Social Presence Cues in Social Media Product Photos on Consumers' Purchase Intentions. (2024)	Journal Article	Poirier, S.-M., Cosby, S., Sénécal, S., Coursaris, C. K., Fredette, M., & Léger, P.-M.
3	Not all consumer-generated images are attractive and persuasive: A heuristic cue perspective (2024)	Journal Article	Zheng, Y., Ma, B., Zhou, X., & Lu, B.
4	Does shape consistency enhance aesthetic preference? A case study of smart speaker displays (2025)	Journal Article	Luo, S., Zhu, Y., Zhang, L., Lin, H., & Bian, Z.
5	Visual Product Aesthetics and Consumer Impulsiveness in Online Shopping (2025)	Conference Proceedings	Tariq, I., Hallikainen, H., & Laukkanen, T.
6	Influence of Light and Color of Advertising Photography on Consumers' Purchase Intention. (2022)	Journal Article	Chen, F., Sukpasjaroen, K., & Chankoson, T.
7	A contrast-composition-distraction framework to understand product photo background's impact on consumer interest in E-commerce (2024)	Journal Article	Wang, M., Li, X., Liu, Y., Chau, P., & Chen, Y.
8	Visual Biasing Effects: Exploring the Impact of Online Product Visuals on User Behavior and Biased Processing of Customer Review (2025)	Journal Article	Ryu, S., & Vargas, P.
9	The Influence of the Image and Photography of E-Commerce Products on the Purchase Decision of Online Consumers (2023)	Book Chapter	Pereira, M. S., Cardoso, A., Fernandes, C., Rodrigues, S., & D'Orey, F.
10	Product photography in product attractiveness perception and e-commerce customer purchase decisions (2022)	Journal Article	Szulc, R., & Musielak, K.
11	What Image Do You Need? A Two-Stage Framework for Image Selection in E-Commerce (2023)	Conference Paper	You, S., Wang, C., Wu, B., Liu, J., Lu, Q., Han, G., & Xiao, Y.
12	Beyond Aesthetics: Functional Categorization and the Impact of Review Image Composition on Purchase Decisions (2026)	Journal Article	Wang, M., & Tong, Y
13	The Influence of Different Visual Cues of Women's Bags on Consumers' Attention. (2023)	Conference Paper/Proceedings	Huang, Y.-T., & Lin, C.-Y.
14	Fashion Photography Ontology Through a Methodological Approach to Pictures of Gucci and Balenciaga's E-Commerce. (2024)	Journal Article	de las Heras Romano, D., & García-Ergüín Maza, M.
15	Different Types of Product Presentation in Online Fashion Retailing: The Moderating	Journal Article	Zenke, H., & Baek, E

Role of Need for Touch on Overall Certainty of Fit (2024)			
16	Click to chic Decoding the impact of fashion product page design on online purchase intention (2025)	Journal Article	SanMiguel, P., Sánchez-Blanco, C., González-Tosat, C., & Sánchez-Hualde, A.
17	The impact of product presentation on decision-making and purchasing (2019).	Journal Article	Boardman, R., & McCormick, H.
18	Assembled or unassembled? Different types of outfit coordination presentations in online fashion retailing (2024)	Journal Article	Qu & Baek
19	Increasing fabric perception accuracy of consumers in online fashion retailing (2025)	Journal Article	Creusen, Shen, & Wijntjes
20	One size does not fit all: Optimizing size-inclusive model photography mitigates fit risk in online fashion retailing (2025)	Journal Article	Zhang, Ikonen, Eelen, & Sotgiu
21	The Impact of Visual Marketing on Purchasing Behavior in E-Commerce: Case Study in The Fashion Industry (2024)	Journal Article	Marwan, Harkim, & Sugiharto

A structured coding matrix was then developed to extract five forms of information from each study: (1) study identity and publication year; (2) product context; (3) visual principles; (4) visual elements; and (5) recurring image characteristics and consumer-related outcomes. The study identity and publication details were recorded to connect each coded finding to the relevant source listed in Table 2. Product context was coded to distinguish studies examining general e-commerce products from studies focusing specifically on apparel or fashion products.

