

Consumer Reactions to AI-Versus-Human Designed Packaging

Enrique Mridha (50729)

Abstract: As brands increasingly deploy Generative Artificial Intelligence (GAI) for creative marketing purposes, understanding of consumer acceptance and evaluations remains ambivalent. Despite rising legislation mandating AI disclosure, research on consumer perceptions within the field and particularly in packaging design remains limited. Drawing on signaling theory, machine heuristics, Mind-Perception Theory, and AI lay beliefs, this thesis aims to contribute to the body of research by investigating how disclosing AI (versus human) as the packaging design creator influences consumer brand evaluations. To do so, this thesis develops a dual-pathway model capturing core trade-offs triggered by AI disclosure. The model examines whether AI disclosure activates warmth-based deficits (reduced brand authenticity and creativity) or competence-based gains (enhanced brand modernity), and how these competing inferences shape brand attitudes. Moreover, this thesis aims to test brand identity as a moderating factor in shaping consumer brand evaluations when exposed to an AI-generated packaging design. Through an experiment, this thesis provides empirical evidence that AI disclosures trigger negative warmth-based inferences that fully dominate brand evaluations even when competence-based benefits are theoretically plausible. Specifically, brands disclosing their packaging design as AI-generated will be perceived as less authentic and less creative which ultimately results in lower brand attitudes, compared to brands disclosing their packaging design as human-created. Contrary to prior findings, AI disclosure did not enhance perceptions of brand modernity, nor did brand identity moderate the effects. These findings reveal substantive risks for brands employing AI in packaging design, offering important theoretical and managerial implications.

Keywords: Artificial Intelligence, AI, Disclosure, Packaging Design, Consumers Perceptions:

Supervisor: Jonas Colliander

Date Examined: 16-12-2025

Discussants: Hans Kjellberg & Stefan Haeffliger

Examiner(s): Mangyuan Zhang

Acknowledgements:

I would like to express my gratitude to my supervisor Jonas Colliander, for the support and guidance throughout this thesis, and Rosel for providing valuable final feedback.

Furthermore, I would like to express my sincerest thanks to Norstat and specifically Torbjörn Månsson for providing me with a representative and large sample, as well as quick and insightful replies throughout our collaboration.

Enrique Mridha

Table of Contents

Table of Contents	3
1. Introduction:	5
1.1 Background:	6
1.2 Problem Area:	6
1.3 Purpose	7
1.4 Delimitations:	9
1.5 Disposition:	10
2. Literature Review:	10
2.1 AI in Marketing	11
2.2. Generative AI in Marketing	11
2.3 Packaging Design in Marketing	12
2.4 AI Disclosure Effects Across Branding Contexts	13
2.6 Competence-based Pathway: Enhanced Novelty & Technological Capability	16
2.7 When Warmth vs Competence Inferences Dominates	17
2.8 Generalizability to Packaging Design:	18
2.9 Implication for theoretical framework	19
3. Hypothesis generation	21
3.1 Signaling theory:	21
3.2 Hypothesis Development	22
3.3 Packaging Design Outcomes	29
3.5 Brand-identity	31
3.6 Hypothesis Summary	32
4. Method	34
4.1 Scientific Approach and Research Strategy	34
4.2 Preparatory Work	35
4.2.2 Pre-Study Design & Distribution	37
4.3 MAIN Study	38
4.3.3 Data Analysis	42
5. Results And Analysis	43
5.2 Hypothesis testing:	44
5.3 Additional testing of Conceptual framework: Hypothesis 4b	45
5.5 Summary of Results	48
6. Discussion	50
6.1 General Discussion	50
6.2 Implications for Theory	54

6.3 Implications for Managers	56
6.4 Conclusion	57
6.5 Limitations and Future Research	58
References	60
Appendix	71
Appendix A - Questionnaire	71
Appendix B - AI Disclosure	78

1. Introduction:

The rapid evolution of Artificial Intelligence (henceforth referred to as AI) has, and continues to significantly shape and influence the business landscape, continuously presenting new and improved-use cases. When looking across business industries, marketing has been posited to have the most to gain from AI and its adoption is slowly becoming visible across the entire marketing process. In recent years, product packaging designs have emerged as one highly promising application of AI within the marketing domain (Xia & He, 2025). Packaging plays an important role in creating a strong impression of a brand since consumers often evaluate brands based on their perceptions of the product's packaging (Krishna et al., 2017). In 2023, Coca Cola employed AI to develop both the packaging and flavour of its Y3000 limited edition Zero-Sugar Cola, while Wanglaoji, a leading brand of traditional Chinese beverages, recently launched its first AI-generated custom designed can, receiving widespread consumer praise (Xia & He, 2025). Although AI offers significant potential, there is still little research investigating the intersection of AI content creation and its application in marketing - particularly in packaging design. Hence, the purpose of this thesis is to delve deeper into AI application in the marketing domain, specifically investigating AI's application in product packaging design.

1.1 Background:

AI has traditionally been employed and associated with analytical tasks such as data analysis with less focus on its usage in more creative tasks (Statista, 2019). However, the advantages of using AI in more creative industries is becoming increasingly recognized (Anantrasirichai and Bull, 2021). The rapid development of generative AI, together with increased academic attention has led to an intensification of innovation in more creative industries. Reflecting the intensification, major global firms such as Coca Cola, Gucci and Axel and Arigato, have begun experimenting with AI-generated creative content, illustrating how AI is moving from its traditional analytical role to the forefront of content creation and brand expression.

1.2 Problem Area:

While AI offers substantial opportunities for new businesses, new technologies tend to alter consumers behaviours, which may imply risks for companies. AI in particular has been poised to be such a technology that will significantly reshape both customer behaviours and marketing strategies (Varsha et al., 2021).

Public understanding of AI is currently scattered and intuitive (Chen et al., 2022). As noted by Zhu et al. (2022), consumers attitudes towards AI are seldom positive and differ based on consumption context, consumer characteristics and other specific situations. Persistent public scepticism, and limited user acceptance of AI has been described to be a core challenge over the past decades (Vlaic et al., 2021). Concerns related to ethics, the speed of speed of change, whether AI is being developed responsibly, overreliance on technology and reduced creativity continues to shape consumers attitudes towards AI (Statista, 2025; Heidenborg & Kaveryd, 2023). Such consumer skepticisms and concerns regarding AI present significant risk to a brand reputation when adopting AI in their marketing efforts (Anshari et al., 2021).

Furthermore, given the mixed and often context-dependent findings on how consumers evaluations are influenced by AI-generated content, companies remain uncertain of how consumers might react to the use of AI in their brand communication initiatives. Although prior studies suggest that the objective quality of AI-generated and human-generated content does not necessarily differ (e.g., Wang et al., 2022), findings from literature demonstrates that consumers feelings and perceptions towards AI strongly influence their evaluation of the

AI-generated content, which subsequently spill over to shape brand evaluations (e.g. Xu and Mehta, 2022, Brüns & Meißner 2024; Xia & He, 2025). This uncertainty exposes potential reluctance toward AI adoption in brand communication initiatives among practitioners, which in turn, strongly highlights the pressing need to explore this area further

1.3 Purpose

Existing research on consumers perceptions of AI generated content remains fragmented and the literature remains at an early stage. Prior studies have investigated consumers perceptions of AI generated content in advertising contexts, with more recent studies beginning to explore design-related settings, particularly apparel design. However, consumer responses might vary across different marketing contexts and the role of AI driven packaging design, in particular, remains empirically unexplored (Xia & He, 2025). Given that the use of AI is increasingly being employed for packaging and design purposes among major brands with increasing legislation pushing firms towards greater transparency, this knowledge gap has become both timely and managerially relevant to address.

Since the topic of AI evokes mixed feelings and ambivalent attitudes (Wu et al., 2022) and that consumers perceptions are what matters at the end of the day (Dahlen, Rosengren, & Torn, 2008), this thesis responds to the strong need to understand the phenomena of what effect disclosing AI as the creator of a packaging design have on consumers brand perceptions and judgements. By focusing on product packaging, which conveys nonverbal brand meaning much like advertising does (Söderlund et al, 2017), but represents a subtler and less persuasive form of brand communication, where evaluations are shaped by both aesthetic and functional cues, this study extends prior research in advertising and design contexts.

In doing so, this thesis contributes to marketing literature by addressing an emerging area at the intersection of AI, packaging design, and consumer perceptions (figure 1). A few steps in the area of AI disclosure and packaging design have been taken by Xia and He (2025) and this thesis will continue in the same direction and expand upon their work.

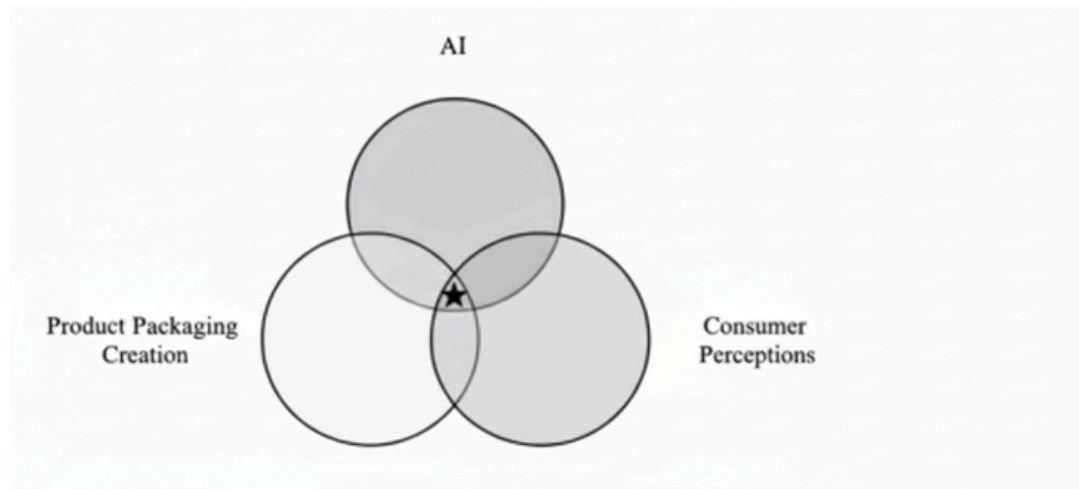


Figure 1. Research contribution area

The study will focus on developing and testing a theoretical framework investigating how AI disclosure influences consumers brand evaluations through a dual-pathway model incorporating both warmth-based and competence-based inferences. While previous studies have investigated both types of inferences independently, this study uniquely integrates them to capture the core-trade triggered by AI disclosure. In doing so it provides a more coherent explanation of how AI-designed packaging may shape brand evaluations and why effects might differ across different brand contexts. Accordingly, the study will focus on the following research questions:

What are the effects on consumer perceptions and brand evaluations when presenting AI as the creator of a brand's packaging design?

Specifically, the thesis will seek to answer the following three sub questions:

- 1. What are the effects on brand creativity, brand authenticity, and brand modernity when presenting AI (vs. human) as the creator of packaging design?*
- 2. What are the effects on overall brand attitude when presenting AI (vs. human) as the creator of packaging design?*
- 3. What is the difference in brand attitude between innovation-oriented vs. heritage-oriented brands when presenting AI (vs. human) as the creator of packaging design?*

1.4 Delimitations:

In order to provide a focused, actionable and impactful analysis, a delimitation of the scope is deemed necessary. While there are many potential dimensions through which it can be expected that disclosing AI in packaging design would have an impact on consumer brand perceptions and judgements, this study concentrates on a few relevant and specific dimensions informed by the brand perception framework by Kervyn, Fiske and Malone (2012).

The framework posits that consumers' perceptions of brands are formed through two key dimensions: A warmth-based dimension, reflecting perceptions of sincerity, honesty and benevolent intent and a competence-based dimension, reflecting perceptions of efficiency, skill and technological capability. This framework was deemed suitable because the existing literature on AI disclosure reveals a consistent tension between warmth-based losses and competence-based gains that maps directly onto these dimensions. In this thesis, the warmth dimension is conceptualized through brand creativity and brand authenticity, constructs anchored in perceived human intention, sincerity and emotional expressiveness and the competence dimension is conceptualized through brand modernity anchored in perceived novelty, innovation and forward-orientation. Together, the effects of these perceptions are measured through brand attitude, which serves as the central outcome variable in this thesis. Overall, these mediators provide a balanced conceptual model that is designed to capture the core-trade off triggered by AI disclosure: a potential loss of perceived human touch and a potential gain of novelty and technological competence.

Finally, the data collection was done through an online survey which is confined to Sweden, thus, restricting the finding to the Swedish population. Moreover, this study focuses exclusively on a brand's product packaging presented in a social media context. Lastly, the product category tested in the experiment was skincare, a product category with a perceptually broad positioning that can carry hedonian, utilitarian or mixed associations depending on how it is framed.

1.5 Disposition:

This introduction chapter has outlined the topic of interest and delimited the scope of this study. The the rest of the thesis is organized as follows:

(2) Literature review: Presents a comprehensive review of AI in content creation, synthesises findings from adjacent domains and outlines the persistent tensions in AI disclosure research that motivate examining AI within the packaging design creation domain.

(3) Hypothesis Generation: Presents the core theoretical perspectives - signaling theory, machine heuristics, mind-perception theory, and AI lay beliefs and develops hypotheses with support from these theories and conceptual perspectives.

(4) Methodology: Describes and motivates the design of the study and the scientific approach.

(5) Results and Analysis: Details the statistical analyses conducted to test the hypotheses and a presentation of the results.

(6) Discussion and Conclusion: The thesis concludes with a discussion of the results, followed by theoretical and managerial contributions, a conclusion and limitations and suggestions for further research.

2. Literature Review:

In the following section a thorough examination of the current state of research concerning the role of AI in content creation is presented, specifically focusing on AI disclosures effect on consumers perceptions and judgements. First it outlines the evolution and rapid diffusion of AI in today's marketing landscape and the emergence of generative AI as a transformative tool initiating a wave of innovation in the marketing domain. The literature review then proceeds with reviewing foundational research on packaging design. Thereafter, the chapter continues with synthesizing empirical findings from advertising and design-studies to illustrate how AI disclosure has been shown to shape consumers evaluations across marketing contexts.. Building on this empirical foundation, this chapter highlights emerging theoretical perspectives that together provide the conceptual foundations for understanding consumers perceptions of AI involvement, why those effects may vary across context, and supports the dual-pathway model proposed in this thesis.

2.1 AI in Marketing

The adoption of AI is not limited to any one area but is manifesting across the entire marketing process (Vlačić et al., 2021; Wu & Wen, 2021). Marketing has been described to be the industry which has most to gain from AI, where the business incentives for adoption of AI are substantial, which has elicited a significant drive to understand the current state but also understanding the future trajectory of it (Davenport et al., 2020).

With the growing integration of AI in the marketing domain, it is increasingly important that marketers ensure that transparency of AI involvement is promoted in the content generation pipeline to clarify potential ethical concerns and trust issues (Kshetri et al., 2024; Anisin, 2023). Amidst this landscape, governments across the world have started implementing regulatory frameworks for AI disclosure. The European Union passed the world's first AI legislation act in 2024, which mandates firms to disclose their use of AI and the US is soon expected to follow with similar legislation.

2.2. Generative AI in Marketing

One domain through which AI applications have exploded during recent years is Generative AI (henceforth termed GAI). GAI has shown to be one of the most essential tools driving the adoption of AI in businesses. Through the use of GAI, AI models can produce novel, human-like content including texts, graphics, audios and videos by analyzing existing data patterns (Ansin, 2023).

Generative AI systems such as ChatGPT, StableDiffusion and Midjourney have provided marketers with a wide variety of novel and powerful tools to optimize content creation processes and create new content (Anisin, 2023). Considering the myriad of opportunities GAI presents it is not surprising that brands are increasingly integrating it into all aspects of their branding communication. Packaging has been highlighted as one of the most promising applications of GAI (Xia & He, 2025). This is unsurprising considering that the inherent visual nature of packaging design aligns well with the opportunities GAI presents, especially in terms of excelling in rapidly generating and iterating high-quality visual designs and content (Anisin, 2023)

2.3 Packaging Design in Marketing

Packaging plays an important role in creating a strong impression of a brand since consumers often evaluate brands based on their perceptions of the product's packaging (Krishna et al., 2017). As Orth and Malkewitz (2008, p.64) puts it, packaging design contributes to brand communication by creating and reinforcing brand impressions that extend beyond the product itself. Given that many studies have highlighted that packaging can contribute to influencing brand identity, brand personality, differentiation and creation of brand meaning, its role within the marketing mix has become increasingly relevant (Binninger, 2015; Gómez et al., 2015; Hollywood et al., 2013; Holmes & Paswan, 2012; Underwood, 2003; Wang, 2013).

From a signaling perspective, research has demonstrated that visible design elements of the packaging design such as color, size, shape, and overall composition functions as observable signals of otherwise unobservable brand qualities. Subtle changes in packaging design elements has been shown to influence downstream perceptions since consumers often rely on heuristics to interpret these cues (Marozzo et al., 2019; Labrecque & Milne, 2011). For instance, simple packaging designs have been shown to elicit greater perceptions of brand authenticity compared to complex ones (Wang et al., 2023), the type of colours used has been shown to affect brand personality (Labrecque & Milne, 2012) and brand managers and retailers frequently adopt creative packaging to signal brand meaning and quality (Togawa et al., 2019; Karjalainen & Snelders, 2010; Mzoughi et al., 2017; Orquin et al., 2019).

Taken together, the packaging design literature consistently demonstrates that visual design cues meaningfully influence consumers perceptions of the brand. Yet, while these studies highlight the impact of visual and tactile elements on brand perceptions, the role of AI-disclosure in packaging design remains largely unexplored. This gap establishes an important foundation for further investigating how additional cues embedded in the packaging design - such as the explicit disclosure of the design source itself (AI vs human-generated) - shapes consumers brand perceptions, offering new insights into the evolving relationship between AI and branding.

