



Driving Plant-Based Meat Adoption: Motivations, Barriers and Change- Management Strategies for Germany

Philipp Alexander Lakenberg

Dissertation written under the supervision of professor

Miguel Fontes Rita

Dissertation submitted in partial fulfilment of requirements for the MSc in Management with a specialization in Strategy, Entrepreneurship & Impact, at the Universidade Católica Portuguesa, 01.06.2025

Abstract

Português

Carne à base de plantas (CBP) promete benefícios ambientais e de saúde, mas a sua adoção na Alemanha continua limitada. Esta dissertação, intitulada “*Driving Plant-Based Meat Adoption: Motivations, Barriers and Change-Management Strategies for Germany*”, explora motivações, barreiras percebidas e sinais de norma social que influenciam essa adoção, como princípios de gestão de mudança que podem acelerar o processo. Um questionário com 165 consumidores alemães (omnívoros, flexitarianos, vegetarianos e veganos) foi aplicado, e os dados foram analisados com estatísticas descritivas, testes de Kruskal–Wallis, regressão OLS e testes de Friedman. Os resultados foram integrados na Teoria do Comportamento Planeado e nos modelos de mudança de Lewin e Kotter para compreender melhor as dinâmicas de adoção.

De modo geral, concluiu-se que preocupações ambientais e a percepção de redução do consumo de carne pelos pares são os principais preditores da intenção de consumir CBP. Sabor e preço foram as maiores barreiras. Ao contrário do esperado, vegetarianos e veganos consumiram CBP mais frequentemente que flexitarianos. As motivações variaram: apelos ambientais impactaram consumidores habituais de carne, enquanto o bem-estar animal foi mais determinante para vegetarianos e veganos.

Com base nesses achados, a dissertação propõe intervenções como comparações de impacto ecológico, recomendações de especialistas, amostras gratuitas e divulgação clara dos ingredientes, apresentando o CBP como uma escolha simples e eficaz. As limitações incluem amostra centrada em jovens e desenho transversal. Estudos longitudinais de campo são recomendados.

Palavras-chave: carne à base de plantas, adoção do consumidor, gestão de mudança, economia comportamental, Alemanha, sustentabilidade.

Autor: Philipp Alexander Lakenberg

English

Plant-based meat (PBM) promises substantial environmental and health benefits, yet adoption in Germany remains limited. This thesis, titled “*Driving Plant-Based Meat Adoption: Motivations, Barriers and Change-Management Strategies for Germany*”, investigates which motivations, perceived barriers, and social-norm cues drive or hinder PBM adoption and how change-management principles can accelerate the adoption. An online questionnaire was completed by 165 German consumers (omnivores, flexitarians, vegetarians, and vegans), and the data was analysed using descriptive statistics, Kruskal–Wallis tests, multiple OLS regressions, and Friedman rank tests. These empirical findings were then integrated with the Theory of Planned Behaviour combined with Lewin’s and Kotter’s change models to better address adoption dynamics.

Overall, the results showed that environmental concerns and the perception that peers are cutting back on meat emerged as the strongest predictors of willingness to consume PBM. Taste and price dominated barrier ratings. Contrary to expectations, flexitarians do not consume PBM most frequently, instead vegetarians and vegans do. Motivations varied among dietary subgroups, with environmental appeals resonating more with frequent meat consumers, while animal welfare motives were stronger drivers for vegetarians and vegans.

Building on these insights, the thesis outlines evidence-based interventions such as eco-impact comparisons, expert endorsements, sampling campaigns, and transparent ingredient communication that frame PBM as a low-effort, high-impact choice. Limitations of the thesis include a youth-focused convenience sample and cross-sectional design. Future longitudinal and field studies on this subject are recommended.

Keywords: plant-based meat, consumer adoption, change management, behavioural economics, Germany, sustainability.

Author: Philipp Alexander Lakenberg

Acknowledgments

*~ I want to thank my parents, Minerva and Ioan,
for always being there and believing in me.
I couldn't have done it without you.*

Danke!

Table of Contents

<i>Abstract</i>	<i>I</i>
Português	I
English	II
<i>Acknowledgments</i>	<i>III</i>
<i>Table of Contents</i>	<i>IV</i>
<i>List of Figures</i>	<i>VI</i>
<i>List of Abbreviations</i>	<i>VII</i>
<i>1 Introduction</i>	<i>1</i>
<i>2 Industry Analysis</i>	<i>3</i>
2.1 Purpose & Scope	3
2.2 Industry Overview	3
2.2.1 Definition & Segmentation of PBM	3
2.2.2 Market size & Growth trends	5
2.3 External Environment Analysis	7
2.3.1 PESTEL Analysis	7
2.3.2 Porter's Five Forces	9
2.4 Competitive Landscape	10
2.4.1 Key Players in Germany	10
2.4.2 Competitive Strategies & Distribution Channels	11
2.5 Consumer Analysis	12
2.5.1 Demographic Segmentation	12
2.5.2 Psychographic Segmentation	13
2.5.3 Decision making factors	16
<i>3 Change Management & Behavioural Economics</i>	<i>18</i>
3.1 Introduction to Change Management and Behavioural Economics	18
3.2 Relevant Change Management Tools	18
3.2.1 Lewin's Change Model	18
3.2.2 Kotter's 8-Step Model	19
3.2.3 Behavioural Economics and Nudge Theory	21
<i>4 Empirical Research & Findings</i>	<i>24</i>
4.1 Research Design & Methodology	24
4.1.1 Research Objective	24
4.1.2 Research Approach	24
4.1.3 Target Group & Sampling	25
4.1.4 Questionnaire Design	25
4.1.5 Pre-Survey Qualitative Interviews and Pre-Testing	25
4.1.6 Data Collection	26
4.1.7 Hypotheses Development	26
4.1.8 Instrument reliability	26
4.2 Key Findings & Analysis	27
4.2.1 Sample Characteristics	27

4.2.2 Descriptive Results	28
4.3 Hypothesis testing	33
4.4 Discussion of Results	37
4.4.1 Interpreting the Hypotheses	37
4.4.2 Positioning the Findings within Behavioural Theory	38
4.4.3 Limitations	38
4.4.4 Future Research	38
4.4.5 Comparison with prior studies	39
5 Application to Marketing & Adoption Strategies	39
6 Conclusion	44
References	46
<i>Appendix A: Pre-Survey Interview Summary – Emilia (April 2025)</i>	<i>54</i>
<i>Appendix B: Pre-Survey Interview Summary - Kai (April 2025)</i>	<i>55</i>
<i>Appendix C: Pre-Survey Interview Summary - Julius (April 2025)</i>	<i>56</i>
<i>Appendix D: Pre-Survey Interview Summary – Fabian (April 2025)</i>	<i>57</i>
<i>Appendix E: Pre-Survey Interview Summary – Cedrik (April 2025)</i>	<i>58</i>
<i>Appendix F: Pre-Survey Interview Summary – Antonia (April 2025)</i>	<i>59</i>
<i>Appendix G: Pre-Survey Interview Summary –Johanna (April 2025)</i>	<i>60</i>
<i>Appendix H: Export of Survey from Qualtrics (German & English)</i>	<i>61</i>
<i>Appendix I: Sample distribution table</i>	<i>74</i>
<i>Appendix J: PBM consumption frequency overall table</i>	<i>74</i>
<i>Appendix K: PBM consumption per dietary group table</i>	<i>74</i>
<i>Appendix L: Motivations for meat reduction table</i>	<i>75</i>
<i>Appendix M: Motivations for PBM consumption table</i>	<i>75</i>
<i>Appendix N: Barriers to PBM consumption table</i>	<i>75</i>
<i>Appendix O: Forced Choice Barriers to PBM consumption table</i>	<i>76</i>

List of Figures

Figure 1: Variety of PBM products (Öko-Test, 2023)	4
Figure 2: Plant-based food sales by category in Germany (Williams, 2024)	5
Figure 3: PBM sales in Germany 2021–2023 (GFI Report, 2024)	5
Figure 4: Official “Vegan” and “Vegetarian” Labels in Germany	9
Figure 5: Brand awareness ranking for PBM brands in Germany (Wunsch, 2024)	11
Figure 6: Brand index score PBM products in Germany in 2023 (Statista, 2025)	11
Figure 7: Lewin’s Force Field with some Drivers and Barriers previously identified	19
Figure 8: Adapted visualisation of Kotter’s 8-Steps, inspired by Broderick (2013)	20
Figure 9: Integrated adoption framework for plant-based meat in Germany	23
Figure 10: Age distribution of participants	27
Figure 11: Gender distribution of participants	27
Figure 12: Education level of participants	28
Figure 13: Dietary habits of participants	28
Figure 14: PBM frequency categories of consumption in the last 6 months	29
Figure 15: Drivers for PBM consumption ranked by importance	31
Figure 16: Barriers to PBM consumption ranked by importance	33

List of Abbreviations

PBM – plant-based meat

TPB – Theory of Planned Behaviour

PESTEL – Political, Economic, Social, Technological, Environmental, Legal

K-W – Kruskal–Wallis test

FR – Friedman rank test

OLS – Ordinary Least Squares regression

GFI – Good Food Institute

DGE – Deutsche Gesellschaft für Ernährung

1 Introduction

Over the last decade, the urgency of climate change has intensified public debate and policy action worldwide. Food systems alone contribute roughly 15 per cent of greenhouse gas emissions, more than half of which stem from the production of meat and dairy products (Ivanovich et al., 2023). With global meat demand projected to surge 90 per cent by 2050, leading climate researchers such as the IPCC call for a decisive shift towards a more sustainable, health-promoting diet to keep warming below 1.5 °C (Calvin et al., 2023).

However, changing deeply rooted eating habits is difficult as studies suggest it takes around eight weeks to establish a durable new routine (Gardner et al., 2012). Aiming to facilitate that transition, plant-based meat (PBM) has emerged as a promising new product innovation. Once confined to a niche, PBM now appears on fast-food menus, supermarket shelves, and home kitchens. They promise both market growth and significant environmental benefits, yet despite early enthusiasm, adoption has slightly plateaued in some regions (Hopwood et al., 2024). Therefore, achieving widespread consumer adoption requires a deeper understanding of who transitions successfully and why.

This thesis addresses these questions by combining consumer segmentation, driver-barrier analysis, and Change Management methodologies. Focusing on the German market, it examines PBM products that mimic meat's sensory profile such as burgers, sausages, and whole-cut analogues. The results of an explanatory survey of 165 German participants, supported by eight preliminary interviews, quantified how environmental, ethical, health, sensory, and economic factors shape willingness to adopt across omnivores, flexitarians, vegetarians, and vegans. The study also considered the influence of dynamic social norms, such as perceived meat-reduction trends and direct product exposure.

Although previous research has explored attitudes toward PBM across different dietary subgroups, the results revealed geographic differences in which factors matter most (Onder et al., 2020; Perez-Cueto et al., 2022; Kerslake et al., 2021). These variations highlight the need for a focused, in-depth analysis within a single national context like Germany. Moreover, many studies offer strategic recommendations, yet these are rarely grounded in structured change-management frameworks, therefore limiting their ability to drive lasting, large-scale shifts in

consumer habits. To address these two gaps, this Thesis anchors its analysis in the Theory of Planned Behaviour, Lewin's three-stage model, and Kotter's eight-step process.

Building on this, the central question guiding this Thesis is: How can strategically designed interventions, informed by empirical findings and change-management theory, increase the sustained adoption of plant-based meat alternatives among German consumers? In response, this study pursues four main objectives: (1) identifying the consumer segments and their current adoption rate of PBM; (2) analysing the key drivers and barriers influencing their decisions; (3) assessing the role of perceived social norms; and (4) developing practical, theory-based intervention strategies.

To investigate these objectives, a structured online survey was conducted between 20 April and 12 May 2025, gathering complete responses from 165 participants. In the analysis, a combination of Kruskal–Wallis tests, OLS regressions, and Friedman rank analyses was used to explore consumption patterns and the perceived relevance of motivational and deterrent factors. The questionnaire was designed to implement the elements of the Theory of Planned Behaviour, with specific sections dedicated to attitudes (motivations), subjective norms (social influence), and perceived behavioural control (barriers). This theoretical grounding provides a perspective through which the findings are interpreted and connected to broader change-management frameworks in the chapters that follow.

This study is significant because it bridges a gap between behavioural science and practical intervention design in the PBM sector. Theoretically, it contributes to a more segmented understanding of adoption motives which are then integrated into structured change-management models, which are rarely applied in this context. From a practical perspective, it translates empirical findings into actionable strategies for marketers and producers aiming to reach consumer segments more effectively, and it highlights which levers are most likely to support long-term dietary change.

2 Industry Analysis

2.1 Purpose & Scope

The industry analysis is part of the theoretical foundation to answer the research questions. By analysing the main actors and segments in the PBM market, we can extract insights to formulate hypotheses to be tested through the research questions. Furthermore, this will enable the identification of different trends that allow the definition of informed predictions for the future of the industry.

To conduct an insightful and differentiated industry analysis, this report will focus on a specific region rather than the global market. With Europe representing a mature market for meat substitutes and Germany emerging as the fastest-growing market in Europe (Mordor Intelligence, 2025), the German market will serve as the primary focus of this study.

Besides plant-based meat, there are other emerging segments within the meat substitute industry, including lab-cultivated meat, protein derived from microorganisms, and insect-based protein. However, as these markets are still in their early stages and face the challenge of gaining consumer acceptance, they will not be the focus of this industry analysis (Petersen & Hirsch, 2023; Da Silva Nunes et al., 2025; Chao et al., 2022).

2.2 Industry Overview

2.2.1 Definition & Segmentation of PBM

PBM can be defined as a product designed to mimic the sensory experience and nutritional profile of conventional meat (Van Vliet et al., 2020). To replicate the different sensory dimensions, including taste, smell, texture, and appearance, producers apply a range of techniques. Specific flavours and spices are used to try to replicate the taste and aroma of meat, while processing methods such as extrusion help replicate its fibrous texture. Colour additives further contribute to the visual similarity between PBM and the animal-based original (Kumari et al., 2023).

While often used as a direct replacement for animal-based meat, PBM represents only one of several strategies consumers use to reduce their meat consumption. Other approaches include omitting meat entirely from dishes without replacement, often described as the “less but better” principle, substituting meat with animal-derived proteins such as eggs or cheese, and choosing minimally processed plant-based options like legumes, mushrooms, or tofu (Su et al., 2021;

OECD-FAO Agricultural Outlook 2022-2031, 2022). In some cases, animal ingredients such as eggs or cheese are blended with PBM to create so-called hybrid products, which combine characteristics of both plant-based and animal-based components (Su et al., 2021).

Just like conventional meat products, plant-based meat comes in a variety of options, differentiated by taste and their intended application (see Figure 1). One way to categorize these products is based on their structure. For example, minced products, such as burger patties and nuggets, are designed to replicate the texture, chewiness, juiciness, and firmness of ground meat. Muscle-type products, including alternatives resembling whole cuts like chicken fillets or steak, aim to mimic the fibrous texture and structure of traditional muscle meat. Emulsion-type products, such as Frankfurter and Mortadella-style sausages, resemble their animal-based counterparts and typically consist of water, proteins, fats, carbohydrates, salt, and spices, resulting in a homogeneous and smooth texture (Kyriakopoulou et al., 2021).



Figure 1: Variety of PBM products including burgers, sausages, and nuggets. Source: Shutterstock, via Öko-Test 2023

2.2.2 Market size & Growth trends

Plant-based alternatives are incorporated into various food products, with the plant-based meat sector holding the largest market share within the overall plant-based industry, followed closely by milk/drinks alternatives such as oat or almond milk (see Figure 2) (Williams, 2024).

Plant-based food sales value by category in Germany, 2021-2023 (€ millions)

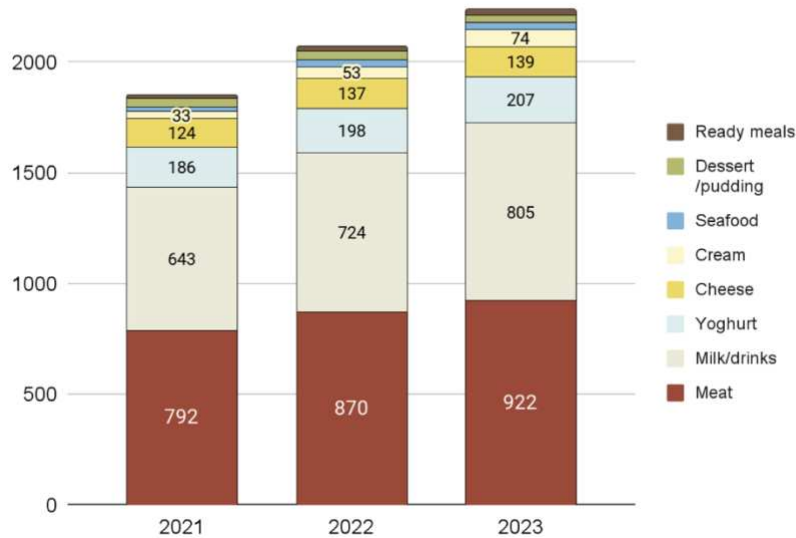


Figure 2: Plant-based food sales by category in Germany (Williams, 2024)

According to Good-Food-Institute report by Williams from 2024, the total market for plant-based meat in Germany reached 922 million USD in 2023, marking a 6% increase from 2022 and a 16.5% rise compared to 2021. Notably, this growth is not a result of rising prices but due to increasing sales volumes, both in units and kilograms, over the past few years (see Figure 3).

Plant-based meat sales in Germany, 2021-2023

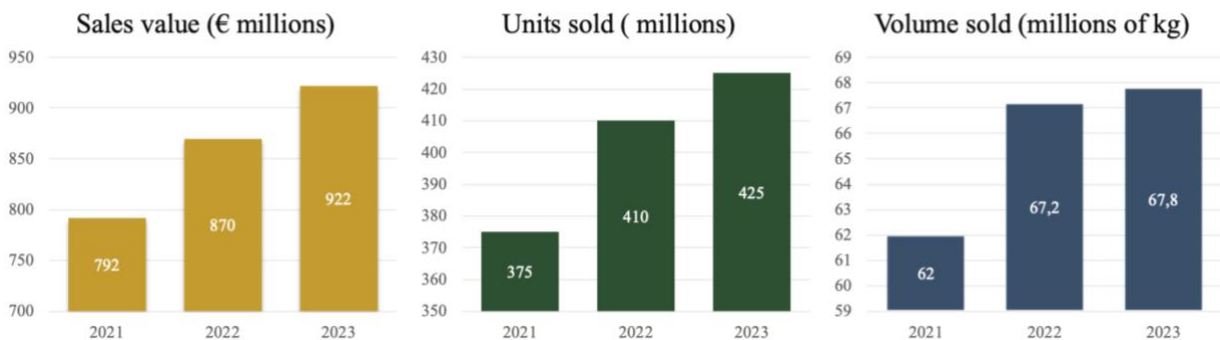


Figure 3: PBM sales in Germany 2021-2023 (GFI Report, 2024)

Similarly, sales of traditional meat substitutes like tofu, seitan, and tempeh grew 6.3% from 2022 to 2023 but, with only 9.1 million kg sold, they remain a fraction of the 67.8 million kg PBM market (Lazzaris, 2024; Williams, 2024).