Visual principles included emphasis or salience, contrast, balance, unity or harmony, proportion or scale, framing, continuity, information value, and visual simplicity. Visual elements included colour, light or value, form, shape, space, background, texture, focus, scale, model or human figure, and image sequence. The final extraction category recorded recurring image characteristics and consumer-related outcomes, including product prominence, clarity, legibility, realism, visual credibility, cognitive ease, presentation consistency, product evaluation, trust, purchase intention, and decision-making.

The thematic synthesis did not rely on a literal word-frequency count. Instead, terms with similar meanings were grouped into broader categories. For example, product focus, foreground dominance, visual salience, product visibility, and dominant placement were grouped under product prominence. Visible detail, sharp focus, clear lighting, tonal separation, and product recognisability were grouped under clarity and legibility. Accurate colour, realistic appearance, restrained editing, model-based realism, and semantic correspondence were grouped under modality, realism, and visual credibility. Minimal backgrounds, reduced clutter, repeated visual structures, and consistent image sets were grouped under cognitive ease and presentation consistency.

Table 2 documents the complete set of 21 studies included in the review by presenting the title, publication year, publication type, and authorship of each source. Table 3 subsequently summarises the product category, study focus, and contribution of each study to the thematic synthesis. Together, the two tables provide a transparent record of the evidence used in framework development.

In the final analytical stage, the coded findings were mapped to the communication-based framework. Four main themes emerged from the thematic synthesis: product prominence; clarity and legibility; modality, realism, and visual credibility; and cognitive ease and presentation consistency. These themes were developed into five core image components: product prominence, clarity, realism and trustworthiness, visual simplicity, and presentation consistency. Ease of comparison was

subsequently positioned as a consumer evaluation outcome arising from clear, coherent, and diagnostically useful product-image presentation. Section 4.4 explains how the four evidence themes were translated into five core image components and one consumer evaluation outcome, with each element supported by findings from the selected studies.

4 RESULTS OF THE DOCUMENT REVIEW

4.1 Profile of the Selected Studies

A total of 21 studies published between 2019 and 2026 were included in the final review. Twelve studies examined general product images, while nine focused on apparel or fashion product images. The selected studies included eye-tracking research, experiments, consumer studies, qualitative studies, product-page analyses, visual and photographic analyses, computational image-selection studies, and framework development. Table 3 presents the category, research focus, and primary contribution of each study to thematic synthesis.

Table 3 Selected Studies and Their Primary Contributions to Thematic Synthesis

No	Study	Category	Study focus	Contribution to synthesis
1	Chaudhuri, Gupta, & Lim (2026)	General	Background-foreground composition; eye-tracking and willingness to pay	Prominence, clarity, cognitive ease
2	Poirier et al. (2024)	General	Social-presence cues in product photographs	Prominence, realism, photo diagnosticity, purchase intention
3	Zheng, Ma, Zhou, & Lu (2024)	General	Attractiveness and persuasiveness of consumer-generated images	Clarity, realism, consistency, reduced clutter
4	Luo et al. (2025)	General	Shape consistency in product displays	Presentation consistency, clarity, cognitive ease
5	Tariq, Hallikainen, & Laukkanen (2025)	General	Visual product aesthetics and online impulsiveness	Attention, aesthetic response, purchase-related behaviour
6	Chen, Sukpasjaroen, & Chankoson (2022)	General	Light and colour in advertising photography	Prominence, clarity, realism, colour consistency
7	Wang et al. (2024)	General	Product-photo backgrounds, composition, contrast, and distraction	Prominence, clarity, simplicity, background control
8	Ryu & Vargas (2025)	General	Visual biasing and review-information processing	Clarity, visual prominence, interpretation bias
9	Pereira et al. (2023)	General	Product photography and purchase decisions	Image quality, realistic colour, editing, recognisability
10	Szulc & Musielak (2022)	General	Product photography and perceived attractiveness/purchase decision	Lighting, visible detail, background, realism
11	You et al. (2023)	General	Two-stage framework for e-	Attention and semantic

