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NAVIGATING CONSUMER ACCEPTANCE OF HYBRID MEAT PRODUCTS: BARRIERS, DRIVERS, AND STRATEGIES FOR PROMOTING SUSTAINABLE PROTEIN TRANSITIONS IN DUTCH RETAIL

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NAVIGATING CONSUMER ACCEPTANCE OF HYBRID MEAT PRODUCTS

BARRIERS, DRIVERS, AND STRATEGIES FOR PROMOTING SUSTAINABLE PROTEIN TRANSITIONS IN DUTCH RETAIL

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Management Summary

Background and Purpose:
Hybrid meat products, combinations of animal and plant-based proteins, are gaining attention as a strategy to reduce the environmental and health impacts of traditional meat consumption. However, widespread consumer adoption remains limited, with concerns about taste, texture, and trust playing a significant role. This study investigates the psychological, contextual, and sensory factors influencing Dutch consumers' willingness to try hybrid meat, with the aim of offering actionable recommendations for marketing and product development.

Methodology:
A cross-sectional online survey (N = 157) was conducted among Dutch consumers responsible for grocery shopping. The research design was informed by the Theory of Planned Behaviour (TPB), the Consumer Decision-Making Model, and Value-Belief-Norm (VBN) Theory. Five thematic indices—Sensory Expectations, Sustainability Beliefs, Health Beliefs, Price Sensitivity, and Social Influence—were measured alongside demographic factors and willingness to try hybrid meat. Quantitative analyses included correlation testing and multiple linear regression. Open-ended survey responses were analysed thematically to add qualitative depth.

Key Findings:
Consumers who perceive hybrid meat as tasty, affordable, healthy, and sustainable are significantly more likely to express willingness to try it. Positive sensory expectations and price sensitivity were the strongest predictors of intent. This suggests that improving taste perception and ensuring competitive pricing can substantially increase consumer openness. Beliefs about health benefits and environmental impact also positively influenced willingness. In contrast, social influence, gender, and most age groups did not significantly affect intent. Notably, vegan respondents were much less willing to try hybrid meat, indicating a possible conceptual mismatch with their dietary principles. Qualitative responses aligned with these findings, highlighting themes such as curiosity, taste concerns, and ethical motivations in consumers' decision-making processes.

Conclusion and Implications:
The findings confirm that individual beliefs. Especially regarding price, taste, health, and sustainability play a more important role in adoption than demographic or social factors. To promote acceptance, hybrid meat producers should prioritise sensory quality, transparent communication, and affordable pricing. Positioning hybrid products as familiar yet innovative, without overpromising, appears essential for long-term consumer trust and repeat purchase.

Keywords: Hybrid meat, consumer acceptance, sensory expectations, sustainability, health claims, price sensitivity, regression analysis, protein transition, Netherlands.

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1 Introduction

1.1 Background

Hybrid meat products, which combine animal and plant-based proteins, are emerging as a practical solution to reduce the environmental and health impact of traditional meat consumption. These products aim to deliver the same taste, texture, and satisfaction as conventional meat, while also lowering the overall amount of animal protein. By doing so, they contribute to the protein transition and broader climate goals (Green Protein Alliance & ProVeg, 2023).

In the Netherlands, this protein transition is a major part of the national sustainability agenda. The Dutch government aims to reach a 50/50 balance between plant-based and animal-based protein intake by 2030. Currently, this ratio sits at 40/60, indicating a clear gap between ambition and actual consumer behaviour (Trend- & Transitierapport, 2025).

Dutch supermarkets are now actively shifting their assortments to reflect this goal, with several aiming for 60% plant-based protein sales within the next few years (Eiwit Trends, 2023). This shift places increasing pressure on food producers to innovate and adapt.

Van Loon Group, one of the leading meat producers in Dutch retail, is responding to these market dynamics by exploring hybrid meat products as part of its strategy. These products allow the company to reduce its environmental footprint without drastically changing its product portfolio, which still relies heavily on conventional meat.

However, despite their potential, hybrid meat products are not widely adopted by consumers. Previous studies show that consumer acceptance is held back by doubts about taste, texture, processing level, and healthiness (Bryant & Sanctorum, 2021). Sensory attributes such as flavour and mouthfeel play a decisive role. When hybrid meat is perceived as dry, artificial, or lacking in taste, consumers are likely to reject it after just one trial (Hartmann, Siegrist, & van der Lans, 2022).

In contrast, positive experiences can improve acceptance over time, especially when expectations are clearly managed, and products are positioned honestly (Hoek et al., 2017). Appearance also matters: if hybrid meat looks artificial or heavily processed, this can reduce trust before the first bite (Neuhofer & Lusk, 2022). These insights show that sensory expectations are not only a technical challenge, but also a communication issue.

At the same time, claims around sustainability and health, two of the main selling points of hybrid products, do not always land as intended. Consumers are often sceptical of vague or exaggerated claims and expect clear, trustworthy communication supported by data or third-party certifications (Aschemann-Witzel & Peschel, 2019; Caputo, Grasso, & Asioli, 2024).

Price is another complicating factor. Although consumers assume hybrid meat should be cheaper due to its lower meat content, the opposite is often true, which creates confusion and lowers willingness to try (Caputo et al., 2024; He, Wang, Lin, & Lin, 2024).

So, while hybrid products offer a strategic opportunity for producers and retailers, they face serious perception and positioning barriers. These are not just product-level issues; they reflect deeper consumer values, beliefs, and habits that need to be better understood. Moreover, understanding these barriers is crucial to closing the gap between national protein transition ambitions and actual consumer behaviour.

This study addresses this knowledge gap by examining how Dutch consumers evaluate hybrid meat across multiple dimensions, including sensory attributes, health and sustainability perceptions, price sensitivity, and social influence.

1.2 Research Significance

Understanding consumer acceptance of hybrid meat is essential for companies like Van Loon Group that want to play an active role in the protein transition. It is not enough to simply develop a sustainable or innovative product, consumers need to trust it, understand its benefits, and feel confident that it fits into their routine. Taste, health, sustainability, pricing, and brand identity all play a role in this decision-making process. Previous research shows that even sustainability-motivated consumers are reluctant to compromise on flavour or texture, which remains the number one reason for product rejection (Bryant & Sanctorum, 2021). At the same time, well-communicated sustainability and health benefits, especially when combined, can significantly boost trust and interest (Nguyen, Lobo, & Greenland, 2022). However, these benefits must be clear, specific, and believable. Generic slogans are often ignored or dismissed, especially when there is a mismatch between the claim and the product experience (Asioli et al., 2022). From a business perspective, hybrid meat represents a strategic middle ground. It allows companies to lower their environmental impact and respond to flexitarian trends without losing consumers who still value traditional meat qualities. But success depends on navigating complex consumer expectations. Sensory quality, pricing, packaging, labelling, and brand credibility must align with how people make decisions about food both rationally and emotionally.

This study aims to provide a deeper understanding of the psychological and practical factors that shape consumer acceptance. By exploring the full decision journey, from initial perception and sensory expectations to sustainability and health framing, pricing cues, and consumer trust—it helps identify where things go wrong and what can be done to improve adoption. The findings will support Van Loon Group and other producers in developing better products and smarter communication strategies that move beyond trial-and-error. Academically, this research extends existing theories of food acceptance by applying them to the underexplored hybrid meat category. By combining quantitative measures with qualitative insights, it captures both rational and affective dimensions of food choice. Practically, the study offers targeted, evidence-based recommendations that producers and marketers can implement immediately.

1.3 Main Research Question and Research Objective

"What factors influence consumer acceptance of hybrid meat products in Dutch retail, and how can these insights guide effective marketing and development strategies?"

The objective of this research is to provide actionable recommendations for Van Loon Group. It seeks to offer insights into effective marketing strategies, product development considerations, and communication approaches that address common consumer barriers and enhance trust. These recommendations are grounded in a robust analysis of consumer attitudes, intentions, and justifications, informed by both survey data and open-ended responses.

1.4 Sub Questions

1. **What sensory attributes (e.g., taste, texture, appearance) influence consumer acceptance of hybrid meat products?**

   Sensory attributes are critical to consumer behaviour and significantly impact the perceived acceptability of hybrid meat products. Research indicates that taste and texture are particularly important for consumers who are accustomed to traditional meat. A detailed exploration of how sensory characteristics shape purchasing decisions will form the basis of the theoretical analysis and provide insights into product development strategies.

2. **To what extent do sustainability and health-related claims impact consumer purchase behaviour in this category?**

   Sustainability and health benefits are increasingly important factors in consumer decision-making, especially for environmentally conscious shoppers. This question seeks to understand the effectiveness of these claims in influencing trust and behaviour, focusing on how they are communicated and perceived in the context of hybrid meat products.

3. **What role do pricing, branding, and labelling play in shaping consumer trust and acceptance of hybrid meat products?**

   The way hybrid products are positioned in the market through branding, labelling, and pricing plays a crucial role in shaping consumer acceptance. Clear labelling, transparent communication about product attributes, and competitive pricing are key areas for analysis to uncover their impact on consumer trust and purchasing behaviour.

The study will be structured around the first three sub-questions to build a theoretical foundation, with findings from these questions feeding into practical solutions. By approaching the managerial challenge through evidence-based insights, the study will ensure that Van Loon Group can apply the research findings directly to its product development and marketing strategies.

This review explores how digital marketing influences consumer trust in hybrid meat products. The findings are structured around the three sub-questions outlined in the research design, focusing on sensory experience, sustainability and health communication, and marketing strategies such as pricing, branding and labelling. The reviewed literature demonstrates consistent themes around consumer hesitations, drivers of trust, and the role of digital communication in shaping perceptions. A final sub-section provides a critical analysis of the reviewed studies and highlights areas where current research falls short.

1.5 Contribution

This study contributes to both academic literature and practical industry applications by offering insights into the consumer acceptance of hybrid meat products. By analysing key stages in the customer decision journey, this research provides a framework for understanding and optimising consumer engagement.

From an academic perspective, the study contributes to the literature on sustainable food transitions and consumer behaviour. It connects psychological models of food choice with emerging categories like hybrid meat, thereby broadening the theoretical understanding of acceptance in transitional product spaces.

