

Title	The impact of AI-designed product on consumer purchase intention : focus on lifestyle brands
Sub Title	
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Publisher	慶應義塾大学大学院経営管理研究科
Publication year	2024
Jtitle	
JaLC DOI	
Abstract	
Notes	修士学位論文. 2024年度経営学 第4257号
Genre	Thesis or Dissertation
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40003001-00002024-4257

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慶應義塾大学大学院経営管理研究科修士課程

学位論文（ 2024 年度 ）

論文題名

THE IMPACT OF AI-DESIGNED PRODUCT ON CONSUMER PURCHASE INTENTION: FOCUS ON LIFESTYLE BRANDS

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論文要旨

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THE IMPACT OF AI-DESIGNED PRODUCT ON CONSUMER PURCHASE INTENTION: FOCUS ON LIFESTYLE BRANDS			
(内容の要旨)			
Research on the use of artificial intelligence (AI) in the design process has mainly focused on luxury and non-luxury fashion brands, leaving mid-range segments like premium and lifestyle brands underexplored. Additionally, few studies have examined how AI-generated designs influence consumers' purchase intentions and perceptions. This study investigates the impact of AI-generated product designs on consumers' purchase intention in the context of lifestyle brands. It explores product designed by different sources (AI vs. Human Designer) and examines key factors such as Brand Attitude, Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection, along with their moderators of the Source of Design. The research evaluates the significance of the design source in shaping consumer preferences and influencing purchase decisions. Using survey data and multiple regression analysis, the study reveals that the Source of Design is not initially perceived as a significant determinant of purchase intention. However, when consumers become aware that a product is designed by AI, their brand attitude shifts negatively, highlighting the critical role of human factors in preserving positive brand perceptions. This research contributes to the growing understanding of AI's role in fashion design, particularly for lifestyle brands, offering valuable insights into the challenges and opportunities of integrating AI into design processes. These findings underscore the need for brands to carefully manage consumer perceptions when adopting AI-driven innovations. Keywords: Generative AI, Brand Attitude, Trust in Designer, Perceived Brand Authenticity, Self-Brand Connection, Purchase Intention			

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THE IMPACT OF AI-DESIGNED PRODUCT ON CONSUMER PURCHASE INTENTION: FOCUS ON LIFESTYLE BRANDS

INTRODUCTION

In recent years, the integration of artificial intelligence (AI) in various industries has transformed how businesses operate and deliver value to consumers. Particularly in the fashion industry, AI has been leveraged for a range of applications. However, the study on the use of AI in the design process, especially for lifestyle brands, remains underexplored. Generative AI, with its potential ability to design products that reflect brand personality, could reshape fashion landscape and influence purchasing decisions.

This research investigates the impact of AI-generated product designs on consumers' purchase intention, specifically in the context of lifestyle brands. The study explores if AI can effectively express brand personality in product design, how this influences consumers' purchase intentions. It also examines the roles of key factors such as Brand Attitude, Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection, and their interactions with the Source of Design (AI vs. Human Designer). Additionally, it explores the significance of design source, whether AI or human, in influencing consumer preferences and the underlying mechanisms that drive purchase intention.

The findings reveal, contrary to common assumptions, the Source of Design (AI vs. Human Designer) and all of its moderators, except for Source of Design x Brand Attitude, have no significant relationship in determining Purchase Intention, challenging the widely held belief that AI-designed products may reduce purchase intention, particularly in lifestyle brands.

These results suggest that the impact of AI on consumer behavior in the context of product design may be more complex than previously assumed. This research contributes to the growing body of literature on AI's role in fashion design and consumer behavior, providing meaningful perspectives for brands evaluating the integration of AI into their design strategies.

As AI continues to evolve and potentially play a larger role in product design in the future, understanding its impact on consumer perceptions and purchasing decisions is crucial for brands aiming to stay competitive in an increasingly AI-driven world. The findings of this study will provide valuable insights for lifestyle brands considering the adoption of AI in their design processes, helping them navigate the potential risks and opportunities associated with this emerging technology.

LITERATURE REVIEW

Generative AI Technology and Its Importance

Generative AI refers to a class of machine learning algorithms designed to generate novel content based on input data (Cem, 2023). Its applications in fashion design include trend forecasting and innovative design creation. Despite being in its nascent stages, generative AI shows promise in enhancing efficiency, productivity, market responsiveness, and customer service in the fashion industry. By facilitating co-design and accelerating content development processes, generative AI opens up new avenues for creativity. According to McKinsey, generative AI could add operating profit by \$275 billion to the apparel, fashion, and luxury sectors in the next three to five years (Holger et al., 2023).

Generative AI is still in its early stages, but some use cases for generative AI in fashion have already emerged. Luxury and fashion brands have explored Generative AI technology in the areas such as: **1) Generating creative content in media and advertisement.** For example, an influencer marketing campaign¹ (Versace/ Italy), an AI-generated campaign using AI-generated images to create a retro-futurist campaign entirely from AI² (Casablanca/ France). **2) Personalizing service or content.** For example, Madeline, a ChatGPT-based luxury personal shopper³ (Kering/ France), virtual try-on luxury experience⁴ (Dior/ France) **3) Utilizing data-driven design.** For example, the use of AI algorithms to analyze trends, consumer behavior, and social media to glean insights that inform design choices to design new collections that resonate with evolving consumer preferences⁵ (Gucci/ Italy). **4) Integrating AI into the design process to create new collections and products.** For example, AI-generated designs based on instructions, with final touches by humans, were showcased at New York Fashion Week⁶ (Collina Strada/ The U.S.), the creation of a new collection based on AI via Midjourney application⁷ (G-star/ Netherlands), the first AI-designed on-demand collection⁸ (Desigual/ Spain), designers collaborated with AI to create dresses for Tokyo Fashion Week. Using deep learning, AI studied over 500 past works by designer Ema Rie, and then autonomously generated images of dresses based on its analysis⁹ (Emarie/ Japan), Korea's first AI designed clothes in-store¹⁰ (SJYP/ Korea). In 2019, An AI design system, DeepVogue, created by DeepBlue Technology, won the runner-up prize and the "People's Choice Award" at China International Fashion Design Innovation Competition, outperforming many human competitors and standing out as the only non-human participant among 16 teams¹¹. In 2023, the world's first AI Fashion Week was held, and in 2024, Japan hosted its first AI Fashion Week¹³, where participants were required to create their works using AI image generation.

Despite the ongoing application of generative AI in luxury and fashion industry, up until now, few studies have examined AI-designed products in this sector, and research on generative AI in lifestyle brands remains rare. The applications of this Generative AI can vary greatly depending on whether a brand is luxury, premium, or fast fashion. Lifestyle brands must thoughtfully balance the advantages and possible drawbacks of AI. Especially for lifestyle brands, it's crucial to develop a strategy that harnesses AI's potential while preserving the core values that define their unique lifestyle identity.

Conventional Fashion Design Process

The traditional fashion design process involves human designers progressing through five stages: (1) reviewing both internal and external data, (2) establishing the seasonal theme or concept, (3) creating garment designs aligned with the chosen concept, (4) refining and adjusting the initial designs as needed, and (5) ultimately completing the garment designs (Choi et al., 2023).

Fashion brands typically begin developing garment designs six months to a year before the sales season. They draw insights from internal brand data, such as past sales and consumer preferences, as well as global fashion trends, especially high-end runway collections. Concept planning is crucial, as it establishes the season's theme and guides the creation of 20-30 cohesive garments per collection. Designers create and refine designs to reflect the brand's identity and seasonal concept, making iterative modifications. Finalization involves stakeholder evaluations to select designs that align with the brand's sales strategy (Choi et al., 2023).