Consequently, as the market continues to grow and consumers become increasingly familiar with PBM, discounters have joined the trend by expanding their own private-label offerings, raising their share of total sales of PBM to roughly a quarter (Williams, 2024).

In terms of product format, GFI found that the vast majority of PBM is still sold as chilled products, requiring refrigeration. Among these, granules, sausages/salami, and cold cuts remain the most popular choices (Williams, 2024).

Considering the entire market for meat, fish, and seafood, plant-based alternatives currently account for 2.27% of total pre-packaged sales volume, a share that has been steadily increasing in recent years. Compared to animal-based products, PBM is on average significantly more expensive per kilogram. However, this price difference has been decreasing from 65% in 2021 to 35% in 2023. Still, both plant-based and animal-based products have experienced gradual price increases over this period (Williams, 2024).

Nevertheless, data shows that between 2021 and 2023, the share of German households purchasing PBM at least once per year rose steadily from 33.8% in 2021 to more than 37% in 2023 (Williams, 2024).

While Williams primarily focused on data collected from 30,000 households between 2021 and 2023, they have also extended their research into 2024. Partial-year data from January 1 to April 28 indicates that the weekly average value of plant-based meat sales increased by 9.4% compared to the full year of 2023, while unit sales rose by 15.4% and total sales volume by 16.3%. This pattern also reflects the broader trends mentioned before, suggesting a continued positive trajectory for the market in 2024 and 2025.

In addition, other market projections expect Germany's plant-based meat sector to grow by over 18% by 2026, with a historical growth of 429% since 2015 (Bonafide Research, 2024). Research from Grand View Research shows that Germany's meat substitutes market generated USD 1,375.6 million in revenue in 2023 and is projected to reach USD 30,038 million by 2030, reflecting a remarkable compound annual growth rate (CAGR) of 55.3% from 2024 to 2030 (Grand View Research, 2024). Based on these predictions, Germany is expected to further establish its position as a key actor in the global plant-based meat industry, driven by ongoing advancements in production and quality, as well as broader consumer adoption of plant-based products.

2.3 External Environment Analysis

2.3.1 PESTEL Analysis

The PESTEL analysis is arguably one of the most well-known strategic tools of our time. It enables the assessment of a company's or product's external environment (macro environment) by analysing specific market conditions, potential developments, and their impacts (Kaufmann, 2025). "PESTEL" is an acronym for Political, Economic, Social, Technological, Environmental, and Legal factors. Analysing each of these aspects enables the assessment of the industry landscape, which further helps to answer the research questions.

Political Factors

Although Germany is a European leader in plant-based meat adoption, its government has avoided strict regulation aimed at meat consumption, instead issuing annual dietary guidelines and a 2023 white paper to encourage plant-based diets (Bundesministerium für Ernährung und Wirtschaft, 2023; Schleicher & Töller, 2024). The SPD–Green–FDP coalition agreement of the former government likewise emphasises soft measures such as promoting plant-based alternatives, updating DGE standards, and applying them in public canteens (Bundesministerium für Ernährung und Wirtschaft, 2023).

Economic Factors

Germany's plant-based meat market has been growing (see "Market Size & Growth Trends"), driven by consumer demand, expanded supply, and the price premium over conventional meat decreasing from 65 per cent in 2021 to 35 per cent in 2023. This prompted retailers, including discounters, to launch private-label products and boost visibility (Williams, 2024). Traditional substitutes such as tofu, seitan, and tempeh also grew but remain smaller, while a forecast 55.3 per cent CAGR from 2024 to 2030 underscores Germany's global leadership (Williams, 2024).

Social Factors

High meat consumption is increasingly criticized on ethical, environmental, and health grounds. Given that Germany housed over 21.3 million pigs and 10.5 million cows under varied conditions in 2023 (Profeta et al., 2021; Browning & Veit, 2020; Statistisches Bundesamt, 2024) animal welfare conditions are often a strong purchase driver (Perino & Schwickert, 2023) next to environmental concerns and social influences from family and friends (Seffen & Dohle, 2023).

Technological Factors

PBM has rapidly advanced in production technologies aimed at perfecting taste, texture, and appearance, yet processing limitations still prevent the full replication of meat (Schwarz et al., 2024; Van Vliet et al., 2020). Besides imitating meat, firms are innovating with novel ingredients, flavour profiles, and branding (Schwarz et al., 2024) while also exploring emerging technologies such as 3D printing and circular-economy strategies to overcome the hurdles in sustainable sourcing, recycling, cost reduction, and market expansion (Schwarz et al., 2024).

Environmental Factors

Most PBM use protein sources such as soy, pea, or wheat with added fats, binders, flavour enhancers, and colourants, leading to most emissions caused by PBM occurring during the agricultural stage (Ishaq et al., 2022). Yet, life-cycle analyses show PBM emits fewer greenhouse gases and uses less water and land than conventional meat. However, large-scale monocultures can cause soil degradation and deforestation, while well-managed grazing can sometimes even offset emissions (Sadig & Wu, 2024; Bryant, 2022). Despite energy-intensive steps like fermentation and extrusion (Kumari et al., 2023), PBM's overall footprint remains lower, and some European producers are adopting circular economy practices, such as using industrial byproducts in protein processing (Velenturf & Purnell, 2021; Bühler Group, 2022), while also moving from plastic towards renewable packaging materials like sugarcane or bamboo (Rosalinova, 2020).

Legal Factors

EU and German laws directly govern PBM labelling. For example, EU law bans dairy terms such as “milk” and “yoghurt” for plant-based products (GFI Europe, 2024), yet the European Court of Justice allowed the use of “burger” and “sausage” when not misleading (Schneider, 2024). Also, Germany's 2020 “Lebensmittelinformations-Durchführungsverordnung” requests Nutri-Score ratings from A to E for clear nutrition labelling (Eurofins, 2024). Recent federal guidelines also define vegan product criteria and standardized labels (see Figure 4) for more accessible information (V-Label, 2023)



Figure 4: Official “Vegan” and “Vegetarian” Labels in Germany

2.3.2 Porter’s Five Forces

Porter’s Five Forces build on PESTEL’s macro view to analyse competitive dynamics, therefore combining external context with industry rivalry.

Competitive Rivalry

Germany is Europe’s largest PBM market, attracting brands such as Beyond Meat, Garden Gourmet, Alnatura, Unilever, and Rügenwalder Mühle with broad product portfolios (Schwarz et al., 2024). Startups like Beyond Meat (founded in 2009) disrupted restaurants with plant-based burgers (Beyond Meat, n.d.), while traditional meat producer Rügenwalder Mühle (est. 1834) sold 2022 more PBM than animal meat in retail stores (Diemand, 2022). Continuous global entries keep rivalry intense, and market share hard to secure (Schwarz et al., 2024).

The threat of new entrants

Discounters and retailers launching private-label PBM with competitive pricing and in-store promotions are a growing threat to established brands (Williams, 2024). Regulatory and technical barriers remain low, enabling foreign entrants to gain market share despite German preferences for domestic products (U.S. Department of Agriculture, 2023). With 45 per cent of young consumers seeking more PBM options, unmet demand continues to invite new competition and innovation (Ahrens, 2024).

Bargaining Power of Suppliers

The wide range of global suppliers for protein sources, binders, and additives keeps individual supplier influence low. However, Germany imports 97 per cent of its soy from markets like the United States, creating a risk of trade disruptions, currency fluctuations, and geopolitical risks

(AgFlow, 2022). This reliance on imports creates potential vulnerabilities, such as supply chain disruptions. Nevertheless, the overall availability of suppliers helps mitigate the risk of supplier dominance in the market.

Bargaining Power of Buyers

German consumers cite they purchase their PBM from supermarkets (70%) and discounters (52%), giving them leverage over both branded and private-label producers (ProVeg International, 2021). Retailers respond by offering competitive pricing and broader product ranges, while brands must continuously innovate on taste, texture, and health claims to maintain shelf space and customer loyalty.

Threat of Substitutes

Besides animal-based meat, PBM competes with other alternative products such as cultivated meat, insect protein, and fermented mycoprotein (Petersen & Hirsch, 2023). Cultivated meat faces high production costs and limited consumer familiarity (Da Silva Nunes et al., 2025), insect protein still encounters cultural resistance in Europe (Chao et al., 2022), and fermentation-derived products are slowly emerging. Ultimately, the substitute that achieves price parity through scale and efficiency improvements will gain a strong market foothold (Petersen et al., 2023).

Taken together, the PESTEL analysis and Porter's Five Forces reveal a dynamic German PBM landscape in which supportive political signals, accelerating consumer adoption, and technological progress intersect with intensifying rivalry and still-evolving regulatory contours. These insights indicate both the urgency and the opportunity for firms to craft resilient, differentiation-driven strategies while accounting for heightened competitive and supply-chain pressures.

2.4 Competitive Landscape

2.4.1 Key Players in Germany

In 2023, Splendid Research conducted a market analysis to identify the companies with the highest brand awareness in Germany within the PBM sector (see Figure 5). The results highlight a mix of domestic brands, such as Rügenwalder Mühle and Alnatura, alongside internationally recognised pioneers like Beyond Meat and The Vegetarian Butcher.

Leading PBM brands ranked by brand awareness in Germany in 2024

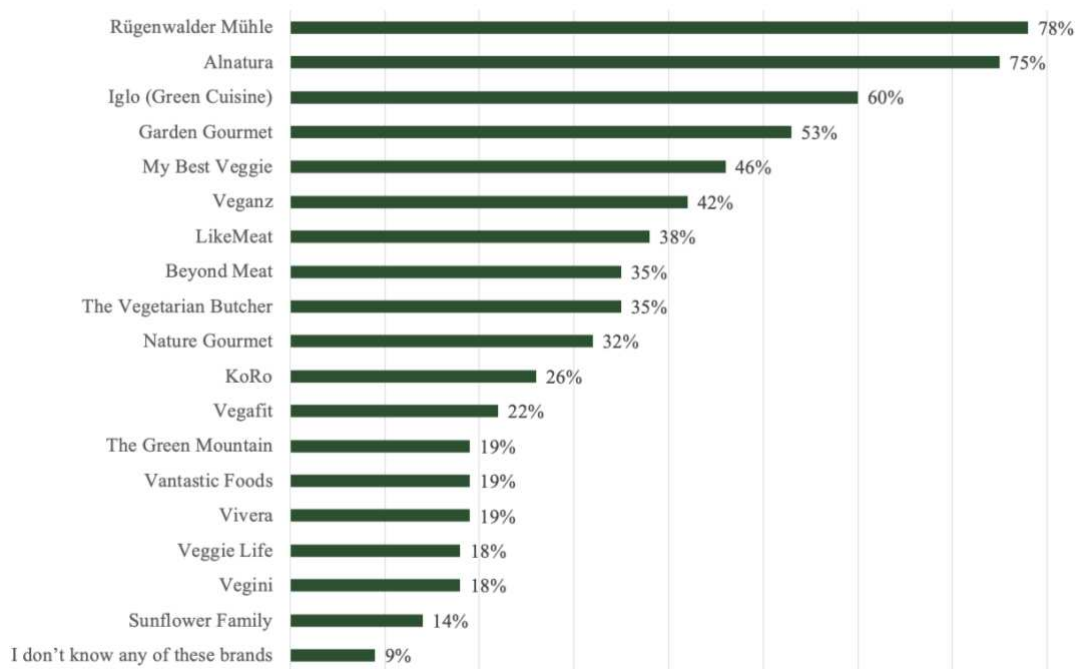


Figure 5: Brand awareness ranking for PBM brands in Germany (Wunsch, 2024)

However, to better assess the influence of key players, it is useful to analyse the Brand Index Score, which extends beyond brand awareness to include factors such as brand image, perceived value for money, and both initial and repeat purchase probabilities. This comprehensive evaluation provides a clearer picture of the ten most impactful brands in the German PBM market (see Figure 6) (Statista Research Department, 2025).

Brand Index Score for PBM products in Germany 2023

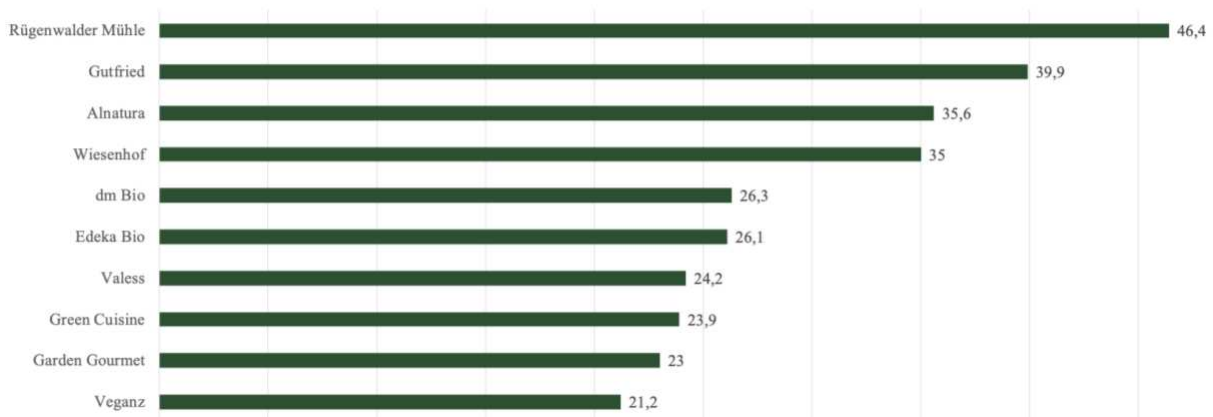


Figure 6: Brand index score PBM products in Germany in 2023 (Statista Research Department, 2025)

2.4.2 Competitive Strategies & Distribution Channels

Historically, the first companies launching plant-based meat products relied on strategic partnerships to introduce their offerings to consumers who were largely unfamiliar with them.

Impossible Foods, for example, gained significant brand recognition through collaborations with celebrity chefs and, most notably, its partnership with Burger King (Choudhury et al., 2020). Other companies, such as Beyond Meat, used a similar approach by partnering with well-known burger restaurants and fast-food chains, further increasing brand awareness (Beyond Meat, 2024).

As consumer awareness of plant-based meat was growing, companies started shifting their focus toward expanding direct B2C distribution channels. This transition allowed them to reach a broader customer group through grocery stores, online retail platforms, and speciality food and beverage retailers (Choudhury et al., 2020).

2.5 Consumer Analysis

2.5.1 Demographic Segmentation

After analysing the rapid expansion of the PBM market in Europe, particularly in Germany, it is important to identify the consumer segments that drive this growth. Demographic segmentation serves as a fundamental approach to market segmentation that categorises consumers based on quantifiable population characteristics (Jobber, 2004). For this consumer analysis, four criteria outlined by Jobber in *Principles and Practices of Marketing* will be applied, as they are commonly used in research on plant-based product consumption: age, gender, income, and education.

Age has been identified as a particularly significant segmentation criterion, with multiple studies indicating that younger consumer groups are more likely to actively reduce their meat consumption and exhibit greater receptiveness toward PBM products (Jahn et al., 2021; Hansen et al., 2023).

Additionally, research highlights differences between genders. While men tend to have more favourable attitudes toward red meat (Randers & Thøgersen, 2022), women are generally more open to adopting a vegetarian diet and reducing their overall meat consumption (Rosenfeld & Tomiyama, 2021). This male preference for meat can be attributed to traditional gender roles rather than biological factors, as these preferences are especially strong in male groups with higher conformity to gender norms (Rosenfeld & Tomiyama, 2021).

Interestingly, the gender gap in meat consumption is even stronger in countries with high levels of gender equality and human development, such as Germany. This phenomenon, known as the

“paradoxical gender effect,” suggests that greater social freedom allows individuals to more openly express internalized and culturally reinforced preferences. For example, men continue to associate meat with masculinity, strength, and status (Hopwood et al., 2024). At the same time, this increased freedom may also enable women to act more consistently with behaviour related to health, sustainability, or compassion, which contributes to their willingness to reduce meat consumption (Rothgerber, 2012). It is important to acknowledge, however, that the future development of this gender gap remains uncertain. As gender roles continue to evolve, greater freedom does not necessarily lead to convergence in behaviour; instead, it may amplify existing differences (Breda et al., 2020; Connolly et al., 2019).

Lastly, some studies suggest that education alone is not a strong predictor of meat consumption when controlling for attitudes, norms, and personal identity (Halkier & Lund, 2023). However, higher education levels often correlate with greater health-conscious behaviours (Bratti et al., 2022) and increased environmental awareness (Mahanta & Sarka, 2023), making it a variable to consider.

Regarding religious background, studies show that Western religious identities do not have a significant influence on meat consumption behaviour (Randers & Thøgersen, 2022). As a result, this factor will not be considered further in this research.

Overall, these findings show that while no single demographic factor fully determines PBM adoption, a combination of age, gender, and education can provide valuable insights into consumer behaviour and market segmentation.

2.5.2 Psychographic Segmentation

Dietary Behaviour

In addition to demographic segmentation, psychographic segmentation provides a way to categorize consumer segments based on their lifestyle, values, and dietary behaviours. An important aspect of this approach is understanding eating habits. Contrary to the expectation that market growth has been driven solely by consumers who have completely given up meat (Vegans or Vegetarians) one study found that a significantly larger economic group are “Flexitarians” (Ravishankar et al., 2024). To better understand these consumer segments the next sections will outline the key dietary groups: vegans, vegetarians, flexitarians, and omnivores.

Veganism is a fully plant-based diet, excluding all products involving animals, including meat, dairy, eggs, and even honey. However, veganism typically extends beyond dietary behaviour. It is a broader lifestyle that seeks to eliminate animal exploitation in clothing, cosmetics, and household products (North et al., 2021).

Vegetarianism, on the other hand, excludes meat, fish, and seafood, while allowing for varying degrees of animal-derived products such as dairy and eggs. Different variations exist within vegetarianism (Mariotti, 2017). While both dietary patterns share similarities, vegetarians distinguish themselves by allowing some animal products into their diets, and the term primarily refers to dietary behaviour rather than a broader lifestyle philosophy (North et al., 2021).

Flexitarians, in contrast, maintain a more adaptable approach to eating, not strictly following a plant-based diet but consciously reducing their meat consumption, often motivated by environmental concerns and health considerations (Dagevos, 2021). The lack of a clear and universally agreed-upon definition of flexitarianism, unlike vegetarianism or veganism, results in considerable variation in consumer behaviour. Some view flexitarianism as a long-term dietary choice, while for others, it serves as a transitional phase toward vegetarianism or veganism (Simoun et al., 2025; Milfont et al., 2021).