From a managerial perspective, this study provides actionable recommendations for Van Loon Group. It highlights critical touchpoints in the consumer journey where intervention strategies—such as targeted messaging, pricing strategies, and sensory improvements—can significantly increase consumer trust and adoption. These insights are directly applicable to product development, marketing strategy, and in-store activation, and contribute to the company's broader goal of facilitating a protein transition in Dutch retail.

2 Theoretical Framework

2.1 Theoretical Foundation

This chapter establishes the theoretical foundation of the study by reviewing recent and relevant academic literature on the consumer acceptance of hybrid meat. Hybrid meat, which blends conventional meat with plant-based ingredients, has emerged as a promising solution for reducing the environmental and health impacts of traditional meat consumption. However, despite its potential, this product category faces numerous consumer barriers, many of which are rooted in perception, trust, and product experience. To structure this review, the chapter is organised around the three sub-questions derived from the main research question. These sub-questions form the basis for hypothesis development and are supported by a review of behavioural theories and empirical insights from the field. The chapter integrates elements from the Consumer Decision-Making Model, the Value-Belief-Norm (VBN) theory, and the Theory of Planned Behaviour (TPB), which together help explain why consumers may feel motivated, uncertain, or resistant toward hybrid meat.

- The **Consumer Decision-Making Model** is used to map how consumers transition from awareness to trial and adoption, with particular attention to sensory experience.
- **VBN theory** helps explain the influence of values like sustainability and health on behaviour, especially for environmentally conscious consumers.
- The **Theory of Planned Behaviour** provides a framework to understand how attitudes, subjective norms, and perceived control shape intentions.

By combining these perspectives, the study takes a comprehensive view of consumer behaviour, linking individual beliefs and preferences to broader social and environmental influences.

2.2 Literature Review

This chapter explores the consumer acceptance of hybrid meat by first outlining general academic insights into the product category and then diving deeper into the three main dimensions of consumer response—sensory experience, sustainability and health claims, and market positioning. The goal is to build a solid theoretical foundation that connects recent findings to the hypotheses.

2.2.1 General Knowledge on Hybrid Meat

Hybrid meat products, also referred to as blended or mixed-protein foods, combine animal-based meat with plant-based ingredients in a single formulation. The aim is to reduce the environmental footprint of meat consumption while preserving the flavor, texture, and familiarity that many consumers still expect from conventional meat. These products are positioned between traditional meat and fully plant-based substitutes and

are increasingly seen as a strategic solution to the global protein transition (van der Weele et al., 2019). The urgency behind the development of hybrid meat lies in the significant environmental costs of livestock production, which contributes heavily to greenhouse gas emissions, land use, and water consumption. Several studies have demonstrated that even modest reductions in animal content can result in substantial sustainability gains when scaled across populations (Poore & Nemecek, 2018). For this reason, hybrid meat has gained attention as a more accessible option for mainstream consumers who are not ready to make a full switch to plant-based diets (Tziva et al., 2020). In addition to environmental benefits, hybrid meat is often framed as a pragmatic step in the protein transition—a term widely used in sustainability discourse to describe the societal shift from animal to plant protein sources. Government strategies, particularly in Western Europe, increasingly support this transition, and retailers are under pressure to adjust their assortments accordingly. However, uptake remains relatively low compared to fully plant-based products, and hybrid formats continue to face challenges in market positioning and consumer trust (Eiwit Trends, 2023).

Hybrid meat is distinct from other alternatives not only in composition, but also in its psychological positioning. Unlike meat substitutes that emphasise difference or innovation, hybrid products are marketed as familiar and minimally disruptive. This positioning can help reduce cognitive dissonance for consumers who are environmentally or health-conscious but still prefer the sensory and cultural role of meat in their diet (Galanakis, 2021). At the same time, the dual identity of hybrid products introduces its own set of challenges: consumers may perceive them as neither fully meat nor fully plant-based, which can result in confusion, scepticism, or rejection (Apostolidis & McLeay, 2016). Trust is one of the most recurring themes in academic work on hybrid meat. Studies indicate that trust in the product's claims—be it about sustainability, health, or sensory quality, is essential for first-time trial and eventual repeat purchase (Nguyen, Lobo, & Greenland, 2022). However, consumer understanding of what hybrid meat remains limited. Many are unaware of the precise composition or the intended benefits, which undermines the potential of these products to meet their intended goals. This suggests that marketing communication and labelling need to go beyond vague sustainability claims and provide clarity around ingredients, production methods, and value proposition (Asioli et al., 2022).

Another barrier identified in the literature is related to expectation management. Because hybrid products often look like conventional meat, they are held to the same sensory standards. If flavor or texture falls short, disappointment is amplified. On the other hand, when expectations are framed realistically and transparently, consumers are more willing to give these products a chance and accept their distinct qualities over time (Hoek et al., 2017). Overall, the literature suggests that while hybrid meat has real potential to contribute to the protein transition, its success depends on much more than just its composition. It requires thoughtful positioning, credible claims, and consumer education. Only when these factors are aligned can hybrid meat evolve from a niche innovation into a mainstream solution.

2.2.2 Sensory Attributes and Consumer Acceptance

Sensory experience is a central factor in how hybrid meat is received by consumers. Positioned between traditional meat and plant-based alternatives, hybrid products are expected to deliver a familiar eating experience while introducing subtle differences in composition and processing. This balancing act makes sensory satisfaction essential, particularly in early stages of adoption. Because food choices are strongly influenced by habit, memory and emotion, sensory perceptions tend to be formed quickly and can either facilitate repeat purchase or cause immediate rejection (Apostolidis & McLeay, 2016). Consumers with a strong preference for conventional meat tend to hold stricter standards for what meat should taste and feel like. Any deviation, be it in flavour, texture or visual quality is likely to be interpreted as a flaw, which supports hypothesis H1a (Onwezen et al., 2021). In contrast, consumers who already engage with plant-based or hybrid formats are more flexible and often more accepting of variation in sensory experience (Aschemann-Witzel & Peschel, 2019). This suggests that product design and marketing should consider prior exposure and tailor messaging to specific consumer segments. These insights suggest that consumer attachment to traditional meat may lead to stricter sensory standards when evaluating hybrid alternatives. Thus, we hypothesize:

H1a: Consumers with higher attachment to conventional meat will perceive hybrid products as inferior in taste and texture.

2.2.2.1 Taste as the Primary Driver

Taste is deeply embedded in consumer expectations around meat and remains the strongest predictor of product acceptance. In many ways, flavour acts as an anchor for authenticity. When consumers take their first bite, they immediately evaluate whether the taste aligns with what they perceive to be 'real' meat. A mismatch in flavour, not just in saltiness or savoury intensity but also in aftertaste and richness, can be a deal-breaker, especially among habitual meat eaters who subconsciously compare every mouthful to traditional benchmarks (Bryant & Sanctorum, 2021).

Additionally, taste evaluation is rarely objective. It is strongly influenced by packaging, labelling, and contextual cues. If hybrid meat is presented in a way that over-promises or appears overly engineered, consumers may anticipate a synthetic taste before even trying the product. This expectation bias has been observed in multiple studies where the same food item was rated differently depending on its described identity (Zander & Feucht, 2018). Managing those anticipatory cues is just as important as the product formulation itself. Flavour complexity is often lacking in first-generation hybrid meat. Many products prioritise nutritional goals over taste layering, leading to muted or monotonous profiles. This reinforces the importance of flavour architecture achieved through umami enhancement, fat mimicry, and aromatic balance, which has become a key differentiator for higher-quality meat alternatives. Sensory research has shown that well-executed flavour design can help overcome initial consumer scepticism, especially when reinforced through familiarity and repeated use (Asioli et al., 2022).

Consumers who are exposed to hybrid meat more frequently and who engage with clear, honest messaging are more likely to adapt their expectations and ultimately accept

variations in flavour. This suggests a feedback loop in which product quality, marketing honesty, and consumer openness work together to build trust over time.

These insights suggest that consumer attachment to traditional meat may lead to stricter sensory standards when evaluating hybrid alternatives.
Thus, we hypothesize:

H1b: Familiarity with hybrid products positively influences the perception of their sensory quality over time.

2.2.2.2 Texture and Mouthfeel

Texture represents the physical counterpart of taste and is often even more difficult to replicate authentically. Whereas taste can be adjusted through seasoning or marination, texture is experienced throughout the chewing process and is harder to mask or compensate. For hybrid meat, replicating the fibrous density and bite of animal protein is essential. It is not only about softness or juiciness, but about how the product resists pressure, how it breaks apart, and how it feels on the tongue over time (Elzerman et al., 2024).

These tactile sensations carry powerful signals. Products that are too smooth or too uniform tend to be perceived as processed, even when their ingredients are relatively clean. Conversely, small irregularities—such as graininess or slight chew resistance—can convey a more 'natural' feel and align better with expectations. This mirrors findings from studies on sensory dissonance, which show that consumers penalise products that behave differently than they look (Neuhofer & Lusk, 2022).

Another dimension of texture lies in preparation. Hybrid meat often performs differently under heat compared to traditional meat, which can lead to inconsistencies. If a consumer pan-fries a hybrid burger and finds it crumbles or stays soggy, this experience can override any previous positive associations. Providing preparation guidelines is not just helpful—it is critical to ensuring the intended texture is achieved. In some markets, QR codes linking to cooking demos have helped bridge this gap effectively (Koch et al., 2020).

Moreover, recent developments in food technology offer new avenues for texture enhancement. Shear-cell processing and high-moisture extrusion can produce layered, muscle-like structures that improve mouthfeel and perceived quality. While these methods are not always visible to the consumer, transparently communicating their use—positioning them as innovations, not artificial interventions—can reduce scepticism and support more informed trust (Dekkers et al., 2018). Texture is just as important as flavour in determining how 'meaty' a hybrid product feels. Qualities like chewiness, juiciness and structural density are deeply tied to how consumers evaluate authenticity. If hybrid products lack these qualities—or worse, feel inconsistent or overly engineered—they are often perceived as fake or unsatisfying (Elzerman et al., 2024).