Generative AI in Fashion Design Process.

Generative AI, a subfield of artificial intelligence, focuses on developing systems that can generate novel and creative outputs, such as image, music, and text. By leveraging deep learning techniques, specifically generative models, these systems are capable of autonomously producing content that resembles human-generated creations. The key characteristic of generative AI is its ability to learn from large datasets, capture patterns, and generate new contents that exhibit similar characteristics (Ramdurai, 2023).

Generative AI can be used as a tool to enhance the idea and exploration process. Generative AI can assist designers in coming up with new ideas by generating images based on text descriptions (Bain, 2023), rough sketches, or reference images. Furthermore, designers can now generate images that precisely align with their concepts, enabling rapid exploration of multiple ideas and facilitating design stages (Yu et al., 2024). This generative approach encourages creativity and innovation, emphasizing the importance of a designer's tacit knowledge over manual drawing skills. Designers focus on detailed descriptions of clothing style features, with specific text prompts guiding AI to produce accurate results (Yu et al., 2024).

Generative AI tools can analyze vast amounts of customer feedbacks, including text comments, emails, product ratings, and online posts. They can then generate images of products similar to those preferred by customers (Holger et al., 2023). They can also assist retailers in creating virtual try-on experiences and suggesting personalized outfits and styles.

AI's ability to predict future fashion trends is unmatched, leveraging extensive analysis of global fashion data, social media content, and consumer behavior patterns (Holger et al., 2023). These powerful insights enable brands to stay ahead of the curve, by designing collections that resonate with anticipated market trends (Yu et al, 2024). During the idea generation stage, human innovators may become overwhelmed by large amounts of data, whereas AI algorithms can make predictions and generate ideas that human experts may not detect (Verganti et al., 2020), as well as create new clothing or art styles (Haefner et al., 2021).

AI leverages vast datasets of existing fashion elements and trends to produce innovative and unique designs. This allows designers to move beyond traditional inspiration sources and explore novel concepts that align with contemporary aesthetics (ICF, 2024).

Recently, global tech giants have introduced transformative models such as ChatGPT, DALL-E 4, Midjourney, Stable Diffusion, and Bing, which are AI systems that can create realistic image and art from a description in natural language. These models offer optimized open-source generative models and text input interfaces. These AI technologies have introduced new possibilities and advancements in the fashion industry, particularly in the domain of illustration.

However, generative AI has its limitations. Currently, manual editing and fine-tuning are often required because AI is not yet capable of converting all concepts into complete, polished products. Additionally, intellectual property concerns may emerge, as some AI-generated designs could inadvertently incorporate copyrighted material. The legal landscape surrounding this issue is still developing, prompting brands to consult their legal teams and set clear guidelines (Bain, 2023).

This study seeks to explore scenarios where Generative AI serves as the primary designer, creating products with minimal human intervention. While human input is typically necessary to refine AI-generated designs, this research focuses on examining the potential for AI to take the lead in the design process.

Lifestyle Brands

While there is no universally agreed-upon definition of lifestyle, the concept generally encompasses an individual's distinctive patterns of living, which are manifested through their activities, interests, and opinions. These patterns highlight the variations that exist among different people (Foxall, Goldsmith, & Brown, 1998; Solomon, 2002).

In their book, Saviolo & Antonio (2013), classify lifestyle brands as *symbol-intensive* brands. This brand category is chosen not just for its functional attributes, but primarily for the symbolism and meaning it conveys. These brands enable consumers to express their identity, showcase their status, or demonstrate their affiliation with a particular group. Beyond offering mere product benefits, such brands *inspire, guide, and motivate* consumers. They have the power to shape and define the lifestyle of those who embrace them.

Lifestyle brands offer *social benefits* beyond personal expression, providing individuals with the opportunity to align themselves with specific ways of living and join communities that share their values. These brands satisfy the human desire for self-fulfillment and group membership, uniting those who share similar values and interests. They serve as a reflection of one's identity, convictions, and goals, while also indicating social position and one's approach of life (Saviolo & Antonio, 2013).

Lifestyle brands are also defined as a means of *consumer self-expression*. These brands offer products that reflect self-expression, have an integrated communication strategy, and feature multiple product lines. The brands should enable individuals to *express their personality* or

aspects of it. Lifestyle brands must offer a unique worldview, made recognizable through distinct symbols like logos, shapes, colors, patterns, and product types. These codes communicate the brand's perspective and influence new products, campaigns, or behaviors. The successful ones become iconic and integrate into the brand's identity (Saviolo & Antonio, 2013).

Saviolo & Antonio (2013) also stated that evaluating lifestyle brands involves several key factors: the presence of a brand story conveyed through narrative techniques, significant impact on contemporary lifestyles, inclusion of action-oriented messaging, the existence of innovative and forward-thinking leadership, and the significance of personal recommendations.

Given the scarcity of research on lifestyle brands, we also incorporated insights from fashion experts from the study by Castillo et al. (2020) to provide a broader and more informed perspective on the subject. According to the study, lifestyle brands involve shaping brands with a distinct personality, deeply tied to the identity they project, where consumers adopt brands to fit their lifestyle and personality. Experts agree that in fashion, lifestyle is essential, as it reflects who you are and how you want to be perceived. Lifestyle brands are about creating brands that embodies a specific lifestyle, driven by the content they share with consumers. It is emphasized that identity is formed through symbols and is integral to fashion's personality, while one highlights the importance of a strong brand identity for building a successful lifestyle brand. The connection between lifestyle brands and personal and social benefits also emerged as a key theme (Castillo et al., 2020).

Luxury Brands

According to Som (2024), luxury brands are characterized by long-lasting, slow manufacturing, reinterpretation of the past, timeless, increasing value over time, strong ties to traditional and heritage, durable quality, exclusivity, desire for distinctiveness, a singular value that aligns with self-elevation motivation, and the snob effect. In contrast, fashion brands are ephemeral, involve fast manufacturing, capture the spirit of the present, are timely, lose value over time, originate from immediate creativity, offer normal quality, are widely accessible, are driven by a desire for affiliation and social integration, and have imitation process and the bandwagon effect. Som A. also explained in an Entrepreneurship Issues course at Keio Business School that “Even though fashion brands may set high prices with exceptional craftsmanship and quality, they cannot be considered as luxury brands unless they preserve their heritage and legacy. While exceptional craftsmanship and quality are essential elements for any brands, they are not sufficient on their own to elevate a brand to the level of a true luxury label. Heritage and legacy play a pivotal role in defining luxury. These elements contribute to the brands' identity, its story, and the emotional connection they establish with consumers” (personal communication, January 2024).

However, in the early 2020s, the luxury market has become more inclusive, transcending its traditional elite status. A surge of luxury brands has lowered entry barriers, providing consumers with unprecedented choice. Digital advancements have made luxury products more accessible, empowering consumers to mix luxury with high street fashion — a trend once considered taboo (Som & Blanckaert, 2021).

Elements of Luxury Brands

De Barnier et al. (2012) identified seven critical factors that define luxury brands. These factors, ranked in order of decreasing importance in distinguishing luxury brands, are as follows: 1) Elitism (expensive, limited accessibility); 2) Creativity (high creativity, exceptional craftsmanship); 3) Uniqueness (rare, uncommon); 4) Distinction (reflective of identity, for the discerning); 5) Refinement (captivating, dazzling); 6) Quality (superior, top quality); 7) Power (recognized, top-tier brand).