2.4 AI Disclosure Effects Across Branding Contexts

Research on consumers perceptions of AI-generated content for marketing purposes has yielded mixed findings. In apparel design studies findings indicate that consumers respond more favourably to human-designed output (e.g Lee & Kim, 2024; Lee & Kim, 2025). At the same time, recent empirical evidence in product and packaging design studies suggest that AI involvement in the design process can yield positive evaluations related to novelty, innovativeness and modernity (Xu & Mehta, 2022; Li et al., 2025; Xia & He, 2025).

A similar ambivalence appears in advertising research. While some studies suggest that AI in content creation improves consumers reception regarding novelty and complexity (Mayahi & Vidrih, 2022; Ratta et al., 2024), other studies emphasise concerns about authenticity, trust and emotional connection (Sharma & Lal, 2024; Aljarah et al., 2024). Crucially, the persuasive nature of advertising often results in AI disclosure increasing inferences of manipulative intent (Wortel & Tomas, 2024). This has been shown to reduce source credibility, consumers perceptions of the advertising and associated behavioural outcomes (Arango et al., 2023; Bui, 2025; Wortel & Tomas, 2024; Baek et al., 2024).

Importantly, while studies have shown that there is not necessarily a difference in quality between human and AI-generated content (Wang et al. 2022), research consistently demonstrates that consumers perceptions towards AI strongly influence their evaluation of the AI-generated content itself. Building on this, a second stream of research has therefore focused more on the cognitive factors influencing how consumers process AI-generated content. This work highlights a perceived disconnect between the creator (AI) and the output, and these cognitive biases appear deeply rooted in how consumers mentally process and evaluate AI-created content. For example, Wu and Wen (2021) found that evaluations of AI-created advertising were influenced by perceptions that the advertising creation process was more objective, an inference driven by the machine heuristic. Similarly, Chen et al. (2024) demonstrated that consumers attribute different capabilities to AI versus human creators, perceiving AI as competent in logical tasks but lacking the capability for emotional expression.

Taken together, prior research shows that AI disclosure can trigger both positive and negative consumers responses. While AI involvement may enhance perceptions of novelty and

modernity, it can also heighten concerns related to trust, authenticity, and emotional connection. This duality necessitates the need for understanding the conditions under which AI disclosure produces these two distinct evaluative inferences.

2.5 Warmth-Based Pathway: Reduced Human intentionality & Emotional Depth

2.5.1 AI Disclosure and Authenticity Perceptions

Studies investigating the effects of AI disclosure in apparel design settings has consistently demonstrated that AI-generated designs are often seen as lacking emotional and symbolic value, resulting in weaker brand perceptions, reduced authenticity and lower perceived design expertise (Lee & Kim, 2024; Lee & Kim 2025; Xu & Mehta, 2022). These effects have been attributed to lower perceived authenticity perceptions from AI which stemmed from the large discrepancy between AI and consumers existing fashion design schemas, which are closely linked to expectations of human agency, designer intentionality and craftsmanship (Lee & Kim, 2024; Lamb & Kallal, 1992).

Similarly, disclosing advertising content as AI generated has been shown to trigger moral discomfort, lower authenticity perceptions (Lou & Copeland, 2025; Kirk & Givi, 2024) and a decreased preference for the brand (Lim &Schmälzle, 2024). Lou & Copeland (2025) for instance demonstrated that fashion visuals when disclosed as AI-generated were immediately perceived as less authentic since participants felt that AI as a creator reflected a lack of creativity, emotional depth and human intentionality, qualities that respondents expected from “authentic fashion advertising”. Kučinskas (2024) and Brüns and Meißner (2024) provide support for that AI disclosure effects extends beyond the content itself to shape brand level evaluations, demonstrating that brands using AI-generated content in their marketing efforts experienced significant reductions in brand authenticity, brand image and brand trust perceptions.

2.5.2 AI disclosure and Creativity Perceptions

Unlike authenticity perceptions which have been widely documented to diminish across studies, AI disclosure and its effect on creativity perceptions have often yielded mixed empirical findings in prior research. Broader literature on AI-generated content reflects this

ambiguity, with some studies finding that creativity perceptions remain unchanged when AI involvement is disclosed, whereas others document negative effects. While Chamberlain et al. (2018) found that disclosing AI as a content creator yielded negative effects on creativity perceptions, Moura et al. (2023) and Heidenborg and Kaveryd (2023) showed that AI involvement in the content creation had little effect on creativity perceptions.

Nevertheless, humans are generally perceived to be superior at creativity compared to machines and AI (Chen et al., 2022). Reduced perceptions of creativity is therefore often theoretically suggested and often implicitly linked to the authenticity penalty observed in design contexts. For instance, Lou and Copeland (2025) showed that besides diminished authenticity perceptions, brands using AI were also perceived as putting in less effort and creativity. However, despite this bias, the specific effect of creativity as a distinct mediator shaping consumers evaluations remains largely underexplored in prior design studies, representing a gap this thesis addresses.

To conclude, studies across advertising and apparel design highlight a fundamental tension regarding the role of human agency in creative domains. While AI disclosure has been widely documented to reduce perceptions of human intent and emotional depth thereby lowering authenticity perceptions, it remains debated whether this loss of human touch necessarily diminishes perceptions of creativity, especially at the brand level. Prior work suggests that consumers generally view AI as ill-suited for subjective, intuitive, and effective tasks, domains traditionally reserved for human agency (Castello et al., 2019), with creativity often considered part of this domain. Consequently, taken together, a key unresolved question is whether the "warmth deficits" identified in prior research extend to the subtler touchpoint of packaging design to negatively influence brand authenticity perceptions, and whether these deficits spill over to negatively influence judgments of brand creativity, despite the mixed empirical findings.

2.6 Competence-based Pathway: Enhanced Novelty & Technological Capability

In contrast to the warmth-based deficits identified in existing literature, a complementary stream of research highlights that AI disclosure in marketing can evoke competence-oriented inferences which under the right contextual conditions has been shown to produce more favourable consumer evaluations.

2.6.1 The Machine Heuristics and Functional Message Fit

Effects of AI disclosure in advertising research vary depending on the type of message presented. Empirical evidence demonstrates that AI generated output facilitates more positive evaluations when its content matches certain heuristic attributes that consumers tend to associate with machines such as objectivity, precision and efficiency (Sundar, 2008; 2020; Sundar & Kim, 2019; Wu & Wen, 2021), such as is the case for rational, cognitive, or fact-based appeals that emphasize logic and functionality (Wu & Wen, 2021; Bakpayev et al., 2022; Song et al., 2024). Conversely, when message content was deemed emotional rather than rational, AI disclosure resulted in lower evaluations, as such emotions appeals conflicted with consumer stereotypes of AI (Bakpayev et al., 2022; Song et al., 2024).

2.6.2. AI Disclosure and Heightened Competence-based Inferences in Innovative and Functional Design Settings

Product design evidence extends this “fit” mechanism beyond advertising. Li et al. (2025) demonstrated that revealing AI involvement for “innovative products” could activate certain competence-based inferences which in turn positively influenced consumers evaluations, whereas the human-made design did not elicit such inferences. These competence-based inferences stem from stereotypes of AI as high in competence but low in warmth (Waytz & Norton, 2014). As argued by the author, such stereotypes prompt consumers to infer advantages that AI might have contributed to the design process, particularly regarding its ability to scan, analyze, and synthesize diverse and extensive information sets and then efficiently and effectively use this information to generate more complex, innovative, and novel designs (Verganti et al., 2020). These findings are consistent with prior studies such as

Zhang et al. (2022) and Tu et al. (2025) that demonstrate that products disclosed as designed by AI have been shown to be perceived as more novel, fresh and technologically unfamiliar.

2.6.3 AI Disclosure and Brand Modernity Perceptions

Although research on AI disclosure and packaging design is nascent, Xia and He (2025) found that AI disclosure across multiple product categories increased consumers' perceptions of the brand's modernity, which in turn facilitated more favourable evaluations compared to the human-created packaging designs. This effect was driven by the AI = novelty lay belief, reflecting consumers' perceptions of AI as novel, trendy, and symbolizing technological progress. The authors find that for brands aiming to cultivate a modern, trendy and innovative image, integrating GAI tools to design product packaging could prove highly effective and may reinforce the brand's positioning as forward-thinking and technologically advanced (Xia & He, 2025).

2.7 When Warmth vs Competence Inferences Dominates

Given that AI cues in design and advertising studies can activate either negative warmth-based judgements or positive competence-based judgements, prior studies have demonstrated that the direction of these evaluations can be shaped by the schema expectations consumers hold for the type of product, brand, or design context itself. When functional cues are more diagnostic for evaluations, AI cues tend to trigger competence-based evaluations and thereby more favourable evaluations. Conversely, in contexts where emotional or symbolic values are more central for evaluations, AI cues tend to activate warmth-based concerns and thus lead to unfavourable evaluations.

Xu and Mehta (2022) demonstrate this pattern in luxury design. The authors show that negative brand attitudes towards AI involvement are reduced when functional values of luxury fashion brands (which inherently draw essence from emotional values) are explicitly drawn attention to. Such functional values emerge from brand attributes such as superior performance, innovativeness, quality and sophisticated design (Fionda & Moore, 2009; Kwon et al., 2016; Zhan & He, 2012). Conversely, when the brand's essence relied on emotional and symbolic elements, such as those commonly found in heritage-brand expressions, AI involvement resulted in diminished brand essence and brand attitudes compared to human

designs (Xu & Mehta, 2022). This effect was attributed to existing lay beliefs consumers hold towards AI, namely that AI is perceived to be high in competence but lacks the ability to emulate human emotions and feelings.

Similarly, To et al. (2024) illustrated that negative warmth-based evaluations of AI disclosure in fashion advertising are exacerbated for luxury fashion brands compared to mainstream brands, as these brands are associated with heightened consumer expectations of human craftsmanship and emotional expressiveness. Likewise, Li et al. (2025) showed that although innovative products were evaluated more favourable when AI was disclosed, for nostalgic products where consumers valued emotion, authenticity and social connection, human design was perceived as a better fit and evaluated more favourably. These findings align with Xia & He (2025), who cautions that although AI cues can enhance brand modernity perceptions, such benefits might be attenuated or even be perceived negatively in contexts where consumers have heightened expectations of human intentionality and craftsmanship.

2.8 Generalizability to Packaging Design:

When investigating how the warmth and competence-based inferences documented in advertising and design studies generalize to packaging, it is essential to first recognize its hybrid nature as both a functional and expressive touchpoint (Silayoi & Speece, 2007), where consumers evaluations are shaped by both aesthetic and functional cues (Orth & Malkewitz, 2008).

On one hand, packaging serves a critical functional role since functional attributes such as usability, protection, and material quality have been described as highly influential aspects of packaging shaping consumer evaluations (Silayoi & Speece, 2007). Since functional assessments play a strong role in this context, consistent with findings from Xu and Mehta (2022) and Li et al. (2025), the competence-based stereotypes AI may evoke such as efficiency and technological capability, may theoretically align well with consumers expectations, as supported by recent empirical work in packaging design settings (Xia & He, 2025). Moreover, unlike advertising, packaging design is characterized by its subtler and less persuasive nature serving as a “silent salesperson” conveying brand meaning through its visual cues rather than direct messages or calls to actions. As a result, consumers are less likely to activate inferences of manipulative intent, and thereby more likely to transfer AIs

positive attributes and strengths to the brand when AI is disclosed as the design source (Xia & He, 2025).

On the other hand, the aesthetic aspect of packaging design, through which brands convey meaning and identity, has been described as potentially the most important area of packaging design (Simms & Trott, 2010). Thus, if consumers process packaging primarily as an expressive signal rather than a functional one, the warmth-based deficits associated with AI, such as the perceived lack of human intent and emotional depth, may become the dominant diagnostic cue, potentially outweighing any competence gains. Given that design tasks are typically viewed as subjective and effective tasks, consumers may evaluate AI-designed packaging primarily through these warmth-based inferences, consistent with what has been observed in apparel-design and advertising studies.

Taken together, packaging design represents an interesting branding touchpoint where evaluations are influenced by both aesthetics (warmth-related) and functional (competence-related) cues which raises the questions of how consumers weigh these dimensions when encountering packaging design disclosed as designed by AI, and how these two types of evaluations together influence overall brand attitudes.

2.9 Implication for theoretical framework

Based on the available literature which has been reviewed above, prior research shows that AI disclosure does not exert a uniform effect on consumer responses but can give rise to two distinct evaluative pathways. On the one hand, AI cues may signal reduced human intentionality and emotional depth, lowering perceptions of authenticity, and, potentially creativity (Lee & Kim, 2024; Lee & Kim, 2025; Kučinskas, 2024; Brüns & Meißner, 2024; Lou & Copeland, 2025). On the other hand, recent studies in product design and packaging design indicate that the same AI cues under certain conditions can trigger heightened competence-oriented inferences which positively influences brand evaluations (Xu & Mehta, 2022; Xia & He, 2025, Li et al., 2025).

The direction of this evaluation depends on which type of inference is more diagnostic for a given context (Xu & Mehta, 2022; Li et al., 2025). When functional attributes are central to how consumers judge a product or brand, AI cues tend to amplify the positive,

competence-related associations linked to AI. Conversely, when consumers place greater importance on emotional or symbolic value, the same AI cue can instead heighten the salience of AI's negative warmth-related deficits, leading to less favourable evaluations.

Packaging design represents an interesting branding touchpoint since evaluations typically involve both functional considerations and expressive meaning-based interpretations. As such, AI disclosure in packaging may activate both types of evaluations at once thus potentially generating competing signals of reduced warmth and heightened competence. While initial evidence in packaging design suggests that AI disclosure can enhance brand modernity perceptions and improve evaluations, it remains unclear whether the warmth-related penalties consistently observed in advertising and design contexts extend to packaging. This potential dual activation creates a theoretically important tension that existing literature has not yet resolved.

Addressing this gap necessitates the development of a theoretical framework that: (1) conceptualizes AI disclosure as a *signal* that can convey brand meaning; (2) specifies the cognitive and affective mechanisms rooted in the machine heuristic, mind-perception theory, and AI lay beliefs through which consumers might translate this signal into warmth-based or competence-based inferences; and (3) incorporates moderating factors, particularly brand identity schemas, that prior research has suggested could influence the relative dominance of these two evaluative pathways. In integrating these components, the framework provides a coherent and nuanced account of *how* and *why* AI disclosure shapes consumers brand evaluations in a packaging design context.

3. Hypothesis generation

Building on the theoretical rationale outlined above, this section develops an integrated dual-pathway model to derive hypotheses addressing the tension between warmth-and competence-based inferences elicited by AI disclosure in packaging design. Signaling theory provides the overarching rationale for why AI disclosure constitutes a brand-relevant signal. The hypotheses then focus on how consumers interpret this signal through cognitive, affective, and lay-belief processes, resulting in warmth-based inferences and competence-based inferences. Finally, the moderating role of brand identity in influencing which evaluative pathway dominates in shaping overall brand attitudes is discussed.

3.1 Signaling theory:

According to signaling theory, firms can reduce information asymmetry between company and customer by providing observable signals to communicate otherwise unobservable elements (Kirmani & Rao, 2000). Namely, companies provide information to consumers through marketing signals that imply key brand characteristics (Boulding & Kirmani, 1993).

One means of communicating these signals is through a brand's product packaging. Often described as a 'silent salesperson' packaging has been widely documented to convey visual and informational cues that shape consumers perceptions of both the brand and the product (Xia & He, 2025). Drawing on signaling theory, packaging can thus be understood as a nonverbal marketing signal, through which consumers infer brand-level characteristics and evaluate the intentions behind the brand's actions (Krishna et al., 2017; Mead & Richerson, 2018; Ye et al., 2019).

In this thesis it is therefore proposed that the explicit disclosure of the design source of the packaging design itself (AI vs Human-generated) serves as such a signal that could meaningfully influence consumers brand evaluations. Accordingly, signaling theory provides a valuable lens for exploring AI disclosure in packaging design, offering new insights into the evolving relationship between AI and branding.

3.2 Hypothesis Development

3.2.1 AI Disclosure Effect on Brand Creativity (Hypothesis 1)

This thesis suggests that disclosing AI as the creator of a packaging design will reduce consumers' perceptions of brand creativity compared to the undisclosed, human-created design. The author expects AI disclosure to evoke the machine heuristic (Sundar, 2008; 2020) prompting the consumers to view the packaging design process as more objective and efficient, making the brand presenting its packaging design to appear less creative. This aligns with prior findings demonstrating that brands using AI to generate advertisements were judged as technologically efficient yet perceived as putting in less effort and creativity (Lou & Copeland, 2025).

This thesis adopts the definition of creativity as proposed by Smith and Yang (2004) as “those that are both divergent and relevant.” (p. 36). In Smith and Yang's definition divergence refers to “elements that are novel, different, or unusual in some way” whereas relevance is described as “meaningful, appropriate or valuable to the audience” (Smith & Yang, 2004, p. 36). Although these two dimensions were originally developed for advertising they have also been applied in packaging design studies (Shukla et al., 2022). Understanding consumers' creativity perceptions is highly useful since as illustrated by Shukla et al. (2022) increased creativity perceptions can positively influence brand evaluations.

While creativity usually is first evaluated in relation to a specific design, research shows that consumers generalize such perceptions to the brand behind the design. For instance, Lou and Copeland (2025) showed that when advertising was disclosed as AI-generated, respondents inferred the brands behind these ads to be less creative. Dahlen, Rosengren and Törn (2008) note “creative executions in advertising make the brand appear imaginative and capable”, supporting the idea that creativity perceptions from design-level cues transfer to brand-level evaluations. Building on this insight, creativity in this study is operationalized as a brand-level perception representing the idea that consumers interpret a creative packaging design as evidence that the brand itself is imaginative and original, while also expressing its creativity in a meaningful and appropriate way. This positions creativity alongside authenticity and modernity as a brand-level construct influencing overall brand attitude.

Humans are generally perceived to be superior at creativity compared to machines and AI (Chen et al., 2022). Hong et al. (2022) offers explanations for this bias emphasising that consumers doubt whether or not machines genuinely can be creative at all, viewing the ability to be creative as inherently a human trait. Despite this skepticism, recent studies in advertising and design show that AI can generate outputs perceived that rival or even surpass human-made ones in creativity (Hartmann & Domdey 2024; Moreau et al., 2023). Nevertheless, regardless of where one stands on AI's ability to be creative, because of this scepticism, disclosing AI as the creator of a packaging design can be expected to work as a signal that influences consumers creativity perceptions.