Research also supports the idea that those with little exposure to non-meat textures are more likely to reject unfamiliar mouthfeel, especially if the experience contradicts

internal expectations of what meat 'should' feel like. This suggests a psychological mismatch that goes beyond the physical texture itself. Cooking habits also play a role: when hybrid products are prepared like conventional meat, the texture may suffer, which can distort first impressions. Offering preparation guidance, such as optimal heat levels or rest times, can help consumers experience the product as intended (Dagevos et al., 2022). Additionally, novel processing technologies such as high-moisture extrusion are increasingly capable of delivering more realistic textures. When explained transparently, these innovations can improve trust and acceptance (Dekkers et al., 2018).

2.2.2.3 Visual Appeal and First Impressions

Visual presentation is often the first point of contact between consumers and a new food product. It shapes expectations of taste, quality and freshness before the product is even tried (Neuhofer & Lusk, 2022). For hybrid meat, visual familiarity is important. When products are offered in familiar shapes like burgers, meatballs or sausages, they are more easily accepted and integrated into consumers' meal planning (Šálková, Hes, & Kučera, 2023). On the other hand, if the product looks artificial, with a strange colour or shiny surface, consumers may assume it is heavily processed or unnatural (Poore & Nemecek, 2018). Aligning the look of hybrid meat with expectations for natural and high-quality food helps reduce hesitation and builds initial trust.

This is especially important in digital settings. Online platforms are often the first place where consumers encounter these products, and high-quality visuals can increase the likelihood of purchase. Marketing campaigns that show hybrid meat in realistic, appetising settings such as home-cooked meals or casual dining moments help make the product feel relevant and accessible (Liu, Segev, & Villar, 2022). Pairing these visuals with clear and useful information, such as ingredient lists or nutritional facts, further strengthens credibility and interest (He et al., 2024). Visual communication is not only a tool for sensory appeal but also plays a role in how consumers interpret health and sustainability messages. This connection is further explored in section 6.2.3.

2.2.2.4 Familiarity, Expectation Management and Consumption Context

Familiarity plays a pivotal role in shaping how consumers experience and evaluate hybrid meat. When a product category is relatively new and unfamiliar, people tend to rely on mental shortcuts and expectations formed through previous experiences. If these expectations are not met, unfamiliarity can easily turn into hesitation or resistance. However, when consumers are exposed to hybrid products multiple times—especially in trusted, low-pressure settings—they become more open to appreciating the differences and learning how to fit these products into their routine (Hoek et al., 2017). This ties directly to the importance of expectation management. Hybrid meat is not a one-to-one substitute for conventional meat and presenting it as such often leads to disappointment. Instead, the literature suggests that framing hybrid products as a distinct and flexible food type—something in between meat and plant-based—can lead to more realistic sensory expectations (van der Weele et al., 2019). Positioning the product honestly also helps prevent cognitive dissonance, which occurs when consumers feel misled by marketing or labelling (Caputo et al., 2022).

The social context of consumption also makes a difference. Research shows that people are more likely to try novel foods in group settings, where social validation lowers the perceived risk (Staples et al., 2024). For example, trying hybrid meat at a friend's barbecue might feel safer and more enjoyable than testing it alone. These social moments can shape emotional memories around taste, which are powerful influencers of repeat behaviour.

Moreover, emotional reactions to hybrid meat—especially when surprisingly positive—are often shared online, contributing to a sense of peer validation. Word-of-mouth and social media posts from other users can reduce uncertainty and encourage others to try the product. This informal type of trust-building can be just as impactful as brand marketing. Encouraging user reviews, sharing real customer stories, or amplifying influencer content are all strategies that help turn one person's experience into collective credibility (Palmieri et al., 2025; De Keyzer, 2023). It is highly sensitive to the consumer's mindset, prior experience, and social environment. Not only does this highlight the importance of trial-based exposure, but it also reveals the broader psychological dimension of food choice. For many consumers, taste and texture are closely linked to identity and routine. This means that encouraging behavioural change requires more than product design—it demands a strategy that blends marketing, product transparency, and social proof.

This interplay also raises important implications for targeting different audience segments. For instance, flexitarians may respond more favourably to messaging focused on taste familiarity and ease of integration into daily meals, whereas early adopters of plant-based products may appreciate uniqueness and ethical positioning. Brands that understand and reflect these subtleties are more likely to gain consumer trust and loyalty over time. As hybrid meat continues to enter the mainstream, understanding and addressing these sensory dynamics will be crucial—not just for encouraging first-time trial, but for building the long-term trust and satisfaction that lead to repeat purchase. The next section builds on this by exploring how sustainability and health claims can reinforce or undermine that trust depending on how they are presented.

2.2.3 Sustainability and Health Claims

Sustainability and health claims play a central role in positioning hybrid meat as a meaningful alternative within the protein transition. These claims provide ethical and functional arguments that can motivate both environmentally conscious and health-oriented consumers. However, their effectiveness depends on a combination of framing, perceived credibility, message consistency, and consumer involvement. This section connects these dimensions to hypotheses H2a and H2b, which focus on how sustainability and health-related communication strategies influence trust and purchase intent.

2.2.3.1 Effectiveness and Relevance of Sustainability Claims (H2a)

Sustainability is often the most prominent rationale behind hybrid meat. By reducing the proportion of animal protein in favour of plant-based ingredients, hybrid products aim to lower greenhouse gas emissions, reduce water usage, and support land efficiency (Poore

& Nemecek, 2018). However, the mere presence of these benefits does not guarantee consumer buy-in. One recurring issue is the abstract nature of sustainability messaging. Many consumers are supportive of environmental goals in principle but lack the knowledge or cognitive resources to translate those goals into everyday food choices (Aschemann-Witzel & Peschel, 2019). As a result, generic sustainability slogans fail to differentiate products and may be ignored entirely. For sustainability claims to impact behaviour, they must be clear, measurable, and specific. Indicators such as "40% fewer emissions" or "certified by [independent body]" generate more trust than vague appeals to planetary well-being. Studies have found that third-party certification (e.g., organic, carbon-neutral, or eco-labelled) significantly boosts perceived transparency and perceived authenticity of the brand (Caputo, Grasso, & Asioli, 2024).

However, the effect of sustainability messaging is not universal. Segmentation studies show that highly involved consumers are more responsive to data-driven claims, whereas less engaged groups react better to emotional or lifestyle-framed narratives (Nguyen, Lobo, & Greenland, 2022). Therefore, hybrid meat campaigns benefit from a dual-track approach: one that offers factual substance to sustainability-motivated consumers, and one that uses storytelling and visual cues to reach broader, more passive audiences.

Given these findings, it is important to examine whether sustainability messaging can directly influence consumers' willingness to try hybrid meat. Thus, we hypothesize:

H2a: Clear sustainability claims increase purchase intention among environmentally conscious consumers.

2.2.3.2 Role of Health Claims in Building Product Trust (H2b)
Health claims offer a parallel yet distinct strategy to influence consumer behaviour. Hybrid meat is often lower in saturated fat and calories than its conventional counterparts and may offer additional fibre or plant-based nutrients. These features appeal to consumers who are mindful of nutrition but not ready to eliminate meat completely (He, Wang, Lin, & Lin, 2024). The effectiveness of these claims depends on their clarity and relevance. Generic terms like "healthy" or "natural" are increasingly distrusted or seen as marketing buzzwords. Instead, consumers respond more positively to specific, verifiable health claims such as "high in plant protein" or "low in cholesterol", especially when they are backed by nutritional labelling or scientific endorsement (Nguyen et al., 2022). Health claims must be credible and targeted to affect trust and purchase intention. Importantly, health messaging must also counter a common stereotype: that healthy food is bland or less enjoyable. Many consumers still associate nutritional benefit with sensory compromise. Literature shows that health claims are more effective when they are paired with sensory assurance, such as statements reinforcing flavour, texture, or satisfaction (Asioli et al., 2022). This type of hybrid messaging helps resolve cognitive dissonance and encourages repeat trial.

Moreover, consumer motivations for health vary by group. Some buyers focus on energy or digestion, others on weight control or long-term disease prevention. Tailored health claims that speak to these segment-specific concerns are more likely to be perceived as

relevant and trustworthy (Tang & Chung, 2023). Messaging strategies should thus be grounded in consumer insight and demographic profiling.

Building on these insights, the following hypothesis explores whether health messaging can enhance the credibility and perceived value of hybrid meat. Thus, we hypothesize:

H2b: Health-related claims enhance consumer trust and perceived product value.

2.2.3.3 Consistency and Synergy Between Claims

Sustainability and health messages are not isolated communication tools. In many successful cases, these claims reinforce each other—creating a multidimensional product narrative that addresses various consumer needs simultaneously. For example, a product that is "good for the planet" and also "beneficial for heart health" appeals to both ethical and personal motivations. Studies show that these dual claims are especially powerful when they are presented consistently and supported by coherent design and content. Visual alignment—such as clean packaging, trusted logos, and imagery of natural ingredients—can help consumers connect messaging with the product's perceived identity (Liu, Segev, & Villar, 2022). When the look, message, and taste of the product feel congruent, consumers are more likely to form positive evaluations (Neuhofer & Lusk, 2022).

This alignment also helps prevent cognitive conflict. If a product is positioned as indulgent but also low-calorie, or if the packaging appears highly processed while making sustainability claims, consumers may experience distrust. Clear segmentation of benefits, appropriate tone, and careful design help avoid such contradictions. The synergy between sustainability and health, when credible and coherent, strengthens brand positioning and expands appeal.

2.2.3.4 Constraints and Risks of Claim-Based Strategies

Despite their potential, claim-based marketing is not without limitations. Overuse or misuse of health and sustainability claims can lead to consumer scepticism, especially in markets saturated with similar messaging (De Keyzer, 2023). Once consumers begin to doubt a claim, due to prior disappointment or exaggerated advertising, it becomes harder to rebuild trust. The credibility of claims is always at stake. Even unintentional inconsistencies, such as highlighting sustainability while using non-recyclable packaging, can erode perceived integrity. To prevent this, brands must maintain strict internal alignment between message and practice. QR codes linking to data, behind-the-scenes content, or certifications can help support transparency and show the proof behind the promise (Koch et al., 2020).

Another issue is relevance. Not all consumers are primarily driven by health or sustainability. Some care more about convenience, price, or taste. If a brand only communicates ethical or functional claims without addressing everyday priorities, it risks alienating mainstream audiences (Nichifor, Zait, & Timiras, 2025). Effective messaging must therefore balance ethical appeal with pragmatic value.