The literature review by Gummerus et al. in 2023 identifies three perspectives of luxury: provider-created luxury, consumer-created luxury, and co-created luxury. The provider-created luxury perspective suggests that luxury originates within the firm or brand and is integrated into the product during its production. This perspective is defined by three main dimensions: the characteristics of the offering (including price and quality), a luxury strategy focused on restricted availability (encompassing scarcity, exclusivity, and rarity), and a value proposition that highlights distinction and heritage.

The review shows “The consumer-created luxury perspective views luxury as consumer-generated during an experience. The study described it as: 1) Luxury as experiential: lived experience (A first-hand sensorial and emotional involvement in an event or occurrence), Immersion (An experiential activity stimulating senses, generating pleasure, and allowing relaxation), Escapism (A moment that is transient and fluid, freeing one from everyday life), Interpretation (Interpretation of luxuriousness, Multiple and divergent meanings, Focus on meaning for the self) 2) Luxury as self-directed and transformational: Self-worth/Self-communication (Luxury signals to self, ‘Because I am worth it’, Self-gifting) and Identity building and transformation (Luxury as becoming integral to the self and being part of private identity building, Luxury used to influence oneself due to its motivational function, Luxury as a means to construct and transform the self) and 3) Luxury as meaningfulness in life: Well-being (Meaningfulness, contentment, and significance of life represent luxury)” (Gummerus et al., 2024).

Co-created luxury involves firms and customers collaborating to create value through interactions, facilitated by provider-designed platforms. This concept includes four dimensions: multi-actor activities, where customers engage in brand activities and providers facilitate interactions; co-construction, where cultural meanings enhance brand value through consumer interactions; reflecting shared values, where customers and brands share an appreciation for quality and aesthetics; and resource integration, where both parties share knowledge and materials to enhance the luxury experience. Overall, co-created luxury emphasizes the active role of consumers and firms in shaping luxury brand value (Gummerus et al., 2024).

Difference between Lifestyle Brands and Luxury Brands

Lifestyle brands and luxury brands share some similarities but are distinct in their purposes, consumer appeals, and values. Both types of brands emphasize identity, symbolism, and emotional connections with their audiences, making them integral to how consumers express themselves and their aspirations. Additionally, both aim to excel in providing lifestyle experience.

Despite these similarities, the two diverge significantly in their elements. Unlike luxury brands, which are built on heritage and legacy (Som, 2024), lifestyle brands do not necessarily need these attributes. Lifestyle brands take a different approach than luxury brands; they cater to an audience seeking self-expression and alignment with specific lifestyles. These brands often feature accessible price points and emphasize personal and social benefits, which make them appealing to a diverse range of consumers. However, lifestyle brands can also set higher prices and position themselves as more exclusive, limiting accessibility to select groups.

In contrast, luxury brands prioritize exclusivity, timelessness, and heritage (Som, 2014; De Barnier et al., 2012). They target a selective audience drawn to products that symbolize distinction, status, and superior craftsmanship. With prices set at high points and limited availability, luxury brands maintain exclusivity by emphasizing rarity and long-term value. While lifestyle brands evolve by offering an excellent lifestyle experience, luxury brands focus on preserving traditional values, legacy, and cultural heritage. Luxury brands appeal to those who seek both excellence in brand heritage and aspirational experiences.

AI Ability in Image Generation

The study by Park & Anh (2024) evaluates how generative AI images align with consumer perceptions and impact consumer-brand relationships and purchase behavior. Findings show that AI-generated brand personalities in text reflect unique traits specific to each brand and can describe consumer preferences using more direct and clear terms. Using generative AI (ChatGPT-4 and DALL-E 3), images of luxury fashion brands were generated and assessed against established brand personalities. AI-generated images effectively reflect brand personalities, significantly influencing consumer preferences and purchase intentions through self-brand connections.

Building on the research that demonstrates the ability of generative AI tools to create images that align with and enhance brand personalities, this study assumes that AI can extend this capability to product design. Specifically, we propose that AI-generated designs will effectively represent and communicate brand personality traits, resonating with consumer perceptions and preferences. This assumption is supported by evidence showing that AI-generated content can significantly influence consumer-brand relationships and purchase intentions by aligning with brand identity.

AI vs. Human as a Source of Design

Current research on consumer responses to AI-generated products reveals mixed findings, influenced by various factors. Sohn et al. (2021) found that consumers responded positively to GAN-generated fashion designs, valuing customization and co-creation features that increased ease of use and willingness to pay. Participants who were unaware of AI involvement perceived these designs as more novel, whereas those informed expressed mixed reactions, favoring human input. Additionally, the study highlighted AI's social desirability among 20- to 39-year-olds.

Similarly, Zhang et al. (2022) observed that AI-designed products could initially be attractive due to curiosity, leading to higher willingness to pay, though this effect diminished with growing familiarity. Consumer preferences varied by product type, favoring AI for utilitarian products and humans for hedonic items.

Pieconka (2023) further investigated consumer perspectives on AI-designed utilitarian (table set) and hedonic (jewelry) products. Although visually indistinguishable from human designs, AI-generated items evoked both positive and negative emotions. Participants appreciated their novelty but criticized the lack of human touch and personalization, particularly in luxury goods. AI design was more acceptable for utilitarian items, especially in mass production, while hedonic and luxury products faced resistance. However, the qualitative nature and small sample size (15 participants) limit the generalizability of these findings.

Given these mixed results, we hypothesize that:

H0: Consumers' purchase intention for a product does not significantly differ based on whether it is designed by AI or by a human designer, suggesting that factors other than the source of design play a more critical role in shaping purchase decision.

Brand Attitude

Brand attitude, as described by Mitchell and Olson (1981), refers to an "individual's internal evaluation of the brand." Expanding on this concept, Keller (1993) proposed that a consumer's attitude toward a core-brand encompasses their comprehensive assessment of that brand, serving as the foundation for their brand-related behavior.

Brand attitude plays a crucial role in shaping consumers' purchase intentions for extended products. Research has consistently demonstrated a connection between core-brand attitude and the intention to buy extended products (Miller et al., 1971; Aaker and Keller, 1990; Faircloth et al., 2001; Nan, 2006). Flaherty and Pappas (2000) also support that the attitude toward a core brand is a key determinant in determining purchase intention for extended products. A study by Wu and Lo (2009) provides empirical evidence supporting this relationship, revealing a positive and significant correlation between core-brand attitude and purchase intention for extended products. Their findings indicate that a stronger core-brand attitude corresponds to a higher likelihood of purchasing extended products. However, research by Xu & Mehta (2022) indicates that when a luxury brand's core is rooted in emotional value, utilizing AI as a design source

significantly diminishes brand attitude and lowers purchase intention. The negative response is mitigated when a luxury brand's essence stems from functional value.

Lifestyle brands, which offer more than just practical benefits and deeply resonate with consumers' identities, aspirations, and sense of belonging, also possess emotional value. Given that lifestyle brands derive their essence from emotional value, we propose that:

H1: Brand Attitude moderates the impact of Source of Design on Purchase Intention, such that the effect is weaker for AI-designed than human-designed products.