The machine heuristic detailed in the following section provides the cognitive mechanism through which the AI disclosure signal is interpreted, providing support to the idea that AI as a creator will have a negative impact on consumers creativity perceptions.

3.2.1.1 Machine Heuristic and Brand Creativity in Packaging Design

Consumers often rely on simplified cognitive shortcuts referred to as “heuristics” in decision making contexts to reduce the cognitive burden of complex judgements. Such heuristics frequently underline many intuitive judgements, often unconsciously and automatically (Gilovich, Griffin, & Kahneman, 2002; Sundar, 2008). Because AI remains a topic that people tend to interpret often with a degree of uncertainty, judgements involving AI therefore present consumers with an inherently complex evaluative task. The concept of heuristics is therefore especially relevant since it allows consumers to simplify the cognitive effort needed for forming evaluative judgements in the presence of AI cues.

The Main model presented by Sundar (2008) posits that the machine heuristic is triggered when contextual cues suggest that one is interacting with or is evaluating content produced by a machine. The machine heuristic represents a set of cognitive stereotypes of machines, most notably that they are more objective, reliable and consistent compared to humans (Sundar & Kim, 2019). Additionally, such inferences also coexist with negative perceptions stemming from the notion that machines lack human emotion, empathy and emotional intent (Sundar, 2020, Wu & Wen, 2021). These stereotypes have been shown to cause a person to transfer these perceived traits to the machine-generated output. Although such stereotypes might not

always align with reality (Sundar, 2008) empirical work supports that machine heuristics indeed tend to be reflected in consumers evaluations (Liu & Wei, 2019; Hidalgo et al., 2021).

The perceived disconnect between AI and creativity can therefore be attributed to consumers tendency to evaluate AI-generated outputs based on these cognitive stereotypes of machines that people hold. These are perceptions that do not align well with creativity hence suggesting that disclosing AI as the creator of packaging design will have adverse effects on creativity perceptions. This is because the novel dimension of creativity and its link to human intention and effort clashes with the standardised objectivity associated with AI. Wu and Wen (2021) further lend strong support for the proposed mechanism of machine heuristic in this study. The authors revealed that AI disclosure prompted consumers to activate the machine heuristics thereby perceiving the advertising process to have been more objective. In the context of packaging design, these empirical findings support the idea that AI disclosure should similarly evoke perceptions of objectivity which conflicts with perceptions of creativity.

To conclude, consistent with signaling theory, the AI disclosure functions as a signal interpreted through the machine-heuristic prompting consumers to view the packaging design and its creation process as more objective, this in turn is expected to lead consumers to infer that the brand behind the AI generated design is less creative.

H1: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand creativity

3.2.2 AI disclosure Effect on Brand Authenticity (Hypothesis 2)

This thesis posits that disclosing AI as the creator of a packaging design will reduce consumers perceptions of brand authenticity compared to the undisclosed, human-created design. Grounded in the Mind-Perception Theory, AI cues in the design process are expected to trigger affective consumer responses reflecting reduced perceptions of human intentionality and emotional expressiveness, which are warmth-based qualities central to consumers authenticity judgements.

Perceived brand authenticity, characterized as the extent to which the brand is perceived to be genuine, truthful and sincere (Morhart et al., 2015) is a useful construct to understand since authenticity has been linked to more favourable brand attitudes (Illic & Webster, 2014; Lee et al., 2023). Prior studies highlight that perceptions of human craftsmanship, passion and skills can drive perceptions of brand authenticity (Napoli et al., 2014; Beverland, 2005; Carroll & Wheaton, 2009) whereas deviations from this ideal result in inauthenticity perceptions (Silver et al., 2021). Importantly, packaging design elements can serve as a tangible visual expression influencing such perceptions of brand-level authenticity as empirically demonstrated by Wang et al. (2024).

Consumers often perceive AI-generated content as less authentic since they believe AI can not create genuine content that reflects human creativity (Han, 2024). The perceived disconnect between AI and authenticity perceptions in creative tasks is argued to stem from perceptions that AI lacks depth, spontaneity, and emotional intent - qualities that can only come from true human experience and reflection (Han, 2024). Because of this incongruence, AI as a packaging design creator can be expected to work as a signal that will impact the brand authenticity perceptions of consumers.

Mind Perception Theory detailed in the following section provides the affective mechanism for understanding the effects of AI disclosure on brand authenticity.

3.2.2.1 Mind-Perception Theory and Brand Authenticity Perceptions in Packaging Design

According to Mind-Perception-Theory, people attribute “minds” to others including machines such as AI along two fundamental dimensions: agency which reflects the capacity for intention, planning, reasoning, and control, and experience which reflects the capacity for emotion, feeling and subjective experience (Premack & Woodruff, 1978; Gray et al., 2007). Humans are typically regarded as being able to possess both agency and experience whereas machines such as AI technology on the other hand are typically only attributed agency and denied experience (Go & Sundar, 2019; Luo et al., 2019). Mind-Perception Theory therefore complements the machine-heuristic by providing the deeper psychological rationale as to *why* AI is perceived as unemotional or lacking empathy.

Empirical findings from brand communication studies support this mechanism. Drawing on Mind-Perception Theory, Brüns & Meißner (2024) found a significant negative effect on brand authenticity for brands using AI-generated product images in their social media communication. Participants perceived such visual content as “less personal, less emotionally expressive, and less reflective of human intention” (p. 42) and described it as “*mechanical*” and “*soulless*,” lacking the creative passion and craft expected from authentic brand communication (p. 43). Additionally, although not all design studies explicitly invoke this theory, the broader literature confirms this pattern: AI involvement consistently triggers inferences of diminished human intentionality and emotional depth, resulting in authenticity penalties (e.g., Lee & Kim, 2024; Lou & Copeland, 2025).

Together, these findings support the use of Mind-Perception-Theory to explain the relationship between AI disclosure and brand authenticity outcomes in this study. Given that brand authenticity perceptions rely on perceived human intent and passion (Napoli et al. 2014; Beverland, 2005; Carroll & Wheaton, 2009) and that AI cues has been empirically demonstrated to conflict with such qualities in design and advertising studies, similar affective responses should be expected in a packaging design setting.

To conclude, drawing on Mind-Perception Theory, AI disclosure functions as a signal of the loss of experiential mind, leading consumers to infer loss of human intentionality and emotional expressiveness in the packaging design creation process, which ultimately is expected to reduce perceptions of brand authenticity.

H2: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand authenticity

3.2.3 AI disclosure Effect on Brand Modernity (Hypothesis 3)

This thesis suggests that disclosing AI as the creator of the packaging design will enhance brand-level perceptions of modernity compared to the undisclosed, human-created design. This is because, from a signaling perspective and consistent with prior studies - visible cues of emerging-technology adoption has been shown to increase consumers perceptions of brand modernity. This effect is further reinforced by existing lay beliefs held towards AI representing a set of cultural assumptions that AI symbolizes novelty, technological progress

and embodies futuristic aesthetics (Guerreiro & Loureiro, 2023, Xia & He, 2025).

Accordingly, the disclosure of AI involvement in the packaging design process is expected to push consumers to view the brand using AI in their design processes as more forward-thinking and technologically advanced and thereby more modern (Xia & He, 2025)

Brand modernity refers to the extent through which a company is perceived to employ cutting-edge methods to market its product and service offerings Xia and He (2025). Modern brands have been characterised by their ability to stay up-to-date, their adaptability to changing trends in their environment and relevance to contemporary trends (Xia & He, 2025). Brand modernity is a useful construct to take into account when investigating the effects of AI disclosure since individuals tend to evaluate such brands more favourable (Cowan & Kostyk, 2024) and a modern brand image enhances evaluations since consumers value brands that embrace new technologies (Kim et al., 2022).

Empirical findings demonstrate that visual elements within brand communication play a central role in shaping perceptions of brand modernity, as consumers often rely on these elements as salient visual cues to infer its modernity (Xia & He, 2025). For instance a logo that depicts movements has been shown to activate mental associations of change and ability of the brand to remain current (Cian et al., 2014) and a horizontal slogan rather than vertical can make the brand appear more modern (Deng et al., 2019).

Beyond design elements, drawing from broader marketing and service literature, companies that use new (digital) technologies in their business processes are often viewed as more innovative and modern by consumers which exerts a positive effect on their brand image. Kim et al. (2022), for instance, demonstrated that restaurants using robot servers instead of human servers elicited higher brand modernity perceptions, the implementation of AR technology elements in marketing campaigns has been shown to influence consumers perceptions of brand innovation and brand modernity (Asakdiyah et al, 2024; Ahmad, 2024). Similarly, AI disclosure in packaging design studies have been shown to increase perceptions of novelty and brand modernity (Xia & He, 2025). Taken together, these studies suggest that the adoption of novel and emerging technologies itself functions as a signalling cue of modernity for brands across contexts.

Although research on AI and brand modernity perceptions is relatively scarce, consistent with prior findings on emerging technologies, AI which today arguably represents the most salient example of such emerging technology, should therefore elicit comparable inferences of brand modernity and innovativeness. Consequently, communicating AI involvement in a packaging design context is expected to function as a signal of brand modernity. This expectation is further supported by prior research demonstrating that consumers tend to associate brands using AI or products designed by AI with novelty, innovation and technological progress (Zhang et al., 2022; Liu et al 2023; Tu et al 2025).

3.2.3.1 “AI = Novelty Lay Belief” and Brand Modernity Perceptions in Packaging Design

This study posits that the signaling effect AI disclosure has on brand modernity perceptions will be reinforced by existing lay beliefs held towards AI, specifically the “AI = novelty lay belief”. The majority of existing studies regarding AI disclosure have predominantly focused on consumers negative lay beliefs towards AIs such as its emotional limitations and its perceived inferiority in creative tasks (von Walter et al., 2021; Xu & Mehta, 2022). However, as highlighted by Xia and He (2025) less attention has been given to the tendency to associate AI with positive attributes such as novelty. Such perceptions in turn, are driven by AI’s opaque and “black-box nature” which elicits curiosity and perceptions of novelty toward the unknown (Zhang et al., 2022) .

The extent to which individuals believe in a lay theory varies based on their exposure to everyday experiences or media content that support and reinforce that theory (Chen et al., 2020). As Chen et al., (2020) notes, repeated exposure to situations or information that align with the lay theory increases people's belief in it. The prevalence of such reinforcing cues is evident in contemporary cultural discourse where AI has been widely described to be emblematic of youth, trendiness and technological progress (Xia & He, 2025; Guerreiro & Loureiro, 2023). In practice, the rapid diffusion of various AI driven applications have transformed traditional daily routines and brought unprecedented experiences to consumers, contributing to the perceptions of AI as novel (Xia & He, 2025). Together, these cultural representations and repeated exposure to novel use-cases of AI, explains why the AI = novelty lay belief has become a stable interpretative schema through which one can expect consumers to interpret AI related brand cues.

To conclude, building on this foundation and consistent with signaling theory, the AI-disclosure is expected to operate as a competence signal that conveys brand modernity. This effect is amplified through the activation of the AI novelty belief, especially for individuals that strongly endorse it. This belief is expected to function as an interpretative schema that directly links AI disclosure to perceptions of novelty, forward-thinking and technological progress, thereby leading consumers to infer that the brand is more modern. Accordingly, the author posits that packaging designs disclosed as AI-created should enhance perceptions of brand modernity relative to those presented as human-created.

H3: Packaging designs disclosed as AI-created (vs. human-created) will enhance perceptions of brand modernity.

3.3 Packaging Design Outcomes

This thesis investigates brand attitude as the final outcome variable, which reflects consumers overall evaluations of a brand (Keller, 1993).

3.3.1 Brand Attitude and Creativity:

The effect on brand attitude through the dimensions of creativity has been supported in packaging design research. Shukla et al. (2022) demonstrated that increased packaging creativity can lead to stronger brand attitudes and buying intentions. In the related domain of advertising, creativity has been shown to be a key antecedent of favourable brand evaluations (Ang, Lee & Leong, 2007; Rosengren et al., 2020).

3.3.2 Brand Attitude and Brand Authenticity:

Brand authenticity has been linked to several favourable brand evaluations (Södergren, 2021). Ilicic and Webster (2014) and Lee et al. (2023) for instance demonstrates a clear positive relationship between perceived brand authenticity and perceived brand attitude. Conversely, Brüns and Meißner (2024) demonstrate that reduced brand authenticity negatively affects consumers brand attitudes

3.3.3 Brand Attitude and Modernity:

The influence of perceived brand modernity on brand attitude has been well documented (Aaker & Jacobson, 2001). Empirical studies by Müller et al. (2013) and Kim et al. (2022) provide direct evidence that higher perceptions of brand modernity enhance brand attitude

3.4 Overall effect on Brand Attitude: Integrating Warmth and Competence pathways

Although AI disclosure is predicted to elicit both positive competence-based evaluations, reflected in higher perceptions of brand modernity (H3), and negative warmth-based inferences, reflected in reduced perceptions of creativity and brand authenticity (H1-H2) - this thesis posits that warmth-based evaluations will serve as the dominant diagnostic cue. As a result, disclosing AI as the creator is expected to lead to less favorable brand attitudes compared to a human creator.

This prediction is supported by two contextual factors. First, design tasks are typically perceived as subjective, intuitive, and effective, making the absence of human intentionality, and emotional depth more incongruent with consumers expectations (Castelo et al., 2019) than any alignment produced by heightened perceptions of novelty and technological capability. Moreover, although consumer evaluations of packaging design hinges on both aesthetic and functional attributes (Silayoi & Speece, 2007), functional elements were not made salient in the present stimuli. Given that prior studies show that positive competence-based inferences associated with AI are most likely to emerge when functional attributes are highly diagnostic for consumer evaluations (e.g., Li et al., 2025; Xu & Mehta, 2022) such effects are unlikely to fully manifest in this study given the design of this study's experiment. This in turn suggests that increases in perceived modernity are unlikely to offset the negative impact of reduced authenticity and creativity on overall brand attitude.

To conclude, these contextual factors suggest that the authenticity-creativity route will exert the largest net influence on brand attitude (negative), even though competence-based inferences of modernity exerts a positive influence.

H4a) Disclosing AI involvement (vs. a human creator) will lead to less favorable brand attitudes

H4b) The warmth-based route exerts a stronger mediating influence on brand attitude than the competence-based route.

3.5 Brand-identity

3.5.1 Brand Identity as a Moderator

A few studies investigating consumers responses to AI-generated content have explored how consumers schema expectations for a given context might explain how the same AI cue might yield differential effects on consumers response patterns (Xu & Mehta, 2022; Tu et al, 2025; Li et al., 2025). Xu and Mehta (2022) found that for luxury brands drawing essence primarily from emotional and symbolic values, AI involvement created a "mismatch" diminishing brand attitudes. Conversely, when brands derived essence from functional values, competence-based associations of AI better aligned with consumer expectations, attenuating negative effects.

Building on these findings, similar types of effects should be expected to be shown in this thesis moderation manipulation of innovative - versus - heritage - oriented brands. These brand identities represent distinct schemas that shift the relative salience of warmth-based versus competence-based evaluations in consumer judgment. Specifically, heritage oriented brands are strongly associated with warmth, tradition and legacy, deriving their essence largely from emotional and symbolic value (Xu & Mehta, 2022). Conversely, innovative-oriented brands derive their essence from functional values to a larger extent since such brands are committed to new ideas, novelty, experimentation and creative processes, (Shams, Alpert, Brown, 2015).

3.5.2 Brand identity and Mind-Perception-Theory

In line with Mind-Perception Theory and consistent with Xu and Mehta (2022), perceptions that AI lacks the ability to emulate human emotions and feelings suggests that AI cues in the design process should be less compatible with brand heritage schemas since the lower warmth perceptions that AI signals clashes with such brands typical associations of human intentionality and emotional expressiveness. Conversely, for innovative brand schemas, the competence signals AI cues evoke are more congruent with consumer expectations.

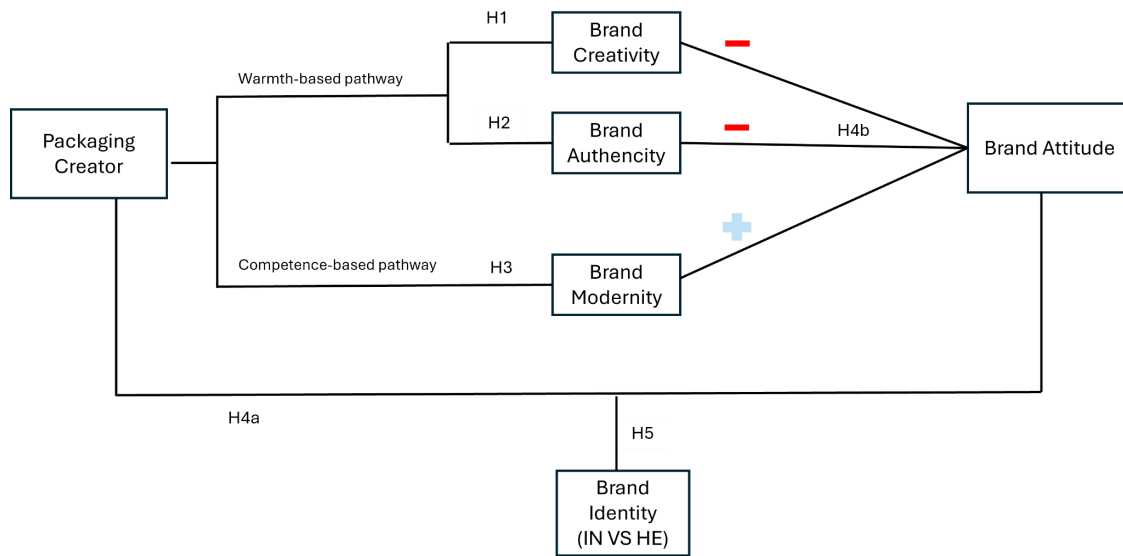
Accordingly, innovative-oriented brands should benefit more from, or remain more resilient to AI disclosure effects, whereas heritage-oriented brands should experience sharper declines in brand attitude.