				commerce image selection	alignment between image and product
12	Wang & Tong (2026)	General		Review-image composition and product decisions	Composition, information organisation, comparison
13	Huang & Lin (2023)	Apparel/Fashion		Visual cues and attention toward women's bag images	Prominence, placement, brightness, legibility
14	de las Heras Romano & García-Ergüín Maza (2024)	Apparel/Fashion		Fashion-photography ontology in Gucci and Balenciaga e-commerce	Image sequence, consistency, close-ups, narrative/context
15	Zenke & Baek (2024)	Apparel/Fashion		Product-presentation type and certainty of apparel fit	Fit evaluation, realism, product display type
16	SanMiguel et al. (2025)	Apparel/Fashion		Fashion product-page design and purchase intention	Image quality, number of images, material views, angles, zoom, video
17	Boardman & McCormick (2019)	Apparel/Fashion		Product presentation, information search, and fashion decision-making	Model/mannequin images, back views, zoom, multiple views
18	Qu & Baek (2024)	Apparel/Fashion		Assembled versus unassembled outfit presentation	Styling coordination, cognitive ease, imagined use
19	Creusen, Shen, & Wijntjes (2025)	Apparel/Fashion		Accuracy of online fabric perception	Close-ups, fabric texture, material behaviour, purposeful views
20	Zhang et al. (2025)	Apparel/Fashion		Size-inclusive model photography and fit risk	Body scale, fit representation, realism, comparison
21	Marwan, Harkim, & Sugiharto (2024)	Apparel/Fashion		Visual marketing and purchasing behaviour in fashion e-commerce	Image appeal, information, trust, purchase-related response

4.2 Comparison of General and Apparel/Fashion Product Images

Table 4 Comparative synthesis of general and fashion apparel product-image evidence

Analytical aspect	General product images	Apparel/fashion product images	Proposed framework element
Visual attention	Product focus, salience, foreground dominance, contrast, placement	Garment/model/detail prominence; body-product relationship	Product prominence
Clarity	Clear form, lighting, focus, background separation	Colour, fabric, stitching, pattern, fit, close-up detail	Clarity
Realism	Accurate colour, credible appearance, product recognisability	Realistic fit, drape, fabric appearance, body scale	Realism and trustworthiness
Simplicity	Reduced background clutter and unnecessary contextual detail	Controlled styling and model/product presentation	Visual simplicity

Consistency	Coherent background, angle	lighting, format,	Comparable shots, views, styling	model close-ups,	Presentation consistency
Decision support	Product evaluation and reduced uncertainty	and	Comparison of fit, style, size, material, colours, and alternatives		Ease of comparison

4.3 Thematic Findings

4.3.1 Product Prominence as an Attention-Guiding Mechanism

Product prominence was identified repeatedly across the selected studies as an important outcome of effective product-image presentation. It refers to the extent to which the product, garment, model-product relationship, or relevant detail becomes the primary visual focus. The reviewed studies linked prominence to emphasis and salience, foreground-background contrast, central or purposeful placement, appropriate product scale, controlled framing, lighting, and the reduction of distracting elements. This theme was supported across eye-tracking, background-composition, product-photography, fashion-presentation, and image-selection studies (Huang & Lin, 2023; Wang et al., 2024; You et al., 2023). From a communication perspective, prominence performs an entry-point function. A visual message cannot communicate product attributes effectively unless the intended subject is first noticed and prioritised. However, attention alone is insufficient: an image that attracts clicks but is not semantically aligned with the product may weaken communication integrity. Product prominence is therefore retained as a framework component that combines visual attraction with product-centred relevance.

4.3.2 Clarity and Legibility as Visual Comprehension Tools

Clarity and legibility describe whether product information can be seen, recognised, and interpreted with limited ambiguity. The reviewed evidence associated clarity with appropriate lighting, sharp focus, tonal and colour separation, visible form, background control, and high-quality detail. Legibility was linked to stable foreground-background relationships, controlled framing, balanced use of space, orderly image sequences, close-up views, zoom functions, and multiple perspectives. In fashion e-commerce, this theme is particularly important because consumers need to inspect colour, fabric, stitching, pattern, cut, silhouette, garment structure, and finishing. Multiple views and close-ups increase informational completeness rather than merely aesthetic variety (Boardman & McCormick, 2019; Creusen et al., 2025). The framework therefore consolidates clarity and legibility into the component of clarity, defined as the ability of product images to make relevant apparel information visible and understandable.