Trust in Designer

Recent business research has similarly defined trust as the expectation that individuals or organizations will fulfill their commitments (Rotter, 1971), with trust helping to mitigate perceived risk (Morgan & Hunt, 1994). Trust is considered essential for the success of many types of relationships (Zand, 1972). Research also points out differences between interpersonal trust and trust in technical systems, noting that technical systems may lack intentionality, which is associated with traits such as honesty and benevolence (Lee & See, 2004). *A user's perception of an AI system's capabilities is a crucial factor in building trust*, influenced by the quality of input data, the problem-solving framework, and the algorithms used. The degree of trust in AI has a direct impact on how much users depend on it (Lee & See, 2004), and this trust has a notable impact on consumers' purchase intentions (Gefen, 2000).

These effects of trust are crucial in shaping consumer confidence in the product quality, functionality, and emotional resonance. When consumers trust that the designer has the expertise to deliver innovative, aesthetically pleasing, and well-aligned products with the brand's identity, it reduces uncertainty and enhances the likelihood of purchase.

The concept of trust in AI-designed products is still relatively unexplored. However, in complex situations, people tend to trust and prefer human involvement (Lui & Lamb, 2018). In the context of design, consumers may favor a human designer over AI due to the perceived complexity and nuance involved in the creative process. Thus, we hypothesize that

H2: Trust in Designer moderates the impact of Source of Design on Purchase Intention, such that the effect is weaker for AI-designed than human-designed products.

Perceived Brand Authenticity

Authenticity is used to refer to the genuineness, reality or truth of something (Bendix, 1992). Morhart et al. (2015) develops an integrative framework of the concept of brand authenticity and reports the development and validation of a scale measuring consumers' perceived brand authenticity, by measuring four dimensions: credibility, continuity, integrity, and symbolism.

Credibility ensures that consumers maintain faith in a brand's consistent delivery of high quality products and adherence to its promises, even when it ventures into new product categories.

Continuity emphasizes a brand's timelessness, historicity, and resilience to trends. It supports

the perception that a brand can innovate or introduce new products while preserving its core identity and foundational values. Together, these two dimensions (credibility and continuity) reinforce the belief that a brand can innovate authentically while remaining true to its values and retaining consumer confidence. **Integrity** emphasizes moral purity, ethical conduct, and adherence to deeply held values. **Symbolism** lies in values that individuals deem significant, thereby contributing to the shaping of their sense of self.

This research evaluates brand authenticity perception both as an overall concept and through specific dimensions of selective credibility and continuity due to their relevance in assessing how consumers view AI-created products in the context of comparing AI and human designers of lifestyle brands.

Research indicates that positive evaluations of brand authenticity significantly influence consumers' purchase intentions, which authentic brands delivers greater consumer and brand-derived values (Napoli et al., 2016). However, a study by Lee and Kim (2024) reveals that consumers often perceive lower authenticity in AI-designed clothing compared to human-designed clothing, despite no significant difference in expected product quality between the two. This disparity arises from the perception that fashion, as a domain emphasizing the human touch, aligns more closely with human designer, leading to higher authenticity perceptions and more favorable consumer responses for human-designed clothing. Thus, we hypothesize that:

H3: Perceived Brand Authenticity moderates the impact of Source of Design on Purchase Intention, such that the effect is weaker for AI-designed than human-designed products.

Self-Brand Connection

Self-congruence refers to the alignment between a consumer's self-concept, actual or ideal, and a product's image (Sirgy, 1982). This theory suggests that individuals choose brands to sustain or enhance their self-esteem (Graeff, 1996) and use them as tools for self-expression and identity affirmation (Escalas & Bettman, 2003). When making consumption decisions, consumers seek to affirm their self-identity by choosing brands whose personality traits align with their own perceived characteristics. This congruence fosters a sense of connection and reinforces their self-concept (Harmon-Kizer et al., 2013; Escalas & Bettman, 2005).

This is also supported by *Lifestyle Congruence* which plays a crucial role in shaping consumer behavior by reflecting psychological preferences, values, beliefs, and consumption patterns. It surpasses demographic factors as a key predictor of consumer choices, providing individuals with a powerful way to express their identities through the brands they select. (Coursaris & Van Osch, 2014; Holt, 1997; Tangsupwattana & Liu, 2017). When brands reflect the lifestyles of their target demographic, they not only cultivate stronger consumer loyalty but also deeply connect with customers by embodying their individual values and preferences (Alnawas & Altarifi, 2016; Catalin & Andreea, 2014). Catalin and Andreea (2014) demonstrate that brands function as tools for self-expression and lifestyle creation, helping consumers build unique social identities. By aligning with sociological and psychological constructs, brands extend beyond hedonic experiences to influence personal and social identity. The alignment offers symbolic

benefits equal to functional attributes, enhances satisfaction, encourages repeat purchases, and strengthens emotional attachments, as consumers view such brands as extensions of their identity and aspirations (Nam et al., 2011; Foxall et al., 1998; Onkvisit & Shaw, 1987).

Brannon (2019) highlights that consumers with self-verification motives prefer products that reinforce challenged aspects of their self-concept, emphasizing the role of self-brand connections in shaping purchase decisions. Asakdiyah et al. (2024) further reveal that both brand personality and brand lifestyle congruence significantly impact purchase intention, suggesting that businesses should focus on cultivating a distinct brand personality and aligning their brand identity with consumers' lifestyles to drive purchasing behavior.

To measure Self-Brand Connection, three items out of seven-item Self-Brand Connection Scale have been adopted, which are: 1. Brand X reflects who I am, 2. I can identify with Brand X, and 3. I feel a personal connection to Brand X (Escalas, 2004), as they are the most relevant to this research.

Based on the theories supporting Self-Brand Connection, an AI designer that can create products effectively embodying brand personalities is more likely to enhance purchase intention. Thus, we hypothesize that:

H4: Self-Brand Connection moderates the impact of Source of Design on Purchase Intention, such that the effect is stronger for AI-designed than human-designed products.

Conceptual Framework

The framework proposed in this research (Figure 1) was developed after reviewing and refining existing theoretical models from prior studies. Figure 1 demonstrates the impact of five independent variables and one moderator. The independent factors in this study are Source of Design, Brand Attitude, Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection, along with their interaction terms with Source of Design. The dependent factor is Purchase Intention. The objective of this research is to assess the impact of independent factors and moderators on the dependent factor.