Lastly, omnivores are consumers who do not restrict any category of animal products in their diets, including meat, dairy, and eggs (Dhont & Ioannidou, 2024). The key distinction between omnivores and flexitarians lies in the intention. While flexitarians deliberately reduce their meat consumption, omnivores generally do not pursue this goal. Both groups, however, often rationalize their consumption of meat through the 4Ns Framework, which justifies eating meat as necessary (essential for health), nice (enjoyable and thus acceptable), natural (aligned with human evolution), and/or normal (a widespread cultural practice) (Piazza et al., 2015).

Motivations, drivers, and the Theory of Planned Behaviour

Understanding the motives behind meat consumption is only part of the equation. To explain why consumers actively reduce their meat intake and transition to PBM, it is useful to examine behavioural frameworks that address dietary changes. Since PBM primarily serve as substitutes for conventional meat, understanding the drivers behind meat reduction is essential for analysing their adoption (Hoogstraaten et al., 2023). This allows for the application of insights from studies that explore why individuals choose to decrease their meat consumption.

One popular model in consumer behaviour research is the Theory of Planned Behaviour (TPB), introduced by Icek Ajzen in 1991. The TPB expands the Theory of Reasoned Action (TRA) and suggests that intention and actual behaviour are shaped by three key factors: attitude, subjective norms, and perceived behavioural control (De Gavelle et al., 2019; Ajzen, 1991). This makes the model relevant for understanding dietary behaviour and the shift towards PBM, making it a suitable framework for the research conducted later in this thesis (De Gavelle et al., 2019).

Three key attitudes toward reduced meat consumption have been identified in previous research by de Gavelle. The first is the perception that PBM has a lower environmental impact, while the second is the fact that they do not contribute to animal suffering, and the third is desired health benefits, either by reducing excessive meat consumption or by the benefits of PBM itself. (De Gavelle et al., 2019). All three attitudes have been shown to significantly influence purchasing decisions, similar to the impact seen in the organic food sector (Arvola et al., 2007).

Additionally, social norms are important in shaping consumer behaviour, especially subjective norms. These consist of injunctive norms, which influence what individuals believe they should do based on the expectations of others, and descriptive norms, which are influenced by observed behaviours in others (Strässner & Hartmann, 2023).

Perceived behavioural control regarding reduced meat consumption refers to an individual's sense of control over their ability to adopt such a diet. This includes both confidence in one's ability to follow through with the behaviour, and the perceived influence of external factors that may either facilitate or hinder the transition (Strässner & Hartmann, 2023).

Nevertheless, it is important to highlight that recent studies have produced conflicting results regarding key motivations for reducing meat consumption. Some emphasise environmental and animal welfare concerns, while others find these factors to have little direct impact, highlighting the need for deeper, context-specific research within Germany (ProVeg International, 2023; Marcus et al., 2022).

Internal Barriers to Adoption

In contrast to the motives and drivers that encourage the adoption of PBM, there are internal influences that hinder their integration into consumers' diets. Among both omnivores and flexitarians, many rationalize their meat consumption using the previously mentioned 4Ns

Framework (Piazza et al., 2015). Beyond these rationalizations, existing research has identified several barriers to reducing meat consumption. These include dietary habits, a lack of skills in preparing meatless meals, and a strong attachment to meat as a central component of traditional diets (de Gavelle, 2019). Openness to new experiences has also been identified as a crucial factor influencing the likelihood of reducing meat consumption (Milfont et al., 2021). These factors collectively contribute to resistance toward reducing meat consumption, even among consumers who express an interest in reducing their meat intake (Randers & Thøgersen, 2022).

2.5.3 Decision making factors

Besides internal factors influencing the adoption of PBM, consumers also face external factors that can either facilitate or hinder their transition. One key factor identified in the literature is product availability, for example, whether PBM is easily accessible in grocery stores and other retail channels nearby (Mustapa et al., 2024). Another crucial aspect, as in most purchasing decisions, is the alignment between the perceived value of the product and its price (Schwarz et al., 2024). As discussed in the Market Size & Growth section, PBM is still priced at a premium, partly due to their early market stage (Saini et al., 2024). However, studies suggest that consumers are willing to pay these higher prices if the perceived value and product proposition justify the cost (Saini et al., 2024).

Another determining factor is consumers often experiencing uncertainty regarding the expected taste of PBM, and reducing this uncertainty can significantly impact their willingness to buy (Mustapa et al., 2024). Additionally, some studies highlight that new food products often face scepticism related to food safety and ingredient transparency, as consumers lack trust in companies and the product ingredients (Weerawarna et al., 2024).

The motives, drivers, and barriers examined in the previous sections will serve as the foundation for the research conducted in this study. Their applicability to PBM in Germany will be tested to assess their relevance in this specific market context. However, understanding why consumers do or do not adopt plant-based meat alternatives also requires a closer look at how behavioural change occurs in practice. Since consumers do not always act in line with rational cost-benefit evaluations, their decisions are often shaped by social influences, contextual cues, and cognitive biases (Thaler & Sunstein, 2008; Reed et al., 2013). To address this complexity, the following chapter introduces key concepts from both Change Management and Behavioural

Economics, particularly Nudge Theory, to explore how structured interventions can reduce resistance, enhance motivation, and support the long-term adoption of PBM.

3 Change Management & Behavioural Economics

3.1 Introduction to Change Management and Behavioural Economics

The adoption of plant-based meat is not only a market trend but represents a fundamental behavioural shift, requiring consumers to change deeply ingrained dietary habits (Szenderák et al., 2022). However, change is rarely straightforward, and without a structured approach, efforts to drive substantial behavioural transformation often fail. Change Management provides a systematic framework for guiding individuals, teams, or organizations from their current state to a desired future state, ensuring that change is implemented effectively and sustained over time (Kotter, 2012).

Understanding how to leverage established Change Management models can help companies develop interventions that reduce resistance to PBM, enhance consumer motivation, and promote long-term adoption. This chapter examines three key Change Management approaches and their relevance to PBM: Lewin's Change Model, Kotter's 8-Step Model, and Behavioural Economics (Nudge Theory).

3.2 Relevant Change Management Tools

3.2.1 Lewin's Change Model

Kurt Lewin is widely recognised in the literature as the “father of social change theories” due to his fundamental contributions, which continue to influence change models today (Huang & Mas-Tur, 2016; Burnes, 2019). His 1947 paper *Frontiers in Group Dynamics* introduced a three-stage model of change, which has remained highly relevant for organizations ever since (Wright, 2015).

The first stage, unfreezing, focuses on creating awareness of the need for change by challenging existing beliefs, behaviours, and habits (Galli, 2018; Lewin, 1947). Engaging and educating stakeholders at this stage can significantly reduce resistance (Galli, 2018).

The second stage, change or transition, involves introducing new behaviours, ideas, and norms. This phase is often met with the most resistance as individuals struggle with the unfamiliarity and disruption (Lewin, 1947; Galli, 2018).

The third stage, refreezing, focuses on stabilizing the newly adopted behaviours to prevent relapses back into old habits. Lewin emphasized that this is not passive, but an active process

that requires ongoing reinforcement to maintain the new balance of forces (Lewin, 1947; Galli, 2018; Levasseur, 2001).

Therefore, Lewin's framework suggests that behaviour is shaped by the balance of two opposing forces: driving forces, which push for change, and resisting forces, which work against it. Accordingly, change occurs only when driving forces are stronger than resisting forces, but if the two are equal or the resisting forces are stronger, no transformation takes place (Lewin, 1947). This framework is called Lewin's Force Field (see Figure 7). In this study, the driving forces will be referred to as drivers or motivations, while the resisting forces will be referred to as barriers for consistency and clarity.

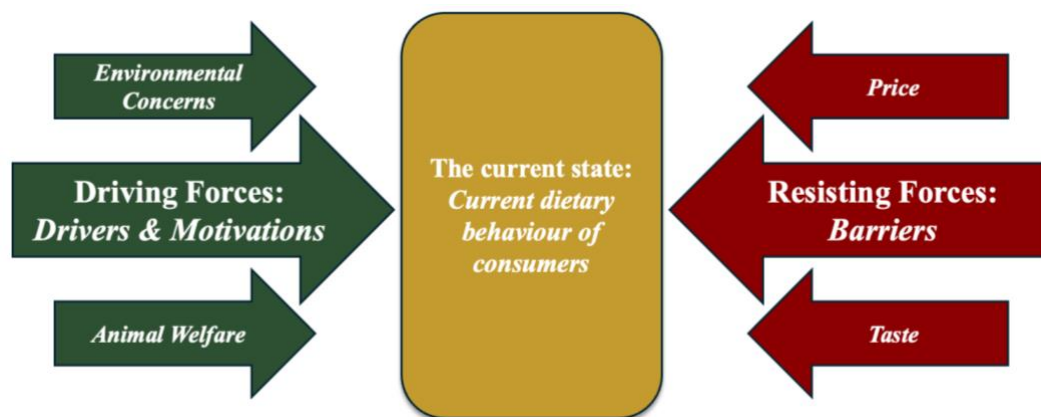


Figure 7: Lewin's Force Field with some Drivers and Barriers previously identified

While Lewin's Force Field provides a foundational understanding of behavioural change and the individual transition from old to new habits, it has certain limitations. Its linear and simplistic structure makes it useful for understanding broad transitions, but its lack of detail in the execution of change limits its effectiveness in driving large-scale transformational change in modern and dynamic environments (Burnes, 2004).

3.2.2 Kotter's 8-Step Model

Kotter's 8-Step Model builds on Lewin's unfreeze-change-refreeze framework by describing eight practical steps grouped into three phases (see Figure 8): first creating the climate for change; next engaging and enabling; and finally implementing and sustaining the change. This offers a more practical and detailed roadmap for strategic change (Kotter, 2014; Galli, 2018; Calegari et al., 2015; R. Wright et al., 1993; Kotter, 2012).

Kotter's 8-Step Change Model

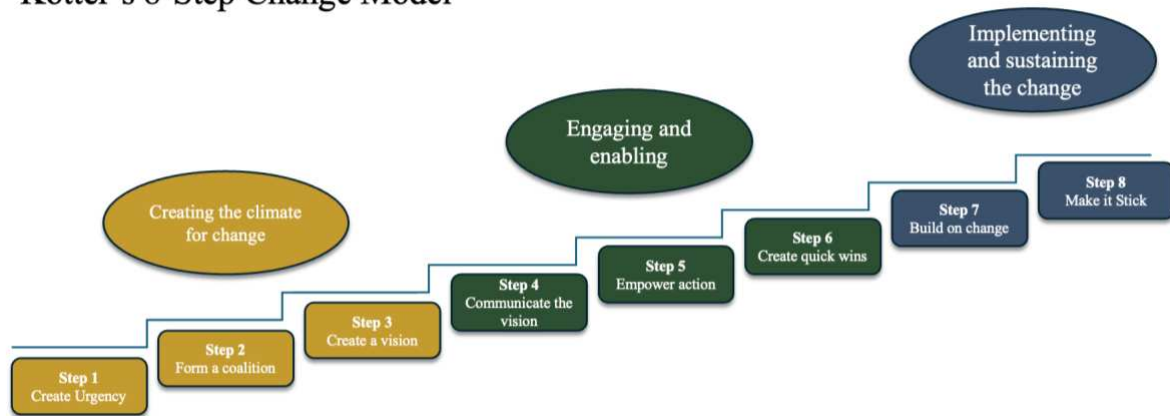


Figure 8: Adapted visualisation of Kotter's 8-Step Change Model, inspired by Broderick, 2013.

1. The first step is to establish a sense of urgency because a strong and emotionally compelling reason for change serves as the foundation for all further efforts (Kotter, 2014). Without urgency, transformation efforts lose momentum before progress can be made.
2. Next, a guiding coalition must be built. This coalition can consist of volunteers and appointed individuals, but they must not only possess the necessary skills but also be highly motivated to drive the change (Kotter, 2014).
3. The third step involves developing a clear vision and strategy that is both intellectual and emotional. This vision is a guiding force throughout the change process, ensuring alignment and direction (Calegari et al., 2015).
4. Then, to effectively communicate the vision, messaging must be memorable, trustworthy, and easy to understand for everyone. If not, it can lead to scepticism and cynicism, which undermines the change effort (Kotter, 2014; Calegari et al., 2015).
5. Once individuals have accepted the mission, it is important to ensure that they can act on it by identifying and removing potential barriers. Establishing reward and recognition systems that celebrate progress toward change, reinforces commitment and motivation (Kotter, 2014; Calegari et al., 2015).
6. To validate that decisions and actions are actually beneficial, the sixth step focuses on achieving and celebrating visible, significant short-term wins (Kotter, 2012). This can be achieved by identifying “low-hanging fruit” and focusing resources on quick, tangible successes that build momentum (Calegari et al., 2015).

7. One of the common reasons change efforts fail is that participants revert to old behaviours once the initial push fades (Wright et al., 1993). To prevent this, it is important to maintain progress and avoid complacency (Galli, 2018).
8. No change initiative is complete until it has been fully integrated into daily operations (Kotter, 2014). This requires the allocation of resources to reinforce and solidify the implemented changes, ensuring they become the new standard (Calegari et al., 2015; Kotter, 2012).

Notably, Kotter's model shares many similarities with Lewin's framework, particularly in its later stages, but provides a more detailed and structured approach to sustaining long-term transformation.

3.2.3 Behavioural Economics and Nudge Theory

A combination of Lewin's and Kotter's Change Models provides a structured and strategic approach to achieving a widespread cultural shift. However, when examining individual behaviour, particularly at the consumer level, decision-making is not always entirely rational (Reed et al., 2013). This can be explained by the fact that people do not make choices in isolation but are heavily influenced by external environmental factors which will be explored in this chapter (Reed et al., 2013). Behavioural economics offers a framework for understanding these factors and how they can be leveraged to promote more favourable choices (Reed et al., 2013).

One effective way to shape consumer behaviour is through nudges. Nudge can be defined as "any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives" (Thaler & Sunstein, 2008, p. 6). Nudges or interventions can be categorized into antecedent and consequence strategies (Geller et al., 1990).

Antecedent interventions influence decision-making before a behaviour occurs by modifying external factors. For instance, providing information may lead to a change in behaviour because individuals acquire new knowledge that influences their choices. In contrast, consequence strategies take effect after a behaviour has occurred by introducing positive or negative reinforcements based on the outcome of that behaviour (Abrahamse et al., 2005).

A well-documented example of an antecedent nudge is the use of default settings, also known as opt-out mechanisms, which have proven highly effective in shaping consumer decisions (Van Gestel et al., 2020). These default settings have been applied in various contexts, ranging from simple choices like selecting a preferred colour to more impactful decisions, such as whether one wants to be considered for organ donation. However, their effectiveness varies highly depending on the context (Dallacker et al., 2024).

Another significant antecedent nudge is the influence of perceived social norms. People tend to adopt behaviours they observe in their social environment and assume they are socially desirable, particularly when it comes to food choices (De Vries Mecheva et al., 2021; Dannenberg et al., 2024). Additionally, dynamic social norms, which convey information about expected future social norms within society, have been shown to significantly influence food choices, particularly among adults (Zumthurm & Stämpfli, 2024; Caso et al., 2024).

On the other hand, consequential nudges include rewards and feedback, both of which function as reinforcement mechanisms but yield different effects (Abrahamse et al., 2005). While rewards provide immediate gratification and can encourage short-term behavioural changes, feedback has been shown to have a more lasting impact. This is because feedback not only reinforces positive actions but also enhances awareness and understanding of behaviour, leading to more sustainable changes over time (Buchanan et al., 2014; Abrahamse et al., 2005).

Figure 9 presents an integrated adoption framework that combines these two change management models with the Theory of Planned Behaviour (TPB): TPB's attitude, norm, and control construct is in between Lewin's force field, while Kotter's eight steps above form the strategic levers. The following hypotheses of this study are based on this model.

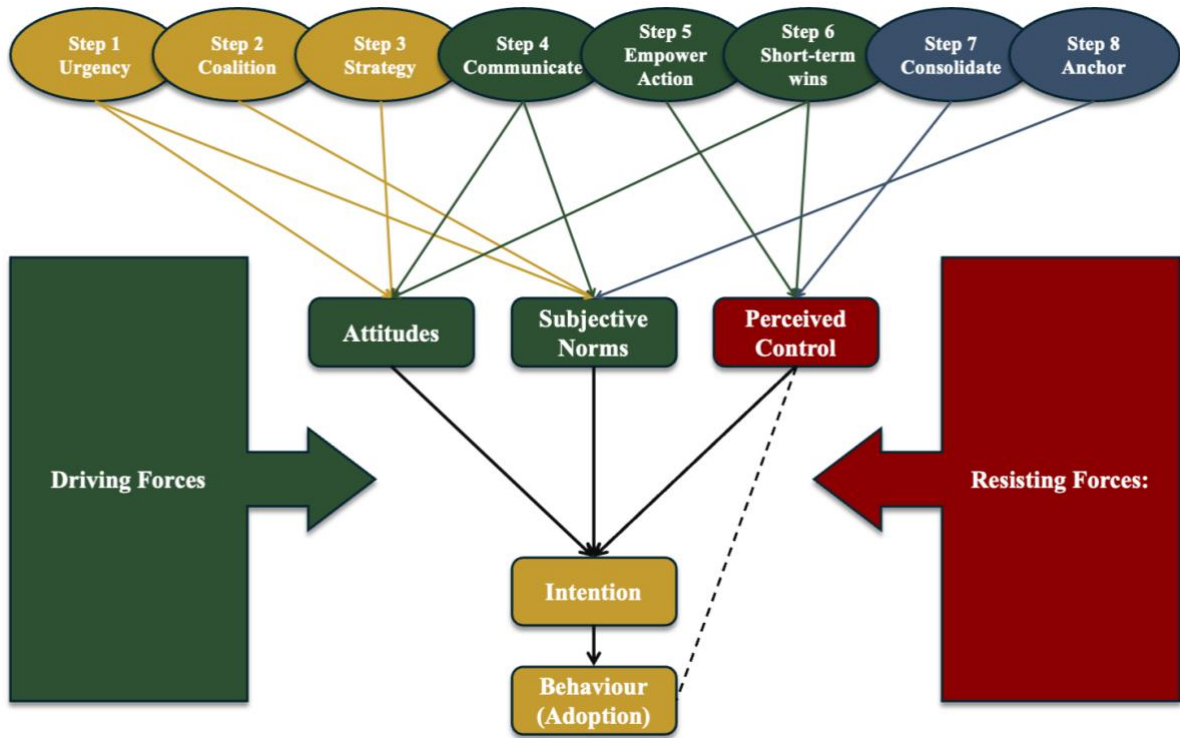


Figure 9: Integrated adoption framework for plant-based meat in Germany.
 Top: Kotter's 8 steps; Middle: TPB; Sides: Lewin's Force Field

4 Empirical Research & Findings

4.1 Research Design & Methodology

4.1.1 Research Objective

As stated in the problem statement, the aim of this research is to develop strategic marketing and change management approaches that can support the adoption of PBM by identifying the most significant factors influencing consumers' decision-making. To achieve this, the study seeks to determine the key psychographic characteristics (drivers and barriers) of consumers concerning their openness and willingness to change their dietary behaviour.