Finally, the absence of harmonised regulation remains a systemic challenge. Without clear standards for sustainability and health claims, trust in such labels may erode over time. As Asioli et al. (2022) argue, closer alignment between labelling regulations, certification practices, and marketing strategies is essential to preserve claim integrity and ensure long-term credibility.

2.2.4 Pricing, Branding and Labelling

The acceptance of hybrid meat does not rely solely on its composition or sustainability claims. How the product is presented, priced, and explained to consumers plays an equally important role in shaping trust, understanding, and willingness to try. Because hybrid meat blurs the line between animal and plant-based food categories, consumers must be reassured and guided through both rational and emotional signals. This section explores three strategic elements, pricing, branding, and labelling.

2.2.4.1 Pricing and Value Perception (H3a)

Price functions not just as a practical barrier but also as a psychological signal. In many consumer markets, pricing influences assumptions about quality, innovation, and fairness. Consumers often assume that hybrid meat should be cheaper than conventional meat due to its lower animal content and presumed cost-efficiency of plant ingredients (Caputo, Grasso, & Asioli, 2024). However, in practice, hybrid products are often more expensive, reflecting investments in research, sustainable sourcing, and limited-scale production. This discrepancy can create friction if the perceived benefits are not clearly communicated. If hybrid meat costs more but consumers do not understand why, they may conclude it is overpriced, unnatural, or simply not worth the risk. Research confirms that consumers are more open to paying a premium when the product's added value is made explicit—for example, when the packaging explains nutritional improvements, environmental impact reductions, or ethical supply chains (He, Wang, Lin, & Lin, 2024). Transparent pricing communication is therefore essential to establish trust and justify cost.

Framing is also important. Comparative messaging that positions hybrid meat as a compromise between fully plant-based and conventional meat alternatives can enhance its perceived value and make it seem more accessible. A product that is priced similarly to both reference points appears balanced and inclusive, rather than niche or elitist (Hoek, Malekpour, Raven, & Trindade, 2017). This directly supports hypothesis H3a, which suggests that fair and strategic pricing increases purchase likelihood. Particularly in price-sensitive segments, clearly linking the price to tangible benefits—such as reduced fat, local sourcing, or eco-efficiency—can shift attention from cost to value.

These findings suggest that transparent and competitive pricing is essential to consumer acceptance of hybrid meat. Thus, we hypothesize:

H3a: Competitive pricing (similar to conventional meat) increases purchase likelihood.

2.2.4.2 Labelling and Product Transparency (H3b)

Labelling is one of the most immediate and impactful touchpoints between a product and its potential consumer. It plays a dual role in both informing and reassuring. For hybrid meat, still not widely understood by most shoppers, labelling clarity can determine whether the product is picked up, tried, or rejected. One key challenge is ambiguity around composition. Many consumers are unsure what hybrid meat consists of, and vague descriptions such as "blended" or "plant-enhanced" may not offer enough clarity. Labelling that clearly states the ratio of animal to plant content, explains the intended benefits, and avoids overstated claims is more likely to be trusted (Nguyen, Lobo, & Greenland, 2022). For example, a label that reads "40% plant protein, 60% beef" alongside a statement such as "less saturated fat, same familiar taste" can help clarify the hybrid identity and reduce confusion.

Ingredient transparency is also linked to consumer segmentation. Flexitarians and meat reducers often seek balanced options, but they also want to retain familiarity and protein quality. Clear labelling helps these consumers evaluate whether a hybrid product fits their dietary goals. In contrast, ambiguous labelling may lead them to revert to more familiar options. Certifications and recognisable quality labels can further enhance credibility. Eco-labels, organic stamps, carbon footprint scores, or animal welfare badges can function as external validators, especially for consumers who are sceptical of brand-led claims. These visual cues help build an expectation of honesty and accountability (Koch, Frommeyer, & Schewe, 2020). Still, these labels must be recognisable and meaningful, technical symbols with no explanation can confuse rather than reassure (Asioli et al., 2022). Visual and textual coherence also matters. Typography, colour use, and design should reflect the brand's overall message. Earth tones and minimalistic styles often signal naturalness and healthiness, while overly stylised or bright designs may undermine perceived authenticity (Neuhofer & Lusk, 2022). Packaging design should match the intended positioning of the product, whether that is modern and progressive or traditional and trustworthy.

Beyond static labelling, digital tools offer opportunities for deeper engagement. QR codes or scannable icons can link to videos, origin maps, preparation guides, or nutrition facts, allowing curious consumers to verify claims and explore the story behind the product. These tools support the kind of informed decision-making that builds long-term loyalty, particularly in online shopping environments where face-to-face interaction is absent. This supports hypothesis H3b, which proposes that labelling transparency positively affects consumer trust. In hybrid meat, this transparency is not just a legal requirement—it is a strategic tool to reduce scepticism and promote repeat purchase.

Given the importance of clarity and trust in how hybrid meat is presented, transparent labelling appears to be a key factor in fostering acceptance. Thus, we hypothesize:
H3b: Transparent labelling that explicitly states the hybrid nature of the product improves consumer trust.

2.2.4.3 Branding and Trust Transfer (H3c)

Branding is a key strategy in building consumer confidence, especially in unfamiliar product categories. Consumers often rely on brands as heuristics that simplify decision-

making. If the brand is known for safety, sustainability, or innovation, these traits are likely to be extended to its hybrid meat offerings—even without direct experience with the product itself (Hartmann, Siegrist, & van der Lans, 2022). This phenomenon, known as trust transfer, can accelerate acceptance among hesitant consumers.

Strong branding does more than establish recognition. It shapes identity, tells a story, and connects with values. Brands that communicate a clear mission—such as reducing food waste, promoting local agriculture, or supporting animal welfare—are more likely to generate emotional engagement and long-term loyalty. This is particularly true among younger consumers, who tend to view food purchases as value-driven choices rather than functional transactions (Liu, Segev, & Villar, 2022).

However, emerging brands face unique challenges. Without prior reputation, they must build credibility from the ground up. In such cases, trust can be supported through endorsements, transparent communication, and visible alignment with consumer values. Collaborations with chefs, partnerships with sustainability organizations, or real-user testimonials can all help reduce the perceived risk of trying something new. It is also crucial that branding speaks to different audiences. Minimalist, design-oriented branding often appeals to innovation-minded consumers, while traditional cues like heritage, provenance, and nutritional expertise resonate more with older or more cautious segments (Caputo, Vecchio, Lusk, & Nayga, 2022). The effectiveness of branding lies not in universal appeal, but in alignment with specific audience values. Hypothesis H3c is supported by this mechanism: brand strength and relevance increase consumer trust and product acceptance, particularly when the brand has demonstrated alignment with the concerns and aspirations of its target market. The literature shows that strong, value-aligned branding can build trust and positively influence consumer perceptions of hybrid meat. Thus, we hypothesize:

H3c: Strong branding by a reputable food producer enhances acceptance of hybrid meat products.

The relationships between the examined variables are visualised in the conceptual framework below.
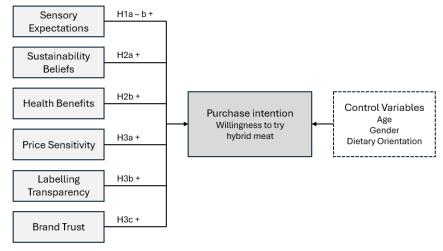

Figure 1. Conceptual model.

3 Methodology

3.1 Research Design

This study employed a quantitative, cross-sectional survey design to investigate the psychological, contextual, and sensory drivers of consumer acceptance of hybrid meat products. This methodological approach is particularly well suited for systematically measuring beliefs, attitudes, and behavioural intentions across a relatively large and diverse group of respondents. The theoretical underpinning of the study was drawn from three prominent frameworks in consumer behaviour research: the Theory of Planned Behaviour (TPB; Ajzen, 1991), the Consumer Decision-Making Model (Grunert, 2002), and Value-Belief-Norm (VBN) Theory (Stern, 2000).

These frameworks collectively offer insight into both the rational and affective components of food choice. TPB emphasizes the importance of attitudes, social norms, and perceived behavioural control. The Consumer Decision-Making Model highlights the sequential nature of product evaluation and trial, particularly for novel food products. VBN theory focuses on the role of internalized values, such as environmental concern and personal responsibility, in driving pro-environmental behaviour. Together, these lenses enable a holistic analysis of why some consumers may be more open to trying hybrid meat than others.

The main objective of the study was to identify the relative strength of multiple hypothesized predictors on the behavioural outcome of interest: willingness to try hybrid meat and reduce conventional meat consumption. A survey was therefore constructed to capture responses across relevant psychological dimensions, which were later analysed using correlation and multiple linear regression techniques.

3.2 Sampling and Participants

Participants were recruited through convenience sampling using online distribution via WhatsApp, social media, and personal networks. To be eligible for participation, individuals had to be at least 18 years of age, reside in the Netherlands, and be responsible for at least part of their household's grocery shopping—particularly at supermarkets, which are the main retail setting for hybrid meat products.

A total of 157 responses were collected, of which 137 were used for the final analysis after data cleaning and listwise deletion of missing values. The sample included a variety of age groups and dietary preferences. While convenience sampling limits the generalizability of findings, the goal of this research was exploratory and theory-driven. As such, the sample provides a valid snapshot of consumer segments who are likely to encounter or engage with hybrid meat in a supermarket context.

Descriptive analysis revealed that the largest age segment was 25–34 years, though the total sample ranged from 18 to 65+. Gender was relatively evenly distributed. In terms of

dietary orientation, most participants identified as omnivores, followed by flexitarians, vegetarians, and a small proportion of vegans. These distinctions were relevant not only for descriptive purposes but also because dietary preference was included as a categorical control variable in the regression analysis.

3.3 Measurement Instrument

The survey was designed in Qualtrics and conducted in English and Dutch. It consisted of six thematic sections, each aligned with theoretical constructs derived from the literature. All closed-ended questions used 5-point Likert scales ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). A total of 17 core items were used to measure five predictors (Sensory, Sustainability, Health, Price, Social) and one outcome variable (Intent) shown in Table 1.