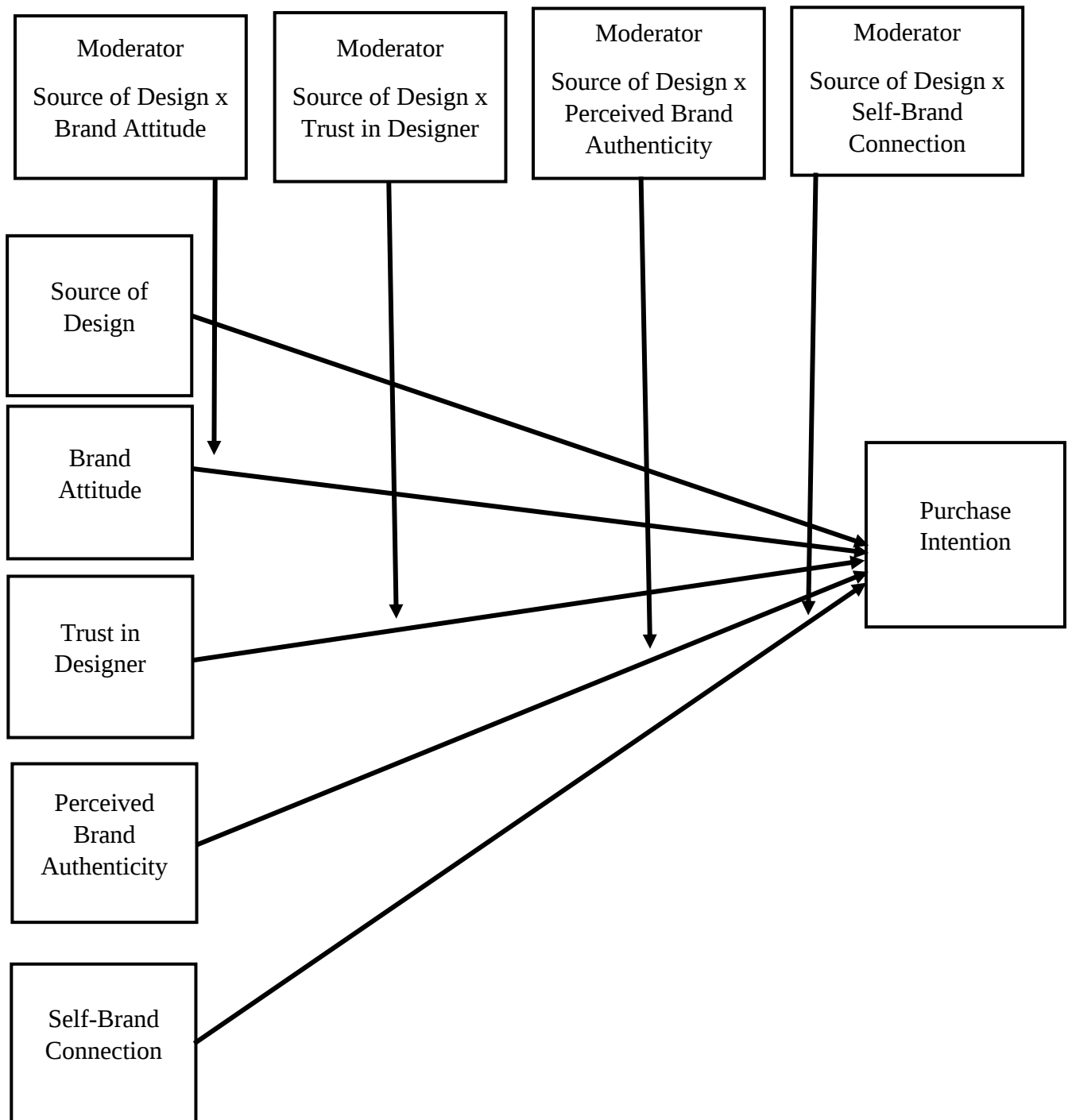


Figure 1

RESEARCH GAP

Research on AI's application in the design process has mainly focused on luxury and non-luxury fashion brands, with limited attention given to mid-range segments, such as premium or lifestyle brands. Despite the widespread adoption of AI technologies such as ChatGPT and machine learning, there remains a significant opportunity to integrate AI into fashion design. However, few studies have explored how AI in the design process influences consumer purchase intentions, and none have considered AI's potential capabilities in this context. As AI continues to evolve through large data sets, it holds great potential as a tool to enhance customer experience and strengthen brand management (Freitas & Ofek, 2024).

As previously mentioned, research has shown that AI can effectively reflect brand personalities, significantly influencing consumer preferences and purchase intentions. While the application of AI in the design process is still emerging, its potential to provide a competitive advantage makes it an important area of study. This research aims to focus on purchase intention for lifestyle brands designed by AI, specifically examining how AI with ability to reflect brand personality in products may influence consumer behavior. Although some studies suggest that AI-designed products may be perceived as lacking emotional depth, there is limited research on how AI design affects the value of lifestyle brands and the study on AI-designed lifestyle brands are still novel. Therefore, it is essential to explore how AI design influences lifestyle brands, considering a variety of elements.

RESEARCH QUESTION

1. How does consumers' purchase intention differ when choosing a lifestyle brand product designed by an AI capable of effectively expressing brand personality versus a human designer with expertise in product design?
2. How do factors such as Brand Attitude, Perceived Brand Authenticity, Trust in Designer, and Self-Brand Connection moderate the impact of AI as the source of design on consumers' purchase intention?
3. How does the source of design (AI vs. human designer) influence consumers' purchase intention?

RESEACH METHODOLOGY

A convenience sample of 142 participants was recruited at the end of 2024 to complete two surveys, one focusing on AI-designed product and the other on human-designed product, resulting in a total sample size of 284 responses. The sample was evenly split between 50% female and 50% male participants, representing a diverse range of nationalities: 59% Asian, 27% European, 7% Latin American, 6% American, and 1% from other regions. The respondents are primarily young adults, with 54% of participants aged 28 to 43, 43% aged 19 to 27, 4% aged 44 to 59, and 1% under 18 years old.

The survey was distributed online and consisted of three sections. The first section gathered demographic information, including nationality, age, and gender of the respondents. The second and third sections each included 9 questions designed to assess the key factors under investigation: Brand Attitude, Trust in Designer, Perceived Brand Authenticity, Self-Brand Connection, and Purchase Intention. These questions were framed for both AI-designed and human-designed products. All questions were answered using a 7-point Likert scale. The responses were gathered and analyzed using SPSS with a multiple regression method. The procedure for analyzing the data comprised several key steps mainly based on Statistics for Research (Wanichbancha, 2024), ensuring that the analysis is robust and reliable which are:

First, Descriptive Statistics. To summarize the demographic data, descriptive statistics were calculated for key variables. This step allows for an overview of the data distribution and give insight into the characteristics of the sample population.

Second, Correlation Analysis. Pearson correlation coefficients were calculated to identify the direction and strength of relationships among the variables. This preliminary analysis helps in understanding the interrelationships between the factors before running the regression model.

Third, Model Selection. Multiple regression models were considered to determine which model best explains the variation in the dependent variable. After comparing the models, the model with the highest explanatory power among seven models was selected. This model provided the best balance between explanatory power and parsimony.

Fourth, Multiple Assumptions Check. Before proceeding with the regression analysis, several assumptions were tested to ensure the validity of the model: 1. Normality of Residuals: The residuals were checked for normality using graphical methods (Q-Q plots and histogram) and statistical tests (Shapiro-Wilk test). 2. No Autocorrelation: The Durbin-Watson test was performed to assess if there was any autocorrelation in the residuals, ensuring that each residual is independent. 3. Multicollinearity: Tolerance and Variance Inflation Factor (VIF) values were checked to detect any issues with multicollinearity. 4. Zero Mean of Residuals: The residuals were examined to confirm that their mean is zero. 5. Heteroskedasticity: Breusch-Pagan and White tests were conducted to check for heteroskedasticity, ensuring that the variance of the residuals is constant across all levels of the independent variables. Heteroskedasticity was found in this stage. To address this issue and ensure that the standard errors are reliable, robust standard errors were applied to adjust for heteroskedasticity. By using robust standard errors, the coefficient estimates remain unchanged, but the standard errors are adjusted to account for heteroskedasticity. This adjustment provides more reliable estimate of statistical significance, ensuring that significance tests remain valid and are not biased by the presence of heteroskedasticity in the residuals.

Fifth, Reliability Check: Prior to conducting the regression analysis, Cronbach's alpha was used to assess the internal consistency and reliability of the scales for the independent variables which are Perceived Brand Authenticity and Self-Brand Connection.

Finally, Regression Analysis with Robust Standard Errors. After confirming that the selected model passed the assumptions (except for heteroskedasticity), robust standard errors were

applied to address the heteroskedasticity issue. The final regression model was analyzed, with emphasis on the significance and direction of the coefficients, as well as how the independent variables and interaction terms contributed to predicting the dependent variable.