4.3.3 Modality, Realism, and Visual Credibility as Trust Cues

The third theme concerns the credibility of the visual representation. Modality and realism refer to the extent to which the image appears truthful, believable, and consistent with expected real-world product appearance. Evidence across the selected studies connected realism with accurate colour, natural or controlled lighting, appropriate scale, restrained editing, credible model presentation, semantic alignment, and correspondence between the image and the actual product. Excessive editing or visually attractive but product-irrelevant images may attract attention while weakening perceived authenticity. Fashion-specific studies expand realism beyond photographic naturalism. Consumers also require credible fit, fabric, drape, body scale, and size representation. Model-based and size-inclusive images can help consumers judge how a garment may appear on different bodies, while fabric close-ups support more realistic material expectations (Creusen et al., 2025; Zhang et al., 2025). These findings support the framework component of realism and trustworthiness.

4.3.4 Cognitive Ease and Presentation Consistency

Cognitive ease refers to the reduced mental effort required to process product imagery. It was repeatedly associated with minimal or purposeful backgrounds, reduced visual noise, limited competing elements, controlled colour use, and clear spatial organisation. Presentation consistency refers to coherent use of lighting, background, angle, scale, styling, model pose, format, and image sequence across a set of product images. Although related, the two concepts perform distinguishable functions: simplicity reduces unnecessary complexity within an image, while consistency stabilises interpretation across images. The selected studies show that simplified compositions allow consumers to focus on product information, whereas coherent image sets support the integration and comparison of information across multiple views. For apparel, consistency is especially important when consumers compare colours, sizes, styles, model images, or detail views. Consequently, the overarching evidence theme was translated into two core image components: visual simplicity and presentation consistency.

4.3.5 Cross-Cutting Fashion-Specific Indicators

Fashion-specific visual diagnosticity emerged as a cross-cutting finding rather than as a separate evidence theme or core framework component. It refers to the capacity of apparel images to provide information from which consumers can infer how a garment may look, fit, feel, and function when worn. The retained indicators include fit representation, fabric texture, model/body scale, multiple views, close-up details, styling or outfit coordination, realistic drape, and size-inclusive model images.

These indicators operate across the core image components according to their communication functions. Fabric close-ups and multiple views strengthen clarity; realistic fit, drape, and body scale strengthen realism and trustworthiness; coordinated image sequences strengthen presentation consistency; and comparable views, colours, sizes, and model options support ease of comparison during consumer evaluation. Fashion-specific visual diagnosticity is therefore retained as a set of contextual indicators that strengthens the apparel relevance of the framework without duplicating the core components.

4.4 Translation of the Evidence Themes into the Proposed Framework

Table 5 Mapping of the Review Findings to the Proposed Framework

Analytical status	Evidence source	Proposed framework element
Evidence theme	Product prominence	Product prominence
	Clarity and legibility	Clarity
	Modality, realism and visual credibility	Realism and trustworthiness
	Cognitive ease and presentation consistency	Visual simplicity
	Cognitive ease and presentation consistency	Presentation consistency
Cross-cutting indicators	Fit, fabric, model/body scale, multiple views, close-ups	Integrated across the five image components
Consumer evaluation outcome	Comparable views, colours, sizes and models	Ease of comparison

Table 5 explains how the four evidence themes were translated into the proposed framework. Product prominence, clarity and legibility, and modality, realism and visual credibility were respectively translated into product prominence, clarity, and realism and trustworthiness. The fourth theme, cognitive ease and presentation consistency, was divided into two core image components because the reviewed studies distinguished between the reduction of visual complexity within an

individual image and the maintenance of coherence across a set of images.

The resulting framework therefore contains five core image components: product prominence, clarity, realism and trustworthiness, visual simplicity, and presentation consistency. Fashion-specific indicators, including fit representation, fabric texture, model/body scale, multiple views, close-up details, styling coordination, realistic drape, and size-inclusive model images, operate across these components. Ease of comparison is positioned as a consumer evaluation outcome supported particularly by clarity, presentation consistency, and fashion-specific diagnostic information.

5 COMMUNICATION-BASED FRAMEWORK DEVELOPMENT

5.1 Framework Components

The framework integrates the review findings with the Osgood-Schramm Interactive Model of Communication. The seller or photographer is the initial encoder who translates product information into visual form through lighting, colour, composition, background, framing, scale, model selection, styling, angle, close-ups, and multiple views. The five core image components operate collectively within the encoded visual message, while ease of comparison emerges during consumer decoding and evaluation of the image set.