H5: The negative effect of AI disclosure on brand attitude will be reduced for innovative-oriented brands and amplified for heritage-oriented brands.

3.6 Hypothesis Summary

The above sections and hypotheses presented are summarized in a conceptual framework (Figure 2). In sum, this thesis posits that AI as a packaging design creator is expected to work as a signal that activates two competing inference pathways, each operating through distinct psychological mechanisms. Through the warmth-based pathway, AI disclosure is expected to reduce perceptions of brand creativity and brand authenticity (H1-H2) through the cognitive stereotypes described in the machine heuristic and the affective stereotypes rooted in Mind-Perception-Theory, respectively. Simultaneously, through the competence-based pathway, AI disclosure is expected to enhance perceptions of brand modernity, driven by the “AI = novelty lay belief”.

Together, these mediators represent the warmth-based and competence-based dimensions through which consumers evaluate brands (Kervyn, Fiske, & Malone, 2012). Given that these two pathways exert a competing influence on overall brand attitude, this thesis predicts that the warmth-based inferences will dominate, thereby resulting in less favorable brand attitudes when AI involvement is disclosed (H4a-b). Finally, brand identity is hypothesized to moderate this effect (H5), with the negative impact of AI disclosure attenuated for innovative-oriented brands and amplified for heritage-oriented brands, consistent with the affective stereotypes of Mind-Perception-Theory. All hypotheses are summarized in table 1.



IN: Innovative brand identity

HE: Heritage Brand identity

Figure 2: Hypotheses summary

Table 1. Hypotheses summary

Hypotheses
H1: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand creativity
H2: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand authenticity
H3: Packaging designs disclosed as AI-created (vs. human-created) will enhance perceptions of brand modernity.
H4a: Disclosing AI involvement (vs. a human creator) will lead to less favorable brand attitudes.
H4b: The warmth-based route exerts a stronger mediating influence on brand attitude than the competence-based route.
H5: The negative effect of AI disclosure on brand attitude will be reduced for innovative-oriented brands and amplified for heritage-oriented brands.

4. Method

The following section presents the scientific approach and methods employed in this study. It begins with presenting the preparatory work conducted in order to develop this study's stimuli and how the pre-test were performed. Thereafter, the chapter introduces the study design and data collection for the main-study. The chapter concludes with outlining how the data analysis was performed in this study to ensure high validity of results.

4.1 Scientific Approach and Research Strategy

While the particular effects of AI disclosure on consumer perceptions in a brand packaging design context is an underexplored topic, the cognitive and affective biases influencing consumers responses to AI disclosure in branding communication settings are theoretically well-grounded, which allows for formulating testable hypotheses. This aligns with a deductive approach, where existing theories and research in the field informed the development of testable hypotheses (Bell, Bryman & Harley, 2022). Thus, given this study's objectives which aim to test the causal relationships between measured variables and provide generalizable insights on an unexplored topic, a quantitative research strategy was deemed highly suitable.

In order to test the formulated hypothesis an experiment study design was employed (Söderlund, 2018). Key advantages of experimental design methods pertains to their rigour in testing casual claims and their high degree of internal validity (Bell, Bryman & Harley, 2022; Söderlund, 2018). This is especially advantageous when investigating previously established theories in a fresh context, as noted by Söderlund (2018, p. 16; 2010, p. 33).

4.1.1 Study Design

To test the hypothesis, a 2x2 between-subject experimental design was employed as depicted in figure 3. The two between-subject variables were AI disclosure vs Human disclosure and an Innovative vs Heritage brand description. The variables were manipulated through the development of a preamble for the brand "Aurora" with two distinct brand descriptions, alongside an brand social media post containing an AI disclosure and a human-implied disclosure. In this experiment, four experiment groups were developed which aligns with

common research practices (Söderlund, 2018). Participants in this study were randomly allocated to the four different experiments using Qualtrics’s randomization tool, thereby ensuring that differences between groups were non-systematic and only contingent on the different treatments received (Söderlund, 2018).

	AI as designer	Human as designer
Innovative brand identity	AI + Innovative	Human + Innovative
Heritage brand identity	AI + Heritage	Human + Heritage

Figure 3: Experiment groups

4.2 Preparatory Work

Prior to the main study, preparatory work was performed pertaining to stimulus development and the execution of one prestudy in order to ensure optimal conditions for the main study. For the prestudy data collection convenience sampling was employed and data was collected through self-reported Qualtrics questionnaires and analyzed using IBM SPSS Statistics 30.

4.2.1 Stimuli Development

To avoid confounding effects, a fictitious brand name was developed for this study “Aurora” (Colliander & Dahlén, 2011). When deciding on the brand name the author ensured that it had balanced connotations, working both for an innovative brand and a more heritage oriented brand.

The selected product category, skin care, was deemed suitable considering its ability to naturally accommodate the two brand schemas central to this study. Within skincare, brands are positioned on a wide spectrum ranging from more scientific and innovative brands (e.g The Ordinary) to natural and heritage brands (e.g Aesop). Additionally, unlike product

categories strongly dominated by a single evaluative dimension (e.g. makeup:hedonic, consumer electronics:utilitarian) the skin category is perceptually broad, encompassing both functional attributes (efficacy, skin health) and emotional/symbolic attributes (sensory gratification, self-care, wellness) (Ho et al., 2020; Moffa et al., 2025), aligning well with the dual-inference pathways developed in this study.

4.2.1.1 Stimulus 1: A preamble to influence perceptions of brand identity

The first stimulus developed involved the two brand preamble descriptions designed to manipulate the brand schema (innovative vs heritage). To isolate the effect of the manipulation on brand identity and mitigate confounding variables, the brand descriptions were structurally identical, differing only in a few key terms that aimed to cue the intended brand perceptions. This approach follows Söderlund's (2018) recommendation to keep all factors other than the manipulation constant to isolate the experiments effects.

For the innovative brand stimuli, adjectives such as “modern”, “innovative”, and “scientific-formulation” were used to evoke the intended brand perceptions, whereas the heritage-brand description incorporated cues such as “traditional”, “craftmanship”, and “natural-based formulation”. These cues were selected to represent distinct brand schemas and were informed by established scales from academia for perceptions of brand innovativeness (Kunz, Schmitt & Meyer 2011) and brand heritage (Urde et al., 2007). Finally, the two brand descriptions were encoded in the interface of the brand Aurora's official “About-Us” webpage section. This was done to facilitate higher realism perceptions by ensuring a realistic and natural scenario for respondents to picture themselves in, which as argued by Bell, Bryman and Harley (2022) increases ecological validity.

4.2.1.2 Stimuli 2: Social media post announcing the Brands new Product Packaging Design

The second stimulus developed consisted of a social media brand post in which Aurora announced their new product packaging design for its skincare line. Two versions were created: one with an explicit AI-disclosure and one with a human-created disclosure. Coca-Cola's (2023) announcement of their fully AI-developed Y300 drink and packaging served as inspiration for this study's brand post. The verbal messaging, structure, and layout mirrored Coca-Cola's communication style to enhance realism and ecological validity

Social media was chosen as the medium since it is today an integral part of billions of consumers' lives worldwide (Voorvelt, 2019) and brands frequently use social media as a communication medium to announce brand news. Because one objective of announcing a packaging redesign is to increase brand awareness and influence brand perceptions, a social-media-based stimulus was considered both realistic and contextually appropriate. Realism is important since as emphasised by Bell, Bryman and Harley (2022), circumstances that are too far from everyday life can produce results with limited generalizability. Additionally, the only differences in the social media posts consisted of the disclosure itself which strengthens the validity of the experiment, since any differences in results can only be attributed to the manipulation itself (Bell, Bryman & Harley 2022).

4.2.2 Pre-Study Design & Distribution

In order to ensure better conditions for the main study one pre-study was conducted. This pre-study pertained to ensuring the robustness of the brand identity manipulations in the main study, as strong manipulations in experiments is highly important Söderlund (2008). The pre-study thus tested whether respondents' perceptions of the different brand descriptions showed statistically significant differences and elicited the intended perceptions (innovative vs traditional).

The pre-study survey was distributed among family and friends, representing a convenience sampling method. This sampling method presents limitations in terms of generalizability, however, as the purpose of the pre-study was not to test the hypothesis but to validate the experiential manipulation in order to adjust and prepare the main study, this approach was deemed sufficient.

4.2.2.1 Pre-Study Brand-Preamble Results:

The results from the pre-study indicated that the two different brand preambles elicited statistically significant differences. Measurement scales were adopted from Kunz, Schmitt and Meyer (2011) and Urde et al. (2007) whose research presents validated scales for measuring consumers perceptions of brand innovativeness and perceptions of heritage brands. The original statements were adjusted to fit the context of this study and were reduced to three each, while still retaining the constructs core conceptual meaning.

Respondents were exposed to one brand preamble and then had to rate their brand perceptions on a scale from 1-7, where lower values (1) reflected innovative brand perceptions and higher values (7) reflected heritage brand perceptions, and the midpoint (4) represented a neutral evaluation. The results presented in table 2 confirmed that the two preambles effectively elicited the intended brand schemas, hence the manipulation was deemed valid to continue to the main study.

Table 2. Results of pre-study

Stimuli	$M_{innovativeness}$	$M_{heritage}$
<i>Preamble Innovative</i>	2.84	
<i>Preamble Heritage</i>		4.46

4.3 MAIN Study

4.3.1. Sample and Data Collection

Data collection for this study was carried out through Norstat, one of Europe's leading data collection companies (Norstat, 2025). This collaboration ensured a faster data collection as well as access to a nationally representative sample through random selection which strengthened both the external validity of this study and the generalizability of the results (Bell, Bryman & Harley, 2022).

This study used online self-completion surveys distributed via Qualtrics which the respondents independently answered. This approach was selected since it presents a quick and cost-effective way of distributing the survey to reach a large sample number for statistical analysis (Andrade, 2020; Bryman & Bell, 2017). Additionally, using a self-administered questionnaire minimizes the risk of interview bias as respondents independently answered without any observer present (Bell, Bryman & Harley, 2022).

Although the chosen method has its advantages, downsides of this method pertains to the close-ended nature of surveys which limits depth (Bell, Bryman & Harley, 2022). However,

since explanatory answers were not needed in this study to confirm or reject the formulated hypothesis, this format was deemed appropriate. To mitigate risks of misunderstanding, which is common with these types of questionnaires, the questions were carefully designed with guidance from authors supervisor and contact person at Norstat.

4.3.2 Survey Design

The survey in this study was conducted through Qualtrics and the geographic scope was limited to Sweden hence the language used in the survey was Swedish. Although translating established measures into another language can introduce methodological inconsistencies (Green & White, 1967), using respondents natural language reduces the risk of misunderstanding thereby enhancing overall response validity as noted by the authors contact person at Norstat.

The survey consisted of several blocks of questions that targeted a specific construct of the theoretical framework. It began with an introduction explaining the study's purpose, confidentiality and anonymity of responses, followed by informed consent. Participants were then randomly allocated to one of two experimental blocks: Block 1 (Innovative) or block 2 (Heritage). Participants were instructed to keep the brand description in mind when later viewing one of the brand's social media posts. After the brand schema manipulation, participants were once again randomly assigned to block 3 (AI) or block 4 (Human), which presented Aurora's social media post. The brand posts were identical in aesthetics, structure and content and layout with the only difference being the explicit AI versus human disclosure. In both randomization stages, participants could not proceed before 15 seconds had passed, to maximise the chance that respondents had carefully observed the brand preamble and social media post in its entirety.

All participants were subsequently exposed to the same item-set, ensuring cross-condition comparability. First, an instructional manipulation check (IMCS) was included to verify that participants had accurately understood the AI vs human manipulation presented in the social media post. Responses from participants that failed to answer this check correctly were excluded from the final analysis since a misunderstanding of the manipulation would compromise the validity of the results (Söderlund, 2018). Following this, another

manipulation check was presented to confirm - consistent with the pre-study results - that the brand preamble elicited distinct brand perceptions among participants in the main-study.

Thereafter post stimuli measures for brand attitude, purchase intention, brand creativity, brand authenticity and brand modernity were collected in a fixed order. When presenting the post-stimuli construct the author ensured that the questionnaire followed a general-to-specific order, with the final outcome variable (brand attitude), being measured before the specific mediating constructs. This structuring is consistent with survey-methodology evidence suggesting that placing general-specific measures before specific measures could avoid sequence-related biases and priming effects (Kaplan, Luchman & Mock, 2013). The full questionnaire, manipulation checks and the different scenarios are presented in Appendix A.

4.3.2.1 Measures:

Measurement validity was ensured by only using established measures taken exclusively from peer reviewed journal articles. However, when necessary some were adapted to fit the context of the study while ensuring that the original conceptual meaning was still conserved. All dependent variables were measured using multi-item scales to enhance reliability Söderlund (2018) and indexes were created for each multi-item measure that demonstrated sufficient internal consistency, defined as demonstrating a Cronbach's Alpha exceeding the minimum limit of 0.8. Additionally, one purchase intention measure was included in the study to assess the nomological validity of the selected variables in this study (Söderlund, 2018). Questions for each measure are presented in table 3.

Brand Creativity:

To measure the variable of brand creativity, a 7 point ordinal Likert scale (1 = completely disagree, 7 = Completely agree) was used. The items were adopted from Dahlen, Rosengren & Törn (2008) and Hong et al. (2022) but adapted and reformulated to capture creativity perceptions at the brand level. The Cronbach Alpha of the questions was 0.926 hence an index was created.

Brand Authenticity:

To measure the variable of brand authenticity perception, a 7 point ordinal Likert scale (1 = completely disagree, 7 = Completely agree) was used. The items were adapted from Bruns and Meißner (2024), who in turn based the measurement on the brand authenticity scale developed by Moulard et al. (2015). The Cronbach Alpha of the questions was 0.965 and an index was created.

Brand Modernity:

Brand modernity was measured using a 7 point ordinal Likert scale (1 = completely disagree, 7 = Completely agree). The items were adapted from Kim et al. (2022) and these items have been used in similar recent studies Xia and He (2025) to measure brand modernity. The Cronbach Alpha of the questions was 0.943 and an index was created.

Brand Attitude:

The final outcome variable brand attitude was measured using a 7-point Likert scale (1 = completely disagree, 7 = completely agree) and the items were adapted from the brand attitude framework developed by Lutz et al. (1983). Additionally, nomological validity was established by testing the correlation between brand attitude and purchase intention, as these variables are shown to be related (Lee et al., 2017). The correlation check confirmed that the two variables were statistically significant and positively correlated (0.722, $P < 0.003$) thus confirming that the brand attitude measure appeared to demonstrate good nomological validity.

Table 3. Measurement item summary

Variable	Measurement item
To what extent do you agree with the following statements? 1 = completely disagree, 7 = completely agree	
<i>Brand Creativity</i>	a) 1-7: The brand Aurora is creative
	b) 1-7: The brand Aurora presents itself in a unique and imaginative way
	c) 1-7: The brand Aurora comes up with new and original ideas
To what extent do you agree with the following statements? 1 = completely disagree, 7 = completely agree	
<i>Brand Authenticity</i>	a) 1-7: The brand Aurora feels authentic to me
	b) 1-7: The brand Aurora feels genuine to me
	c) 1-7: The brand Aurora feels real to me
To what extent do you agree with the following statements? 1 = completely disagree, 7 = completely agree	
<i>Brand Modernity</i>	a) 1-7: The brand Aurora adapts well to changing trends
	b) 1-7: The brand Aurora fits to our time
	c) 1-7: The brand Aurora is up-to-date
To what extent do you agree with the following statements? 1 = completely disagree, 7 = completely agree	
<i>Brand Attitude</i>	a) 1-7: I have a positive impression of the brand Aurora
	b) 1-7: The brand Aurora is attractive
	c) 1-7: The brand Aurora is good

4.3.3 Data Analysis

To ensure data quality, answers that failed to meet a certain quality threshold were excluded. Specifically, responses that failed to correctly answer the AI vs Human manipulation presented in the social media post, were incomplete, or were completed within less than 180 seconds were removed. A total of 600 respondents completed the questionnaire. After excluding respondents that failed to meet the quality threshold, the final number of valid respondents that were included in the data set for further analysis amounted to 398. Although slightly more than 200 respondents failed the manipulation check, the number of respondents in each group was nevertheless sufficient for performing statistical tests that are considered useful when comparing groups ($N_{AI} = 211$, $N_{HU} = 187$), $N_{IN} = 205$, $N_{HE} = 193$). Although group sizes were not perfectly equal, the differences were small enough that they did not pose any concerns in the analysis (Söderlund, 2018).

5. Results And Analysis

The purpose of the following section is to present the empirical results of the study and evaluate the research hypothesis introduced in chapter 2. IBM SPSS Statistics (version 30) was used for conducting the statistical analysis of the collected data. Prior to the hypothesis testing, two preliminary analyses were conducted pertaining to an assessment of the internal consistency and manipulation checks to validate the experimental design. Following this, statistical analysis was conducted to test the hypothesised relationships. Results of the hypothesis are tested systematically based on the order to which they were presented.

5.1 Descriptive statistics for manipulation variable

An independent samples t-test was conducted to assess whether the randomly assigned brand description preambles successfully elicited the intended brand perceptions (innovativeness vs heritage). The test compared the average perceptions scores for each group against the midpoint of the 7-point Likert scale (value = 4).

The results in the main study differed significantly from the results in the pre-study revealing mixed outcomes. The manipulation of the innovative brand was successful as respondents perceived it to be more innovative, with a statistically significant mean score that was below the midpoint ($M = 3.13$, $SD = 1.61$, $p < 0.05$). However, the manipulation for the “heritage brand” failed as the mean value did not exceed the midpoint ($M = 3.84$, $SD = 1.61$) thus falling on the “innovative side” of the scale. Consequently, although a statistically significant difference was found between the groups, and one brand description being perceived as more “innovative” than the other, respondents in the main study ultimately perceived both brands to be leaning innovative rather than distinguishing one brand as a heritage brand. This limited separation in mean scores of brand perceptions between the two experiential groups suggests that any potential moderation effects of brand identity was likely attenuated or masked in this study. Consequently, the non-significant statistical findings later presented in the moderation analysis should be interpreted with caution as they may likely reflect ineffective manipulation rather than the true absence of a theoretical relationship.