DATA ANALYSIS

In this study, mean centering and factor analysis were employed as part of the data preparation and analysis process to examine the predictors of Purchase Intention for AI-designed and human-designed products. These techniques were applied to manage issues related to multicollinearity, enhance the interpretability of interaction terms, and create composite scores for multi-item variables that represent underlying constructs.

Mean centering was applied to continuous independent variables, including Brand Attitude and Trust in Designer. This process involves subtracting the mean of each variable from each observation, which improves interpretability and reduces multicollinearity. Furthermore, to create more reliable and valid measures of latent constructs, factor analysis was conducted on Perceived Brand Authenticity and Self-Brand Connection. Since these constructs were measured using multiple items, factor analysis helped reduce data dimensionality by identifying underlying factors that capture their essence (Kyriazos & Poga, 2023). The factor analysis for both Perceived Brand Authenticity and Self-Brand Connection produced reliable composite measures, which were then used in the regression model. The factor scores were included as independent variables in the regression model, reflecting the consolidated effect of the individual items.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics, comprising means and standard deviations for each factors, were measured using SPSS 29.0.2.0, as revealed in Table 1.

Table 1 Descriptive Statistics		
Variables	Mean	Std. Deviation
Brand Attitude	5.07	1.303
Trust in Designer	5.26	1.419
Perceived Brand Authenticity	5.17	1.440
Self-Brand Connection	4.40	1.562

Based on Table 1, 284 valid answers' means and standard deviations for each factor were analyzed.

Scale Reliabilities

The reliability of the survey was assessed by examining the Cronbach's Alpha values, which were calculated using SPSS. Cronbach's Alpha measures the internal consistency and reliability of a set of survey items.

Table 2 Reliability Analysis		
Variables	Number of Items	Cronbach's Alpha
Perceived Brand Authenticity	3	0.860
Self-Brand Connection	3	0.925

Table 2 demonstrates that the scale of Perceived Brand Authenticity has reliability Cronbach's alpha at 0.86; Self-Brand Connection has reliability Cronbach's alpha at 0.925; which both of them are considered as excellent internal consistency; hence, it can be concluded that all factors are reliable.

Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships between continuous variables. This method is suitable for assessing both the strength and direction of linear relationships between pairs of continuous variables. The analyzed variables include Purchase Intention, Brand Attitude, Perceived Brand Authenticity, Trust in Designer, and Self-Brand Connection.

Table 3 Pearson Correlation for Independent Variables and Dependent Variable					
	Purchase Intention	Brand Attitude	Trust in Ability	Perceived Brand Authenticity	Self-Brand Connection
Purchase Intention	1				
Brand Attitude	.668(**)	1			
Trust in Ability	.609(**)	.552(**)	1		
Perceived Brand Authenticity	.709(**)	.686(**)	.596(**)	1	
Self-Brand Connection	.780(**)	.680(**)	.611(**)	.714(**)	1
** Correlation is significant at the 0.01 level (2-tailed).					

Based on the findings of Pearson correlation coefficient analysis, all factors significantly influence the dependent variables at p-values less than 0.05. The empirical findings from Table 3 demonstrate a strong positive relationship between Purchase Intention and Self-Brand Connection (0.780) and Perceived Brand Authenticity (0.709), among others. At the same time, these results indicate that Purchase Intention is moderately positively related to Brand Attitude (0.668) and Trust in Designer (0.609).

Model Selection Approach

Table 4
Model Comparison

Variables	Model						
	1	2	3	4	5	6	7
Age	0.318* (0.188)	0.017 (0.103)	-0.008 (0.103)	0.005 (0.103)	0.012 (0.104)	0.014 (0.103)	-0.011 (0.104)
Gender	0.013 (0.221)	-0.003 (0.123)	0.017 (0.123)	0.002 (0.124)	0.000 (0.123)	-0.003 (0.123)	0.023 (0.125)
Nationality	-0.071 (0.228)	-0.143 (0.124)	-0.145 (0.123)	-0.152 (0.124)	-0.145 (0.124)	-0.147 (0.125)	-0.140 (0.125)
Source of Design		0.030 (0.118)	0.015 (0.12)	0.022 (0.119)	0.027 (0.119)	0.026 (0.120)	0.018 (0.12)
Brand Attitude		0.176* (0.091)	0.261*** (0.098)	0.175* (0.091)	0.175* (0.091)	0.177* (0.091)	0.310*** (0.116)
Trust in Designer		0.141** (0.059)	0.134** (0.057)	0.166*** (0.064)	0.142** (0.059)	0.136** (0.059)	0.145** (0.069)
Perceived Brand Authenticity		0.342*** (0.1)	0.319*** (0.098)	0.350*** (0.101)	0.303** (0.121)	0.331*** (0.1)	0.447*** (0.157)
Self-Brand Connection		0.727*** (0.111)	0.763*** (0.108)	0.732*** (0.112)	0.730*** (0.111)	0.695*** (0.122)	0.814*** (0.148)
Source of Design x Brand Attitude			-0.208** (0.097)				-0.328** (0.163)
Source of Design x Trust in Designer				-0.085 (0.081)			-0.046 (0.134)
Source of Design x Perceived Brand Authenticity					0.060 (0.110)		-0.193 (0.205)
Source of Design x Self-Brand Connection						0.086 (0.118)	0.098 (0.222)
Intercept	4.252*** (0.307)	4.773*** (0.178)	4.845*** (0.183)	4.816*** (0.185)	4.792*** (0.189)	4.791*** (0.188)	4.830*** (0.182)
R	0.113	0.824	0.828	0.825	0.824	0.824	0.829
R ²	0.013	0.679	0.685	0.680	0.679	0.680	0.688
Adjusted R ²	0.002	0.670	0.675	0.670	0.669	0.669	0.674
Std. Error of the Estimate	1.591	0.915	0.908	0.916	0.917	0.916	0.909
F	1.213	72.734	66.326	64.755	64.507	64.612	49.789
Sig. (ANOVA)	0.305	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
N	284	284	284	284	284	284	284
Df							
Regression	3	8	9	9	9	9	12
Residual	280	275	274	274	274	274	271
Total	283	283	283	283	283	283	283

Standard Errors in parentheses

*** p<0.01, **p<0.05, *p<0.1

The goal was to identify the best-fitting regression model to explain the dependent variable. The models were built step-by-step, starting with a baseline model that included only control variables and then progressively adding independent variables and interaction terms between Source of Design and each independent variable. This process allowed for the evaluation of how each additional predictor contributed to the model's explanatory power and fit.

The baseline model (**Model 1**) included the control variables: Age, Gender, and Nationality. This served as a point of comparison for subsequent models. Next, **Model 2** expanded on the baseline by adding the main independent variables: Source of Design, Brand Attitude, Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection. Models 3 through 6 were then developed by incrementally adding interaction terms to Model 2. Specifically, these interaction terms were: Source of Design $\times$ Brand Attitude (**Model 3**), Source of Design $\times$ Trust in Designer (**Model 4**), Source of Design $\times$ Perceived Brand Authenticity (**Model 5**), Source of Design $\times$ Self-Brand Connection (**Model 6**). **Model 7** expands from Model 2 by incorporating all interaction terms.

To compare these models, several criteria were utilized. ANOVA tests were performed to determine whether the addition of interaction terms significantly improved the model's fit compared to simpler models. These tests included the Degrees of Freedom, F-values, and p-values. Degrees of Freedom helped to assess the model's complexity. The F-statistic was examined to assess the overall significance of the model and to compare the fits of different models. P-values from the ANOVA and for each predictor were used to determine the statistical significance of the model and individual variables. R^2 and Adjusted R^2 were used to evaluate how well the model explained the variance in the dependent variable. Adjusted R^2 also accounted for the number of predictors to avoid overfitting.