The e-commerce platform functions as the communication channel. It displays, organises, enlarges, and sequences product images and enables interaction through enquiries, ratings, reviews, purchases, and returns. The consumer acts as decoder and interpreter. Interpretation is shaped by prior shopping experience, expectations, cultural knowledge, product familiarity, perceived risk, and personal needs. The same product image may therefore be interpreted differently by different consumers.

Consumer interpretation may contribute to purchase intention and purchase decision. Purchase intention refers to willingness or readiness to buy after evaluating the visual message, whereas purchase decision refers to the final choice after considering product suitability, alternatives, trustworthiness, and perceived risk. Responses such as clicks, enquiries, reviews, complaints, purchases, returns, and repeat purchases form feedback. Sellers can use this feedback to revise the encoded image and begin a new communication cycle.

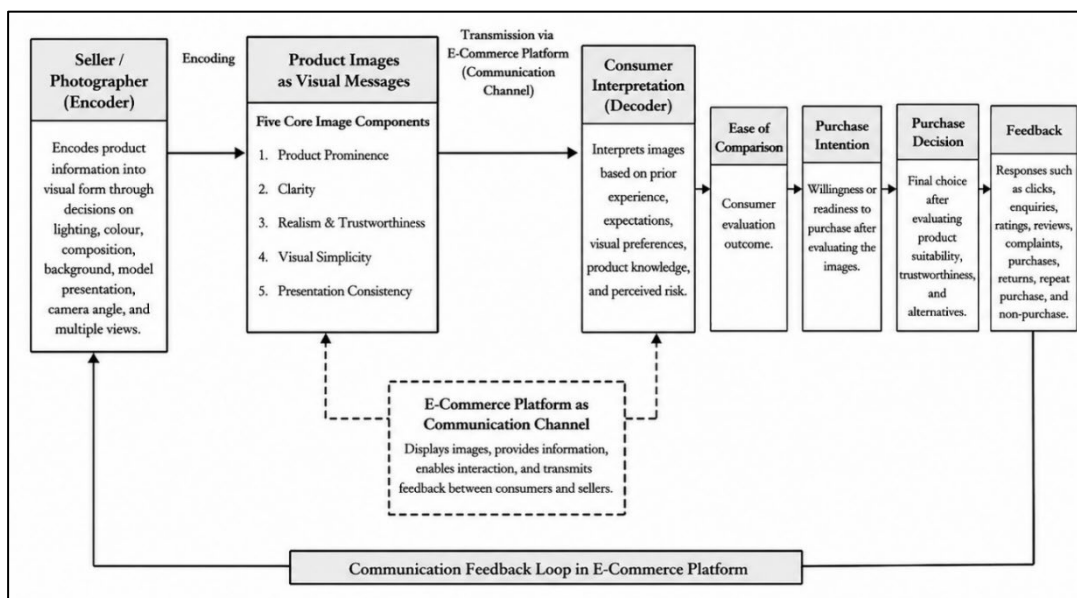


Figure 2 Proposed Communication-Based Framework for Product Images in Malaysian Fashion E-Commerce

5.2 Proposed Framework Elements

Table 6 Proposed component Image Components and Consumer Evaluation Outcome in Malaysian Fashion E-Commerce

Framework element	Role in the framework	Conceptual meaning	Communication function
Product prominence	Core image component	The apparel item or relevant detail becomes the principal visual focus.	Guides attention toward the intended subject.
Clarity	Core image component	Colour, form, fabric, fit, texture, construction, and detail are visible and understandable.	Supports decoding and accurate product comprehension.
Realism and trustworthiness	Core image component	The representation appears accurate, believable, and consistent with the actual product.	Supports credibility, confidence, and reduced uncertainty.
Visual simplicity	Core image component	Unnecessary clutter and competing elements are reduced.	Supports efficient visual processing.
Presentation consistency	Core image component	Lighting, background, angle, scale, styling, model presentation, and image format remain coherent.	Supports stable interpretation across image sets.
Ease of comparison	Consumer evaluation outcome	Images permit comparison of views, colours, styles, sizes, models, and alternatives.	Supports evaluation, purchase intention, and decision-making.