To facilitate analysis and reduce noise, items were grouped into thematic indices. The Sensory Index was constructed from four items measuring expected taste, texture, reverse-coded tastiness, and sensory confidence. Sustainability included perceived environmental impact and willingness to act if a product was sustainable. Health comprised perceived health value, influence of health-related claims, and trust in claims. Price reflected perceptions of affordability and likelihood of trying the product at different price points. Social Influence included peer influence, media exposure, and perceived availability. The outcome variable Intent captured willingness to try and replace meat with hybrid alternatives.

Table 1. Operationalisation Table

Construct	Items	Scale	Source
Sensory	"I think hybrid meat tastes good", "I think hybrid meat has a good texture", "Hybrid meat tastes worse than regular meat" *(reverse-coded)*, "I am confident in the taste"	1–5 Likert	Adapted from Hoek et al. (2017); Onwezen et al. (2021); Bryant & Sanctorum (2021)
Sustainability	"I am willing to try hybrid meat if it is more sustainable", "I consider hybrid meat environmentally friendly"	1–5 Likert	Adapted from Aschemann-Witzel & Peschel (2019); Caputo et al. (2024)
Health	"Hybrid meat is healthy", "I am willing to try hybrid meat if it is healthier", "I trust health claims about hybrid meat"	1–5 Likert	Adapted from Nguyen et al. (2022); He et al. (2024); Asioli et al. (2022)
Price	"I think hybrid meat is expensive", "I would try it if it costs the same as meat", "I would try it if it is cheaper than meat"	1–5 Likert	Adapted from Caputo et al. (2024); Hoek et al. (2017)
Social	"People around me influence what I eat", "I have seen hybrid meat in media/stores", "Hybrid meat is available to me"	1–5 Likert	Onwezen et al. (2021); Palmieri et al. (2025)

Intent	"I am willing to try hybrid meat", "I would replace some of my meat consumption with hybrid meat"	1–5 Likert	Adapted from Ajzen (1991); Vainio et al. (2016)

Each index was computed as the mean score across the relevant items, with missing values handled via pairwise deletion. The "LessTasty" item was reverse coded before inclusion in the Sensory Index to ensure internal consistency. Gender was dummy coded for regression analysis, with female coded as 0 and male coded as 1.

3.4 Data Collection Procedure

The survey was open for responses in April and May 2025. Participation was anonymous and voluntary. Upon closure, the dataset was downloaded and cleaned using R (version 4.3). Key steps included:

- Removal of metadata and incomplete responses.

- Renaming of cryptic Qualtrics-generated column names for readability.

- Conversion of Likert items to numeric format.

- Reverse coding of negatively worded items.

- Construction of composite indices for each thematic construct.

Variables were checked for outliers and missingness. Respondents with incomplete data across any of the index variables were excluded using listwise deletion, resulting in a final sample of 137 valid cases for regression.

3.5 Data Analysis

The cleaned dataset was analysed in R using packages such as dplyr, ggplot2, gtsummary, broom, psych, and corrr. Means and standard deviations were computed for all index variables. Frequency distributions were calculated for demographics and dietary orientation. These results were used to contextualise the regression findings and highlight trends.

Pearson correlation coefficients were calculated between all predictors and the outcome variable (Intent Index). These bivariate tests offered a first indication of relationships and potential multicollinearity.

A linear regression model was run to assess the predictive strength of each construct on willingness to try hybrid meat. The model included the five thematic indices as independent variables and controlled for Gender, Age (categorical), and Diet

(categorical). Dummy variables were created automatically for categorical predictors in R. model <- lm(Intent_Index ~ Sensory_Index + Sustainability_Index + Health_Index + Price_Index + Social_Index + Gender + Age + Diet, data = data)

A detailed summary of the multiple linear regression analysis conducted to examine the predictors of willingness to try hybrid meat. The analysis included five thematic predictors (Sensory, Sustainability, Health, Price, Social) and two control variables (Gender, Age). Only respondents with complete data on all model variables were included (N = 137). Listwise deletion was applied.

The strongest predictors were sensory expectations and price perceptions, both of which had highly significant effects. Health and sustainability beliefs also played important roles, while social influence, gender, and most age categories were not statistically significant.

4 Results

This chapter presents a comprehensive overview of the findings from both the quantitative and qualitative components of the study. The results are structured around the hypotheses presented in the theoretical framework. First, the sample characteristics are discussed, followed by bivariate correlation analyses and a detailed multiple regression model. The final section provides a thematic analysis of open-ended responses, adding depth and nuance to the quantitative outcomes.

4.1 Sample Characteristics

The sample (N = 156) reflected a broad age distribution, with participants ranging from 18 to 65+ (see Table 2). Contrary to expectations in some prior studies on food innovation, the largest age group in this survey was 55–64 years old, comprising approximately one-third of respondents. Younger adults aged 18–24 and 25–34 also formed substantial segments of the sample, while middle-aged groups (35–54) were moderately represented. This distribution challenges the assumption that only younger generations drive demand for alternative protein sources. Instead, it points to an intergenerational interest in hybrid meat, which may reflect broader social awareness around sustainability, health, and food innovation.

The gender balance in the sample was relatively even, with near-equal representation of male and female respondents. This demographic equilibrium strengthens the internal validity of the results, reducing the likelihood of gender-driven bias in the interpretation of attitudes and behavioural intentions.

Regarding dietary orientation, the majority of participants identified as omnivores (74%), which is consistent with general population trends in Western diets. A meaningful minority (13%) described themselves as flexitarians, suggesting an openness to reducing meat consumption without eliminating it entirely. Smaller segments included vegetarians, vegans, pescatarians, and respondents selecting "other." Though limited in number, these groups offer useful comparative perspectives in examining how hybrid meat is positioned relative to both traditional and fully plant-based diets.

Familiarity with hybrid meat was assessed using a 5-point Likert scale, where 1 indicated "not at all familiar" and 5 "very familiar." The average familiarity was moderate (M = 2.95, SD = 1.24), indicating that while the concept of hybrid meat is known to many, deep awareness or experience remains limited. However, willingness to try hybrid meat was higher, with a mean of 3.55 (SD = 1.28). This contrast suggests that intentions may be driven more by perceived benefits (e.g., sustainability, health) than by prior exposure. For marketers and food developers, this gap presents a significant opportunity: individuals may be open to trying hybrid meat even without comprehensive knowledge, especially if communication strategies tap into their core values.

Table 2. Descriptive Statistics of the Sample

Variable	Category	N	Percentage
Gender	Female	106	68%
	Male	49	31%
	Prefer not to say	2	1%
Age	18–24	34	22%
	25–34	26	17%
	35–44	19	12%
	45–54	18	11%
	55–64	52	33%
	65+	8	5%
Dietary Orientation	Omnivore	115	74%
	Flexitarian	20	13%
	Pescatarian	1	1%
	Vegetarian	5	3%
	Vegan	2	1%
	Other	12	8%

4.1.1 Construct Indices

The five main psychological constructs used in this study—Sensory Expectations, Sustainability Beliefs, Health Beliefs, Price Sensitivity, and Social Influence— were operationalized as composite indices, each based on multiple items rated on a 1–5 Likert scale.

- Sustainability had the highest mean score (M = 3.64, SD = 1.15), reflecting participants' strong concern for environmental impact and willingness to choose eco-friendly options.
- Health followed closely (M = 3.54, SD = 1.12), suggesting that consumers associate hybrid meat with potential nutritional or health-related advantages.
- Price considerations also ranked high (M = 3.47, SD = 0.93), indicating that affordability remains a central concern—even when evaluating innovative or sustainable food options.
- Sensory expectations, which included taste, texture, and confidence in hybrid meat's likability, were more neutral (M = 2.99, SD = 0.93), possibly due to a lack of direct experience or lingering scepticism about sensory quality.
- Social influence had the lowest mean score (M = 2.66, SD = 0.89), suggesting that peer behaviors, social media exposure, and perceived availability currently play a minimal role in shaping opinions.

The relatively narrow standard deviations across these indices imply a shared belief structure among participants, despite differences in age or dietary identity. These findings offer a stable base for the regression analyses, which aim to isolate the most significant predictors of willingness to try hybrid meat.

4.2 Correlation Analysis

An overview of all bivariate correlations, including the means and standard deviations for each construct is given in Table 3 below. It presents descriptive statistics (mean, standard deviation, range, sample size) and Pearson correlations for the six core variables used in the regression model: Sensory Index, Sustainability Index, Health Index, Price Index, Social Index, and Intent Index.

Table 3. Correlation Matrix and Descriptive Statistics Table

	Mean	SD	N	Correlations					
				Sensory	Sustainability	Health	Price	Social	Intent
Sensory	2.99	0.93	152	1.00	—	—	—	—	—
Sustainability	3.64	1.15	146	0.69	1.00	—	—	—	—
Health	3.54	1.12	146	0.72	0.78	1.00	—	—	—
Price	3.47	0.93	146	0.52	0.56	0.50	1.00	—	—
Social	2.66	0.89	138	0.31	0.17	0.20	0.08	1.00	__
Intent	3.55	1.28	140	0.71	0.73	0.72	0.63	0.19	1.00

To assess the relationships between the main independent variables and willingness to try hybrid meat, Pearson correlation coefficients were calculated. The analysis revealed strong positive correlations for all four primary predictors:
- Sensory expectations (r = .71)
- Sustainability beliefs (r = .73)
- Health perceptions (r = .72)
- Price sensitivity (r = .63)

These results strongly suggest that participants who expect hybrid meat to taste good, see it as environmentally beneficial, believe it offers health advantages, and perceive it as affordable are significantly more willing to try it. These correlations provide preliminary confirmation of hypotheses H1b, H2a, H2b, and H3a.

In contrast, Social Influence was weakly correlated with willingness (r = .19), suggesting limited impact from peers, social norms, or media exposure. This aligns with the low mean score for the Social Index and suggests that decisions about trying hybrid meat are primarily driven by individual beliefs rather than external influence. This finding offers an important insight for marketing strategies that might otherwise rely on normative appeal or influencer endorsements.

Beyond the direct correlations with intent, strong relationships were also observed between the independent variables themselves. Sustainability and Health were highly correlated (r = .78), as were Sensory and Health (r = .72). This implies that participants who care about sustainability also tend to see hybrid meat as healthy, and those with strong sensory expectations also associate those expectations with health benefits. Such patterns reflect a possible clustering of beliefs, suggesting that attitudes toward hybrid meat are often grounded in a broader mindset of conscious consumerism.