5.2 Hypothesis testing:

5.2.1 H1, H2, H3: Consumer perceptions

Collectively, these hypotheses propose a dual effect of AI disclosure, H1 and H2 suggests that a brand presenting their product packaging disclosed as having been created by AI will be perceived as less creative and less authentic compared to if the same product packaging was disclosed as having been created by a human. Conversely, H3 suggests that such AI disclosure will result in higher perceptions of brand modernity relative to a human disclosure.

To test these hypotheses, two-tailed independent t-tests were conducted to compare mean values between groups (Table 4). A mean comparison between the respondent groups exposed to the different disclosure preambles showed that brands disclosing their product packaging as having being created by AI indeed was perceived as less creative to a statistically significant extent (MHU = 4.3, MAI= 3.92, $p < 0.010$) and authentic (MHU = 4.09, MAI= 3.51, $p < 0.001$). However, no significant statistical differences emerged for brand modernity perceptions (MHU = 4.4, MAI= 3.45, $p = 0.722$). Hence, H1 and H2 are supported, but H3 is rejected.

Table 4. Results of hypotheses 1, 2 and 3

	<i>M_{HU}</i> (SD)	<i>M_{AI}</i> (SD)	Mean diff.	Decision
<i>H1: Brand Creativity</i>	4.3 (1.25)	3.92 (1.54)	0.38**	S
<i>H2: Brand Authenticity</i>	4.09 (1.51)	3.51 (1.56)	0.59***	S
<i>H3: Brand Modernity</i>	4.40 (1.40)	4.45 (1.51)	-0.05	R

N = 398 (Human = 187, AI = 211).

Significance levels: $p < .05$, **$p^{**} < .01$** , **$p^{***} < .001$** .

S = Supported

R = Rejected

5.2.2 H4: Packaging Design Outcomes

Hypothesis 4a posits that disclosing AI involvement (vs human) leads to less favourable brand attitudes, and hypothesis 4b aims to test the underlying perceptual mechanism driving the effect observed in hypothesis 4a.

5.2.3 H4a: Direct effect

To test hypotheses 4a, planned comparisons were employed with two-tailed independent t-tests (table 5). The results of the mean comparison between the respondent groups exposed to the different disclosure type preambles revealed that brands disclosing their product packaging as designed by AI (compared to human designed) indeed resulted in a less favourable brand attitude ($M_{HU} = 4.27$, $M_{AI} = 3.95$, $p = .030$). Therefore, hypothesis 4a is supported.

Table 5. Results of hypotheses 4a

	$M_{HU}(SD)$	$M_{AI}(SD)$	Mean diff.	Decision
H4a: Brand Attitude	4.27 (1.37)	3.95 (1.44)	.032*	S

N = 398 (Human = 187, AI = 211).

Significance levels: $p < .05$, $p^{**} < .01$, $p^{***} < .001$.

S = Supported

R = Rejected

5.3 Additional testing of Conceptual framework: Hypothesis 4b

The theoretical framework developed for this thesis proposed a dual-route framework positing that AI disclosure would trigger two competing inference processes shaping brand attitude. In H4B the author predicted that the negative warmth-based pathway would dominate consumers evaluations, resulting in an overall less favourable brand attitude for AI-created packaging.

To test this, two separate mediation analyses were conducted using Process model 4 (Hayes, 2022). To test for significance, it was tested if the value zero was covered between the lower

and upper confidence intervals and significant mediation was established only when 0 was not contained within this interval.

5.3.1 Mediation via Warmth-related Inference Pathway

The first mediation analysis was conducted to test disclosure types (AI vs Human) influence on brand attitudes through warmth-based inferences (brand authenticity and brand creativity). The total effect of disclosure type on brand attitude was ($B = 0.32$, $p = .031$) thus suggesting that human-designed packaging (compared to AI-designed) overall elicited more favourable brand attitudes. Consistent with the t-test previously performed for H1-H3, the analysis revealed statistically significant effects for both mediators.

The indirect effects for both mediators were statistically significant - via brand creativity (effect = 0.12, 95% CI [0.03, 0.23]) and via brand authenticity (effect = 0.29, 95% CI [0.12, 0.48]). Among these two mediators, authenticity had a substantially larger effect on brand attitude compared to creativity, this indicates that brand authenticity is a stronger explanatory mechanism. When combining these two mediating effects, the resulting total indirect effect remained significant (effect = 0.41, 95% CI [0.17, 0.66]) and the model explained a substantial proportion of variance in brand attitude, with an R^2 of 0.66 ($p < .001$) indicating strong explanatory power. Lastly, when the two mediators were included in the model the direct effect on brand attitude became non-significant ($B = -0.09$, $p = .32$), this suggests full mediation of the brand creativity and brand authenticity variables on brand attitude.

**Table 6. Mediation results for hypotheses 4b:
Warmth-based route (Brand authenticity & creativity)**

Dependent Variable	Effect Type	Point estimate	SE	t	95% CI (lower)	95% CI (upper)
<i>Brand Attitude</i>	Indirect effect: Brand Creativity	0.1222	0.0531	—	[0.0302]	[0.2452]
	Indirect effect: Brand Authenticity	0.2870	0.0882	—	[0.1293]	[0.4771]
	Total indirect effect	0.4092	0.1208	—	[0.1682]	[0.6477]
	Direct Effect	-0.0884	0.0888	-0.9954	[-0.2629]	[0.0862]
	Total effect	0.3209	0.1479	2.1702	[0.0301]	[0.6116]

N = 393 (Human = 187, AI = 211).

5.3.2 Mediation via Competence-related Inference-Pathway

Secondly, a mediation analysis for the competence-based route was conducted with disclosure type (AI vs. human) as the independent variable, brand attitude as the dependent variable, and brand modernity as the mediating variable. The results presented in table 7 - revealed that the indirect effect via brand modernity was statistically non-significant (effect = -0.04 , 95% CI $[-0.23, 0.17]$). This indicates that disclosure type did not successfully influence brand attitude through the modernity pathway. However, brand modernity was shown to strongly predict brand attitude ($B = 0.67$, $p < .001$).

**Table 7. Mediation results for hypotheses 4b:
Competence-based route (Brand Modernity)**

Dependent Variable	Effect Type	Point estimate	SE	t	95% CI (lower)	95% CI (upper)
Brand Attitude	Indirect Effect: Brand Modernity	-0.0362	0.1018	—	[-0.2329]	[0.1650]
	Direct Effect;	0.3571	0.1068	3.3435	[0.1471]	[0.5672]
	Total Effect	0.3209	0.1479	2.1702	[0.0301]	[0.6116]

5.3.3 Mediation analysis (H4b) : Conclusion

To conclude, the warmth-based mediation model revealed that the effects of type of disclosure on brand attitude is fully mediated by perceived brand authenticity and brand creativity, rendering the direct effect non-significant. In contrast, the competence-based mediation model showed no mediation effect for brand modernity as disclosure types did not have an effect on brand modernity perceptions. Taken together, these results support H4B, thus confirming that consumers favourable evaluations of human-created packaging mainly operate through warmth-based perceptions rather than competence-based ones.

5.4 Moderation analysis (H5): Brand Identity

Hypothesis 5 proposes that brand identity moderates the impact of AI (vs human) disclosure on consumers evaluations. Specifically, the negative effects of AI disclosure are expected to be amplified when the disclosure is incongruent with the brand's identity. To test this hypothesis, PROCESS model 8 was used to see whether or not brand identity (innovative vs heritage) acted as a mediator between packaging design creator (Human vs AI) and brand attitude.

After having conducted the moderation analysis it was evident that there was no statistically significant interaction effect between packaging design creator and brand identity ($p = .061$). This means that H5 is rejected (Table 8), however, as previously mentioned, the non-significant findings presented should be interpreted with caution as this result may likely reflect ineffective manipulation rather than the true absence of a theoretical relationship.

Table 8. Moderation results for hypotheses 5: Brand identity as a Moderator

Moderator	$\Delta R\text{-sq}$	Coefficient	SE	CI 95%	Interaction effect p-value	Decision
H5: Innovative vs Heritage	0.0033	0.3263	0.1739	[-0.0156, 0.6682]	0.0614	R

N = 398 (Human = 187, AI = 21).

S = Supported

R = Rejected

5.5 Summary of Results

The results are summarized in table 9 and will be further discussed in the following section. Figure 3, illustrates the directional relationships established in this hypothesis testing. The results empirically support the warmth-based pathway: disclosing AI as the packaging design creator has a negative effect on consumers' brand authenticity and brand creativity perceptions. However, the competence-based pathway did not materialize as hypothesized: AI as a packaging design creator did not enhance brand modernity perceptions, and the moderating role of brand identity could not be empirically supported.

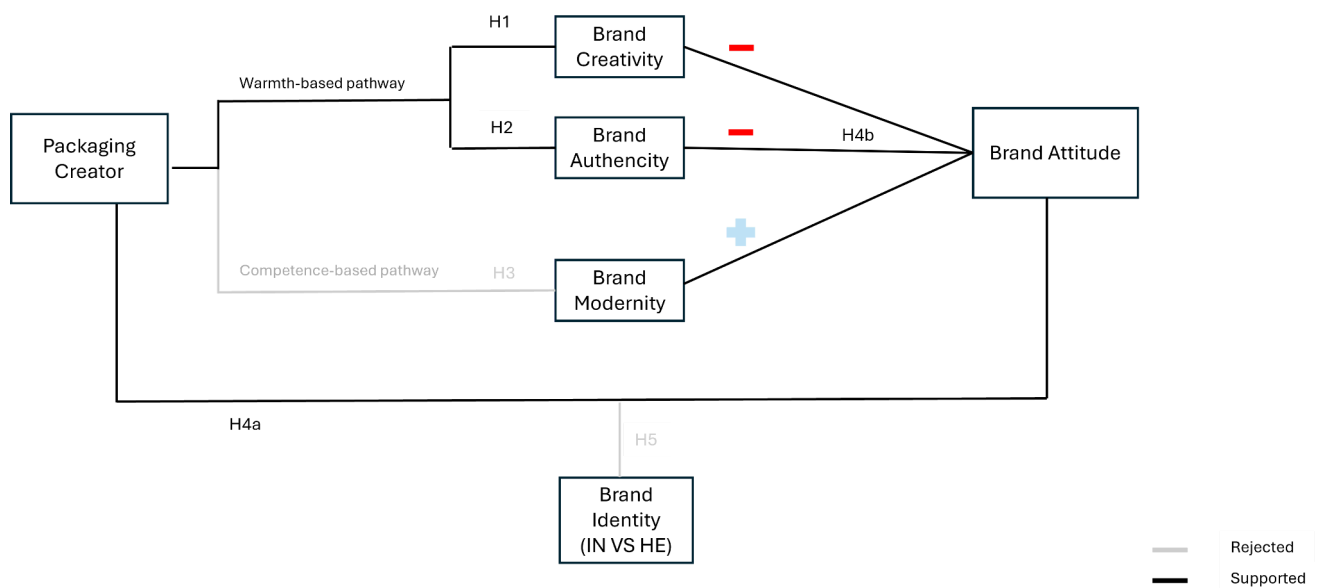


Figure 3: Hypotheses results summary

Table 9. Hypotheses Results Summary

Hypotheses	Decision
H1: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand creativity	S
H2: A packaging design disclosed as created by AI (vs. human) will lead to lower perceived brand authenticity	S
H3: Packaging designs disclosed as AI-created (vs. human-created) will enhance perceptions of brand modernity.	R
H4a: Disclosing AI involvement (vs. a human creator) will lead to less favorable brand attitudes.	S
H4b: The warmth-based route exerts a stronger mediating influence on brand attitude than the competence-based route.	S
H5: The negative effect of AI disclosure on brand attitude will be reduced for innovative-oriented brands and amplified for heritage-oriented brands.	R

6. Discussion

AI's role in marketing is growing and expected to increase in importance in the coming years (Davenport et al., 2020) making it an increasingly important phenomenon for both researchers and practitioners to understand. At the same time concerns and scepticism towards AI continues to pose risks for firms, potentially damaging their image and brand reputation (Anshari et al., 2021). As firms increasingly integrate AI into more stages of the marketing and design pipeline, understanding how consumers perceive the phenomena and how these perceptions might shape consumers brand evaluations becomes increasingly important. By investigating consumers perceptions and judgements of AI-generated packaging design, this thesis extends the knowledge in a previously unexplored field and provides both theoretical and managerial implications. The following section elaborates on the results and provides the subsequent insights.

6.1 General Discussion

6.1.1 Brand Creativity (H1)

Prior research has yielded conflicting findings regarding AI disclosure and creativity perceptions. In the present study, the results of H1 revealed a statistically significant negative effect on brand creativity perception from presenting AI as the creator of the brand's packaging design. Although the empirical results support the theoretical reasoning motivating the hypothesis, the underlying evaluative process driving this effect appears more complex than initially assumed.

This is because respondents scored only slightly above the midpoint on the machine heuristic index ($M = 4.6$) indicating that they perceived AI as somewhat more objective and slightly less creative than humans. Thus, unlike what was initially expected, the objectivity-stereotypes of the machine heuristics alone might not fully account for the observed reduction in consumers brand creativity perceptions. Instead, the observed reduction in brand creativity perceptions, despite the moderate endorsement of objectivity stereotypes, aligns more closely with the affective side of the machine heuristic.

Evidence for this interpretation is reflected by respondents strong denial of experiential mind in the Mind-Perception index ($M=2.07$), showing a strong activation of affective stereotypes about AI's lack of emotion, empathy and emotional intent. The notion that affective judgements influence creativity perceptions aligns with recent empirical findings. Jung et al. (2025) for instance demonstrated that consumers attribute greater "humanness" to AI when its output appears more creative, suggesting that creativity judgments and humanness perceptions are closely intertwined. Crucially, such perceptions of "humanness" are intrinsically affective rather than cognitive since machines, including AI, are typically attributed agency but denied experience (capacity for emotion and feeling), unlike humans who possess both (Go & Sundar, 2019; Luo et al., 2019).

6.1.2 Brand Authenticity (H2)

The results of H2 revealed a statistically significant negative effect on brand authenticity perception from presenting AI as the creator of the brand's packaging design and given that respondents exhibited a strong denial of AI's experiential mind ($M=2.07$), the theoretical rationale underlying the hypothesis is supported.

These findings mirror what has been demonstrated in prior advertising and design research, where authenticity judgments has been shown to be linked to expectations of human intent and emotional depth (e.g Brüns & Meißner, 2024; Lou & Copeland, 2025; Lee & Kim, 2024). Thus, in the context of packaging design, disclosing AI involvement appears to suppress these human-centered inferences that underpin authentic brand perceptions.

6.1.3 Brand Modernity (H3)

The results from H3 revealed no effect on brand modernity perceptions from presenting AI as the creator of the brand's packaging design. Given that respondents exhibited only moderate activation of the "AI = novelty lay belief" ($M=4.42$) the theoretical rationale underlying the hypothesis did not lead to a supported hypothesis.

A key assumption made when forming the hypothesis was that the AI = novelty lay belief would function as a stable interpretive schema. However, the results indicated otherwise given that respondents only scored slightly above the neutral midpoint on the novelty belief index ($M = 4.42$), suggesting that AI was not perceived as strongly novel nor trend-defining.

Conversely, in Xia and He's (2025) packaging design study, where positive brand modernity effects did emerge, this belief was substantially stronger ($M = 5.16$). This discrepancy is theoretically meaningful as it helps explain, at least in part, why the hypothesis was not supported. When the AI = novelty lay belief is weakly activated, AI disclosure is less likely to translate into modernity inferences as respondents find it difficult to associate AI with novelty.

A plausible explanation for this weak activation is that the belief may have become weaker over time as generative AI tools have become integrated into everyday life. This is consistent with Xia and He's (2025) suggestion that the novelty effect may diminish as the technology normalises.

6.1.4 Disclosing AI in Packaging Design Effect on Consumers Brand Attitudes (H4a)

The results from H4a empirically supported that disclosing AI involvement in packaging design meaningfully reduces consumers brand attitudes. These results confirm findings from previous studies in the fields of AI content creation that knowledge of an AI creator will have a negative impact on brand-level evaluations (e.g. Brüns & Meißner, 2024; Kučinskas & Survilaite 2024). The findings therefore extend the observed disclosure penalty into the packaging domain, showing that even in a less explicitly persuasive context, making AI involvement known negatively impacts consumers overall brand attitudes.

6.1.5 Brand Attitude: Dominance of the Warmth-based Pathway (H4b)

The mediation analysis for H4B revealed a clear asymmetry between the two theorized inference pathways driving the effect on consumers brand attitude perceptions. Although the author did not expect the competence-path to exhibit no influence, consistent with H4B, the warmth-based pathway represented by brand authenticity and brand creativity exerted the dominant mediating influence on brand attitude, whereas the competence-based pathway represented by brand modernity showed no mediating influence. These results indicate that when brands disclose their packaging as AI generated, consumers primarily rely on warmth-based judgements to form their overall brand evaluations.

Even if AI disclosure has been empirically shown to signal modernity in a packaging design context in prior studies (e.g. Xia & He, 2025) those benefits did not emerge in this study. As

previously discussed, one plausible explanation for this could be the changing nature of consumers familiarity and knowledge of the technology, thereby weakening the “AI =novelty lay belief” thus respondents were less likely to attribute any potential modernity inferences based on the AI disclosure itself.

Another explanation behind the insignificant results could be the packaging design manipulation itself. This is not unlikely, since one challenging aspect mentioned for role-play experiments is the development of a strong treatment (Söderlund, 2018). While skincare as a product category can carry both functional and symbolic associations depending on positioning, in this study the packaging design stimuli presented in the experiment foregrounded aesthetic and expressive qualities rather than functional performance cues. The manipulation itself might therefore have implicitly tilted respondents evaluations towards warmth-linked criteria rather than competence-oriented ones. This interpretation aligns with findings from prior literature that shows that AI cues can activate either positive competence-based inferences or negative warmth-based inferences, but which route dominates depends on the value dimension consumers perceive as most diagnostic in the moment (e.g Xu & Mehta, 2022; Li et al 2025).