By assessing how consumers perceive the transition in terms of difficulty, motivation, and willingness to change, this study will generate empirical insights, which will then serve as the foundation for developing tailored marketing strategies that align with established change management frameworks in the subsequent phase of the research.

4.1.2 Research Approach

Based on the recommendations of Saunders et al. in *Research Methods for Business Students*, this study adopts an explanatory quantitative research approach in the form of a questionnaire, intending to identify patterns in consumer perceptions, motivations, and barriers related to PBM.

Since drivers and barriers vary significantly among individuals in the context of PBM adoption, an explanatory (descriptive–correlational) design is appropriate, as it allows testing how these factors interrelate and predict adoption intentions across diverse consumer segments.

At the same time, this study is quantitative, as it relies on the collection and analysis of numerical data obtained through closed-ended questions. Quantitative methods enable the measurement of consumer attitudes and behaviours, making it possible to segment respondents and link them to potential intervention strategies informed by change management theory (Saunders et al., 2023).

Data is collected using a self-administered online questionnaire, which offers an efficient way of reaching a large sample size. This method facilitates large-scale data analysis and supports consistency in responses. To ensure comparability across participants, the questionnaire will

focus on closed questions with standardized response options that are clearly worded and uniformly understood (Saunders et al., 2023).

4.1.3 Target Group & Sampling

Following Saunders' guidance on "selecting a non-probability sampling technique," this study applies a non-probability convenience sampling method for multiple reasons, including feasibility and the ability to target relevant consumer groups (Hooley et al., 2004). Given the explanatory nature of the research and limited resources, this approach was considered appropriate (Golzar et al., 2022).

The survey was distributed via personal and professional networks as well as social media platforms, specifically targeting individuals residing in Germany. Although this method does not deliver a statistically representative sample, it enables access to a relevant audience, primarily younger consumer segments who are generally more exposed to PBM (White et al., 2022; Hoek et al., 2011).

As the primary aim of this thesis is to identify consumer segments and explore the underlying drivers and barriers to PBM adoption, rather than to make generalizations about the broader national population, convenience sampling is considered methodologically acceptable for this context (Etikan, 2016).

4.1.4 Questionnaire Design

The questionnaire was structured into thematic blocks and included a mix of multiple-choice, Likert scale, and forced-choice questions (see Appendix H). The survey was conducted anonymously, with no personal data collected, and participation was entirely voluntary. Respondents were informed at the beginning about the purpose of the study and gave implied consent by submitting their responses.

4.1.5 Pre-Survey Qualitative Interviews and Pre-Testing

To test the structure and relevance of the questionnaire, 7 short, informal qualitative interviews were conducted with potential consumers. The purpose was to validate initial assumptions, confirm the relevance of the questions, and identify any missing answer options, as described by Saunders et al. (2023). Interviewees were selected from the personal environment and included participants with diverse dietary habits and regional backgrounds. Insights from these

interviews informed both the content and structure of the final questionnaire and helped to confirm the relevance of the proposed hypotheses. A brief summary of each interview is included in the appendix.

In addition, recognizing the importance of pre-testing, the final questionnaire draft was tested in advance with a group of 8 participants to ensure clarity and functionality (Saunders et al., 2023).

4.1.6 Data Collection

Between 20.04.2025 and 12.05.2025 the questionnaire was distributed via personal and professional networks, as well as social media platforms including WhatsApp, Instagram, and LinkedIn. In total 165 complete responses were received and then included in the final analysis. The data was collected via the Qualtrics XM platform, and the dataset was exported and prepared for statistical testing using Microsoft Excel.

4.1.7 Hypotheses Development

Based on the theoretical framework, prior PBM and meat-consumption research, and qualitative pre-survey interviews, four hypotheses were developed to guide the empirical analysis. These hypotheses reflect key factors discussed in the literature as influencing consumer behaviour and adoption.

Hypotheses
H1: <i>Flexitarians consume plant-based meat more frequently than vegetarians, vegans, or omnivores.</i>
H2: <i>Environmental concerns are a stronger predictor of plant-based meat consumption than health or animal welfare concerns.</i>
H3: <i>Perceived social norms (e.g. friends or family reducing meat consumption) are positively associated with willingness to consume plant-based meat.</i>
H4: <i>Taste is the most frequently cited barrier among consumers who have tried plant-based meat but do not consume it regularly.</i>

4.1.8 Instrument reliability

Following the recommendation by Saunders et al. (2023), the internal consistency of the survey scales was assessed using Cronbach’s alpha (α). Two scales reached the commonly accepted

threshold of $\alpha \geq 0.70$, indicating acceptable reliability: the PBM barrier influence scale ($\alpha = 0.73$) and the social norm agreement scale ($\alpha = 0.73$). The meat-reduction importance scale ($\alpha = 0.53$) and the PBM importance scale ($\alpha = 0.61$) fell below this benchmark. Because these scales did not reach the recommended threshold, any analyses involving them should be interpreted with appropriate caution due to potential attenuation of effects. Further item-level analysis showed that one item in each of these weaker scales (“Taste curiosity” and “Social-media challenges”) contributed most to the reduced internal consistency. Nevertheless, all items were retained to preserve conceptual coverage, and the results of these scales were treated with more caution. A sensitivity check using trimmed versions of these scales confirmed that the main findings remain robust.

4.2 Key Findings & Analysis

4.2.1 Sample Characteristics

The final sample consisted of 165 fully completed questionnaires. The age distribution has a strong focus on younger adults (see Figure 10): approximately 83% of respondents were under the age of 35. The largest subgroup was aged 18–24 (around 45%), followed by the 25–34 age group (approximately 38%). Participants aged 45 or older were less than 7% of the sample. Gender representation was nearly balanced, with 53% identifying as female and 47% as male (see Figure 11). No participants selected a non-binary option.

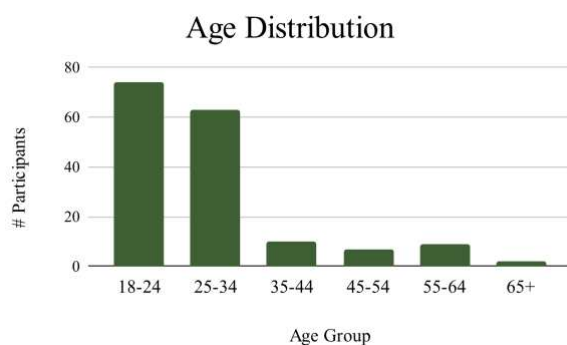


Figure 10: Age distribution of participants



Figure 11: Gender distribution of participants

Regarding educational background, around 70% of respondents reported having completed either a university entrance qualification or a higher education degree. Within this group, 42% held a bachelor’s degree and 27% a master’s or doctoral degree. Only 3% reported having a lower secondary school qualification as their highest level of education (see Figure 12). In terms of dietary behaviour, about half of the respondents described themselves as omnivores. Around 29% identified as flexitarians, 19% as vegetarians, and roughly 2% as vegans. While the sample

remains predominantly omnivorous, it includes a substantial proportion of individuals who consciously reduce or avoid meat consumption as seen in Figure 13. Although the vegan subgroup was relatively small, it was deliberately analysed separately rather than collapsing with vegetarians, as responses in at least one area diverged notably between the two groups.

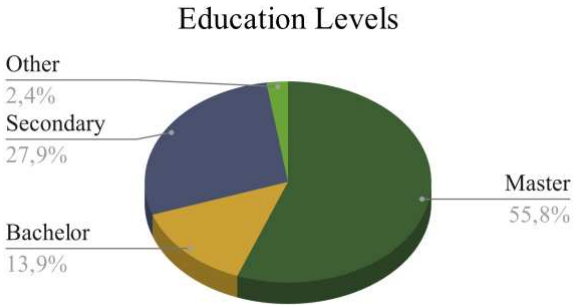


Figure 12: Education level of participants



Figure 13: Dietary habits of participants

Of the total sample, 153 participants (92.7%) reported having tried plant-based meat before, while only 12 had not, indicating a high level of familiarity with these products.

4.2.2 Descriptive Results

This chapter moves from who answered the survey to what they reported. Results are organised around the questionnaire’s four thematic blocks (consumption behaviour, motivations, barriers, and social norms) and focus purely on one-variable description and very simple cross-tabs. All Likert items were coded 1 = lowest to 5 = highest.

Consumption behaviour

Among the participants who have tried PBM before, usage patterns differ notably. Around 29% reported consuming plant-based meat weekly, another 29% do so approximately once or twice per month, while 32% stated they had only tried them a few times in the past six months. A small minority of 4% had not returned to them after an initial trial. Despite this high level of exposure, conventional meat still plays a dominant role in the everyday diet. Among non-vegetarian respondents (roughly 81% of the total sample), meat consumption averaged 5.9 days per week, with a median of 7 days a week, indicating that many consume meat nearly on a daily basis (see Figure 14).

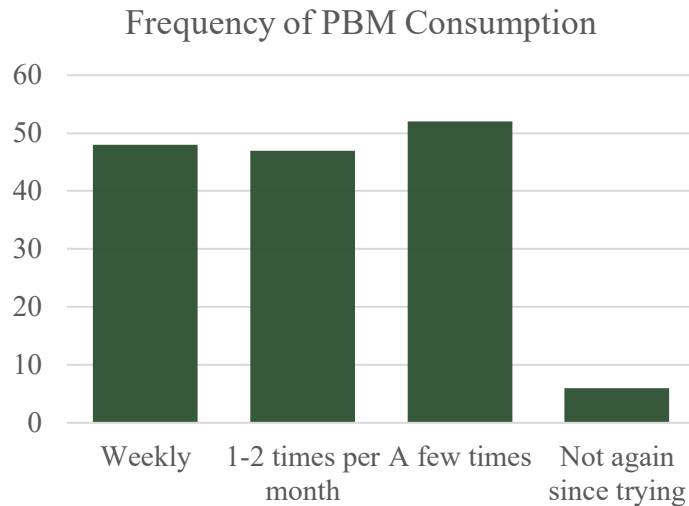


Figure 14: PBM frequency categories of consumption in the last 6 months

When asked about future intentions, only 23% of all participants who eat meat agreed with the statement that they plan to reduce their meat consumption in the next six months. The average response on a five-point Likert scale was 2.7, placing it slightly below a neutral stance. This suggests that, while interest in alternatives exists, a broader behavioural shift remains limited for the time being.

Across dietary groups, the frequency of PBM consumption varies notably. Among the small number of vegans in the sample, most reported regular use: 75% consume such products at least weekly, and the remainder use them monthly. Among vegetarians, 48% are weekly consumers and 45% use them once or twice per month, while only 6% reported rare use. Flexitarian respondents showed more variation: around 30% consume plant-based meat weekly, another 30% monthly, and 36% only occasionally within the past six months. Just 5% of Flexitarians had not returned to using them. Usage was lowest among omnivores: only 23% consume PBM weekly, nearly half (46%) reported infrequent use, and 5% had not tried them again after an initial trial. Overall, frequency of use tends to correlate with the restrictiveness of one's dietary pattern, although occasional consumption appears across all groups.

Looking at different age groups, the results show that younger respondents consume the most PBM. In the 18–24 group, 41% eat plant-based meat at least once a week, lifting their average above “monthly.” Among 25–34 year-olds, 42% use PBM monthly and 29% weekly. Usage drops off sharply after 35: most people 45–54 only try PBM rarely, none eat them weekly, and 29% never return to them. Overall, regular PBM consumers are almost exclusively under 35, while older groups tend to sample only occasionally or not at all.

Motivations for reducing meat and consuming PBM

Participants who had previously reduced their meat consumption ($n = 82$) were asked to rate seven potential motivations for doing so on a five-point scale (1 = “not at all important” to 5 = “very important”). Among this subsample, ethical considerations stood out clearly: animal welfare ($M = 4.30$) and environmental sustainability ($M = 4.12$) received the highest mean scores and were considered important by over 84 % of respondents. Health-related reasons followed in third place ($M = 3.46$; 56.1 %), while social influence ($M = 2.84$), taste ($M = 2.80$), and food intolerance ($M = 1.89$) were less significant. Promotional triggers such as Veganuary or influencer campaigns were almost entirely absent as drivers ($M = 1.52$; 3.7 %). These findings suggest that, for those who have reduced their meat intake in the past, ethical motivations (animal welfare and environmental concerns) were the leading factors, outweighing social or situational influences.

The same approach was applied to identify motivations for consuming PBM in the past, this time focusing exclusively on participants who reported having used PBM recently ($n = 153$). Responses showed a similar distribution (see Figure 15): ethical drivers regarding animal welfare led the ranking with ($M = 3.99$). Notably, curiosity was ranked higher with ($M = 3.58$) than environmental sustainability ($M = 3.53$). Peer influence such as recommendations followed in third place ($M = 3.10$). By contrast, health benefits ($M = 2.81$) were rated considerably lower and social-media campaigns such as Veganuary remained largely inconsequential ($M = 1.52$)

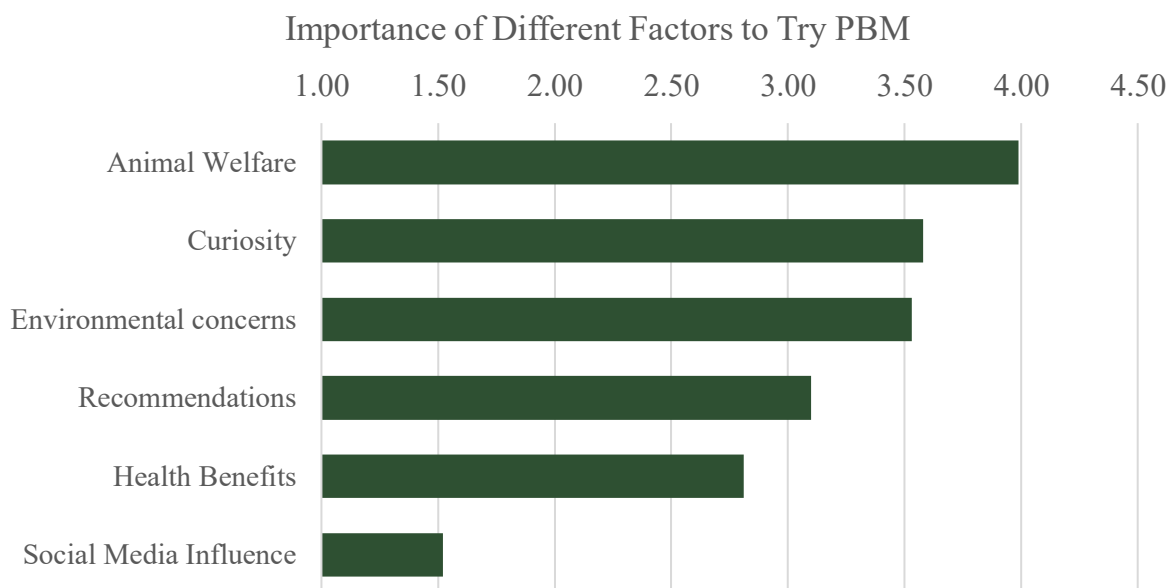


Figure 15: Drivers for PBM consumption ranked by importance

These findings suggest that when consuming PBM, participants were primarily motivated by ethical concerns, supported by a sense of curiosity that often accompanies new products

When broken down by dietary group, ethical and environmental motives received the highest ratings from vegan and vegetarian respondents (animal welfare = 4.75 and 4.35; sustainability = 3.75 and 3.68), although the small size of the vegan subgroup requires cautious interpretation. Flexitarians placed comparatively higher emphasis on health (2.93), while vegetarians were the group to attribute most weight to recommendations (3.58). Overall, value-based arguments appear particularly important for those who already reduced their meat consumption in the past.

When asked what would encourage more consumption in the future, 49.7% of respondents pointed to lower prices, while 46.1% cited improved flavour as a key factor. A second tier of motivators included clearer evidence of health benefits (40.0%) and more reliable availability in stores or restaurants (37.0%). For around one-third of participants, greater credibility in terms of environmental impact (31.5%) and improvements in texture or mouthfeel (30.3%) were noted as relevant considerations. By contrast, less direct influences, such as recipe ideas (17.6%), behaviour of peers (10.3%), or trust in well-known brands (7.9%) were mentioned less frequently. Only 5.5% of the sample stated that no factor would increase their likelihood of consuming such products.

While ethical and environmental values emerged as primary motivations, pragmatic factors such as curiosity, price incentives, taste improvements, and wider availability remain central to most potential consumers. Furthermore, to fully understand adoption behaviour, it is equally important to consider which barriers continue to hold consumers back.

Barriers to PBM adoption

To better understand what continues to prevent broader adoption of plant-based meat alternatives, participants were asked to evaluate a range of potential barriers identified in previous research and qualitative interviews. Both forced-choice and scaled-item questions were used to capture perceived obstacles.

Overall, economic and sensory considerations appear to be the most significant barriers. When respondents were asked to select a single main barrier, cost was most frequently named (27.9%), followed by taste (21.8%). Concerns about unfamiliar ingredients ranked third (15.8%). The scaled responses reinforce this pattern: taste was rated as the strongest overall

obstacle (M = 3.30) on a 1–5 scale, followed by mouthfeel (M = 3.01) and price (M = 2.99). While practical issues play a lesser role overall, they appear more prominent among consumers already engaged with plant-based diets. Vegetarian respondents, for instance, rated limited availability in stores significantly higher than the sample average (M = 3.19 vs. 2.78) and expressed greater concern about additives and unfamiliar contents (M = 2.7). Nevertheless, 28 % of the overall sample rated their concerns about unknown or potentially problematic ingredients as high or very high. By contrast, social influences and uncertainty about preparation received comparatively low importance scores (both ≤ 2.4), suggesting they function more as background factors than decisive notable barriers. In conclusion, the findings underscore the importance of addressing taste, texture, and price with improvements in accessibility and transparency offering additional support, especially for already receptive groups (see Figure 16).

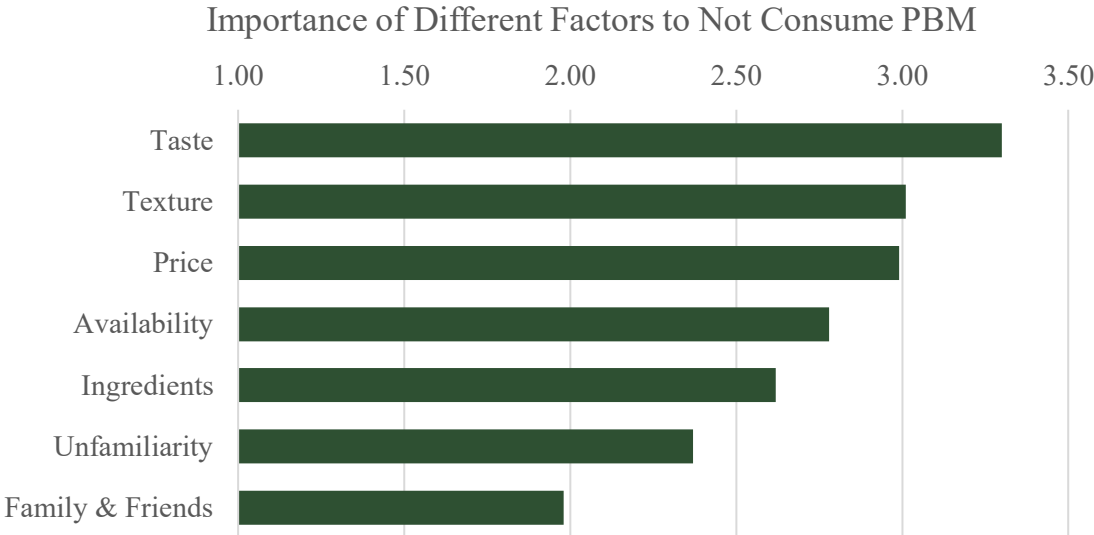


Figure 16: Barriers to PBM consumption ranked by importance

Social norms and perceived support

As outlined in the literature review, social cues can subtly but meaningfully shape dietary transitions. This section examines how perceived norms and the level of support within one’s social environment influence both the consumption of and attitudes toward plant-based meat alternatives.