Based on these comparisons, **Model 3** was selected as the final model. It had the highest Adjusted R^2 (0.675) among all models, indicating the best balance between explanatory power and model complexity. The inclusion of the interaction term **Source of Design $\times$ Brand Attitude** was both statistically significant and theoretically relevant, providing meaningful insights into the relationship between the independent variables and the dependent variable.

Although Models 4 through 6 incorporated other interaction terms, they did not outperform Model 3 in terms of Adjusted R^2 . Even though **Model 7**, with all interactions included, offered more detailed insights, the results showed that the additional complexity did not provide substantial improvement over **Model 3**.

Ultimately, **Model 3** emerged as the most suitable model for this analysis, as it provided a good balance between model fit, statistical significance, and interpretability. The inclusion of **Source $\times$ Brand Attitude** interaction proved to be a critical factor in explaining the variance in **Purchase Intention**. Additionally, the simpler structure of **Model 3** made it easier to interpret and more parsimonious than the more complex models, such as **Model 7**, which did not offer significant improvements in key performance metrics.

Multiple Regression

The results of the multiple regression analysis reveal key insights regarding the impact of various factors on Purchase Intention. The overall model is significant, with an **adjusted R² of 0.675**, indicating that approximately 67.5% of the variance in purchase intention can be explained by the included variables. The **Source of Design** (whether the product is designed by AI or a human) was found to have no significant effect on purchase intention, as evidenced by its non-significant coefficient (**B = 0.015, t = 0.124, p = 0.901**). Our findings suggest that consumers do not exhibit a strong preference for human-designed products over AI-designed ones when other factors are controlled for. This challenges the common belief that human input is more desirable than AI in creative or emotionally engaging tasks, as suggested by prior research that consumers often hesitate to rely on algorithms for subjective tasks, as they perceive algorithms to be less capable of managing the nuanced, creative, or emotional aspects typically associated with human expertise (Castelo et al., 2019). Contrary to this assumption, our results reveal that the perceived distinction between AI and human designers does not significantly impact consumer behavior. Instead, consumers appear to prioritize tangible outcomes over the source of the design, signaling a potential acceptance of AI's role in creative processes.

However, **Brand Attitude** emerged as a significant predictor of purchase intention (**B = 0.261, t = 2.649, p = 0.009**), indicating that more positive brand attitudes are associated with higher purchase intentions. In addition, **Trust in Designer** (**B = 0.134, t = 2.358, p = 0.019**), **Perceived Brand Authenticity** (**B = 0.319, t = 3.243, p = 0.001**), and **Self-Brand Connection** (**B = 0.763, t = 7.084, p < 0.001**) all showed significant positive relationships with purchase intention. These results imply that stronger trust, authenticity, and connection with the brand contribute to a greater likelihood of purchase. These results align with the existing literature on the relationships between Brand Attitude and Purchase Intention (Miller et al., 1971; Aaker and Keller, 1990; Faircloth et al., 2001; Nan, 2006; Flaherty & Pappas, 2000; Wu & Lo, 2009), Trust and Purchase Intention (Gefen, 2000), Brand Authenticity and Purchase Intention (Napoli et al., 2016), and Self-Brand Connection and Purchase Intention (Brannon, 2019; Asakdiyah et al., 2024). These findings further confirm that factors such as brand attitude, authenticity, self-brand connection, and trust are critical drivers of consumer purchase intention.

The interaction between **Source of Design** and **Brand Attitude** (Source x Brand Attitude) was significant (**B = -0.208, t = -2.148, p = 0.033**), suggesting that brand attitude can be influenced by the source of design. Specifically, while consumers may not initially care whether a product is AI-designed or human-designed, their attitudes toward the brand become less positive once they realize that the product was designed by AI. This negative interaction effect indicates that consumers' brand attitudes may shift to be less favorable upon knowing the design source. This study aligns with the findings of Xu and Mehta (2022), which revealed that for luxury brands whose identity is deeply rooted in emotional value, utilizing AI as a design source significantly diminishes brand attitude and lowers purchase intention. Similarly, our research suggests that for emotionally driven lifestyle brands, the human element in design plays a critical role in preserving brand attitude.

Additionally, in the analysis, we also examined a comprehensive full model (Model 7) that included the Source of Design (AI vs. human) and all key factors, which are Brand Attitude, Trust in Designer, Perceived Brand Authenticity, Self-Brand Connection, and all of their respective interactions with the Source of Design. The results revealed that the interaction terms between Source of Design and Trust in Designer, Source of Design and Perceived Brand Authenticity, and Source of Design and Self-Brand Connection were all statistically insignificant. Specifically, the non-significance of these interaction terms suggests that the Source of Design (AI or human) does not significantly moderate the relationship between Trust in Designer, Perceived Brand Authenticity, Self-Brand Connection, and Purchase Intention. This could imply that, regardless of the source of design, consumers' trust in the designer, their perception of brand authenticity, and their self-brand connection remain important predictors of purchase intention, indicating that the consumer's perception of the brand and its alignment with their values or identity is more influential than whether the product is designed by AI or a human. This could reflect that both AI and human designers are perceived similarly in terms of their ability to create products that align with these key factors. Therefore, the source of design does not necessarily change how these factors impact the consumers' purchase decision. This finding is particularly noteworthy, as it challenges the assumptions in previous literature that the source of design plays a significant role in shaping consumer attitude and behavior, especially the finding that using AI could lead to a negative response from consumers, as shown in research by Sohn et al. (2021) that consumers favor human designers when they are aware of the source of design, and the research on using AI in design for hedonic and utilitarian products, which found that AI designers are less acceptable for hedonic products, as stated by Pieconka (2023).

In addition, to my knowledge, these interactions (Source of Design and Trust in Designer, Source of Design and Perceived Brand Authenticity, and Source of Design and Self-Brand Connection) have not been extensively explored in past research, making this discovery a unique contribution to the field. Furthermore, these findings differ from previous research in how they collectively incorporate the variables of Brand Attitude, Perceived Brand Authenticity, Trust in Designer, and Self-Brand Connection in relation to Purchase Intention, further emphasizing the novelty of this study.

The overall findings suggest that while consumers may not initially perceive the source of design (whether AI or human) as a significant factor in shaping their purchase intention, other attributes such as Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection are crucial determinants of their purchase intention, and they are not moderated by Source of Design. However, once consumers become aware that the product is designed by AI, their brand attitude shifts negatively. This implies that, although the intrinsic qualities (Trust, Authenticity, Self-connection) of the brand are central to consumer decision-making, the revelation of AI involvement in the design process leads to a change in attitude, diminishing the positive effects on Purchase Intention. This highlights the nuanced role of design source in influencing consumer attitudes and underscores the importance of human factors in maintaining positive brand perceptions.

CONTRIBUTIONS

Transparency and Communication

This research affirms that the negative interaction between the Source of Design and Brand Attitude is not limited to luxury brands but is also evident in lifestyle brands. When a brand's value is derived from emotional engagement, the involvement of AI in creative and emotionally-driven processes should be approached with caution.