Despite these intercorrelations, variance inflation factors (VIFs) calculated during regression analysis remained below 2. This ensures that each construct explains a unique portion of the variance in willingness, and that multicollinearity is not a concern in the interpretation of the regression model. Taken together, these results offer a compelling argument for the theoretical relevance of the chosen predictors. They also serve as a statistical rationale for including all five thematic indices in the regression analysis.

4.3 Multiple Regression Analysis

To test the research hypotheses and determine the relative contribution of each predictor, a multiple linear regression was performed. The dependent variable was willingness to try hybrid meat, and the predictors were the five core indices: Sensory, Sustainability, Health, Price, and Social Influence. Gender and Age were included as control variables.

The overall model was highly significant, $F(11, 125) = 26.92$, $p < .001$, explaining 70.3% of the variance in willingness ($R^2 = .703$, adjusted $R^2 = .677$). This is a strong model by social science standards, suggesting that the selected predictors collectively provide a robust explanation of consumer intent (see Table 4).

Table 4. APA Regression Table

Predictor	Hypothesis	Estimate (b)	Std. Error	p-value	Sig.
Intercept		-0.645	0.371	0.085	.
Sensory Index	H1a-b	0.380	0.107	<.001	***
Sustainability Index	H2a	0.236	0.097	0.016	*
Health Index	H2b	0.239	0.099	0.017	*
Price Index	H3	0.364	0.084	<.001	***
Social Index		0.025	0.078	0.746	
Gender (male = 1)		-0.010	0.144	0.944	
Age: 25–34		-0.029	0.207	0.887	
Age: 35–44		0.378	0.228	0.100	.
Age: 45–54		-0.240	0.238	0.314	
Age: 55–64		-0.085	0.184	0.645	
Age: 65+		0.494	0.315	0.119	
DietFlexitarian		0.336546	0.177472	0.060492	.
DietVegan		-1.018050	0.331480	0.002676	**

*Significance codes: *** p < .001, ** p < .01, * p < .05, . p < .10*

- *$F(11, 125) = 26.92$, $p < .001$*
- $R^2 = .703$, Adjusted $R^2 = .677$
- Residual standard error = 0.73

Interpretation of Predictors:
Sensory expectations (H1b) were a highly significant predictor (b = .38, p < .001). Participants who expected hybrid meat to resemble conventional meat in taste and texture were more likely to consider trying it. This supports the hypothesis that sensory cues are central to early adoption and highlights the importance of product sampling and sensory-driven marketing. **Sustainability beliefs (H2a)** were also significant (b = .24, p = .016). Those who saw hybrid meat to reduce environmental impact were more inclined to try it. This confirms that climate-conscious reasoning is a key part of the decision-making process, particularly in a demographic already aware of sustainability challenges. **Health perceptions (H2b)** mirrored this pattern (b = .24, p = .017). Respondents who viewed hybrid meat as a healthy alternative to regular meat were more willing to engage with it. Health, therefore, acts not only as a motivator but possibly as a credibility signal for this product category. **Price sensitivity (H3a)** was the strongest predictor in the model (b = .36, p < .001). This finding underscores the importance of price parity in the success of hybrid meat. Even those with strong pro-environmental or health motivations may not be persuaded if the product is perceived as too expensive. **Social Influence**, the only non-significant predictor (b = .03, p = .746), had no meaningful relationship with willingness. This suggests that social dynamics—at least in this early stage of adoption—are not influential. The exploratory proposition regarding social context as a driver is therefore not supported. Although relevant survey items for H1a, H3b, and H3c were included, these constructs were not modelled separately in the regression analysis. The focus remained on the five core indices derived from the theoretical model. Future research may include separate predictors for meat attachment and trust-based factors.

Control Variables:
Gender was not a significant predictor, implying that both male and female respondents exhibited similar levels of openness toward hybrid meat. Among the age categories, the group aged 35–44 showed a marginal effect (b = .38, p = .100), which may suggest a slightly higher readiness to explore hybrid options in this demographic. Other age groups did not display meaningful variation. These results affirm the primary importance of intrinsic product beliefs, such as taste, health, and environmental benefits, over social cues or demographic factors. Hypotheses H1b, H2a, H2b, and H3a were supported, while the exploratory proposition about social influence was not.

4.4 Qualitative Insights from Open-Ended Responses

In addition to closed-ended survey items, respondents were asked to describe their main reason for (not) wanting to try hybrid meat. A total of 102 valid responses were coded and analysed thematically. The analysis followed an inductive process: open coding to capture recurring words and reasoning, followed by axial clustering into broader themes. The findings add rich, personal context to the survey outcomes, clarifying how beliefs, doubts, and motivations shape willingness to try hybrid meat.

Theme 1: Curiosity and Willingness to Try Something New

A large group of respondents expressed interest in trying hybrid meat out of curiosity or openness to food innovation. Typical responses included "I'm fine with trying new stuff," "I like to taste everything once," and "I'm curious what it tastes like." These respondents were not necessarily committed to the environmental or health benefits but saw hybrid meat as a novel experience.

Others mentioned that they would try hybrid meat "if it came my way" or "if it were in a meal kit." This situational openness suggests that hybrid meat could benefit from low-friction trial formats like product sampling or inclusion in subscription meal boxes.

Subthemes and examples:

- Low-risk curiosity: "I would try it, just to see what it's like."
- Social context matters: "If friends would offer it, I wouldn't say no."
- Conditional openness: "If it tastes okay and is affordable, why not?"

This group overlaps with respondents who scored high on intent, even when their beliefs about health or sustainability were neutral. For these consumers, experience precedes conviction.

Theme 2: Sensory Uncertainty and Distrust

Taste and texture were frequently mentioned as concerns. Some were brief: "taste," "flavour," or "texture." Others were more specific: "All meat substitutes I've tried so far were disappointing," or "I'm not convinced hybrid meat would be satisfying." Doubts often stemmed from comparisons with plant-based meat, which many had found "bland" or "artificial."

A few responses extended the concern beyond taste to broader food distrust: "I don't trust what's in it," "It feels like processed junk," or "too many E-numbers." These comments suggest that for some, the sensory and health domains are closely linked — taste and perceived purity are both important.

Subthemes and examples:

- Prior disappointment: "I tried something similar before, and it was terrible."
- Processed food rejection: "This is lab food. It doesn't feel natural."
- Lack of flavour appeal: "If it's not real meat, it probably tastes off."

These concerns directly relate to the Sensory Index and partly to Health perceptions. They help explain why sensory expectations such a strong predictor in the regression model were.

Theme 3: Environmental and Ethical Motivation

A substantial number of respondents mentioned sustainability, ethics, or animal welfare as their reason to try hybrid meat. Typical responses included "For the environment", "If it helps reduce meat consumption," and "Less harm to animals." Some connected hybrid

meat with broader personal values: "Better for the planet and for myself" or "I support change in the food system."

There was also a subset that saw hybrid meat as a realistic middle ground: "I eat meat, but I'm willing to reduce." This framing portrays hybrid meat as a pragmatic compromise — better than regular meat, even if not perfect.

Subthemes and examples:

- Ethical framing: "It spares animal lives, and that's enough for me."
- Environmental concern: "We need better solutions, and this is one."
- Practical ethics: "I'm not going vegetarian, but this seems like progress."

These responses reinforce the importance of the Sustainability Index (H2a confirmed) and illustrate how consumers evaluate products not just for what they are, but what they represent.

Theme 4: Unfamiliarity, Confusion, and Awareness Gaps

Some participants simply stated they had never heard of hybrid meat before, or they were unclear about what it meant. Comments included "What even is hybrid meat?", "I've never seen this before," and "It sounds like fake food, not sure I'd trust it."

Others were confused about the product composition. One respondent asked: "Is it more meat or more plant? That matters." This lack of clarity — not necessarily negative — appears to reduce enthusiasm and increase hesitancy. These consumers don't oppose the concept, but they lack confidence in what they'd be trying.

Subthemes and examples:

- Lack of exposure: "If I knew more about it, I might try."
- Uncertainty about contents: "Don't know what's in it, so I won't touch it."
- Association with unfamiliar processes: "Feels too technical or industrial."

This theme helps explain variability in intent among those with moderate familiarity scores. It highlights the need for clearer messaging around what hybrid meat is — and isn't.

Theme 5: Lifestyle-Based Rejection

A smaller but clear group of respondents rejected hybrid meat on principle. These responses reflected lifestyle choices or ethical stances, often from vegetarians or vegans. Typical comments included "still involves animals, so no," "I avoid processed products," and "If I want to eat better, I'll go fully plant-based". Others referenced food purity or simplicity: "Natural food only," "Prefer whole vegetables over engineered meat," or "This is still too close to meat for me." These respondents perceived hybrid meat not as progress, but as a flawed middle step.

Subthemes and examples:

- Ethical opposition: "Still animal-based, so not for me."
- Food philosophy: "I eat real, simple food. This is not that."
- Strategic avoidance: "Rather stick to what I know — vegetarian dishes."

This group scored low on intent and saw little value in hybrid products. They highlight a boundary group unlikely to be reached through mainstream marketing or product reformulation.

Cross-Theme Observations

The five identified themes demonstrate a strong alignment with the results from the regression analysis, reinforcing the robustness of the conceptual framework. The most mentioned factors—taste, sustainability, health, and novelty—correspond directly with the variables that were found to significantly predict consumers' willingness to try hybrid meat products. Sensory expectations stood out as both a critical motivator and a deterrent. For some participants, positive expectations about taste and texture enhanced openness to trying hybrid meat, while others expressed hesitation or rejection due to prior negative experiences or general distrust in the sensory quality of alternative proteins. This dual role of sensory perception underscores its importance in shaping first impressions and supporting long-term acceptance.

Environmental motivation also emerged consistently across responses, lending strong qualitative support to hypothesis H2a. Many participants expressed a willingness to engage with hybrid meat out of concern for sustainability, framing their food choices as extensions of personal values such as environmental responsibility or reducing meat consumption. Health-related concerns were frequently mentioned as well, often in conjunction with scepticism about processing and ingredients. While some viewed hybrid meat as a healthier alternative to traditional meat, others questioned its nutritional integrity, especially when the product was perceived as overly engineered or unnatural. This highlights the delicate balance required in communicating health benefits without triggering fears of artificiality.