Participants generally noticed a moderate shift in their surroundings, with many observing that people around them were eating less meat. When asked to what extent people around them are

cutting back on meat, responses averaged 3.31 on a five-point scale, with 61% expressing agreement. In contrast, the visibility of actual plant-based meat use was rated lower ($M = 2.71$), with only 16% agreeing that they had observed others consuming these products. Social influence was rated mid-level as a motivation ($M = 2.84$) and least relevant as a barrier ($M = 1.98$), indicating that peers and family typically act as soft reinforcers rather than sources of resistance. A small but noteworthy correlation (Spearman $\rho = 0.25$) is found between perceived meat reduction in one's environment and the personal intention to reduce meat intake, showing a less obvious but consistent role of social proof. Segment-level differences further support this: while just over half of omnivores (52%) agreed that people around them are cutting back, agreement rose to 62% among flexitarians, 81% among vegetarians, and reached 100% in the small vegan subgroup. These findings point to a social landscape that leans favourably toward reduced meat consumption which is supportive, but not yet strongly normative.

Taken together, these patterns show distinct trends in consumption frequency, motivations, barriers, and social norms, which correspond to hypotheses H1–H4. The next section therefore shifts from description to formal testing of these four hypotheses with the data gathered in the survey.

4.3 Hypothesis testing

In this section, the four previously outlined hypotheses are tested to see whether the survey results support the expected.

The first Hypothesis to be tested is: “Flexitarians consume plant-based meat more frequently than vegetarians, vegans, or omnivores.”

A non-parametric approach was used due to the dependent variables being ordinal and violating assumptions of ANOVA or regression. Furthermore, the sample sizes used were small and uneven in this example. With PBM intake being treated as an ordinal variable (0 = Never, 3 = \geq weekly) complete data was available for omnivores ($n = 74$), flexitarians ($n = 44$), vegetarians ($n = 31$), and vegans ($n = 4$). A Kruskal–Wallis test revealed an overall group difference ($H = 13.80$, $df = 3$, $p = .003$). However, one-sided Mann-Whitney U contrasts, adjusted for three comparisons, showed that flexitarians did not outscore any other group (all Bonferroni-corrected $p \geq .23$). Median PBM frequency was Flex = 1 (1–5 times/6 months), Veg = 2, Vegan = 3, and Omni = 1, indicating that vegetarians and vegans, despite smaller cell sizes, reported

equal or higher use than flexitarians. Consequently, H1 is not supported: flexitarians do not consume PBM more often than the other dietary segments in this sample.

The second Hypothesis to be tested is: “Environmental concerns are a stronger predictor of willingness to consume plant-based meat than health or animal welfare concerns.”

A multiple OLS regression was used to test whether environmental, health, and animal welfare concerns predict current consuming PBM. Each construct was the z-standardised score of its single 5-point Likert item. The analysis used $n = 165$ complete cases. The model explains a small part of the variance ($R^2 = .14$, Adj. $R^2 = .12$). Environmental concerns were the only significant predictor ($\beta = 0.31$, $SE = 0.09$, $t = 3.35$, $p = .001$); health concern ($\beta = 0.14$, $p = .122$) and animal-welfare concern ($\beta = -0.05$, $p = .579$) were non-significant. Pairwise contrasts confirmed that the environmental coefficient exceeded both alternatives (all $p < .05$). Assumptions of normal residuals, homoscedasticity, and low multicollinearity (all VIF < 1.3) were met.

Taken together, these results validate H1: within the total sample, environmental considerations are a statistically stronger driver of PBM consumption intentions than either health or animal welfare motivations.

However, the descriptive results from the previous chapter reveal substantial differences between the different dietary groups. Therefore a revised version of H1 should be tested as well: “Environmental concerns are a stronger predictor of willingness to consume plant-based meat than health or animal-welfare concerns, for each dietary sub-group.”

Separate standardised OLS regressions were run for the three dietary groups with adequate sample sizes (omnivores $n = 74$, flexitarians $n = 44$, vegetarians $n = 31$; vegans excluded due to $n < 20$). Among omnivores, environmental concern remained the only significant predictor ($\beta = 0.33$, $p = .016$), explaining 20% of the variance. However, for flexitarians, none of the three motives reached significance ($|\beta| \leq 0.23$, all $p \geq .17$), suggesting heterogeneous reasons for PBM consumption. Furthermore, for vegetarians, the relationship reversed: animal welfare concern became the sole significant driver ($\beta = 0.44$, $p = .023$), while environmental concern was non-significant ($\beta = 0.18$, $p = .38$). These subgroup results, with low multicollinearity and acceptable residual diagnostics, indicate that environmental motives were most relevant for

omnivores, but for individuals with a largely meat-free diet, animal-welfare considerations dominate, and flexitarians show no clear motivational pattern.

These results show that motivations and reasoning differ between individuals with different dietary habits. It suggests that environmental messages may be most persuasive for people regularly consuming meat, whereas ethical and animal welfare appeals resonate more strongly when meat has mostly been removed from the diet.

The third Hypothesis to be tested is H3: “Perceived social norms (e.g. for friends or family reducing meat consumption) are positively associated with willingness to consume plant-based meat.”

A standardised OLS regression was conducted and the dependent variable was a 5-point Likert intention item (1 = strongly disagree, 5 = strongly agree), z-standardised for comparability. Two perceived social norm items served as predictors: (a) “People around me are reducing meat” (SN-Reduce) and (b) “People around me recently ate PBM” (SN-PBM), both standardised. The dependent variable was participants’ self-reported intention to eat more PBM over the next six months, measured on a 5-point Likert scale from “strongly disagree” to “strongly agree. No missing data were present; the analysis used the full sample ($n = 165$).

The model explained a small but statistically significant part of the variance ($R^2 = .09$, $Adj. R^2 = 0.08$, $F(2, 162) = 8.02$, $p < .001$). Only SN-Reduce significantly predicted willingness ($\beta = 0.30$, $SE = 0.09$, $t = 3.46$, $p = .001$), while SN-PBM had no significant effect ($\beta = 0.01$, $p = .92$). Although the two predictors were moderately correlated ($\rho = 0.55$, $p < .001$), this is not high enough to indicate multicollinearity ($VIF \leq 1.05$). However, the correlation does reflect a conceptual overlap and likely explains why only SN-Reduce remains significant in the regression because it appears to absorb the shared explanatory variance between the two indicators. Assumptions of linear regression were met, with residuals approximately normal and homoscedastic.

These findings indicate that the perceived general reduction in meat consumption within one's social environment is associated with more willingness to consume PBM, whereas only observing others eat PBM offers no additional explanatory value. This suggests that broader behaviour-change norms may have more influence than product-specific nudges.

The fourth and final hypothesis to be tested is H4: “Taste is the most frequently cited barrier among consumers who have tried plant-based meat alternatives but do not consume them regularly.”

To evaluate H4, only respondents who reported having tried PBM at least once but consumed them less than once per week were considered. This definition resulted in a subgroup of 105 individuals, representing roughly 64% of the full sample.

These participants were asked to rate seven potential barriers on a 1–5 scale. Taste was the highest-scoring factor ($M = 3.37$), ahead of texture ($M = 3.10$) and price ($M = 2.96$). A Friedman test confirmed significant differences across the different items ($\chi^2(6) = 18.41$, $p = 0.001$), and post hoc comparisons showed that taste was rated more influential than price ($p = 0.004$) and all other items (all adjusted $p < 0.01$).

These findings support H4 in the context of continuous rating: flavour stands out as the most commonly felt barrier among less frequent users. However, to assess whether taste is not only the most commonly perceived but also the strongest individual barrier, respondents were asked in a follow-up question to select the single most influential reason holding them back from consuming PBM more often.

In this forced-choice format, 26.7% selected price as their main barrier, slightly ahead of taste (22.9%) and unfamiliar ingredients (20.0%). While this ranking may suggest that cost is perceived as a more decisive barrier than taste, the difference was not statistically significant. A two-proportion z-test showed no reliable gap between the two ($p = 0.34$).

Taken together, these mixed results indicate that while taste is widely acknowledged as a major barrier, it is not always seen as the strongest one when individuals are asked to prioritise. For many, price remains a key concern, especially when forced to weigh concerns.

In summary, 3 of the four hypotheses (H2, H3, and H4) were supported, while H1 received opposing evidence. Environmental concerns and perceived social norms emerged as key drivers, whereas taste and price stood out as central barriers. These findings inform the next chapter, which applies them to marketing and behaviour change strategies.

4.4 Discussion of Results

4.4.1 Interpreting the Hypotheses

Hypothesis	Supported?
H1: <i>Flexitarians consume plant-based meat alternatives more frequently than vegetarians, vegans, or omnivores.</i>	No
H2: <i>Environmental concerns are a stronger predictor of willingness to consume plant-based meat than health or animal welfare concerns.</i>	Yes
H3: <i>Perceived social norms (friends or family reducing meat consumption) are positively associated with willingness to consume plant-based meat.</i>	Yes
H4: <i>Taste is the most frequently cited barrier among consumers who have tried plant-based meat alternatives but do not consume them regularly.</i>	Yes

H1: Flexitarian frequency. Contrary to previous belief, flexitarians did not report more frequent consumption than other groups. Vegetarians and vegans actually showed higher median use. These results challenge the perception that flexitarians are the most reliable consumer segment, suggesting instead that their usage may fluctuate more rather than being a routine behaviour.

H2: Environmental motivations. Environmental concerns emerged as the strongest predictor of willingness to consume PBM, stronger than both health and animal welfare factors. However, subgroup analysis revealed environmental concerns were influential among omnivores, negligible for flexitarians, and reversed among vegetarians, who responded more to animal welfare. These differences show environmental arguments being more persuasive at earlier stages of meat reduction and ethical ones meat has been eliminated from one's diet.

H3: Social norms. Perceiving that others are cutting back on meat showed a moderate, but significant, association with willingness to consume PBM, while simply noticing others eat PBM had no additional effect. This supports the idea that lifestyle trends influence behaviour more than only product exposure.

H4: Taste as a barrier. Taste was the most cited barrier, significantly higher than price or other concerns. However, when participants were asked to choose the single biggest barrier, price slightly surpassed taste (27.9 % vs 21.8 %). Although this difference was not statistically

significant the results highlight the complicated nature of barriers: sensory issues such as taste weigh heavily overall, but price emerges when compared to others.

4.4.2 Positioning the Findings within Behavioural Theory

The results align with the Theory of Planned Behaviour: positive attitudes (especially environmental impact), perceived social norms (others reducing meat), and perceived control (notably price and taste) all played meaningful roles. However, the data also show that these influences vary across dietary subgroups, with attitudes that drive one group may be irrelevant for another, a detail rarely discussed in other studies. When considering Lewin's and Kotter's change models, environmental framing appears effective in creating initial urgency for omnivores ("unfreezing"), while animal welfare messages seem better suited to reinforce change among those already committed ("refreezing"). Interestingly, direct exposure to PBM consumption had little predictive power, suggesting that communications should focus on broader behavioural trends, like reducing meat, rather than product usage. This supports current research on future-oriented norms, discussed earlier.

4.4.3 Limitations

This study has several limitations that should be kept in mind when interpreting the results. First, the convenience sampling approach leads to younger respondents under 35 dominating the results (83%). While consistent with the main age groups consuming PBM (EAT & GlobeScan, 2024) this limits generalisability to broader population and older age groups. The very small vegan subgroup (n = 4) also restricts any definitive conclusions about that segment. Second, the reliance on self-reported data and a cross-sectional design led to typical challenges. Self-reported intentions may not reflect actual behaviour, and therefore causal interpretations remain speculative. Third, while the survey covered a wide range of motivations and barriers, it did not account for other variables, such as past traditional marketing exposure, which could also influence behaviour. Lastly, some non-significant results in smaller dietary subgroups may show limited statistical power rather than a true lack of effect.

4.4.4 Future Research

Due to this study's limitations and explanatory approach, several possibilities for further research emerge. First, longitudinal studies should trace how consumer attitudes evolve as taste profiles improve and price gaps narrow. Second, real-world trials combining sensory

improvements with behavioural nudges like default placements or in-store promotions could show the effectiveness of adoption strategies. Third, future surveys should intentionally sample older groups to assess whether the motivational patterns identified here generalise across demographics. Finally, adding purchase records or food diaries to self-reported data would improve validity and help compare intentions and observed behaviour.

4.4.5 Comparison with prior studies

Importantly, the results show the trends identified by ProVeg International (2023) in the journal *Evolving Appetites*, namely that environmental concern and social-norm cues are the strongest levers for PBM adoption and that sensory and economic barriers remain substantial. However, they stand in contrast to Marcus et al. (2022) who found health motivations and product exposure to be the primary predictors of intent. This divergence may reflect differences in sample composition and question framing, underlining the need for further research to reconcile these perspectives.

5 Application to Marketing & Adoption Strategies

Having identified who the consumer groups are, what motivates them, and what hinders them, the next step is to translate these insights into strategic interventions. This chapter draws on the previously presented change management models to propose structured solutions that support further adoption. Combining behavioural economics and nudge theory with empirical findings from this study aims to outline both evidence-based and context-relevant interventions. Using successful interventions in related fields also offers practical guidance for a broader shift toward PBM consumption in Germany.

1. Addressing the issues and establishing the urgency for change

When establishing a sense of urgency, it is essential to identify the most significant opportunities for driving change (Kotter, 2014). While environmental concerns were the most impactful factor across our sample group, the primary drivers of adoption vary across consumer segments with different dietary habits. This requires tailored approaches when addressing, for example, omnivores compared to vegetarians.

Directly comparing PBM with traditional meat can serve as a powerful tool in raising awareness of both the environmental and animal welfare consequences associated with conventional meat production. This approach has been effectively utilized in past marketing campaigns by

companies such as Oatly, a leading producer of plant-based milk alternatives, in which they directly compared the environmental impact of cow milk to their oat-based drinks in terms of kg CO₂ (Sustainable Brands, 2023).

2. Leveraging Partnerships within a guiding coalition

After making our potential customer base aware of the urgency of a transition the next step is to gain enough trust for them to attempt trying it out. Besides cost and taste as strong barriers to adoption, the survey revealed that a notable portion of respondents expressed distrust toward PBM due to unknown or potentially problematic ingredients. To establish trust in the safe use of PBM and reinforce the previously mentioned ethical concerns, one of Cialdini's (2001) Influence Principles can be applied: Authority.

The principle Authority highlights how partnerships, for example with health and sustainability experts, can be highly effective in enhancing credibility and trust. Such collaborations do not only communicate a brand's commitment to addressing environmental and health concerns but also use the public's tendency to trust expert voices in these domains (Rupprecht et al., 2020; Cialdini, 2001). This further increases the attractiveness of the brands because Consumers tend to favour brands with reputations built on integrity, particularly those engaged in corporate social responsibility (CSR) initiatives (Khamitov et al., 2024).

3. A vision for a collective, values-driven shift

To enable widespread adoption and increase consumption, PBM should be anchored in a motivational and strategically coherent vision. Using the survey findings, this vision should highlight the leading drivers behind meat reduction (ethical concerns related to environmental impact and animal welfare) and connect them to the principle of social proof to help lower perceived barriers. While social influence was not the strongest individual driver, the perceived reduction of meat consumption within one's environment was moderately linked to a higher willingness to adopt PBM. Rather than demanding a complete lifestyle change, the communication should position consuming less meat and replacing it with PBM as a socially supported and growing norm, one that aligns with the broader goal of reducing environmental harm and animal suffering.

Visions from already established players in the market offer useful reference points for what these companies consider important to communicate to consumers. For example, Rügenwalder

Mühle frames its mission around accessibility and enjoyment: “Our vision is to enable everyone to eat consciously and sustainably in an uncomplicated way, without compromising on taste and enjoyment” (Clarkson, 2020). Beyond Meat similarly emphasises forward-looking values with its statement: “We believe there’s a better way to feed our future.” (Beyond Meat, 2025).

4. Communicating the vision effectively

The survey data reveals that trust in both the producing companies and the ingredients used in PBM remains a modest but significant concern for many participants, which makes the clarity and framing of a brand’s vision all the more important. As Calegari et al. (2015) emphasise, effective communication must be straightforward and easily understandable, especially when it comes to ingredients, which are often only described in highly technical language, due to regulation.

To communicate environmental benefits in a more engaging way, companies can adopt emerging tools such as the “carbon handprint”. Compared to traditional carbon footprint metrics, which focus on negative impact, the handprint highlights the positive environmental contributions of a product in comparison to conventional alternatives in an easily understandable way (Tuppura et al., 2023). This framing has shown the potential to increase consumer engagement with sustainability messages. Furthermore, research indicates that converting abstract emissions data, such as kg CO₂, into relatable comparisons can make the benefits more tangible and significantly increase the likelihood of consumers choosing eco-friendlier products (Mohanty et al., 2023). Examples used in the study included comparisons such as “equivalent to burning x gallons of gasoline” or “daily energy use of x households,” which could also be applied to PBM consumption to show its relative environmental benefits in more relatable terms (Mohanty et al., 2023).

5. Empowering Consumers to Act

The main barriers to PBM consumption identified in the survey were taste and price. This is no surprise to producers, who are already working to enhance the sensory qualities of their products and reduce costs through economies of scale and process optimisation. Until these improvements are fully realised in the market, both producers and retailers can use the messaging around ethical benefits and a shared vision to strengthen consumer willingness to pay and justify premium prices. In terms of taste, research suggests that the sensory context, like packaging, labelling, and visual cues, can shape taste perceptions. For example, red colour

schemes and BBQ associations may prime expectations of a “bold and tasty” product, while descriptors such as “plant-based” are typically preferred over “vegan” or “vegetarian” (Zandstra et al., 2025). These types of behavioural nudges can help to enhance the perceived taste and appeal of PBM products in the short term, bridging the gap until improvements in price and taste are achieved.

6. Short-term wins

To ensure that decisions and actions taken are actually beneficial, generating and communicating short-term wins is crucial. These early successes serve to build momentum and validate the direction of change. One effective approach is to identify measures that require minimal effort but offer immediate, visible outcomes called “low-hanging fruit”. For PBM producers and retailers, this could include in-store promotions, prominent product placement, or taste-testing campaigns at sampling stations, which have been shown to be effective in encouraging initial product trials (Chandukala et al., 2017).