In addition to previous research, this study finds that authenticity is one of the key factors determining consumers' purchase intention and integrity is one of the factors that defines authenticity (Morhart et al., 2015). Although brand attitude is a significant factor that can be diminished when consumers learn that the source of design is AI, maintaining authenticity and integrity in the use of AI is crucial. Therefore, transparency regarding AI's role in the design process must be carefully managed, as miscommunication could harm both brand authenticity and its perception. Brands should strategically communicate the use of AI in design, emphasizing the benefits of innovation while mitigating potential negative perceptions. For example, presenting AI as an enhancement to human creativity rather than a replacement can help preserve a positive brand image.

During a discussion with Associate Professor Chiara Piancatelli, who was responsible for Global MBA network – Lifestyle Brand Management at SDA Bocconi School of Management in Milan, Italy, in September 2024, she explained that “authenticity is a critical element for lifestyle brands, especially when engaging with Generation Alpha. If a brand chooses to incorporate AI into its design process, it is essential to communicate this decision transparently to consumers. The use of AI does not inherently compromise a brand's authenticity; however, failing to disclose its role in the creative process could undermine consumer trust and damage the brand's authenticity. Therefore, any communication with consumers regarding the integration of AI should be approached thoughtfully and transparently to maintain the brand's integrity, genuineness, and alignment with its core values” (personal communication, September 2024).

AI as a Complementary Tool

Given the potential negative impact on brand attitude when AI is perceived as a substitute for human creativity, if a brand is uncertain about incorporating AI into its design process, it is advisable **to position AI as a complement to human designers rather than a replacement**, such as navigating design patterns or predicting trends. This approach helps preserve positive consumer perceptions of the brand. For instance, AI can be promoted as a tool that supports designers in creating better products. In this way, the brand can maintain its authenticity while leveraging the efficiency and innovation that AI offers.

Emphasizing Key Factors

The novelty of this research lies in its findings, which have not been addressed in past studies. This research reveals that Trust in Designer, Perceived Brand Authenticity, and Self-Brand Connection are crucial factors that are not influenced by the Source of Design. These elements were shown to be significant drivers of purchase intention, highlighting the need for brands to prioritize their cultivation in marketing and brand strategies. By strengthening consumers' emotional connection to the brand and reinforcing perceptions of trust and authenticity, brands can enhance their overall appeal—regardless of the design source.

LIMITATIONS AND FUTURE RESEARCH

This study presents several limitations that should be considered when interpreting the results. First, the research focuses on AI-generated design in the context of lifestyle brands, which is a relatively new area of investigation. As a result, the findings may not fully capture the complexities involved in integrating AI into the design process for other types of brands or industries. Additionally, the study is based on consumers' perceptions and intentions, which may not always translate into actual purchasing behavior. The use of a convenience sample also limits the generalizability of the findings, as the participants were selected from a specific group and may not represent the broader population. Furthermore, this research was conducted by distributing two surveys (AI and human designers) to the same respondents. There was no division between the AI case and the human case. Without the separation of survey groups, it could have the potential issue of **survey order effects** or **carryover effects**, where respondents who complete the first survey (AI designer) might have their responses in the second survey (human designer) influenced by their prior survey affecting respondents' perceptions and decision-making. Additionally, the survey did not first test whether respondents were actual consumers of the chosen lifestyle brand, but instead asked them to imagine adopting the brand's personality. It used a narrative method, prompting respondents to envision having a personality based on the brand. This approach may not yield reliable or relevant results, as respondents may not have a genuine connection to the brand or its characteristics. Instead, they may respond based on assumptions or limited understanding of the brand, rather than drawing from personal experience or identification with it. As a result, the findings could be skewed, making it important to refine the survey design to ensure respondents are actual consumers of the brand before asking them to engage in this exercise.

Additionally, while AI's ability to reflect brand personality through images was assessed, the research did not address the physical product design process, where other factors such as materials, manufacturing constraints, and craftsmanship play a crucial role. Lastly, the research did not explore potential differences in consumer perceptions across various age groups, backgrounds, or levels of familiarity with AI technologies, which may have influenced the results.

Future research could expand on this study by examining the impact of AI-generated design on actual purchase behavior rather than just purchase intention. Additionally, exploring how AI can be integrated into the full product development process would provide valuable insights, especially in the context of materials and manufacturing. It would also be beneficial to investigate the role of AI in different industries, such as the premium and affordable luxury sectors, which are also underexplored, to determine whether the findings can be generalized beyond lifestyle brands. Further research could consider the influence of demographic factors such as age, background, and prior experience with AI technologies on consumer perceptions of AI-designed products.

APPENDIX 1: SURVEY

Part 1

Gender: Female / Male

Nationality: Please fill in your nationality.

Age: 18 or lower/ 19-27/ 28- 43/ 44-59/ 60-69/ 70 or higher

Part 2

Imagine that **Nike** has just launched a new product designed by AI. The AI design system has analyzed Nike's key characteristics, focusing on its core values of **innovation, inspiration, and inclusivity** and created a product that *effectively* reflects these values.

Instructions:

For the purpose of this survey, please imagine that **you have a personality that aligns well with these core values of Nike** (innovation, inspiration, and inclusivity). Please answer the all the questions based on this imagined personality.

1. How is your attitude toward Nike as a brand after seeing this AI-designed product?
From 1-Very negative to 7-Very positive
2. How well do you think NIKE is remaining true to its values (innovation, inspiration, and inclusivity)?
From 1-Not very well to 7-Very well
3. How well do you think that NIKE is maintaining its high credibility and quality?
From 1-Not very well to 7-Very well
4. How well do you think NIKE has maintained brand's authenticity?
From 1-Not very well to 7-Very well
5. Do you trust that AI is able to design a product that aligns well with the brand's core values ?
From 1-Not at all to 7-Very well
6. After hearing of this new product, to what extent do you think Nike reflects who you are?
From 1-Not at all to 7-Very well
7. After hearing of this new product, to what extent you can identify yourself with Nike?
From 1-Not at all to 7-Very well
8. After hearing of this new product, do you feel any personal connection with Nike?
From 1-Not at all to 7-Very well
9. How likely are you to purchase this product, based on this AI designer and its alignment with Nike's values? (Do not consider the product's price difference between AI and human designers in your decision.)
From 1-Not at all to 7-Very likely

Part 3

Imagine that **Nike** has just launched a new product designed a by a lead designer. The designer uses his experience to design the product that reflects Nike's core values of **innovation**, **inspiration**, and **inclusivity**.

Instructions:

For the purpose of this survey, please imagine that **you have a personality that aligns well with these core values** (innovation, inspiration, and inclusivity). Please answer the all the questions based on this imagined personality.

1. How is your attitude toward Nike as a brand?
From 1-Very negative to 7-Very positive
2. How well do you think NIKE is remaining true to its values (innovation, inspiration, and inclusivity)?
From 1-Not very well to 7-Very well
3. How well do you think that NIKE is maintaining its high credibility and quality?
From 1-Not very well to 7-Very well
4. How well do you think NIKE has maintained brand's authenticity?
From 1-Not very well to 7-Very well
5. Do you trust that the designer is able to design a product that aligns well with the brand's core values?
From 1-Not at all to 7-Very well
6. After hearing of this new product, to what extent do you think Nike reflects who you are?
From 1-Not at all to 7-Very well
7. After hearing of this new product, to what extent you can identify yourself with Nike?
From 1-Not at all to 7-Very well
8. After hearing of this new product, do you feel any personal connection with Nike?
From 1-Not at all to 7-Very well
9. How likely are you to purchase this product, based on this designer? (Do not consider the product's price difference between AI and human designers in your decision.)
From 1-Not at all to 7-Very likely

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