6 DISCUSSION AND IMPLICATIONS

6.1 Theoretical Contribution

The principal theoretical contribution is the repositioning of product-image effectiveness as an interactive communication process. Marketing studies frequently treat images as stimuli predicting attitudes or purchase intention. The present framework does not reject those outcomes, but it explains how they are produced through encoding, message characteristics, decoding, interpretation, and feedback. This extends the Osgood-Schramm model to a visual retail setting in which the seller and consumer alternate between communicative roles.

The paper also connects abstract visual communication concepts to product-image outcomes. Salience and visual hierarchy are translated into product prominence; clarity and legibility into product understanding; modality, realism, and visual credibility into realism and trustworthiness; and simplicity and coherence into cognitive efficiency and stable interpretation. The review-based mapping provides an evidence trail between previous studies and the proposed constructs.

6.2 Methodological Contribution

The study strengthens methodological transparency by reporting the initial number of sources, exclusion criteria, final group of selected studies, category distribution, coding procedure, comparative synthesis, and mapping of the findings to the framework components. This structure responds to the expectation that a framework paper should show the literature data from which its constructs were developed.

A bibliometric analysis was not used because the purpose was interpretive construct development rather than mapping a large field through citation or keyword networks. With a focused group of 21 studies, thematic and contextual synthesis provides direct evidence about visual principles, visual elements, and fashion-specific diagnostic cues. Bibliometric analysis may be useful in a future study using a substantially larger and systematically exported database corpus.

6.3 Practical Implications

For sellers and photographers, the findings indicate that an effective fashion image set should do more than appear attractive. The product should remain visually prominent; colour, fabric, fit, and detail should be clear; the image should avoid misleading editing; backgrounds and props should support rather than compete with the garment; and the image sequence should remain consistent across views and variants.

Fashion apparel also requires diagnostic images. Front, back, side, model-worn, close-up, fabric-detail, and size-reference images should be selected purposefully. Comparable angles, model scale, and consistent lighting can help consumers compare colour, fit, style, and material while reducing uncertainty. Platform managers can use the proposed framework as the basis for clearer image guidelines that extend beyond technical requirements such as aspect ratio, resolution, or file size.

6.4 Limitations and Future Research

The review has several limitations. First, it was developed as a contextual document review rather than a preregistered SLR; therefore, it should not be described as exhaustive. Second, the selected studies represent different disciplines, product categories, and research designs. This diversity strengthens the conceptual breadth of the review but limits direct statistical comparison between the studies. Third, the framework is based on secondary literature and has not yet been tested with Malaysian consumers. Fourth, differences in database coverage and indexing practices may have affected the range of studies retrieved for the review.

Future research should validate the components through expert assessment and survey data, test measurement reliability and validity, and examine the relative influence of each component on consumer interpretation, purchase intention, and purchase decision. PLS-SEM may subsequently be used to evaluate the measurement and structural model, while consumer feedback and expert review can support refinement of the final framework.

CONCLUSION

This study developed a communication-based framework of product image effectiveness through a structured contextual document review of 21 studies selected from an initial pool of 78 sources. The review provides the literature dataset and analytical pathway that were previously absent from the conceptual paper. Four overarching themes were identified: product prominence; clarity and legibility; modality, realism, and visual credibility; and cognitive ease and presentation consistency. Fashion-specific evidence highlighted fit representation, fabric texture, model/body scale, multiple views, close-up details, styling coordination, and size-inclusive model photography.

The evidence was transparently translated into five core image components: product prominence, clarity, realism and trustworthiness, visual simplicity, and presentation consistency. Ease of comparison was positioned as a consumer evaluation outcome supported by the five image components and by fashion-specific diagnostic indicators. Integrated with the Osgood-Schramm model, the framework explains how sellers encode apparel information through product imagery, how consumers decode and interpret the visual representation, and how comparison, purchase-related responses, and post-purchase responses contribute to the communication feedback process. Product images are therefore positioned as structured communication tools that help consumers notice, understand, trust, compare, and evaluate fashion apparel in e-commerce.

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CONFLICT OF INTEREST

The authors declare no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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