Additionally, presenting PBM as a cruelty-free way to enjoy otherwise meat-based products appears as a promising approach when addressing vegetarians and vegans. In the qualitative interviews with vegetarians, most mentioned a certain meat-based product as their guilty pleasure which they miss since they are not eating meat anymore. Offering PBM as a “guilt-free” solution could be appropriate in this use case.

Beyond the point of sale, the impact of these early wins can be further amplified through communication on packaging, social media, and company websites. Translating environmental benefits into tangible, easy-to-understand equivalents is discussed in Step 4. Companies like Tony’s Chocolonely and Patagonia already employ such strategies to highlight their short-term achievements in a transparent and engaging manner (Tony’s Chocolonely, 2025; Patagonia, 2025).

7. Build on change

After introducing the vision, initiating change, and celebrating early successes, it is important to keep the momentum and continue building on the initial progress. To avoid stagnation, new interventions and initiatives should be introduced that reinforce the direction of change and address remaining concerns. These could include the partial implementation of price reductions and sensory improvements discussed earlier, but also changing product ingredients, making

them more sustainable, organic and easier to understand. This could help address the concerns that were raised by a significant share of survey respondents who expressed distrust or confusion regarding the ingredients used in plant-based meat alternatives.

8. Anchoring the change

To complete the change effort, new behaviours must become part of everyday culture. The results of the survey indicate that while initial trials of plant-based meat are common, regular consumption remains limited. PBM still seems to represent an exception rather than the norm for most consumers. To change this, PBM options must become more visible and easily accessible across everyday food environments. Whether in Canteens, Cafeterias, Supermarkets or even recipe apps, PBM should be positioned as the standard or default option. Nevertheless, making plant-based meat the default option alone does not yield significant behavioural change. However, if integrated effectively with the previous change steps, this final stage will allow PBM to transition from a niche into the new “normal” choice for consumers (Erhard et al., 2023).

Taken together, these steps outline a structured pathway for promoting market adoption of PBM. Despite their grounding in empirical data and behavioural models, the strategy presented here should be viewed as hypotheses that require testing in practical, real-world settings.

6 Conclusion

This thesis aims to identify what drives or prevents consumers in Germany from adopting plant-based meat, and how change-management tools and behavioural economics can support this transition. Based on a quantitative survey of 165 participants, the survey found that environmental concern and perceived social norms around meat reduction are the most consistent drivers of adoption. At the same time, taste, price, and distrust related to ingredients emerged as key barriers that appear to limit regular use.

The research employed a cross-sectional, survey-based design that allowed for capturing a wide range of perceived drivers and barriers. Notably, the findings challenge previous assumptions by showing that vegetarians and vegans, rather than flexitarians, currently represent the most engaged customer segment. Furthermore, the data highlighted how motivational factors vary across consumer segments with different dietary habits. While environmental concerns were most influential among omnivores, animal welfare became more important for consumers with reduced intake of animal-based products. Although the sample leaned heavily towards younger participants and thus cannot be generalised to the full population, it offers valuable insights into a key demographic often identified as a core target group for PBM in prior research.

By linking behavioural economics with the change models of Lewin and Kotter, this thesis adds a new perspective on how PBM adoption can be better supported. From a practical standpoint, the study outlines a clear set of intervention strategies, such as direct comparisons with conventional meat in terms of benefits, in-store tastings, and framing PBM within a socially supported, environmentally driven vision for a more sustainable future.

Nevertheless, multiple areas for future research remain. These include tracking how the outlined interventions affect adoption over time, conducting real-world tests of behavioural and sensory strategies, and expanding the demographic scope to better reflect older or less receptive consumer segments. Combining behavioural data with actual purchase records could also strengthen the link between stated intentions and observable actions.

Taken together, the findings demonstrate both the potential and the limitations of current PBM engagement, today and going forward. They offer a structured approach to how strategic messaging, supported by behavioural insights and change-management principles, can help plant-based meat become more widely adopted.

With real-world testing and ongoing adjustments, these strategies could help shift PBM from a niche option to a widely accepted part of everyday diets and, in turn, contribute meaningfully to public health, ethical, and sustainability goals.

References

- Abrahamse, W., Steg, L., Vlek, C., & Rothengatter, T. (2005). A review of intervention studies aimed at household energy conservation. *Journal of Environmental Psychology*, 25(3), 273–291. <https://doi.org/10.1016/j.jenvp.2005.08.002>
- AgFlow. (2022, October 20). *German soybeans: via Holland or not?* AgFlow. <https://www.agflow.com/agricultural-markets-news/german-soybeans-via-holland-or-not/>
- Ahrens, S. (2024, January 3). *Umfrage zum Angebot pflanzlicher Alternativprodukte im Handel nach Alter 2023*. Statista. <https://de.statista.com/statistik/daten/studie/1414217/umfrage/angebot-pflanzliche-alternativen-nach-alter/>
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Arvola, A., Vassallo, M., Dean, M., Lampila, P., Saba, A., Lähteenmäki, L., & Shepherd, R. (2007). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the Theory of Planned Behaviour. *Appetite*, 50(2–3), 443–454. <https://doi.org/10.1016/j.appet.2007.09.010>
- Beyond Meat. (n.d.). *Ethan Brown | Management | Beyond Meat, Inc.* Beyond Meat, Inc. <https://investors.beyondmeat.com/board-member-management/ethan-brown/>
- Beyond Meat. (2024, November 20). *WENDY'S GEORGIA AND BEYOND MEAT® PARTNER UP TO LAUNCH PLANT-BASED MEAT BURGER NATIONWIDE IN THE COUNTRY OF GEORGIA* [Press release]. <https://www.beyondmeat.com/en-US/press/wendys-georgia-and-beyond-meat>
- Beyond Meat. (2025). *OUR MISSION*. beyondmeat.com. <https://www.beyondmeat.com/en-GB/mission>
- Bonafide Research. (2024, July 28). *Germany plant-based meat market Overview, 2029*. <https://www.bonafideresearch.com/product/620229773/germany-plant-based-meat-market>
- Bratti, M., Cottini, E., & Ghinetti, P. (2022). Education, Health and Health-Related Behaviors: Evidence from Higher Education Expansion. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4114566>
- Breda, T., Jouini, E., Napp, C., & Thebault, G. (2020). Gender stereotypes can explain the gender-equality paradox. *Proceedings of the National Academy of Sciences*, 117(49), 31063–31069. <https://doi.org/10.1073/pnas.2008704117>
- Broderick, H. (2013, June 2). *Kotter's 8-Step Process for Leading Change*. CollierBroderick. <https://www.collierbroderick.ie/info-centre/management-development/change-management/kotters-8-step-process-for-leading-change/>
- Browning, H., & Veit, W. (2020). Is humane slaughter possible? *Animals*, 10(5), 799. <https://doi.org/10.3390/ani10050799>
- Bryant, C. J. (2022). Plant-based animal product alternatives are healthier and more environmentally sustainable than animal products. *Future Foods*, 6, 100174. <https://doi.org/10.1016/j.fufo.2022.100174>
- Buchanan, K., Russo, R., & Anderson, B. (2014). Feeding back about eco-feedback: How do consumers use and respond to energy monitors? *Energy Policy*, 73, 138–146. <https://doi.org/10.1016/j.enpol.2014.05.008>
- Bühler Group. (2022). *Circular Food Solutions Switzerland: A circular economy solution for the Swiss plant-based meat market*. <https://www.buhlergroup.com/global/en/media/media->

- releases/circular_food_solutionsswitzerlandacirculareconomysolutionforthe.html?utm_source=chatgpt.com
- Bundesministerium für Ernährung und Wirtschaft. (2023). *BMEL-Ernährungsreport 2023, Deutschland, wie es isst*. BMEL. https://www.bmel.de/SharedDocs/Downloads/DE/_Ernaehrung/forsa-ernaehrungsreport-2023-tabellen.pdf
- Burnes, B. (2004). Kurt Lewin and the Planned Approach to Change: A re-appraisal. *Journal of Management Studies*, 41(6), 977–1002. <https://doi.org/10.1111/j.1467-6486.2004.00463.x>
- Burnes, B. (2019). The origins of Lewin’s Three-Step Model of change. *The Journal of Applied Behavioral Science*, 56(1), 32–59. <https://doi.org/10.1177/0021886319892685>
- Calegari, M., Sibley, R. E., & Turner, M. E. (2015). A roadmap for using Kotter’s organizational change model to build faculty engagement in accreditation. *Academy of Educational Leadership Journal*, 19(3), 31–43.
- Calvin, K., Dasgupta, D., Krinner, G., Mukherji, A., Thorne, P. W., Trisos, C., Romero, J., Aldunce, P., Barrett, K., Blanco, G., Cheung, W. W., Connors, S., Denton, F., Diongue-Niang, A., Dodman, D., Garschagen, M., Geden, O., Hayward, B., Jones, C., . . . Ha, M. (2023). *IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]*. IPCC, Geneva, Switzerland. <https://doi.org/10.59327/ipcc/ar6-9789291691647>
- Caso, G., Annunziata, A., & Vecchio, R. (2024). Let us go with the flow – Impact of a dynamic social norm nudge on parents’ school menu selection. *Food Quality and Preference*, 121, 105274. <https://doi.org/10.1016/j.foodqual.2024.105274>
- Chandukala, S. R., Dotson, J. P., & Liu, Q. (2017). An Assessment of When, Where and Under What Conditions In-Store Sampling is Most Effective. *Journal of Retailing*, 93(4), 493–506. <https://doi.org/10.1016/j.jretai.2017.07.002>
- Chao, X., Zhang, T., Lyu, G., Liang, Z., & Chen, Y. (2022). Sustainable application of sodium removal from red mud: Cleaner production of silicon-potassium compound fertilizer. *Journal of Cleaner Production*, 352, 131601. <https://doi.org/10.1016/j.jclepro.2022.131601>
- Choudhury, D., Singh, S., Seah, J. S. H., Yeo, D. C. L., & Tan, L. P. (2020). Commercialization of Plant-Based meat alternatives. *Trends in Plant Science*, 25(11), 1055–1058. <https://doi.org/10.1016/j.tplants.2020.08.006>
- Cialdini, R. B. (2001, October). *Harnessing the science of persuasion*. Harvard Business Review. <https://hbr.org/2001/10/harnessing-the-science-of-persuasion>
- Clarkson, E. (2020, August 28). Germany: Rügenwalder Mühle sees 50% increase in Meat-Free sales - Vegconomist - The Vegan Business Magazine. *Vegconomist - the Vegan Business Magazine*. <https://vegconomist.com/company-news/germany-rugenwalder-muhle-sees-50-increase-in-meat-free-sales/>
- Connolly, F. F., Goossen, M., & Hjerm, M. (2019). Does gender equality cause gender differences in values? Reassessing the Gender-Equality-Personality Paradox. *Sex Roles*, 83(1–2), 101–113. <https://doi.org/10.1007/s11199-019-01097-x>
- Da Silva Nunes, O. B., Buranello, T. W., De Andrade Farias, F., Rosero, J., Recchia, K., & Bressan, F. F. (2025). Can cell-cultured meat from stem cells pave the way for sustainable alternative protein? *Current Research in Food Science*, 10, 100979. <https://doi.org/10.1016/j.crf.2025.100979>

- Dagevos, H. (2021). Finding flexitarians: Current studies on meat eaters and meat reducers. *Trends in Food Science & Technology*, *114*, 530–539. <https://doi.org/10.1016/j.tifs.2021.06.021>
- Dallacker, M., Appelius, L., Brandmaier, A. M., Morais, A. S., & Hertwig, R. (2024). Opt-out defaults do not increase organ donation rates. *Public Health*, *236*, 436–440. <https://doi.org/10.1016/j.puhe.2024.08.009>
- Dannenbergh, A., Klatt, C., & Weingärtner, E. (2024). The effects of social norms and observability on food choice. *Food Policy*, *125*, 102621. <https://doi.org/10.1016/j.foodpol.2024.102621>
- De Gavelle, E., Davidenko, O., Fouillet, H., Delarue, J., Darcel, N., Huneau, J., & Mariotti, F. (2019). Self-declared attitudes and beliefs regarding protein sources are a good prediction of the degree of transition to a low-meat diet in France. *Appetite*, *142*, 104345. <https://doi.org/10.1016/j.appet.2019.104345>
- De Vries Mecheva, M., Rieger, M., Sparrow, R., Prafiantini, E., & Agustina, R. (2021). Snacks, nudges and asymmetric peer influence: Evidence from food choice experiments with children in Indonesia. *Journal of Health Economics*, *79*, 102508. <https://doi.org/10.1016/j.jhealeco.2021.102508>
- Dhont, K., & Ioannidou, M. (2024). Health, environmental, and animal rights motives among omnivores, vegetarians, and vegans and the associations with meat, dairy, and egg commitment. *Food Quality and Preference*, *118*, 105196. <https://doi.org/10.1016/j.foodqual.2024.105196>
- Diemand, S. (2022, May 2). Rügenwalder Mühle verkauft mehr Veggie als Fleisch. *FAZ.NET*. <https://www.faz.net/aktuell/wirtschaft/unternehmen/ruegenwalder-muehle-verkauft-mehr-veggie-als-fleisch-17999644.html>
- EAT & GlobeScan. (2024). Grains of Truth 2023. In *GlobeScan*. GlobeScan. https://eatforum.org/content/uploads/2023/12/EAT-globescan_grains-of-truth_2023_v1.6.pdf
- Erhard, A., Boztuğ, Y., & Lemken, D. (2023). How do defaults and framing influence food choice? An intervention aimed at promoting plant-based choice in online menus. *Appetite*, *190*, 107005. <https://doi.org/10.1016/j.appet.2023.107005>
- Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Eurofins. (2024, January). *The Nutri-Score 2023 - All important facts*. Eurofins Scientific. <https://www.eurofins.de/food-analysis/other-services/nutri-score/>
- Galli, B. J. (2018). Change Management Models: A Comparative Analysis and Concerns. *IEEE Engineering Management Review*, *46*(3), 124–132. <https://doi.org/10.1109/emr.2018.2866860>
- Gardner, B., Lally, P., & Wardle, J. (2012). Making health habitual: the psychology of ‘habit-formation’ and general practice. *British Journal of General Practice*, *62*(605), 664–666. <https://doi.org/10.3399/bjgp12x659466>
- Geller, E. S., Berry, T. D., Ludwig, T. D., Evans, R. E., Gilmore, M. R., & Clarke, S. W. (1990). A conceptual framework for developing and evaluating behavior change interventions for injury control. *Health Education Research*, *5*(2), 125–137. <https://doi.org/10.1093/her/5.2.125>
- GFI Europe. (2024, December 19). *Clear Labelling - GFI Europe*. <https://gfieurope.org/policy/labelling/>
- Golzar, J., Noor, S., & Tajik, O. (2022). Convenience sampling. *International Journal of Education & Language Studies*. <https://doi.org/10.22034/ijels.2022.162981>

- Grand View Research. (2024). *Plant-based meat Market Size, Share & Growth Report, 2030*.
<https://www.grandviewresearch.com/industry-analysis/plant-based-meat-market>
- Halkier, B., & Lund, T. B. (2023). Exploring everyday life dynamics in meat reduction - A cluster analysis of flexitarians in Denmark. *Appetite*, *183*, 106487.
<https://doi.org/10.1016/j.appet.2023.106487>
- Hansen, R., Gebhardt, B., & Hess, S. (2023). Hype or hope? What consumer motives tell us about the prospects for plant and animal-based dairy products in six European countries. *Food Quality and Preference*, *109*, 104910.
<https://doi.org/10.1016/j.foodqual.2023.104910>
- Hoek, A. C., Luning, P. A., Weijzen, P., Engels, W., Kok, F. J., & De Graaf, C. (2011). Replacement of meat by meat substitutes. A survey on person- and product-related factors in consumer acceptance. *Appetite*, *56*(3), 662–673.
<https://doi.org/10.1016/j.appet.2011.02.001>
- Hoogstraaten, M. J., Frenken, K., Vaskelainen, T., & Boon, W. P. (2023). Replacing meat, an easy feat? The role of strategic categorizing in the rise of meat substitutes. *Environmental Innovation and Societal Transitions*, *47*, 100703.
<https://doi.org/10.1016/j.eist.2023.100703>
- Hooley, G. J., Saunders, J. A., & Piercy, N. (2004). *Marketing strategy and competitive positioning* (3rd ed.). Pearson Education.
- Hopwood, C. J., Zizer, J. N., Nissen, A. T., Dillard, C., Thompkins, A. M., Graça, J., Waldhorn, D. R., & Bleidorn, W. (2024a). Paradoxical gender effects in meat consumption across cultures. *Scientific Reports*, *14*(1). <https://doi.org/10.1038/s41598-024-62511-3>
- Huang, K., & Mas-Tur, A. (2016). Turning Kurt Lewin on his head: Nothing is so theoretical as a good practice. *Journal of Business Research*, *69*(11), 4725–4731.
<https://doi.org/10.1016/j.jbusres.2016.04.022>
- Ishaq, A., Irfan, S., Sameen, A., & Khalid, N. (2022). Plant-based meat analogs: A review with reference to formulation and gastrointestinal fate. *Current Research in Food Science*, *5*, 973–983. <https://doi.org/10.1016/j.crfs.2022.06.001>
- Ivanovich, C. C., Sun, T., Gordon, D. R., & Ocko, I. B. (2023). Future warming from global food consumption. *Nature Climate Change*, *13*(3), 297–302.
<https://doi.org/10.1038/s41558-023-01605-8>
- Jahn, S., Furchheim, P., & Strässner, A. (2021). Plant-Based Meat Alternatives: Motivational adoption Barriers and Solutions. *Sustainability*, *13*(23), 13271.
<https://doi.org/10.3390/su132313271>
- Jobber, D. (2004). *Principles and practice of marketing* (4th ed.). McGraw-Hill International.
- Kaufmann, T. (2025). Strategiewerkzeuge aus der Praxis. In *Springer eBooks*.
<https://doi.org/10.1007/978-3-662-69887-7>
- Kerslake, E., Kemper, J. A., & Conroy, D. (2021). What’s your beef with meat substitutes? Exploring barriers and facilitators for meat substitutes in omnivores, vegetarians, and vegans. *Appetite*, *170*, 105864. <https://doi.org/10.1016/j.appet.2021.105864>
- Khamitov, M., Rajavi, K., Huang, D., & Hong, Y. (2024). Consumer Trust: Meta-Analysis of 50 years of Empirical research. *Journal of Consumer Research*, *51*(1), 7–18.
<https://doi.org/10.1093/jcr/ucad065>
- Kotter, J. P. (2012). *Leading Change, with a new preface by the author*. Harvard Business Press.
- Kotter, J. P. (2014). *Accelerate: Building Strategic Agility for a Faster-Moving World*. Harvard Business Review Press.