6.1.6 Brand Identity and its moderating effect on Brand Attitude (H5)

The results from H5 did not demonstrate a moderating effect of brand identity on the packaging design outcomes depending on the creator presented. However, as has been noted in the results section, results from the brand identity manipulation check in the main study showed that the innovative and heritage brand conditions were not perceived as sufficiently distinct. Given that such schema-based effects underlying this hypothesis have been demonstrated in a few prior design studies, the absence of moderation effects of brand identity in this study may not reflect a true absence of a theoretical relationship.

6.2 Implications for Theory

6.2.1 Overall Theoretical Positioning and Contributions

This thesis contributes to the emerging literature on the intersection of AI, content creation, and consumer perceptions by extending it into the underexplored domain of packaging design. While prior research has examined how visual elements such as color, shape, and composition signal brand qualities (Orth & Malkewitz, 2008), AI as a creator has therefore rarely been considered as a packaging design signal before in research. By developing a framework that integrates signaling theory with AI lay beliefs and the cognitive and affective mechanisms of the Machine Heuristics and Mind-Perception Theory, this thesis contributes to theory by established empirical evidence that disclosure of the design source itself functions as a signal that meaningfully shapes consumer brand evaluations.

6.2.2 Resolving Warmth-Competence Tension in Packaging Design

Additionally, this thesis contributes to theory by empirically testing the theorized tension between warmth-based losses and competence-based gains that AI disclosure have been shown to evoke in prior marketing research, extending this inquiry into the domain of packaging design. Although prior research has documented both types of inferences, they have rarely been assessed simultaneously.

By doing so, the findings broaden the scope of existing research by showing that the warmth-based penalties associated with AI - previously observed in advertising and apparel design - also extend to packaging design. This suggests that the affective mechanisms proposed by Mind Perception Theory and the cognitive mechanisms underlying the machine heuristic reliably account for how AI disclosure shapes consumer evaluations across contexts. By providing these insights, this thesis extends the current body of research by explaining potential reasons behind why the content creator can impact consumer judgements and how that unfolds.

Secondly, the findings contribute by revealing that in packaging design, despite its hybrid nature as both a functional and expressive touchpoint (Silayoi & Speece, 2007),

warmth-based inferences fully dominate brand evaluations even when competence-based benefits are theoretically plausible. This finding advances understanding of AI disclosure effects in packaging beyond prior research. While Xia & He (2025) found positive modernity effects the authors did not measure warmth-based inferences. By testing both routes simultaneously, this study shows that when both dimensions are accessible, warmth-based deficits override competence-based benefits, revealing a more nuanced understanding of AI disclosure effects on brand evaluations in a packaging design context.

6.2.3 “Can AI Be Creative?” vs. “Does It Feel Human?”

A key theoretical insight from this thesis concerns the specific mechanisms underlying reduced brand creativity perceptions. Although the hypothesis was grounded in the notion that the machine-heuristic stereotypes reflect a set of cognitive biases of AI as objective and therefore incapable of creativity, the findings revealed a different pattern. This is because the negative effects of AI disclosure did not stem from people doubting AI’s technical ability to generate creative work. Unlike what has been suggested in prior work (Hong et al., 2022) this indicates that people may no longer view AI as inherently uncreative. This is likely explained by the increased association of generative AI with creative tasks such as art, music, text generation (Agudo et al., 2022; Chamberlain et al., 2018). Additionally, the widespread diffusion of the AI-tool Chat GPT in recent years has surprised many with its capabilities and creativity (Gruman, 2022).

Consequently, as consumers increasingly encounter AI in creative domains, the cognitive stereotypes of machines reflecting their objectivity and limited capacity for creativity may be weakening. In contrast, findings in this study show that the affective stereotypes against AI, reflecting its perceived deficiencies in emotion, empathy and emotional intent (Sundar, 2020; Wu & Wen, 2021), remain strong. Given that authenticity and creativity perceptions have been linked together in prior design studies, with authenticity being described as an important part of human creativity (Kharkhurin, 2014; Maslow, 1973; Rogers, 1959), the same affective perceptions that negatively influence brand authenticity appear to similarly drive reductions in brand creativity perceptions. This suggests that creativity perceptions at the brand level are influenced by subjective, affective biases that privilege human intent and emotional depth rather than assessments of technical creative capability. These findings carry broader theoretical implications since they indicate that as AI becomes more integrated into creative

domains, the critical question forming consumers brand creativity judgements when evaluating AI-generated content and the brands behind these is not “Can AI be creative?” but rather “Does it feel human”.

6.3 Implications for Managers

While the research on AI disclosure in packaging design and its effect on brand evaluations is still nascent and in need of more attention, there are a few managerial implications of the results of this study. The finding that brands disclosing their packaging design will be perceived as less authentic and less creative highlights a critical strategic consideration; brands using AI as a content creation tool must proactively consider in which other ways they might signal authenticity and creativity to counteract the AI disclosure effect. Given growing regulatory pressure including new legislations mandating the disclosure of AI involvement across the marketing pipeline, it becomes increasingly important for brands to understand the consequences of such disclosures. When considering the implementation of AI for packaging design purposes, managers must therefore evaluate whether efficiency gains, cost savings, and other benefits from using AI are enough to outweigh any potential disadvantages of negative consumer perceptions.

Additionally, consistent with findings in prior research demonstrating that AI is increasingly able to match or even surpass human output quality, this thesis found that respondents did not judge AI to be inherently less capable of being creative. This is an important insight for managers using AI as a content tool to consider since it indicates that even if the technical quality of AI-generated content is improving, these improvements are unlikely to eliminate brand creativity penalties since these biases appear rooted not in the assessment of the designs creativity per say, but in the perceived absence of human intention, care, and emotional expressiveness behind the content itself.

Finally, timing is a significant factor to consider. In this thesis, competence-based inferences failed to materialize from AI disclosure. This suggests that the sense of novelty, trendiness, or innovation that AI disclosure has previously been shown to produce may be weakening as AI consumers grow increasingly familiar with the technology. This development has direct implications for managers. Given that AI disclosure consistently triggers negative warmth-based evaluations, competence-related inferences such as perceptions of modernity

thus represent the primary route through which AI could theoretically enhance brand perceptions. However, the results of this thesis indicate that managers should not assume that using or disclosing AI in their packaging design will automatically make their brands appear more modern or trend-forward. As AI becomes less novel and more familiar, the competence-inferences gains documented in earlier research may no longer reliably materialize, while the warmth-based penalties associated with disclosing AI remain.

6.4 Conclusion

The purpose of the study was to extend the current research in the intersecting field of AI content creation and consumer perceptions into the unexplored domain of packaging design by answering the following research questions:

What are the effects on consumer perceptions and brand evaluations when presenting AI as the creator of a brand's packaging design?

- *What are the effects on brand creativity, brand authenticity, and brand modernity when presenting AI (vs. human) as the creator of packaging design?*
- *What are the effects on overall brand attitude when presenting AI (vs. human) as the creator of packaging design?*
- *What is the difference in brand attitude between innovation-oriented vs. heritage-oriented brands when presenting AI (vs. human) as the creator of packaging design?*

This study demonstrates that disclosing AI versus human involvement in packaging design meaningfully shapes consumer brand perceptions, establishing a clear AI penalty. When AI is disclosed as the creator of a brand's packaging design, consumers infer that the brand itself is less creative and less authentic compared to when a human creator is disclosed. A negative effect was found on the final outcome variable investigated in this study - brand attitude, with warmth-based dimensions (brand creativity and brand authenticity) fully mediating this effect. No effects could be found for the competence-based dimensions represented by brand modernity, or the moderating effect of brand identity, and no conclusions can therefore be drawn about the effects on those variables.

This study therefore confirms previous research conducted on AI, content creation and consumers perceptions by demonstrating that warmth-based penalties associated with AI generalize to packaging design, a less persuasive brand touchpoint, where evaluations rely on both aesthetic and functional considerations. Additionally, it extends the theoretical understanding of AI disclosure effects by integrating signaling theory, machine heuristic and mind-perception theory to reveal that AI disclosure in packaging design functions as an observable signal conveying brand attributes, which consumers interpret by applying cognitive and affective stereotypes about AI's characteristics.

In conclusion, findings show that there indeed can be a risk associated with AI-generated packaging design, reflected in negatively affected consumer perceptions and judgements towards the brand. Hence, managers need to carefully consider the consumer perspective when choosing to implement AI in their marketing activities and researchers should continue exploring the field.

6.5 Limitations and Future Research

Despite its contributions, this study has several limitations that define the scope of this study's findings and provides opportunities for future research.

Given the subject of this thesis, it is important to note that AI technology and its applications are constantly developing. This ongoing development strengthens the importance of examining the field even further, but it can also act as a limitation. As AI technology advances, consumers perceptions will shift in tandem with these developments, which would make the results of this study become outdated quicker compared to other studies in other subjects. Furthermore, because AI's role in marketing is growing and expected to increase in importance in the coming years (Davenport et al., 2020), there remains a strong need for further research in this area incorporating other perspectives.

First, there are limitations concerning the possibility that the choice of product category and the way the packaging design stimuli were presented may have implicitly steered respondents towards warmth-based evaluations. Future research could benefit from examining whether these findings generalize across different product categories that more clearly activate

functional evaluations versus emotional or symbolic evaluations. This would help clarify whether the dominance of the warmth-based path shown in this thesis reflects a broader pattern in AI-packaging design, or is partly attributed to the schemas implicitly elicited by the manipulation in this study.

Secondly, another limitation concerns the brand identity manipulation, which in the main study did not produce the intended differentiation between the innovative and heritage brand conditions. Prior research in apparel design has shown that AI cues meaningfully interact with brand schemas, however, this has not been widely examined. Future research should therefore further investigate whether different moderating effects emerge when the brand identity manipulation is stronger and more perceptually distinct.

Thirdly, the use of a Swedish sample limits the generalisability of the findings to other cultural contexts. Prior research has shown that people around the world have different levels of skepticism towards AI, with some populations and cultures being more receptive towards it (YouGov, 2021).

Finally, this thesis deliberately focused on brand-level perceptions, as the purpose was to examine how AI disclosure shapes consumers broader brand judgments rather than evaluations of the packaging design itself. Thus, although the theoretical framework acknowledges - and the findings of this thesis support - that packaging can act as a signalling device through which design-level inferences may transfer to brand-level outcomes, this study did not aim to measure those design-level evaluations directly. This choice does not undermine the present findings as this method aligns with prior packaging design research where scholars frequently examine how packaging elements shape brand-level outcomes without measuring design evaluations directly (e.g Wang, 2024, Xia & He, 2025). Nevertheless, future research could extend this work by measuring both packaging-level and brand-level responses to provide a more specific analysis of how AI-generated packaging might influence consumer evaluations.

References

- Aaker, D. A., & Jacobson, R. (2001). The value relevance of brand attitude in high-technology markets. *Journal of Marketing Research*, 38(4), 485–493
- Agudo, U., Arrese, M., Liberal, K. G., & Matute, H. (2022). Assessing emotion and sensitivity of AI artwork. *Frontiers in Psychology*; *Front Psychol*, 13, 879088. doi:10.3389/fpsyg.2022.87908
- Ahmad, A. J., & Ashfi, S. A. (2024). Augmented reality in marketing: Enhancing customer engagement and brand experience. *Journal of Research and Innovation in Technology, Commerce and Management*, 1(3), 1–5.
- Aljarah, A., Ibrahim, B., & Lopez, M. (2024). AI, we do not trust! The nexus between awareness of falsity in AI-generated CSR ads and online brand engagement. *Internet Research. Advance online publication*. <https://doi.org/10.1108/INTR-12-2023-1156>
- Anantrasirichai, N., & Bull, D. (2021). Artificial intelligence in the creative industries: A review. *Artificial Intelligence Review*, 55(2), 589–656. doi:10.1007/s10462-021-10039-7
- Andrade, C. (2020). The Limitations of Online Surveys. *Indian Journal of Psychological Medicine*; *Indian J Psychol Med*, 42(6), 575-576. 10.1177/0253717620957496
- Ang, S. H., Lee, Y. H., & Leong, S. M. (2007). The ad creativity cube: conceptualization and initial validation. *Journal of the Academy of Marketing Science*, 35(2), 220–232. <https://doi.org/10.1007/s11747-007-0042-4>
- Anisin, A. (2023). Generative AI for content creation: How marketers can use it. *Forbes*. Retrieved Oktober 11, 2024, from <https://www.forbes.com/sites/theyec/2023/08/17/generative-ai-for-content-creation-how-marketers-can-use-it/>
- Anshari, M., Hamdan, M., Ahmad, N., Ali, E., & Haidi, H. (2021). COVID-19, artificial intelligence, ethical challenges and policy implications. *AI & Society*, 38, 707–720. doi:10.1007/s00146-022-01471-6
- Arango, L., Singaraju, S. P., & Niininen, O. (2023). Consumer responses to AI-generated charitable giving ads. *Journal of Advertising*, 52(4), 486–503. doi:10.1080/00913367.2023.2183285
- Asakdiyah, S., Makarim, S. A., & Adinugroho, I. (2024). Augmented reality marketing: Creating immersive brand experiences. *COSTING: Journal of Economic, Business and Accounting*, 7(4), 8184–8189.
- Baek, T. H., Kim, J., & Kim, J. H. (2024). Effect of disclosing AI-generated content on prosocial advertising evaluation. *International Journal of Advertising*. doi:10.1080/02650487.2024.2401319

Bakpayev, M., Baek, T. H., van Esch, P., & Yoon, S. (2022). Programmatic creative: AI can think but it cannot feel. *Australasian Marketing Journal*, 30(1), 90-95.

Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods* (6th ed.) Oxford University Press

Beverland, M. B. (2005). Grafting brand authenticity: The case of luxury wines. *Journal of Management Studies*, 42(5), 1003–1029. <https://doi.org/10.1111/j.1467-6486.2005.00530.x>

Binninger, A. C. (2015). Perception of naturalness of food packaging and its role in consumer product evaluation. *Journal of Food Products Marketing*, 53, 1–17

Boerman, S. C., Willemsen, L. M., & Van der Aa, E. P. (2022). “This post is sponsored”: Effects of sponsorship disclosure on persuasion knowledge and electronic word of mouth in the context of Facebook. *Journal of Interactive Marketing*, 38(1), 82–92. <https://doi.org/10.1016/j.intmar.2016.12.002>

Boulding, W., & Kirmani, A. (1993). A consumer-side experimental examination of signaling theory: Do consumers perceive warranties as signals of quality? *The Journal of Consumer Research*, 20(1), 111-123. doi:10.1086/209337

Brown, T. J., & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, 61(1), 68-84.

Brüns, J. D., & Meißner, M. (2024). Do you create your content yourself? Using generative artificial intelligence for social media content creation diminishes perceived brand authenticity. *Journal of Retailing and Consumer Services*, 79, 103790. <https://doi.org/10.1016/j.jretconser.2024.103790>

Bryman, A., & Bell, E. (2017). *Företagsekonomiska forskningsmetoder* (3rd ed.). Liber

Bui, H. T. (2025). Examining the effect of AI advertising involvement disclosure on advertising value and purchase intentions. *Journal of Research in Interactive Marketing*. Advance online publication. <https://doi.org/10.1108/JRIM-02-2025-0066>

Carroll, G. R., & Wheaton, D. R. (2009). The organizational construction of authenticity: An examination of contemporary food and dining in the U.S. *Research in Organizational Behavior*, 29, 255–282. <https://doi.org/10.1016/j.riob.2009.06.003>

Castelo, N., Bos, M. W., & Lehmann, D. R. (2019). Task-dependent algorithm aversion. *Journal of Marketing Research*, 56(5), 809–825. <https://doi.org/10.1177/0022243719851788>

Cian, L., Krishna, A., & Elder, R. S. (2014). This logo moves me: Dynamic imagery from static images. *Journal of Marketing Research*, 51(2), 184–197. <https://doi.org/10.1509/jmr.13.0023>

Chamberlain, R., Mullin, C., Scheerlinck, B., & Wagemans, J. (2018). Putting the art in

artificial: Aesthetic responses to computer-generated art. *Psychology of Aesthetics, Creativity, and the Arts*, 12(2), 177-192. doi:10.1037/aca0000136

Chen, H., Pang, J., Koo, M. and Patrick, V.M. (2020), "Shape matters: package shape informs brand status categorization and brand choice", *Journal of Retailing*, Vol. 96 No. 2, pp. 266-281, doi: 10.1016/j.jretai.2019.08.003

Chen, G., Xie, P., Dong, J., & Wang, T. (2019). Understanding programmatic creative: The role of AI. *Journal of Advertising*, 48(4), 347–355. doi:10.1080/00913367.2019.1654421

Chen, H., Chan-Olmsted, S., Kim, J., & Mayor Sanabria, I. (2022). Consumers' perception on artificial intelligence applications in marketing communication. *Qualitative Market Research*, 25(1), 125–142. doi:10.1108/QMR-03-2021-0040

Chen, Y., Wang, H., Rao Hill, S., & Li, B. (2024). Consumer attitudes toward AI-generated ads: Appeal types, self-efficacy and AI's social role. *Journal of Business Research*, 185, 114867. <https://doi.org/10.1016/j.jbusres.2024.114867>

Colliander, J., & Dahlén, M. (2011). Following the fashionable friend: The power of social media: Weighing publicity effectiveness of blogs versus online magazines. *Journal of Advertising Research*, 51(1), 313-320. doi:10.2501/JAR-51-1-313-320

Cowan, K. and Kostyk, A. (2024), "The influence of luxury brand personality on digital interaction evaluations: a focus on European and North American markets", *International Marketing Review*, Vol. 41 No. 2, pp. 386-410, doi: 10.1108/ imr-02-2022-0044

Dahlen, M., Rosengren, S., & Torn, F. (2008). Advertising creativity matters. *Journal of Advertising Research*, 48(3), 392–403. doi:10.2501/S002184990808046

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108-116

Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48, 24-42.