Though not always stated explicitly, pricing and practicality played a clear role in shaping willingness. Phrases like "if it's affordable" or "if included in a meal box" suggest that accessibility and value for money are important conditions for trial, echoing the significance of price sensitivity observed in the quantitative data. Interestingly, social influence was almost completely absent from the open-ended responses. Not a single participant mentioned peer pressure, trends, or media influence as a reason for or against trying hybrid meat. This absence reinforces the model's finding that social factors were not significant predictors of intention and suggests that adoption decisions are primarily shaped by individual beliefs rather than external social cues. Taken together, these qualitative insights deepen our understanding of the psychological drivers behind consumer acceptance. They reveal that hybrid meat adoption is largely motivated by internal attitudes, particularly around sensory experience, sustainability values, and health considerations, while uncertainty, lack of familiarity, and perceived artificiality can

act as powerful deterrents. This highlights the need for clear, trustworthy communication and accessible product design to bridge the gap between interest and action.

5 Discussion

This chapter reflects on the main findings of the study and their relevance to existing theory and practice. It discusses how the results confirm, extend, or challenge current understanding of consumer behaviour in the context of hybrid meat, and it provides targeted recommendations for Van Loon Group. The chapter ends with a critical reflection on limitations and suggestions for future research.

5.1 Key Findings and Theoretical Reflection

The findings of this research confirm that consumer acceptance of hybrid meat is driven primarily by internal beliefs and expectations, rather than by social norms. Four main predictors were found to significantly influence willingness to try hybrid products: sensory expectations, sustainability beliefs, health perceptions, and price sensitivity. These results are consistent with the theoretical frameworks used in this study, particularly the Theory of Planned Behaviour (TPB), the Value-Belief-Norm model (VBN), and the Consumer Decision-Making Model.

The strongest predictor of acceptance was price sensitivity, highlighting that even consumers with strong environmental or health motivations are hesitant to try hybrid meat if the product is perceived as expensive. Sensory expectations were also critical: if consumers expect poor taste or texture, their willingness to try is significantly lower. This supports previous literature on food adoption but also extends it by showing how expectation management through packaging, communication, and prior experience that can influence sensory perceptions before trial. Sustainability and health beliefs were equally important, reinforcing the relevance of value-based motivations in hybrid meat adoption.

One of the most surprising findings was the lack of impact of social influence. Unlike what is often seen in plant-based food marketing, peer behaviour, trends, or social media exposure had no significant effect on intention. This suggests that hybrid meat choices are currently perceived as more personal, perhaps due to the unfamiliarity of the product or the absence of clear identity-based consumption signals.

5.2 Practical Implications for Van Loon Group

The most tangible contribution of this study lies in the strategic and directly actionable insights it provides for Van Loon Group as a private label producer operating within the Dutch retail environment. While Van Loon does not control consumer-facing branding, it plays a decisive role in developing product concepts, advising retail partners, and aligning innovation with broader sustainability goals. This research offers evidence-based guidance on where consumer resistance originates, what consumers value most, and how Van Loon can advise retailers to close the gap between curiosity and trial.

The regression model explained nearly 70% of the variance in consumer willingness to try hybrid meat products, with four key predictors emerging: price sensitivity, sensory expectations, sustainability beliefs, and health perceptions. These findings were further enriched by qualitative responses that revealed deeper patterns in how consumers reason through hybrid meat choices—particularly around trust, product familiarity, and perceived trade-offs. These combined insights point toward three core areas where Van Loon can take focused and concrete action.

First, the results confirm that sensory expectations are decisive—both as a motivator and as a barrier. Although Van Loon's current hybrid products already benefit from advanced ingredient technology, most notably the use of FiberFort, a patented fiber-bases ingredient which improves structure and reduces off-notes, the data show that consumers remain highly critical of taste and texture. Open responses reflected concerns such as "dry," "rubbery," or "processed," often rooted in a single disappointing experience. This means that even a small mismatch between expectation and eating experience can undermine repeat purchases. Van Loon should therefore continue to actively invest in sensory optimisation, not because the baseline is poor, but because the standard is now high, and consumer expectations are rising. Texture and mouthfeel should remain key development priorities, especially in visible formats such as burger patties or sausages. Moreover, to ensure that good product design leads to good consumer experience, Van Loon can advise retailers to include preparation guidance on-pack or online—many negative experiences are linked not to product flaws but to incorrect cooking. Hybrid meat performs best when it is treated as meat in preparation, and supporting consumers in this process can help ensure the product is judged fairly on its quality.

Second, sustainability and health beliefs were significant predictors, confirming their motivational role. However, open responses revealed a gap between values and trust— many consumers were sceptical of unsubstantiated claims and even questioned whether hybrid products were "really healthier or better for the planet." This signals a clear opportunity for Van Loon to support retailers with transparent, data-driven claim language. For example, product briefs could include phrasing templates like "this product contains 40% plant protein, reducing its environmental impact by 30% compared to standard pork." Importantly, these claims should be quantified and sourceable and ideally linked to recognised benchmarks such as the Eco-Score or Nutri-Score. By providing these assets upfront, Van Loon enables its retail partners to build consumer trust, even without investing in their own sustainability analysis. This becomes even more relevant as retailers move toward 60% plant-based offerings in line with national protein transition goals.

Third, price sensitivity was the single strongest predictor in the regression model, even though the actual shelf price of hybrid products is already lower than conventional meat. This apparent paradox suggests that perceived value, rather than real price, drives consumer behaviour. Several respondents indicated uncertainty about "what you get for that price" or wondered "why it costs more for less meat." Van Loon should therefore support retailers not by lowering prices further, but by framing the hybrid offering as smart value. Communication strategies can include: "same meal size, fewer calories, same satisfaction," or "better for your wallet and the planet." These types of value messages

should be built into promotional materials, shelf tags, or digital store assets. Van Loon can also recommend bundle strategies such as combining hybrid meat with vegetables or pasta to strengthen perceived convenience and completeness of the meal.

Finally, while social influence was not a significant predictor, a pattern did emerge around familiarity and uncertainty. Many consumers expressed interest but framed it conditionally: "I'd try it if it came in a meal box," or "if it was included in something I already buy." This reinforces the importance of low-risk trial formats, particularly those integrated into existing eating habits. Van Loon can proactively develop and propose hybrid stock keeping units that are embedded within meal solutions such as pre-seasoned stir-fry kits, one-pan oven dishes, or ready-to-heat barbecue assortments. These formats lower the decision threshold and shift the focus from product identity to mealtime functionality. Additionally, Van Loon should advise retailers to place hybrid products within the regular meat category, rather than in plant-based or novelty sections, to reduce perceived unfamiliarity.

This research underscores that consumer acceptance of hybrid meat is not hindered by lack of awareness, but by sensory scepticism, trust gaps, price confusion, and uncertainty about use. Van Loon's impact lies in bridging these barriers through sensory-led product innovation, claim-supporting communication tools, and format strategies that normalise hybrid choices. By translating behavioural drivers into precise product and placement recommendations, Van Loon can enable retailers to accelerate hybrid adoption in a way that fits both consumer preferences and protein transition targets.

5.3 Limitations

This study offers a clear and data-driven view of the factors influencing consumer acceptance of hybrid meat, but several limitations must be acknowledged. The sample, although sufficiently large and relatively diverse in age, was not representative of the Dutch population. Respondents were recruited via online channels and self-selected, which may have resulted in underrepresentation of specific groups such as low-income households, less food-involved consumers, or people without interest in meat alternatives. This limits the generalisability of the findings beyond the type of consumer who is already somewhat open to innovation in the protein domain. Moreover, the study measured intention, not actual behaviour. Although intention is often a strong predictor of action, particularly in structured models like the Theory of Planned Behaviour, it does not fully capture the complexities of real-world food decisions. In a supermarket, choices are influenced by context, packaging, habits, and emotions, factors that a survey cannot always reflect. The open responses did indicate a clear link between expectation and action, but without behavioural observation, conclusions about actual adoption remain tentative.

Another limitation lies in the theoretical focus. The model included core cognitive and value-based drivers, such as taste, price, health, and sustainability, but it did not explicitly capture more affective or emotional aspects of consumer judgement. Some respondents rejected hybrid meat not because of its content, but because it "felt wrong" or "seemed

too processed." These types of instinctive reactions rooted in perceived naturalness, familiarity, or even mild disgust were not directly measured, though they may significantly impact consumer behaviour, especially in transitional product categories.

Finally, the cross-sectional nature of the research offers only a snapshot in time. Hybrid meat is a relatively new concept in Dutch retail, and it is likely that consumer perceptions will shift as products improve, visibility increases, and social narratives evolve. While the current findings are highly relevant for this early phase, future studies will be needed to understand how these dynamics develop over time.

5.4 Future Research

Building on the limitations identified, several directions for further research could help to strengthen both theoretical understanding and commercial application. A key next step is to move beyond intention and examine actual behaviour. This could involve field experiments in supermarkets, A/B testing of shelf communication, or analysing real purchase data. Research in this area could directly support product and category management decisions, especially for private label producers advising multiple retail formats.

There is also a need to look more closely at emotional and psychological dimensions of product acceptance. This study found that even consumers with strong sustainability values sometimes rejected hybrid meat due to uncertainty or scepticism signs that rational belief alone is not enough. Future studies should explore affective responses like food neophobia, perceived unnaturalness, and emotional trust. These variables could be captured through dedicated survey items or in-depth interviews and would be particularly relevant for understanding resistance among more traditional meat consumers. Future research could focus on communication strategies. While this study confirmed that transparency and clarity build trust, it remains unclear which exact claims are most effective. Experiments could compare numeric claims with narrative ones, or test the impact of certifications, icons, and front-of-pack statements on consumer trust and willingness to try. Naming strategies also deserve attention. Several respondents indicated confusion or discomfort with the term "hybrid," suggesting that terminology influences not just understanding, but emotional reaction as well. Controlled tests comparing alternative labels such as "blended," "meat + plant," or "flex choice" could yield highly practical insights for product development and packaging.