- Kumari, S., Alam, A. N., Hossain, M. J., Lee, E., Hwang, Y., & Joo, S. (2023). Sensory Evaluation of Plant-Based Meat: Bridging the Gap with Animal Meat, Challenges and Future Prospects. *Foods*, *13*(1), 108. <https://doi.org/10.3390/foods13010108>
- Kyriakopoulou, K., Keppler, J. K., & Van Der Goot, A. J. (2021). Functionality of ingredients and additives in Plant-Based Meat analogues. *Foods*, *10*(3), 600. <https://doi.org/10.3390/foods10030600>
- Lazzaris, S. (2024, September 25). The Origin Of Meat Alternatives. *Foodunfolded*. <https://www.foodunfolded.com/article/the-origin-of-meat-alternatives>
- Levasseur, R. E. (2001). People Skills: Change Management Tools—Lewin’s Change Model. *INFORMS Journal on Applied Analytics*, *31*(4), 71–73. <https://doi.org/10.1287/inte.31.4.71.9674>
- Lewin, K. (1947). Frontiers in group dynamics. *Human Relations*, *1*(1), 5–41. <https://doi.org/10.1177/001872674700100103>
- Mahanta, B., & Sarka, B. (2023). Environmental awareness among higher education students. *International Journal for Multidisciplinary Research*, *5*(5). <https://www.ijfmr.com/papers/2023/5/7040.pdf>
- Marcus, N., Klink-Lehmann, J., & Hartmann, M. (2022). Exploring factors determining German consumers’ intention to eat meat alternatives. *Food Quality and Preference*, *100*, 104610. <https://doi.org/10.1016/j.foodqual.2022.104610>
- Mariotti, F. (2017). Vegetarian and Plant-Based Diets in Health and Disease Prevention. In *Elsevier eBooks*. <https://doi.org/10.1016/c2015-0-00399-9>
- Milfont, T. L., Satherley, N., Osborne, D., Wilson, M. S., & Sibley, C. G. (2021). To meat, or not to meat: A longitudinal investigation of transitioning to and from plant-based diets. *Appetite*, *166*, 105584. <https://doi.org/10.1016/j.appet.2021.105584>
- Mohanty, V., Filipowicz, A. L. S., Bravo, N. S., Carter, S., & Shamma, D. A. (2023). Save a tree or 6 kg of CO₂? Understanding Effective carbon Footprint Interventions for Eco-Friendly Vehicular Choices. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23), April 23–28, 2023, Hamburg, Germany*, 1–24. <https://doi.org/10.1145/3544548.3580675>
- Mordor Intelligence. (2025). *Meat Substitutes Market SIZE & SHARE ANALYSIS - GROWTH TRENDS & FORECASTS UP TO 2030*. [mordorintelligence.com](https://www.mordorintelligence.com). <https://www.mordorintelligence.com/industry-reports/meat-substitutes-market>
- Mustapa, M. a. C., Kallas, Z., Silande, C., Gagnaire, V., Jan, G., López-Mas, L., & Aguiló-Aguayo, I. (2024). From taste to purchase: Understanding the influence of sensory perceptions and informed tasting on plant-based product purchases - An extension of the theory of planned behavior. *Journal of Agriculture and Food Research*, *16*, 101188. <https://doi.org/10.1016/j.jafr.2024.101188>
- North, M., Kothe, E., Klas, A., & Ling, M. (2021). How to define “Vegan”: An exploratory study of definition preferences among omnivores, vegetarians, and vegans. *Food Quality and Preference*, *93*, 104246. <https://doi.org/10.1016/j.foodqual.2021.104246>
- OECD-FAO Agricultural Outlook 2022-2031. (2022). In *OECD agricultural outlook . . . /OECD-FAO agricultural outlook*. <https://doi.org/10.1787/f1b0b29c-en>
- Öko-Test. (2023). Fleischersatz: Diese 8 Fleischalternativen sollten Sie probiert haben. [Oekotest.de](https://www.oekotest.de). https://www.oekotest.de/essen-trinken/Fleischersatz-Diese-8-Fleischalternativen-sollten-Sie-probiert-haben_13909_1.html
- Onder, G., Yilmaz, F., & Ozturk, M. (2020). Thermodynamic performance analysis of a copper–chlorine thermochemical cycle and biomass based combined plant for multigeneration. *International Journal of Energy Research*, *44*(9), 7548–7567. <https://doi.org/10.1002/er.5482>

- Patagonia. (2025). *Environmental & social footprint*. Patagonia.com. <https://www.patagonia.com/our-footprint/>
- Perez-Cueto, F. J., Rini, L., Faber, I., Rasmussen, M. A., Bechtold, K., Schouteten, J. J., & De Steur, H. (2022). How barriers towards plant-based food consumption differ according to dietary lifestyle: Findings from a consumer survey in 10 EU countries. *International Journal of Gastronomy and Food Science*, 29, 100587. <https://doi.org/10.1016/j.ijgfs.2022.100587>
- Perino, G., & Schwickert, H. (2023). Animal welfare is a stronger determinant of public support for meat taxation than climate change mitigation in Germany. *Nature Food*, 4(2), 160–169. <https://doi.org/10.1038/s43016-023-00696-y>
- Petersen, T., & Hirsch, S. (2023). Comparing meat and meat alternatives: an analysis of nutrient quality in five European countries. *Public Health Nutrition*, 26(12), 3349–3358. <https://doi.org/10.1017/s1368980023001945>
- Petersen, T., Tatic, M., Hartmann, M., & Hirsch, S. (2023). Meat and meat substitutes—A hedonic-pricing model for the German market. *Journal of the Agricultural and Applied Economics Association*, 2(4), 668–685. <https://doi.org/10.1002/jaa2.84>
- Piazza, J., Ruby, M. B., Loughnan, S., Luong, M., Kulik, J., Watkins, H. M., & Seigerman, M. (2015). Rationalizing meat consumption. The 4Ns. *Appetite*, 91, 114–128. <https://doi.org/10.1016/j.appet.2015.04.011>
- Profeta, A., Baune, M., Smetana, S., Bornkessel, S., Broucke, K., Van Royen, G., Enneking, U., Weiss, J., Heinz, V., Hieke, S., & Terjung, N. (2021). Preferences of German Consumers for Meat Products Blended with Plant-Based Proteins. *Sustainability*, 13(2), 650. <https://doi.org/10.3390/su13020650>
- ProVeg International. (2021). PLANT-BASED FOOD IN GERMANY: Market and consumer insights. In *Proveg.org*. <https://corporate.proveg.com/wp-content/uploads/2022/05/Report-Plant-based-food-in-Germany-1.pdf>
- ProVeg International. (2023, November). *Evolving Appetites: An in-depth look at European attitudes towards plant-based eating*. Smart Protein Project. <https://smartproteinproject.eu/consumer-attitudes-plant-based-food-report/>
- Randers, L., & Thøgersen, J. (2022). Meat, myself, and I: The role of multiple identities in meat consumption. *Appetite*, 180, 106319. <https://doi.org/10.1016/j.appet.2022.106319>
- Ravishankar, G. A., Rao, A. R., Tahergorabi, R., & Mohan, A. (2024). *Handbook of Plant-Based Meat Analogs: Innovation, Technology and Quality*. Elsevier.
- Reed, D. D., Niileksela, C. R., & Kaplan, B. A. (2013). Behavioral Economics. *Behavior Analysis in Practice*, 6(1), 34–54. <https://doi.org/10.1007/bf03391790>
- Rosalinova, R. (2020, November 17). *Vegan Meat Alternatives - a more sustainable packaging option*. Amcor.com. <https://www.amcor.com/insights/blogs/packaging-meat-alternatives>
- Rosenfeld, D. L., & Tomiyama, A. J. (2021). Gender differences in meat consumption and openness to vegetarianism. *Appetite*, 166, 105475. <https://doi.org/10.1016/j.appet.2021.105475>
- Rothgerber, H. (2012). Real men don't eat (vegetable) quiche: Masculinity and the justification of meat consumption. *Psychology of Men & Masculinity*, 14(4), 363–375. <https://doi.org/10.1037/a0030379>
- Rupprecht, C. D., Fujiyoshi, L., McGreevy, S. R., & Tayasu, I. (2020). Trust me? Consumer trust in expert information on food product labels. *Food and Chemical Toxicology*, 137, 111170. <https://doi.org/10.1016/j.fct.2020.111170>

- Sadig, R. E., & Wu, J. (2024). Are novel plant-based meat alternatives the healthier choice? *Food Research International*, *183*, 114184. <https://doi.org/10.1016/j.foodres.2024.114184>
- Saini, M., Prakash, G., Yaqub, M. Z., & Agarwal, R. (2024). Why do people purchase plant-based meat products from retail stores? Examining consumer preferences, motivations and drivers. *Journal of Retailing and Consumer Services*, *81*, 103939. <https://doi.org/10.1016/j.jretconser.2024.103939>
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson.
- Schleicher, K., & Töller, A. E. (2024). Dietary behavior as a target of environmental policy: Which policy instruments are adequate to incentivize Plant-Based diets? *Sustainability*, *16*(6), 2415. <https://doi.org/10.3390/su16062415>
- Schneider, C. (2024, October 30). *Labelling of food made from plant-based alternatives*. European Parliament. https://www.europarl.europa.eu/doceo/document/E-10-2024-002312_EN.html#:~:text=On%204%20October%202024%2C%20the,if%20it%20has%20not%20formally
- Schwarz, A., Fischer, P., & Weinrich, R. (2024). Unlocking the value and transitional purpose of plant-based meat alternative companies in the German market. *Sustainable Futures*, *7*, 100183. <https://doi.org/10.1016/j.sftr.2024.100183>
- Seffen, A. E., & Dohle, S. (2023). What motivates German consumers to reduce their meat consumption? Identifying relevant beliefs. *Appetite*, *187*, 106593. <https://doi.org/10.1016/j.appet.2023.106593>
- Simoun, B., Berre, D., Listia, R., Ilona, F., Michael, B. F., A, P. F. J., Elsa, G., Emanuele, Z., Jietse, S. J., & Hans, D. S. (2025). I eat, therefore I am? Revealing differences and incongruences in dietary identities among omnivores and flexitarians in Europe. *Appetite*, 107893. <https://doi.org/10.1016/j.appet.2025.107893>
- Statista Research Department. (2025). Brand Ranking of Meat Substitute Products Germany 2023. In *Statista.com*. Statista. <https://www.statista.com/statistics/1452034/meat-substitute-products-brand-ranking-germany/>
- Statistisches Bundesamt. (2024). *Commercial slaughtering in Germany*. Federal Statistical Office. <https://www.destatis.de/EN/Themes/Economic-Sectors-Enterprises/Agriculture-Forestry-Fisheries/Animals-Animal-Production/Tables/3-commercial-slaughtering-year.html>
- Strässner, A., & Hartmann, C. (2023). Gradual behaviour change towards meat reduction: Development and validation of a novel decisional balance scale. *Appetite*, *186*, 106537. <https://doi.org/10.1016/j.appet.2023.106537>
- Su, W., Yang, B., Zhou, B., Wang, F., & Li, A. (2021). A novel convection and radiation combined terminal device: Its impact on occupant thermal comfort and cognitive performance in winter indoor environments. *Energy and Buildings*, *246*, 111123. <https://doi.org/10.1016/j.enbuild.2021.111123>
- Sustainable Brands. (2023, May 5). Oatly challenges big dairy to climate footprint showdown. *Sustainable Brands*. <https://sustainablebrands.com/read/oatly-challenges-big-dairy-climate-footprint-showdown>
- Szenderák, J., Fróna, D., & Rákos, M. (2022). Consumer Acceptance of Plant-Based Meat Substitutes: A Narrative review. *Foods*, *11*(9), 1274. <https://doi.org/10.3390/foods11091274>
- Thaler, R. H., & Sunstein, C. R. (2008). Nudge: improving decisions about health, wealth, and happiness. *Choice Reviews Online*, *46*(02), 46–0977. <https://doi.org/10.5860/choice.46-0977>

- Tony's Chocolonely. (2025). *Tony's Chocolonely products*. Tony'schocolonely.com. <https://us.tonyschocolonely.com/products/dark-chocolate-70>
- Tuppura, A., Palomäki, K., Grönman, K., Lakanen, L., Pätäri, S., Vatanen, S., & Soukka, R. (2023). Communicating positive environmental impacts – User experiences of the carbon handprint approach. *Journal of Cleaner Production*, 434, 140292. <https://doi.org/10.1016/j.jclepro.2023.140292>
- U.S. Department of Agriculture. (2023, January 25). *Germany: Plant-Based food goes mainstream in Germany*. USDA Foreign Agricultural Service. <https://www.fas.usda.gov/data/germany-plant-based-food-goes-mainstream-germany>
- Van Gestel, L. C., Adriaanse, M. A., & De Ridder, D. T. D. (2020). Do nudges make use of automatic processing? Unraveling the effects of a default nudge under type 1 and type 2 processing. *Comprehensive Results in Social Psychology*, 5(1–3), 4–24. <https://doi.org/10.1080/23743603.2020.1808456>
- Van Vliet, S., Kronberg, S. L., & Provenza, F. D. (2020). Plant-Based meats, human health, and climate change. *Frontiers in Sustainable Food Systems*, 4. <https://doi.org/10.3389/fsufs.2020.00128>
- Velenturf, A. P., & Purnell, P. (2021). Principles for a sustainable circular economy. *Sustainable Production and Consumption*, 27, 1437–1457. <https://doi.org/10.1016/j.spc.2021.02.018>
- V-Label. (2023, October 16). *Press Materials - V-Label*. <https://www.v-label.com/press-materials/>
- Weerawarna, M. W., Giezenaar, C., Coetzee, P., Godfrey, A. J. R., Foster, M., & Hort, J. (2024). Motivators and barriers to plant-based product consumption across Aotearoa New Zealand flexitarians. *Food Quality and Preference*, 117, 105153. <https://doi.org/10.1016/j.foodqual.2024.105153>
- White, S. K., Ballantine, P. W., & Ozanne, L. K. (2022). Consumer adoption of plant-based meat substitutes: A network of social practices. *Appetite*, 175, 106037. <https://doi.org/10.1016/j.appet.2022.106037>
- Williams, A. (2024, October 28). *European plant-based sales data 2021-2023 and early 2024 - GFI Europe*. GFI Europe. <https://gfieurope.org/plant-based-sales-data-2023/>
- Wright, J. D. (2015). *International Encyclopedia of the Social & Behavioral Sciences*. Elsevier Science Limited.
- Wright, R., Kanter, R. M., Stein, B. A., & Jick, T. D. (1993). The challenge of organizational change: how companies experience it and leaders guide it. *Contemporary Sociology a Journal of Reviews*, 22(5), 718. <https://doi.org/10.2307/2074647>
- Wunsch, N.-G. (2024). Most well-known meat substitute brands in Germany 2024. In *Statista.com*. Statista. <https://www.statista.com/statistics/1407001/most-well-known-meat-substitute-brands-in-germany/>
- Zandstra, E., Van Os, D., Van Der Burg, E., Stuldreher, I., Toet, A., Velut, S., Hiraguchi, H., Hogervorst, M., Brouwer, A., & Van Erp, J. (2025). Multisensory contextual cues and information affect plant-based food choices and taste perception. *Food Quality and Preference*, 126, 105385. <https://doi.org/10.1016/j.foodqual.2024.105385>
- Zumthurm, S., & Stämpfli, A. (2024). A diet-related health prompt with the Swiss Food Pyramid as a nudge to reduce meat consumption. *Food Quality and Preference*, 115, 105105. <https://doi.org/10.1016/j.foodqual.2024.105105>

Appendix A: Pre-Survey Interview Summary – Emilia (April 2025)

This summary is based on an informal interview with Emilia, a 25-year-old student from a small town near Düsseldorf. The interview asked about what she currently eats, what she thinks about meat alternatives made from plants (PBM), and how she feels about health, the environment, and how good the products are.

Emilia is not a vegetarian, but she has decided to eat less meat in recent years. The main reasons for this change are worries about health, the environment and animal welfare. She still eats meat, but she chooses quality over quantity. She prefers organic and ethically sourced products, and she usually eats meat two or three times a week, mainly poultry.

She said she had tried different PBM in the past, like vegetarian patties and meat substitutes. But she has mostly stopped eating them because she is worried about how processed they are and the additives in them. She thinks these are unhealthy and not good for a balanced diet. She thinks that many of the PBM available now are too industrialised and not natural or healthy enough for her. She said that if you're trying to eat a diet without meat, it's better to make your own meat substitutes at home using whole, unprocessed ingredients instead of buying ready-made replacements from the supermarket.

Emilia says that her family's food habits are mixed. Her parents eat more meat, while her sister and brother-in-law eat less meat, like her. She knows some vegetarians, but most people around her still eat meat regularly.

When asked what she thought about PBM, Emilia said that she understood why they were created, to reduce meat consumption for ethical or ecological reasons. However, she also said that she did not like how they were carried out. She is particularly doubtful about certain types of meat substitutes, such as plant-based cold cuts or sausages. She thinks that these are unnecessary and do not help people to achieve their health goals. She likes the idea of eating more plants, but says that the current plant-based foods on the market are not as good as they should be.

Emilia also talked about her experience with surveys. She said that she sometimes finds fixed-response scales limiting. She likes open-ended formats that allow for more detail, especially when personal attitudes cannot be put on a numerical scale.

Overall, the interview shows a careful but important point of view: Emilia thinks that people should eat less meat, and she understands why PBM exist. But she is not sure that the health benefits and the quality of most of the products available are as good as they claim to be.

Appendix B: Pre-Survey Interview Summary - Kai (April 2025)

This summary shows the most important points from an informal interview with Kai. Kai is a 23-year-old working professional from Germany. He has a background in banking sustainability. The conversation looked at what makes people choose to buy PBM, how often they buy them, and what they think of them.

Kai says he mostly eats vegetarian food. He says he only eats meat sometimes and only in certain situations. He started to change his diet because he was worried about microplastics in seafood. This led him to think more about the environment and how animals are treated, as well as industrial farming. He said that when he does eat meat, it is important to him that the animals were treated well.

Kai has experience with several products, including brands like Beyond Meat and Green Mountain. But he doesn't eat them very often. He said he was generally happy with PBM, but he was also a bit worried about additives and ways of making them that he didn't know about. He thought these might be bad for his health. Also, he doesn't use meat in his cooking, so he doesn't often need to buy PBM products for home. Most people eat meat in social situations, like barbecues or restaurant visits, especially when there are vegetarian burger options available.

He said that the price of PBM doesn't put him off, as he thinks they are as good as high-quality meat. But the main reason he doesn't use it more is because he doesn't really need it and it doesn't fit into the way he normally cooks. He also noticed that his friends and family were eating more differently. His parents and brother have also cut down on meat in the last few years, choosing to eat more plants and a Mediterranean diet, without using meat substitutes too much.

Kai said that it was easy to stay on a vegetarian diet and that she didn't really want meat. He said that more and more people are accepting vegetarianism, especially older people in his family. He admitted that meat substitutes can have social or cultural meanings, like being seen as "political" or connected to certain groups. But he thinks people's attitudes are becoming more open and accepting in general.