Deng, X., Han, B., & Wang, L. (2019). Up-down versus left-right: The effect of writing direction change in East Asia on consumers' perceptions and advertising. *Journal of Advertising*, 48(5), 437–456. <https://doi.org/10.1080/00913367.2019.1668891>

Fionda, A. M., & Moore, C. M. (2009). The anatomy of the luxury fashion brand. *Journal of Brand Management*, 16(5–6), 347–363. <https://doi.org/10.1057/bm.2008.45>

Fiske, S. T., & Linville, P. W. (1980). What does the Schema Concept Buy us? *Personality and Social Psychology Bulletin*, 6(4), 543–557. <https://doi.org/10.1177/014616728064006>

Fiske, S.T. (2008). *Social cognition* (1st ed.). Boston: McGraw-Hill Higher Education.
Retrieved from <http://archive.org/details/socialcognitionf00fisk>

Francisco Tigre Moura, Castrucci, C. and Hindley, C. (2023). Artificial Intelligence Creates Art? An Experimental Investigation of Value and Creativity Perceptions. *Journal of Creative Behavior*, 57(4). doi:<https://doi.org/10.1002/jocb.600>.

Gilovich, T., Griffin, D. W., & Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgement*. New York: Cambridge University Press.

Green, R. T., & White, P. D. (1976). Methodological considerations in cross-national consumer research. *Journal of International Business Studies*, 7(2), 81-87.
doi:10.1057/palgrave.jibs.849070

Guerreiro, J., & Loureiro, S. M. C. (2023). I am attracted to my cool smart assistant! Analyzing attachment-aversion in AI-human relationships. *Journal of Business Research*, 161, 113863.
<https://doi.org/10.1016/j.jbusres.2023.113863>

Gómez, M., Martin-Consuegra, D., & Molina, A. (2015). The importance of packaging in purchase and usage behavior. *International Journal of Consumer Studies*, 39(3), 203–211.

Gray, H. M., Gray, K., & Wegner, D. M. (2007). Dimensions of mind perception. *Science*, 315(5812), 619–619. <https://doi.org/10.1126/science.1134475>

Gruman, G. (2022,). GPT: Ett högteknologiskt cirkustrick eller den första riktiga AI:N för dagligt bruk? *Computer Sweden* Retrieved from
<https://computersweden.idg.se/2.2683/1.774603/gpt-ett-hogteknologiskt-cirkustrick-eller-denforsta-riktiga-ain-for-dagligt-bruk>

Go, E., & Sundar, S. S. (2019). Humanizing chatbots: The effects of visual, identity and conversational cues on humanness perceptions. *Computers in Human Behavior*, 97, 304–316.
<https://doi.org/10.1016/j.chb.2019.01.020>

Haenlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5-14

Heidenborg, E., & Kaveryd, L. (2023). The creator effect: A quantitative study of the impact on consumer perceptions and judgements when exposed to an AI-created advertisement (Master's thesis). Stockholm School of Economics.

Han, S. (2024). Consumer perceptions of AI-generated content and disclaimer in terms of authenticity, deception, and content attribute [Conference paper]. In 24th Biennial Conference of the International Telecommunications Society (ITS): "New bottles for new wine: Digital transformation demands new policies and strategies," Seoul, Korea. <https://hdl.handle.net/10419/302503>

Hidalgo, C. A., Orghian, D., Canals, J. A., De Almeida, F., & Martin, N. (2021). *How humans judge machines* MIT Press

Ho, H.-C., Chiu, C. L., Mansumittrchai, S., & Quarles, B. J. (2020). Hedonic and utilitarian value as a mediator of men's intention to purchase cosmetics. *Journal of Global Fashion Marketing*, 11(1), 71–89. <https://doi.org/10.1080/20932685.2019.1682026>

Hollywood, L., Wells, L., Armstrong, G., & Farley, H. (2013). Thinking outside the carton: Attitudes toward milk packaging. *British Food Journal*, 115(6), 899–912.

Holmes, G. R., & Paswan, A. (2012). Consumer reaction to new package design. *Journal of Product & Brand Management*, 21(2), 109–116.

Hong, J. W., Peng, Q., & Williams, D. (2021). Are you ready for artificial mozart and skrillex? an experiment testing expectancy violation theory and AI music. *New Media & Society*, 23(7), 1920–1935. doi:10.1177/1461444820925798

Hong, J., Fischer, K., Ha, Y., & Zeng, Y. (2022). Human, I wrote a song for you: An experiment testing the influence of machines' attributes on the AI-composed music evaluation. *Computers in Human Behavior*, 131, 107239. doi:10.1016/j.chb.2022.107239

Ilicic, J., & Webster, C. M. (2014). Investigating consumer–brand relational authenticity. *Journal of Brand Management*, 21(4), 342–363, <https://doi.org/10.1057/bm.2014.11>

Jung, T., Koghut, M., Lee, E., & Kwon, O. (2025). Artificial creativity in luxury advertising: How trust and perceived humanness drive consumer response to AI-generated content. *Journal of Retailing and Consumer Services*, 87, 104403. <https://doi.org/10.1016/j.jretconser.2024.104403>

Jurca, M. A., & Plăiaș, I. (2013). Schema congruity – A basis for evaluating ambient advertising effectiveness. *Annals of the University of Oradea: Economic Science*, 22(1), 1765–1774.

Karjalainen, T.-M., & Snelders, D. (2010). Designing visual recognition for the brand. *Journal of Product Innovation Management*, 27(1), 6–22. <https://doi.org/10.1111/j.1540-5885.2009.00696.x>

Kaplan, S. A., Luchman, J. N., & Mock, L. (2013). General and specific question sequence effects in satisfaction surveys: Integrating directional and correlational effects. *Journal of Happiness Studies*, 14(5), 1443–1458. <https://doi.org/10.1007/s10902-012-9388-5>

Keller, K. L., Heckler, S. E., & Houston, M. J. (1998). The effects of brand name suggestiveness on advertising recall. *Journal of Marketing*, 62(1), 48–57. doi:10.1177/002224299806200105

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22

Kervyn, N., Fiske, S. T., & Malone, C. (2012). Brands as intentional agents framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology*, 22(2), 166–176. doi:10.1016/j.jcps.2011.09.006

Kim, H. M., Abbas, J., Haq, M. Z. U., Lee, J., & Hwang, J. (2022). Differences between robot servers and human servers in brand modernity, brand love, and behavioral intentions in the restaurant industry. *Asia Pacific Journal of Marketing and Logistics*, 35(7), 1774–1788. doi:10.1108/apjml-03-2022-0214

Kirkby, A., Baumgarth, C., & Henseler, J. (2023). To disclose or not disclose is no longer the question: Effect of AI-disclosed brand voice on brand authenticity and attitude. *Journal of Product & Brand Management*, 32(7), 1108–1122. doi:10.1108/jpbm-02-2022-3864

Kirk, C. P., & Givi, J. (2025). The AI-authorship effect: Understanding authenticity, moral disgust, and consumer responses to AI-generated marketing communications. *Journal of Business Research*, 186, 114984. <https://doi.org/10.1016/j.jbusres.2024.114984>

Kirmani, A., & Rao, A. R. (2000). No pain, no gain: A critical review of the literature on signaling unobservable product quality. *Journal of Marketing*, 64(2), 66-79. doi:10.1509/jmkg.64.2.66.18000

Kharkhurin, A. V. (2014). Creativity.4in1: Four-criterion construct of creativity. *Creativity Research Journal*, 26(3), 338–352. <https://doi.org/10.1080/10400419.2014.929424>

Kshetri, N., Dwivedi, Y. K., Davenport, T. H., & Panteli, N. (2024). Generative artificial intelligence in marketing: Applications, opportunities, challenges, and research agenda. *International Journal of Information Management*, 75, 102716. doi:10.1016/j.ijinfomgt.2023.102716

Krishna, A., Cian, L., & Aydinoglu, N. Z. (2017). Sensory aspects of package design. *Journal of Retailing*, 93(1), 43–54. doi.org/10.1016/j.jretai.2016.12.002

Kučinskas, G. (2024). Negative effects of revealing AI involvement in products: Mediation by authenticity and risk, moderation by trust in AI and familiarity with AI (SSRN Working Paper No. 4805186). SSRN. <https://doi.org/10.2139/ssrn.4805186>

Kunz, W., Schmitt, B., & Meyer, A. (2011). How does perceived firm innovativeness affect the consumer? *Journal of Business Research*, 64(8), 816–822. <https://doi.org/10.1016/j.jbusres.2010.10.005>

Kwon, J., Seo, Y., & Ko, D. (2016). Effective luxury-brand advertising: The ES–IF matching (entity–symbolic versus incremental–functional) model. *Journal of Advertising*, 45(4), 459–471. <https://doi.org/10.1080/00913367.2016.1214642>

Labrecque, L. I., & Milne, G. R. (2012). Exciting red and competent blue: The importance of color in marketing. *Journal of the Academy of Marketing Science*, 40(5), 711–727. <https://doi.org/10.1007/s11747-010-0245-y>

Lamb, J. M., & Kallal, M. J. (1992). A conceptual framework for apparel design. *Clothing and Textiles Research Journal*, 10(2), 42–47. <https://doi.org/10.1177/0887302X9201000207>

Lee, E., Lee, S., & Yang, C. (2017). The influences of advertisement attitude and brand attitude on purchase intention of smartphone advertising. *Industrial Management + Data Systems*, 117(6), 1011–1036. doi:10.1108/IMDS-06-2016-0229

Lee, H., Ko, E., & Lee, S. (2023). The effect of luxury brands' sustainable fashion marketing types on authenticity, brand attitude, and purchase intention. *Journal of Global Scholars of Marketing Science*, 33(4), 497–512.

Lee, G., & Kim, H.-Y. (2024). Human vs. AI: The battle for authenticity in fashion design and consumer response. *Journal of Retailing and Consumer Services*, 77, 103690. doi:10.1016/j.jretconser.2023.103690

Lee, G., & Kim, H.-Y. (2025). Algorithm fashion designer? Ascribed mind and perceived design expertise of AI versus human. *Psychology & Marketing*, 42(1), 255–273. doi:10.1002/mar.22124

Li, B., Rui, J., Yu, W., & Ye, M. (2025). When design meets AI: The impact of AI design products on consumers' response patterns. *Acta Psychologica Sinica*. Advance online publication. <https://doi.org/10.3724/SP.J.1041.2025.00000>

Lim, S., & Schmälzle, R. (2024). The effect of source disclosure on evaluation of AI-generated messages. *Computers in Human Behavior: Artificial Humans*, 2(1), 100058. doi:10.1016/j.chbah.2024.100058

Liu, Y., Wang, X., & Qin, H. (2023). When cool hospitality brand meets AI: Exploring the matching effect of service agents and brand images on brand attitude. *International Journal of Contemporary Hospitality Management*. Advance online publication. <https://doi.org/10.1108/ijchm-04-2023-0516>

Liu, B., & Wei, L. (2019). Machine authorship in situ: Effect of news organization and news genre on news credibility. *Digital Journalism*, 7(5), 635–657.

Lou, X., & Copeland, L. (2025). Gen Z and AI-generated fashion ads: A qualitative study to understanding female consumer perceptions and reactions. *Journal of Internet Commerce*, 1–22. <https://doi.org/10.1080/15332861.2025.2520194>

Luffarelli, J., Mukesh, M., & Mahmood, A. (2019). Let the logo do the talking: The influence of logo descriptiveness on brand equity. *Journal of Marketing Research*, 56(5), 862–878. <https://doi.org/10.1177/0022243719845000>

Luo, X., Tong, S., Fang, Z., & Qu, Z. (2019). Frontiers: Machines vs. humans: The impact of artificial intelligence chatbot disclosure on customer purchases. *Marketing Science*, 38(6), 937–947

Marozzo, V., Raimondo, M. A., Miceli, G. “Nino”, & Scopelliti, I. (2019). Effects of au naturel packaging colors on willingness to pay for healthy food. *Psychology & Marketing*, 37(7), [page numbers if available]. <https://doi.org/10.1002/mar.21294>

Maslow, A. H. (1973). Creativity in self-actualizing people. In A. Rothenberg & C. R. Hausman (Eds.), *The creative question* (pp. 86–92). Duke University Press

Mayahi, S., & Vidrih, M. (2022). The impact of generative AI on the future of visual content marketing (arXiv Preprint No. 2211.12660). arXiv. <https://arxiv.org/abs/2211.12660>

Mead, J. A., & Richerson, R. (2018). Package color saturation and food healthfulness perceptions. *Journal of Business Research*, 82, 10–18. <https://doi.org/10.1016/j.jbusres.2017.08.015>

Moreau, P., Prandelli, E., & Schreier, M. (2023). Generative artificial intelligence and design co-creation in luxury new product development: The power of discarded ideas. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4630856>

Morhart, F., Malär, L., Guèvremont, A., Girardin, F., & Grohmann, B. (2015). Brand authenticity: An integrative framework and measurement scale. *Journal of Consumer Psychology*, 25(2), 200–218. <https://doi.org/10.1016/j.jcps.2014.11.006>

Müller, B., Kocher, B., & Crettaz, A. (2013). The effects of visual rejuvenation through brand logos. *Journal of Business Research*, 66(1), 82–88. <https://doi.org/10.1016/j.jbusres.2011.07.026>

Mzoughi, M., Brée, J., & Cherif, E. (2017). Toward the characterization of “toy-packaging”: An exploratory research. *Journal of Strategic Marketing*, 25(3), 190–210. <https://doi.org/10.1080/0965254x.2017.1299786>

Napoli, J., Dickinson, S. J., Beverland, M. B., & Farrelly, F. (2014). Measuring consumer-based brand authenticity. *Journal of Business Research*, 67(6), 1090–1098. <https://doi.org/10.1016/j.jbusres.2013.06.001>

Orth, U. R., & Malkewitz, K. (2008). Holistic package design and consumer brand impressions. *Journal of Marketing*, 72(3), 64–81. <https://doi.org/10.1509/jmkg.72.3.064>

Orquin, J. L., Bagger, M. P., Lahm, E. S., Grunert, K. G., & Scholderer, J. (2019). The visual ecology of product packaging and its effects on consumer attention. *Journal of Business Research*, 111, 1–10. <https://doi.org/10.1016/j.jbusres.2019.01.043>

Pukas, A. (2022). Hyper-personalization as a customer relationship management tool in a SMART organization. *Management Issues*, 20(3), 95–108. doi:10.7172/1644-9584.97.5

Ratta, A. A., Muneer, S., & Hassan, H. U. (2024). The impact of AI-generated advertising content on consumer buying intention and consumer engagement. *Bulletin of Business and Economics*, 13(2), 1152–1157. <https://doi.org/10.61506/01.00476>

Rodríguez, B., Arboleda, A., & Reinoso-Carvalho, F. (2025). Reshaping the experience of topical skincare products: A multisensory approach for promoting loyalty and adherence. *Heliyon*, 11(3), e42217. <https://doi.org/10.1016/j.heliyon.2025.e42217>

Rogers, C. R. (1959). Toward a theory of creativity. In H. H. Anderson (Ed.), *Creativity and its cultivation* (pp. 69–82). New York: Harper & Row

Rosengren, S., Eisend, M., Koslow, S., & Dahlen, M. (2020). A meta-analysis of when and how advertising creativity works. *Journal of Marketing*, 84(6), 39–56. doi:10.1177/0022242920929288

Shams, R., Alpert, F., & Brown, M. (2015). Consumer perceived brand innovativeness: Conceptualization and operationalization. *European Journal of Marketing*, 49(9/10), 1589–1615. <https://doi.org/10.1108/EJM-05-2013-0240>

Sharma, G., & Lal, D. R. (2024). User engagement and perception on social media: An analysis of AI-generated vs. human-generated images in digital advertising campaigns. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4747253>

Shukla, P., Singh, J., & Wang, W. (2022). The influence of creative packaging design on customer motivation to process and purchase decisions. *Journal of Business Research*, 147, 338–347. <https://doi.org/10.1016/j.jbusres.2022.04.026>

Silayoi, P., & Speece, M. (2007). The importance of packaging attributes: A conjoint analysis approach. *European Journal of Marketing*, 41(11/12), 1495–1517.

Simms, C., & Trott, P. (2010). Packaging development: A conceptual framework for identifying new product opportunities. *Marketing Theory*, 10(4), 397–415. <https://doi.org/10.1177/1470593110382826>

Smith, R. E., & Yang, X. (2004). Toward a general theory of creativity in advertising: Examining the role of divergence. *Marketing Theory*, 4(1-2), 31–58. doi:10.1177/1470593104044086

Statista. (2019). AI use in marketing. Retrieved from <https://www-statistacom.ez.hhs.se/study/57404/artificial-intelligence-use-in-marketing/>

Statista 2025: *Most used social media platforms by marketers worldwide as of January 2025*. Retrieved from: https://www.statista.com/statistics/259379/social-media-platforms-used-by-marketers-worldwide/?srsltid=AfmBOOrLTHES_chWCe2gTp7-pIV77Q6z6usFORUFJnOJrkqnV22ch8VA

Stanford Institute for Human-Centered Artificial Intelligence 2025: *AI Index Report – Economy*. Retrieved from: <https://hai.stanford.edu/ai-index/2025-ai-index-report/economy>

Stayman, D. M., Alden, D. L., & Smith, K. H. (1992). Some effects of schematic processing on consumer expectations and disconfirmation judgments. *Journal of Consumer Research*, 19(2), 240–255. <https://doi.org/10.1086/209299>

Song, M., Chen, H., Wang, Y., & Duan, Y. (2024). Can AI fully replace human designers? Matching effects between declared creator types and advertising appeals on tourists' visit intentions. *Journal of Destination Marketing & Management*, 32, 100892. doi:10.1016/j.jdmm.2024.100892

Sundar, S. S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. MacArthur Foundation Digital Media and Learning Initiative Cambridge, MA.