Lastly, future research should consider the broader shopping context. Factors such as meal planning, store environment, product placement, and promotional strategy likely affect trial rates but fall outside the scope of this study. Exploring how hybrid meat performs in different channels such as discount retailers versus premium stores, or in meal kits versus traditional formats would help producers and retailers optimise both reach and impact. While this research provides a solid first step in mapping consumer perceptions of hybrid meat, further studies can expand and deepen this understanding. By including real-world behaviour, emotional dimensions, and message effectiveness, future research can help accelerate not just awareness, but meaningful adoption.

6 Conclusion

This research set out to understand what drives or prevents Dutch consumers from trying hybrid meat, a category that blends animal and plant proteins and is increasingly relevant in the context of sustainable food transitions. Through a consumer survey with both closed and open-ended questions, this study provided insight into how people perceive hybrid meat and what conditions make them willing to try it.

The results show that consumer willingness to try hybrid meat depends mainly on how they evaluate the product itself. Taste expectations, sustainability beliefs, health considerations, and price sensitivity were all significant factors in shaping intention. Among these, price sensitivity stood out as the strongest predictor, even though the actual products are often cheaper than conventional meat. This suggests that consumer perceptions of value are more important than the price itself. Taste also played a dual role: when people expect a good sensory experience, they are much more open, but a single bad experience can lead to rejection. This makes product performance and preparation crucial for repeat behaviour.

The open responses added valuable depth. Many participants expressed openness to trying hybrid meat, but only under certain conditions. For example, if it was included in a familiar meal format, or clearly labelled with trusted health or environmental claims. Trust was mentioned repeatedly, especially when discussing healthiness, processing, or unknown ingredients. Social influence appeared to play almost no role at all. Very few people mentioned trends, social norms, or what others think, suggesting that hybrid meat choices are primarily individual and value based in the Netherlands.

Altogether, this study shows that consumers do not reject hybrid meat as a concept, but that hesitation often comes from uncertainty, lack of familiarity, or unclear benefits. Clear communication, realistic expectations, and easy trial opportunities can help bridge this gap. While hybrid meat may not yet be mainstream, the results suggest that its success is achievable if consumers feel confident in the product and if it fits into their routines without friction.

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Appendix

Appendix A: Survey Questions English/Dutch

Intro Text for Respondents
This survey explores consumer opinions on "hybrid meat" products. Hybrid meat products consist of both genuine meat and plant-based ingredients. The aim of these products is to reduce meat consumption for sustainability reasons. At the same time, they promise to maintain the typical taste and texture of meat. We are interested in your opinion on hybrid meat, whether you have tried it or not.

Section 1: Demographics & Familiarity *(Control & H1b)*
1. What is your age? (Under 18, 18–24, 25–34, 35–44, 45–54, 55–64, 65+)
2. What is your gender? (Male, Female, Non-binary/Other, Prefer not to say)
3. What is your dietary preference? (Omnivore, Flexitarian, Pescatarian, Vegetarian, Vegan, Other)
4. How many times per week do you eat...
   a. Meat (e.g. beef, chicken, pork)? (0, 1–2, 3–4, 5–6, Daily)
   b. Meat alternatives (e.g. plant-based, tofu, tempeh)? (0, 1–2, 3–4, 5–6, Daily)
5. How familiar are you with hybrid meat? (1 = Not at all, 5 = Very familiar)
6. Have you ever consumed a hybrid meat product? (Yes – Rarely, Yes – Occasionally, Yes – Regularly, No, Not sure)

Section 2: Sensory Expectations *(H1a, H1b)*
Please indicate your level of agreement, even if you haven't tried hybrid meat before.
(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)
7. I expect hybrid meat tastes similar to conventional meat.
8. I expect hybrid meat has a texture like real meat.
9. I assume hybrid meat is less tasty than regular meat. *(reverse-coded – H1a)*
10. The more I learn about hybrid meat, the more confident I feel about its taste and texture. *(H1b)*

Section 3: Sustainability & Health Perceptions *(H2a, H2b)*
(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)
11. I believe hybrid meat is more sustainable than regular meat. *(H2a)*
12. I would be more willing to try hybrid meat if it clearly reduced environmental impact. *(H2a)*
13. I believe hybrid meat can be a healthy alternative to meat. *(H2b)*
14. I would be more likely to buy hybrid meat if health benefits were clearly communicated. *(H2b)*
15. Health and sustainability messages increase my trust in hybrid meat products.

Section 4: Pricing & Value *(H3a)*
(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)
16. I think hybrid meat is more expensive compared to regular meat.

17. I would be more likely to try hybrid meat if it were priced the same as regular meat. *(H3a)*
18. If hybrid meat were cheaper than regular meat, I would choose it.

Section 5: Social Influence & Availability *(Contextual drivers)*
(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)
19. People around me (friends, family, or social media) influence my food choices.
20. I've seen or heard about hybrid meat in the media or in stores.
21. I believe hybrid meat is available at my local supermarket.

Section 6: Willingness to Try / Purchase Intentions *(Dependent variable for all Hs)*
(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)
22. I would be open to trying hybrid meat in the coming months.
23. I would consider replacing part of my meat consumption with hybrid meat.

Section 7: Open-Ended
24. What is the main reason you would or wouldn't try hybrid meat?

Nederlands

Consumentenacceptatie van hybride vleesproducten in de Nederlandse retail
Hypothesen
- **H1a**: Consumenten met een sterkere binding aan traditioneel vlees zullen hybride producten als inferieur beschouwen op het gebied van smaak en textuur.
- **H1b**: Vertrouwdheid met hybride producten heeft een positieve invloed op de perceptie van hun sensorische kwaliteit over tijd.
- **H2a**: Duidelijke duurzaamheidsclaims verhogen de koopintentie bij milieubewuste consumenten.
- **H2b**: Gezondheidsclaims versterken het consumentenvertrouwen en de waargenomen waarde van het product.
- **H3a**: Concurrerende prijzen (vergelijkbaar met traditioneel vlees) verhogen de kans op aankoop.

Enquête
Introductietekst voor respondenten
Deze enquête onderzoekt meningen van consumenten over "hybride vlees". Hybride vleesproducten bestaan uit een combinatie van echt vlees en plantaardige ingrediënten. Het doel van deze producten is om vleesconsumptie te verminderen vanuit duurzaamheidsoverwegingen. Tegelijkertijd beloven deze producten de typische smaak en textuur van vlees te behouden. We zijn benieuwd naar jouw mening over hybride vlees, of je het nu wel of niet hebt geprobeerd.

Sectie 1: Demografie & Vertrouwdheid (Controle & H1b)
1. Wat is je leeftijd? (Onder 18, 18–24, 25–34, 35–44, 45–54, 55–64, 65+)
2. Wat is je gender? (Man, Vrouw, Non-binair/Anders, Liever niet zeggen)
3. Wat is je dieetvoorkeur? (Omnivore, Flexitariër, Pescotariër, Vegetariër, Veganist, Anders)

4. Hoe   vaak   per   week   eet   je...
   a. Vlees (bijv. rund, kip, varken)? (0, 1–2, 3–4, 5–6, Dagelijks)
   b. Vleesvervangers (bijv. plantaardig, tofu, tempeh)? (0, 1–2, 3–4, 5–6, Dagelijks)
5. Hoe vertrouwd ben je met hybride vlees? (1 = Helemaal niet, 5 = Zeer vertrouwd)
6. Heb je ooit een hybride vleesproduct gegeten? (Ja – Zelden, Ja – Af en toe, Ja – Regelmatig, Nee, Weet ik niet zeker)

Sectie 2: Verwachtingen over smaak & textuur (H1a, H1b)
Geef aan in hoeverre je het eens bent, ook als je nog nooit hybride vlees hebt geprobeerd.
(Schaal: 1 = Helemaal oneens tot 5 = Helemaal eens)
7. Ik verwacht dat hybride vlees vergelijkbaar smaakt met traditioneel vlees.
8. Ik verwacht dat hybride vlees een vergelijkbare textuur heeft als echt vlees.
9. Ik ga ervan uit dat hybride vlees minder lekker is dan gewoon vlees. (omgekeerd gecodeerd – H1a)
10. Hoe meer ik leer over hybride vlees, hoe meer vertrouwen ik krijg in de smaak en textuur ervan. (H1b)

Sectie 3: Duurzaamheid & Gezondheid (H2a, H2b)
(Schaal: 1 = Helemaal oneens tot 5 = Helemaal eens)
11. Ik geloof dat hybride vlees duurzamer is dan gewoon vlees. (H2a)
12. Ik zou eerder bereid zijn om hybride vlees te proberen als duidelijk is dat het milieuvriendelijker is. (H2a)
13. Ik geloof dat hybride vlees een gezond alternatief voor vlees kan zijn. (H2b)
14. Ik zou sneller hybride vlees kopen als de gezondheidsvoordelen duidelijk worden gecommuniceerd. (H2b)
15. Boodschappen over gezondheid en duurzaamheid vergroten mijn vertrouwen in hybride vleesproducten.

Sectie 4: Prijs & Waardeperceptie (H3a)
(Schaal: 1 = Helemaal oneens tot 5 = Helemaal eens)
16. Ik denk dat hybride vlees duurder is dan gewoon vlees.
17. Ik zou eerder hybride vlees proberen als het even duur is als gewoon vlees. (H3a)
18. Als hybride vlees goedkoper was dan gewoon vlees, zou ik daarvoor kiezen.

Sectie 5: Sociale Invloed & Beschikbaarheid (Contextuele factoren)
(Schaal: 1 = Helemaal oneens tot 5 = Helemaal eens)
19. Mensen om mij heen (zoals vrienden, familie of sociale media) beïnvloeden mijn voedselkeuzes.
20. Ik heb iets over hybride vlees gezien of gehoord in de media of winkels.
21. Ik denk dat hybride vlees verkrijgbaar is in mijn lokale supermarkt.

Sectie 6: Bereidheid om te proberen / Koopintentie (Afhankelijke variabele voor alle H's)
(Schaal: 1 = Helemaal oneens tot 5 = Helemaal eens)
22. Ik sta ervoor open om hybride vlees de komende maanden te proberen.
23. Ik zou overwegen om een deel van mijn vleesconsumptie te vervangen door hybride vlees.

Sectie 7: Open Vraag

24. Wat is de belangrijkste reden waarom je wel of niet hybride vlees zou willen proberen?