Sundar, S. S. (2020). Rise of machine agency: A framework for studying the psychology of Human–AI interaction (HAI). *Journal of Computer-Mediated Communication*, 25(1), 74–88. doi:10.1093/jcmc/zmz026

Sundar, S. S., & Kim, J. (2019). Machine heuristic: When we trust computers more than humans with our personal information. Paper presented at the Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems, 1-9.

Södergren, J. (2021). Brand authenticity: 25 Years of Research. *International Journal of Consumer Studies*, [online] 45(4), pp.645–663. Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/ijcs.12651>.

Söderlund, M. (2018). Experiments in marketing Studentlitteratur AB.

Söderlund, M., Colliander, J., Karsberg, J., Liljedal, K. T., Modig, E., Rosengren, S., Sagfossen, S., Szugalski, S., & Åkestam, N. (2017). The allure of the bottle as a package: an assessment of perceived effort in a packaging context. *Journal of Product & Brand Management*, 26(1), 91–100. <https://doi.org/10.1108/jpbm-12-2015-1065>

To, R. N., Wu, Y.-C., Kianian, P., & Zhang, Z. (2025). When AI doesn't sell Prada: Why using AI-generated advertisements backfires for luxury brands. *Journal of Advertising Research*, 1–35. <https://doi.org/10.1080/00218499.2025.2454120>

Togawa, T., Park, J., Ishii, H., & Deng, X. (2019). A packaging visual–gustatory correspondence effect: Using visual packaging design to influence flavor perception and healthy eating decisions. *Journal of Retailing*, 95(4), 204–218. <https://doi.org/10.1016/j.jretai.2019.11.001>

Urde, M., Greyser, S. A., & Balmer, J. M. T. (2007). Corporate brands with a heritage. *Journal of Brand Management*, 15(1), 4–19. <https://doi.org/10.1057/palgrave.bm.2550106>

Varsha, P. S., Akter, S., Kumar, A., Gochhait, S., & Patagundi, B. (2021). The impact of artificial intelligence on branding: A bibliometric analysis (1982-2019). *Journal of Global Information Management (JGIM)*, 29(4), 221-246.

Underwood, R. L. (2003). The communicative power of product packaging: Creating brand identity via lived and mediated experience. *Journal of Marketing Theory and Practice*, 11(1), 62–76.

Verganti, R., Vendraminelli, L., & Iansiti, M. (2020). Innovation and design in the age of artificial intelligence. *Journal of Product Innovation Management*, 37(3), 212–227.
<https://doi.org/10.1111/jpim.12563>

Vlačić, B., Corbo, L., Costa e Silva, S., & Dabić, M. (2021). The evolving role of artificial intelligence in marketing: A review and research agenda. *Journal of Business Research*, 128, 187–203

von Walter, B., Kremmel, D., & Jäger, B. (2021). The impact of lay beliefs about AI on adoption of algorithmic advice. *Marketing Letters*, 33(1), 143–155. <https://doi.org/10.1007/s11002-021-09589-1>

Wang, E. S. T. (2013). The influence of visual packaging design on perceived food product quality, value, and brand preference. *International Journal of Retail & Distribution Management*, 41(10), 805–816.

Wang, J., Li, S., Xue, K., & Chen, L. (2022). What is the competence boundary of algorithms? An institutional perspective on AI-based video generation. *Displays*, 73, 102240.
doi:10.1016/j.displa.2022.102240

Wang, Y., Jiang, J., Gong, X., & Wang, J. (2023). Simple = authentic: The effect of visually simple package design on perceived brand authenticity and brand choice. *Journal of Business Research*, 166, 114078. <https://doi.org/10.1016/j.jbusres.2023.114078>

Waytz, A., & Norton, M. I. (2014). Botsourcing and outsourcing: Robot, British, Chinese, and German workers are for thinking—not feeling—jobs. *Emotion*, 14(2), 434–444.
<https://doi.org/10.1037/a0035692>

Wortel, C., Vanwesenbeeck, I., & Tomas, F. (2024). Made with artificial intelligence: The effect of artificial intelligence disclosures in Instagram advertisements on consumer attitudes. *Emerging Media*, 2(3). <https://doi.org/10.1177/27523543241292096>

Wu, L., & Wen, T. J. (2021). Understanding AI advertising from the consumer perspective: What factors determine consumer appreciation of AI-created advertisements? *Journal of Advertising Research*, 61(2), 133–146. doi:10.2501/JAR-2021-004

Wu, L., Dodoo, N. A., Wen, T. J., & Ke, L. (2022). Understanding twitter conversations about artificial intelligence in advertising based on natural language processing. *International Journal of Advertising*, 41(4), 685–702.

Xia, Q., He, X., & Gong, S. (2025). AI-disclosure and brand modernity: the role of “AI=novelty” lay belief. *Journal of Product & Brand Management*. <https://doi.org/10.1108/jpbm-11-2024-5575>

Xu, L., & Mehta, R. (2022). Technology devalues luxury? Exploring consumer responses to AI-designed luxury products. *Journal of the Academy of Marketing Science*, 50(6), 1135–1152. <https://doi.org/10.1007/s11747-021-00815-8>

Ye, N., Morrin, M., & Kampfer, K. (2019). From glossy to greasy: The impact of learned associations on perceptions of food healthfulness. *Journal of Consumer Psychology*, 30(1), 96–124. doi:10.1002/jcpy.1126

YouGov. (2021). International technology report 2021: Automation & AI. (). Retrieved from https://commercial.yougov.com/rs/464-VHH-988/images/YouGov-International-TechnologyReport-2021-Automation-andAI.pdf?mkt_tok=NDY0LVZISC05ODgAAAGJfTm86Emd2DqCsJkTasE3mZRFqhseMS7eSidzq09V6ifG5Zxl7iSpG2cDm5IAFJ0sWyZwb3E5p0ggp4bdX2kYPjxkI7PW-SA-XFqoT9stTd0rrA

Zhan, L., & He, Y. (2012). Understanding luxury consumption in China: Consumer perceptions of best-known brands. *Journal of Business Research*, 65(10), 1452–1460. <https://doi.org/10.1016/j.jbusres.2011.10.011>

Zhang, H., Bai, X., & Ma, Z. (2022). Consumer reactions to AI design: Exploring consumer willingness to pay for AI-designed products. *Psychology & Marketing*, 39(11), 2171–2183. <https://doi.org/10.1002/mar.21721>

Appendix

Appendix A - Questionnaire

Block 1: Consent to participation

Hej! Jag är masterstudent vid Handelshögskolan i Stockholm och genomför just nu min uppsatsundersökning. Den här enkäten är en viktig del av mitt datainsamlingsarbete. Att svara tar ungefär 6–8 minuter. Alla svar behandlas helt anonymt och analyseras endast på en övergripande nivå. Det finns inga rätt eller fel svar – jag är bara intresserad av dina personliga åsikter och intryck. Läs varje fråga noggrant och svara utifrån dina egna tankar. Ditt deltagande är helt frivilligt, och du kan när som helst avbryta genom att stänga enkäten. Innan du går vidare, bekräfta att du har tagit del av informationen ovan och samtycker till att delta i studien.

Ja, jag samtycker till att delta

Nej, jag samtycker inte till att delta

Block 2: Brand Preamble: Innovative vs heritage

Tänk dig att du besöker den officiella webbplatsen för hudvårdsmärket Aurora. Nedan hittar du en kort beskrivning av varumärket och dess bakgrund. Läs texten noggrant så att du hinner bekanta dig med Aurora innan nästa inlägg.

AURORA

ABOUT US

Aurora är ett **traditionellt** hudvårdsmärke känt för sitt fokus på hantverk och naturliga formuleringar.

Sedan starten har Aurora specialiserat sig på att utveckla produkter med **växtbaserade ingredienser av högsta kvalitet** för att ge våra kunder de bästa resultaten inom hudvård.

Med samma engagemang ser vi fram emot att snart **presentera vår förnyade förpackningsdesign**

AURORA

ABOUT US

Aurora är ett **modernt** hudvårdsmärke känt för sitt fokus på **vetenskaplig innovation** och **banbrytande formuleringar**.

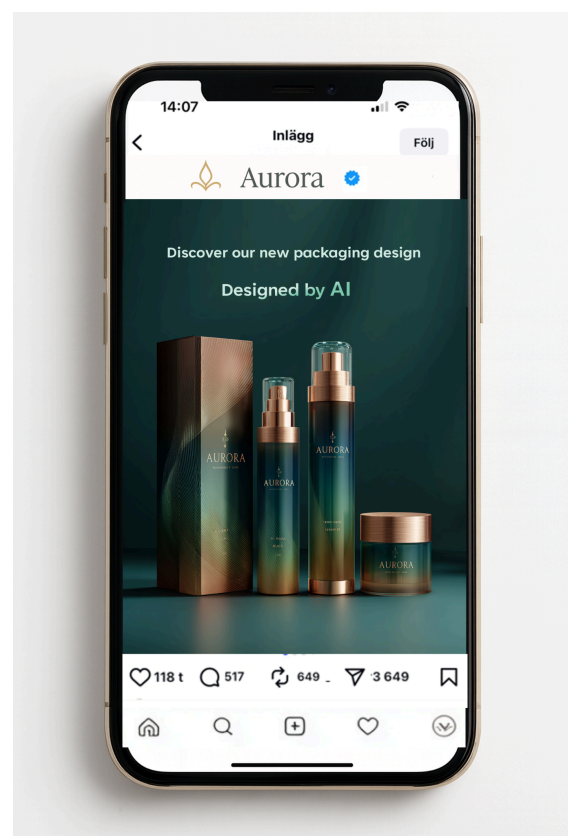
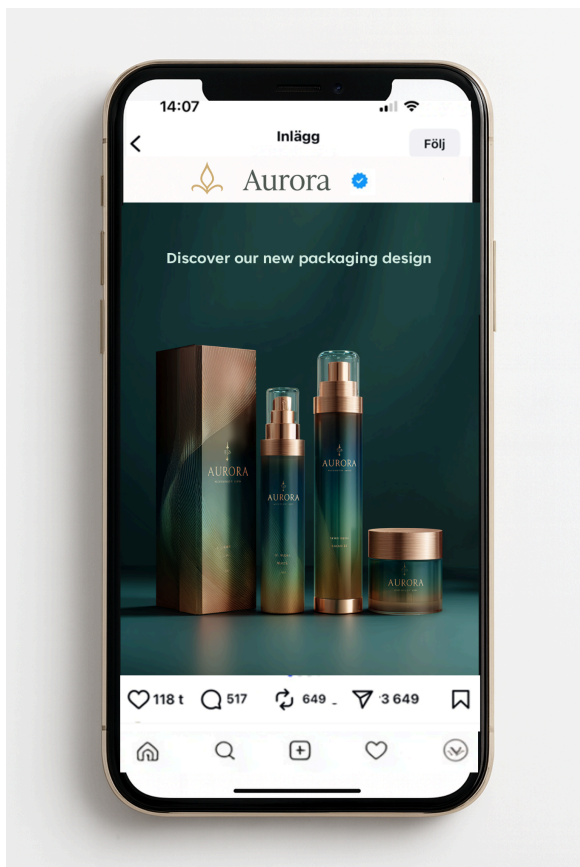
Sedan starten har Aurora specialiserat sig på att utveckla produkter med **avancerade ingredienser av hög prestanda** för att ge våra kunder **de bästa resultaten inom hudvård**.

Med samma engagemang ser vi fram emot att snart **presentera vår förnyade förpackningsdesign**

Block 3: AI vs Human disclosure

Föreställ dig att du senare under dagen scollar i ditt flöde på sociala medier och ser ett inlägg från hudvårdsmärket Aurora som lanserat deras nya produkt förpackning designad av AI. Studera inlägget noggrant, eftersom du kommer att få svara på några frågor om det efteråt. Du kommer endast att se inlägget en gång.

Föreställ dig att du senare under dagen scollar i ditt flöde på sociala medier och ser ett inlägg från hudvårdsmärket Aurora som lanserat deras nya produkt förpackning designad av Auroras egna designteam. Studera inlägget noggrant, eftersom du kommer att få svara på några frågor om det efteråt. Du kommer endast att se inlägget en gång.



Block 4: Manipulation:

Vem skapade den nya produktförpackningsdesignen för varumärket Aurora?

En AI Designer

Mänskliga designers

Zlatan Ibrahimovic

Hur skulle du beskriva varumärket Aurora? Markera det alternativ som bäst motsvarar din uppfattning.

	Stämmer helt med det vänstra påståendet	Neutral	Stämmer helt med det högra påståendet	
Varumärket Aurora är innovativt och framåtblickande	☐	☐	☐	Varumärket Aurora är traditionellt och stabilt
Varumärket Aurora är förknippat med modernitet och nyskapande	☐	☐	☐	Varumärket Aurora är fokuserat på hantverk och tidlös kvalitet
Varumärket Aurora är nyttänkande	☐	☐	☐	Varumärket Aurora är förankrat i sin historia

Block: 5 Brand Attitude

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls					Instämmer helt	
	1	2	3	4	5	6	7
Varumärket Aurora är tilltallande	☐	☐	☐	☐	☒	☐	☐
Jag har en positiv inställning till varumärket Aurora	☐	☐	☐	☐	☒	☐	☐
Varumärket Aurora är bra	☐	☐	☐	☐	☒	☐	☐

Block 6: Purchase Intention

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls					Instämmer helt	
	1	2	3	4	5	6	7
Om jag fick möjligheten hade jag handlat från Aurora	☐	☐	☐	☐	☒	☐	☐

Block 7: Brand Creativity

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls				Instämmer helt		
	1	2	3	4	5	6	7
Varumärket Aurora är kreativt	☐	☐	☐	☒	☐	☐	☐
Varumärket Aurora framställer sig på ett unikt och fantasifullt sätt	☐	☐	☐	☒	☐	☐	☐
Varumärket Aurora kommer med nya och originella idéer	☐	☐	☐	☒	☐	☐	☐

Block 8: Brand Authenticity

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls					Instämmer helt	
	1	2	3	4	5	6	7
Varumärket Aurora känns äkta för mig	☐	☐	☐	☐	☒	☐	☐
Varumärket Aurora känns genuint för mig	☐	☐	☐	☐	☒	☐	☐
Varumärket Aurora känns verkligt för mig	☐	☐	☐	☐	☒	☐	☐

Block 9: Brand Modernity

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls				Instämmer helt		
	1	2	3	4	5	6	7
Varumärket Aurora anpassar sig bra till nya trender	☐	☐	☒	☐	☐	☐	☐
Varumärket Aurora passar in i vår tid	☐	☐	☒	☐	☐	☐	☐
Varumärket Aurora är modernt	☐	☐	☒	☐	☐	☐	☐

Block 10: Theory

I den här delen av enkäten ska du endast svara utifrån dina egna åsikter, inte baserat på varumärkes inlägget eller varumärkes beskrivningen

Machine Heuristics:

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls				Instämmer helt		
	1	2	3	4	5	6	7
När AI utför en uppgift så är arbetet utfört mer objektivt jämfört med när människor utför samma uppgift	☐	☐	☒	☐	☐	☐	☐
När AI utför en uppgift så är arbetet mindre kreativt jämfört med när människor utför samma uppgift	☐	☐	☒	☐	☐	☐	☐
När AI utför en uppgift så är arbetet mindre partiskt utfört jämfört med när människor utför samma uppgift	☐	☐	☒	☐	☐	☐	☐

Mind-Perception Theory:

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte alls				Instämmer helt		
	1	2	3	4	5	6	7
Jag tror att AI kan ha upplevelser och vara medveten om saker	☐	☐	☒	☐	☐	☐	☐
Jag tror att AI kan uppleva glädje	☐	☐	☒	☐	☐	☐	☐
Jag tror att AI kan längta efter eller hoppas på saker	☐	☐	☒	☐	☐	☐	☐
Jag tror att AI kan uppleva stolthet	☐	☐	☒	☐	☐	☐	☐

AI = Novelty Lay Belief

I vilken utsträckning håller du med om följande påståenden?
(1=instämmer inte alls och 7= instämmer helt)

	Instämmer inte allt				Instämmer helt		
	1	2	3	4	5	6	7
AI känns nytt och innovativt för mig	☒	☒	☒	☒	☒	☒	☒
AI representerar teknologiska framsteg och nytänkande	☒	☒	☒	☒	☒	☒	☒
Jag uppfattar AI som något främmande men framåtblickande	☐	☐	☐	☐	☐	☐	☐

Block 11: Demographics

Hur gammal är du?

Hur definerar du din könsidentitet?

Man

Kvinna

Icke-binär / tredje kön

Föredrar att inte säga

Appendix B - AI Disclosure

This thesis has used AI tools in line with SSE's guidelines on generative AI. Specifically, the tool used was ChatGPT. The role of ChatGPT was solely confined to improving grammar, sentence structure and academic clarity throughout the thesis. All edits and suggestions were critically assessed by the author and served as inspiration for enhancing the quality of the text. Crucially, ChatGPT was never used to write novel text, insights, or independently write any part of this thesis. The empirical research, conceptual methodologies, hypothesis formulation and all analytical contributions have been independently developed by the authors, and ChatGPT has solely been used to validate and refine completed work, with strict boundary conditions confining it to its role as a tool for improving grammar, sentence structure and academic clarity throughout the thesis.

Additionally, in the analysis phase ChatGPT provided highly useful for guiding the authors in terms of navigating the SPSS analysis conducted. Tool Midjourney was used to develop the AI-generated packaging design stimuli in the experiment and the brand preamble visual layout used. Finally, ChatGPT has been used to ensure referencing adheres to APA7, and Gemini was used for generating the image for figure 1, 2, 3 and table 1.

The use of ChatGPT contributed to enhancing the quality of the thesis primarily by improving grammar, flow and academic clarity. While AI carries risk in terms of misinterpreting information and hallucinating, it was never used in this thesis to produce any form of insight, nor conclusion. All empirical research was manually sourced, and the author only relied on his own thinking and interpretation of information. Consequently, given how ChatGPT was used in this thesis, such risks are attenuated, and it only provided upside in terms of enhancing the language, grammar, and academic clarity throughout the thesis. The other AI tools used for visual image creation have enabled me to create good visuals which has enhanced the realism of this experiment and thereby ecological validity.