When asked about meat alternatives, Kai said that lentil-based burger patties are an example of a meat alternative. He also said that some dishes, like burgers, are harder to imagine without a meat-like component. Other meals, like salads or pasta dishes, can be eaten without meat or substitutes.

The interview gave us some interesting information about how people's cooking habits, ideas about health, and social situations influence the use of PBM. It also talked about how people's attitudes to meat are changing, and the important role PBM have in this.

Appendix C: Pre-Survey Interview Summary - Julius (April 2025)

This summary is based on a conversation with Julius, a 25-year-old student at Católica Lisbon School of Business and Economics. The interview looked at what he eats, his experiences with meat alternatives made from plants (PBM), and what he thinks about them and their cultural significance.

Julius says he has eaten a lot less meat recently. He sometimes eats meat when he goes to a restaurant, but he doesn't cook with meat or fish at home. He wants to eat less meat for ethical and environmental reasons. He said that he was worried about animal welfare, especially in relation to industrial farming and mass production, and the impact of meat production on the climate.

Julius has tried a range of PBM, including plant-based patties, nuggets, and cold cuts, but does not buy them regularly. He explained that, because his home cooking typically involves simple meals like vegetable stir-fries or pasta, he doesn't feel the need to use PBM as substitutes. When asked why he doesn't use them more often, Julius said there are two main reasons: they're not easy to find in his local supermarkets and they're more expensive than cooking with vegetables. He said that while there are more options in some stores and people can try different things, the lack of options available means he is less interested and does not buy as often.

When it comes to the social environment, Julius sees a general trend among his friends and acquaintances towards eating less meat. He said that a lot of people eat little or no meat at home but might choose meat dishes when they eat out. He also said that when they do eat meat, they tend to go for higher-quality options. He said that in his age group, more and more people are happy to have meals without meat, and they don't see a need to have meat in every dish.

When asked about his links with PBM, Julius mentioned typical products like nuggets and patties and said that this type of food is linked to a more modern and sustainable lifestyle. He said that this was different from more traditional eating habits, and that PBM shows changes in cultural values and a generational shift.

The interview shows that people often choose to eat less meat because they think it's better for the environment and their health. But how often people use PBM depends on whether they can get them, how much they cost, and what their cooking habits are.

Appendix D: Pre-Survey Interview Summary – Fabian (April 2025)

I spoke to Fabian, a 22-year-old student from Hamburg, Germany, about his life and what he thinks about the world. Fabian currently works in a café that serves only vegetarian and vegan food, which has taught him about plant-based diets. The interview looked at what he is currently eating, his experience of meat alternatives made from plants (PBM), and what he thinks about them in everyday eating habits.

Fabian says that he doesn't have a strict diet, but he does try to eat in a way that is good for his body and the environment. He doesn't follow a set limit or structure regarding his meat intake. He eats according to what feels right in the moment. He has eaten PBM like vegan minced meat, especially when eating with vegetarian or vegan friends. He said that he usually doesn't decide to buy these products himself, but rather lets others influence his choices based on what they like.

When asked about his social circle, Fabian said that a lot of people are eating less meat. He thinks this change is part of a bigger cultural shift. He says that he doesn't use PBM a lot because of his habits and thinking, not because of any problems with the products. He suggested that if people felt less attached to "real meat", they would be more likely to use PBM. However, he did admit that price could be a problem, especially when compared to low-cost traditional meat products.

When it comes to how people think about products, Fabian said that he sometimes hears people worried about PBM having ingredients that are not clear, or being made up mostly of soy. He is not sure if soy is good for the environment. This is because soy farming often causes deforestation.

Overall, Fabian's answers show that he is open to the idea of PBM, but he is also influenced by society. His interview shows how important social context, how people think about sustainability, and how believable claims about sustainability are when it comes to whether consumers will accept meat alternatives.

Appendix E: Pre-Survey Interview Summary – Cedrik (April 2025)

Here is a summary of what Cedrik, a 28-year-old professional working in engineering and construction in Duisburg, Germany, told us in an informal interview. The interview looked at what he eats, if he has tried meat alternatives, and what he thinks about eating meat.

Cedrik says he mostly eats meat. He usually has meat for lunch or dinner. He hasn't cut down on meat a lot, but he has sometimes thought about how often he eats meat. He doesn't eat meat because he thinks it's bad for you, not because he thinks it's wrong.

He said he had tried PBM several times, including tofu and products from brands like Beyond Meat. People used these alternatives instead of meat. Cedrik said that while he's open to trying these products, he thinks that PBM currently don't taste and feel like real meat, especially the more expensive, higher quality cuts. He said that he would have to make more improvements in this area if he wanted to include them in his diet more often.

When asked about his friends, Cedrik said that some people have stopped eating as much meat, but others are still eating a lot of meat. He himself avoids certain processed meats like cold cuts, which are still common among his friends.

When asked about his general associations with PBM, Cedrik said that he thought of tofu as his main point of reference and linked the category to vegetarians, vegans and people who care about the environment. He doesn't think PBM are necessary, because you can have a balanced diet without meat or meat substitutes. At the same time, he said that eating a small amount of meat is not necessarily a problem.

Cedrik wasn't worried about taking part in online surveys, because how useful they are depends on who's doing them and why.

Cedrik's point of view is sensible and balanced. He is not trying to eat less meat, but he is happy to try different options if they taste good and are of high quality. His interview shows that for more traditional consumers, product quality is the most important reason to use PBM.

Appendix F: Pre-Survey Interview Summary – Antonia (April 2025)

This summary is based on an informal interview with Antonia, a 24-year-old psychology student currently living in Munich.

Antonia said that her eating habits have changed a lot over time. She was a vegetarian for twelve years, but recently started eating meat again. But she doesn't buy meat for home, and only eats it sometimes when she goes out. She decided to stop eating meat for two reasons. First, she did not like the idea of factory farms. She also thought that animals should not be raised just to be eaten by people.

She has used lots of different products, especially from brands like Rügenwalder Mühle, Garden Gourmet and supermarket own brands. People mostly ate these products when they wanted to eat something familiar, like schnitzel, sausages, or meatballs. She asked PBM to make food that tasted and felt like meat-based comfort foods, but that was still ethical.

Antonia is worried about PBM because of their effect on health. She often finds ingredient lists that are full of unfamiliar and overly processed ingredients, which makes her wonder if they are good for you. She likes soy in theory, but is unsure about its effect on the environment. She thinks she would be more likely to buy PBM if they were made from local and less processed ingredients, with a shorter and clearer list of components.

She also sees that people around her are becoming more aware of and careful about how much meat they eat. She said that even when people choose to eat meat, they often feel guilty. She also said that people are thinking more carefully about their food choices and are more ethical. This is especially clear in her group of friends, where many people seem to be trying to eat less meat.

Antonia also talked about the cultural importance of meat in traditional dishes. She thinks that people don't want to give up meat because of taste, but because of habits and emotional links. In this case, she thinks PBM are a useful tool that lets consumers satisfy their cravings without compromising their ethical principles. Products like meat-free sausages or Beyond Meat burgers are almost the same as normal meat in terms of taste and experience, and they make you feel better about your choices.

Antonia didn't mind online surveys and said that, as a psychology student, she often takes part in them. As long as they stay within a reasonable time frame, she thinks they are a useful way to help with research.

Appendix G: Pre-Survey Interview Summary –Johanna (April 2025)

This summary is based on an informal interview with Johanna Baral, a 26-year-old law student from Hamburg.

Johanna doesn't follow a vegetarian diet, but she does eat meat only sometimes. She thinks it's really important to know where meat comes from and that it's good quality. She said that she only eats meat that is of high quality, which also tends to be more expensive. The main reasons she wants to eat less meat are the environment and animal welfare, especially for animals farmed in large numbers.

Johanna's behaviour is also influenced by the people and places she spends time in. Most of the people she knows don't eat meat, which affects the choices she makes. This social influence was described as a significant factor contributing to her dietary patterns.

But Johanna doesn't go to PBM at all. This isn't because she has an ideological problem with them, but because she can't stand the physical discomfort of going. She gets tummy ache when she eats these products, which is something that's not talked about enough in research for consumers. This health problem stops her from working with PBM, even though she agrees with their moral goals.

Johanna also talked about how PBM are presented. She thinks of them as part of a certain way of life and cultural identity, often linked to city and alternative scenes. She thinks that PBM has become a symbol of a new way of thinking, not just a new way of eating. This makes the topic very controversial, with people having very strong opinions about it.

Overall, Johanna's reflections show that she is a consumer who thinks about ethics and the environment, but who has health problems and is aware of the cultural meaning of PBM. Her point shows that it's not as simple as saying someone is a vegetarian or an omnivore.

Appendix H: Export of Survey from Qualtrics (German & *English*)

The survey was conducted in German. The questions have been translated to *English* for the appendix. Additionally, the logic, with which some questions were hidden from participants if they were not adequate, is not represented here. An example for such question would be asking a Vegan how much meat they consume.

Q1 Welche der folgenden Aussagen beschreibt dein aktuelles Essverhalten in Bezug auf tierische Lebensmittel am besten? *Which of the following statements best describes your current eating behavior with regard to animal foods?*

- Omnivore (Keine Ernährungseinschränkungen) (1)
- Flexitarier/in (überwiegend pflanzlich, aber gelegentlich Fleisch) (2)
- Vegetarier/in (kein Fleisch, aber gelegentlich andere tierische Produkte) (3)
- Veganer/in (vollständiger Verzicht auf tierische Produkte) (4)
- Omnivore (no dietary restrictions) (1)*
- Flexitarian (mainly plant-based, but occasionally meat) (2)*
- Vegetarian (no meat, but occasionally other animal products) (3)*
- Vegan (no animal products at all) (4)*

Q2 Wie häufig konsumierst du Fleisch (einschließlich Rind, Schwein, Geflügel und Fisch)? *How often do you consume meat (including beef, pork, poultry and fish)?*

- Täglich (1)
- 3-5 mal pro Woche (2)
- 1-2 mal pro Woche (3)
- 1-2 mal pro Monat (4)
- Weniger (5)
- Nie (6)
- Daily (1)*
- 3-5 times a week (2)*
- 1-2 times per week (3)*
- 1-2 times per month (4)*
- Less (5)*
- Never (6)*

Q3 Wie sehr stimmst du der folgenden Aussage zu? „Ich beabsichtige, meinen Fleischkonsum in den nächsten 6 Monaten zu reduzieren.“

How much do you agree with the following statement? "I intend to reduce my meat consumption in the next 6 months."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*

Q4 Wie wichtig waren dir die folgenden Faktoren bei deiner bisherigen Entscheidung, deinen Fleischkonsum zu reduzieren?

How important were the following factors in your decision to reduce your meat consumption so far?

	Überhaupt nicht wichtig (1) <i>Not important at all</i>	Weniger wichtig (2) <i>Less important</i>	Mäßig wichtig (3) <i>Moderately important</i>	Wichtig (4) <i>Important</i>	Sehr wichtig (5) <i>Very important</i>
Tierwohl (1) <i>Animal welfare</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Umweltauswirkungen/ Nachhaltigkeit (2) <i>Environmental impact/sustainability</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gesundheitsvorteile (3) <i>Health benefits</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beiträge, Challenges (z.B. Veganuary) oder Influencers auf Social Media (4) <i>Posts, challenges (e.g. Veganuary) or influencers on social media</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personen aus deinem Umfeld (z.B. Freunde, Familie, Partner) (5) <i>People from your environment (e.g. friends, family, partner)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unverträglichkeit (6) <i>Incompatibility</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geschmack (7) <i>Taste</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 Gibt es einen weiteren wichtigen Faktor für dich, der oben nicht genannt wurde?

Is there another important factor for you that has not been mentioned above?

Q6 Wie sehr stimmst du der folgenden Aussage zu? „Ich beabsichtige, auch weiterhin auf den Konsum von Fleisch zu verzichten.“

How much do you agree with the following statement? "I intend to continue to refrain from eating meat."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*

Q7 Unter **pflanzenbasiertem Fleisch** versteht man Produkte, die in Geschmack und Aussehen echten Fleischprodukten ähneln sollen, jedoch vollständig ohne tierische Bestandteile hergestellt werden. Beispiele sind Produkte von *Rügenwalder Mühle*, *Beyond Meat*, oder *Like Meat*. Unter folgendem Link findet man ein paar Beispielhafte Produkte *Plant-based meat refers to products that are intended to resemble real meat products in taste and appearance, but are produced entirely without animal ingredients. Examples are products from Rügenwalder Mühle, Beyond Meat, or Like Meat. You can find a few examples of products under the following link*

(ACHTUNG, bei einigen Browsern schließt sich dieses Fenster beim öffnen des Links, deshalb lieber Rechtsklick und "Im neuen Tab öffnen"):

https://www.foodwatch.org/fileadmin/_processed_/7/f/csm_Veganuary_Gruppe_1200x628_00c6f975b8.jpg

Q8 Hast du schon einmal pflanzenbasiertes Fleisch probiert?

Have you ever tried plant-based meat?

- Ja (1) *Yes*
- Nein (2) *No*

Q9 Wie häufig hast du in den letzten 6 Monaten pflanzenbasiertes Fleisch konsumiert?
How often have you consumed plant-based meat in the last 6 months?

- Nie (1)
- Selten (1-5 mal) (2)
- Gelegentlich (1-2 mal pro Monat) (3)
- Regelmäßig (1+ mal pro Woche) (4)
- Never (1)*
- Rarely (1-5 times) (2)*
- Occasionally (1-2 times per month) (3)*
- Regularly (1+ times per week) (4)*

Q16 Wie wichtig waren dir die folgenden Faktoren bei deiner Entscheidung, pflanzenbasiertes Fleisch zu probieren oder zu konsumieren?

How important were the following factors in your decision to try or consume plant-based meat?

	Überhaupt nicht wichtig (1) <i>Not important at all</i>	Weniger wichtig (2) <i>Less important</i>	Mäßig wichtig (3) <i>Moderately important</i>	Wichtig (4) <i>Important</i>	Sehr wichtig (5) <i>Very important</i>
Tierwohl (1) <i>Animal welfare</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Umweltauswirkungen (2) <i>Environmental impact</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gesundheitsvorteile (3) <i>Health benefits</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beiträge, Challenges (z.B. Veganuary) oder Influencer/innen in sozialen Medien (4) <i>Posts, challenges (e.g. Veganuary) or influencers in social media</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Empfehlungen durch Personen aus deinem Umfeld (z.B. Freunde, Familie, Partner) (5) <i>Recommendations from people around you (e.g. friends, family, partner)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neugier (6) <i>Curiosity</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 Gibt es einen weiteren wichtigen Faktor für dich, der oben nicht genannt wurde?
Is there another important factor for you that has not been mentioned above?

Q17 Wie stark haben dich die folgenden Faktoren in der Vergangenheit davon abgehalten, pflanzenbasiertes Fleisch zu konsumieren?

How much have the following factors prevented you from consuming plant-based meat in the past?

	Überhaupt nicht wichtig (1) <i>Not important at all</i>	Weniger wichtig (2) <i>Less important</i>	Mäßig wichtig (3) <i>Moderately important</i>	Wichtig (4) <i>Important</i>	Sehr wichtig (5) <i>Very important</i>
Preis (1) <i>Price</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geschmack (2) <i>Taste</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verfügbarkeit (z.B. in deinem Supermarkt) (3) <i>Availability (e.g. in your supermarket)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Textur/ Gefühl im Mund (4) <i>Texture/feel in the mouth</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unbekannte oder problematische Zutaten (5) <i>Unknown or problematic ingredients</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fehlende Vertrautheit/ Unsicherheit (z.B. wie man es zubereitet, womit man es kombiniert, welche Marke gut ist) (6) <i>Lack of familiarity/uncertainty (e.g. how to prepare it, what to combine it with, which brand is good)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Einfluss von Personen aus meinem Umfeld (z.B. Familie, Freunde oder Partner) (7) <i>Influence of people from my environment (e.g. family, friends or partner)</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 Wenn du dich für einen Grund entscheiden müsstest, welcher der folgenden Gründe hält dich am stärksten davon ab, pflanzenbasiertes Fleisch häufiger zu konsumieren?

If you had to choose one reason, which of the following is the biggest deterrent to consuming plant-based meat more often?

- Preis (1) *Price*
- Geschmack (2) *Taste*
- Verfügbarkeit (z.B. in deinem Supermarkt) (3) *Availability (e.g. in your supermarket)*
- Textur/ Gefühl im Mund (4) *Texture/feel in the mouth*
- Unbekannte oder problematische Zutaten (5) *Unknown or problematic ingredients*
- Fehlende Vertrautheit/ Unsicherheit (z.B. wie man es zubereitet, womit man es kombiniert, welche Marke gut ist) (6) *Lack of familiarity/uncertainty (e.g. how to prepare it, what to combine it with, which brand is good)*
- Einfluss von Personen aus meinem Umfeld (z.B. Familie, Freunde oder Partner) (7) *Influence of people from my environment (e.g. family, friends or partner)*
- Sonstiges (bitte angeben) (8) *Other (please specify)*

Q19 Welche der folgenden Punkte würden dich eher dazu bringen, im nächsten Monat mehr pflanzenbasierte Fleischalternativen zu konsumieren? (Mehrere Antworten möglich)

Which of the following would make you more likely to consume more plant-based meat alternatives in the next month? (multiple answers possible)

- Niedrigerer Preise (1) *Lower prices*
- Besserer Geschmack (2) *Better taste*
- Bessere Textur/ Gefühl im Mund (3) *Better texture/feel in the mouth*
- Bessere Verfügbarkeit in Geschäften und Restaurants (4) *Better availability in stores and restaurants*
- Mehr Informationen über gesundheitliche Vorteile (5) *More information about health benefits*
- Nachweis von Vorteilen bei Nachhaltigkeit (6) *Proof of benefits in terms of sustainability*
- Mehr Rezepte oder Kochinspiration (7) *More recipes or cooking inspiration*

- Bekannte Marken oder vertrauenswürdige Unternehmen (8) *Well-known brands or trustworthy companies*
- Inhalte in sozialen Netzwerken (z.B. Rezepte oder Challenges meiner Lieblings-Influencer/in) (9) *Content on social networks (e.g. recipes or challenges from my favorite influencer)*
- Mehr Nutzung von Personen aus meinem Umfeld (10) *More use of people from my environment*
- Nichts würde mich überzeugen (11) *Nothing would convince me*
- Sonstiges (bitte Angeben) (12) *Other (please specify)*

Q10 Wie sehr stimmst du den folgenden Aussagen zu? „Ich beabsichtige, in den nächsten 6 Monaten mehr pflanzenbasiertes Fleisch zu essen.“
How much do you agree with the following statements? "I intend to eat more plant-based meat in the next 6 months."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*

Q12 „In der Vergangenheit fiel es mir schwer, eine überwiegend pflanzliche Ernährung umzusetzen.“
"In the past, I found it difficult to follow a predominantly plant-based diet."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*
-

Q13 "Menschen in meinem Umfeld (z. B. Familie und Freunde) reduzieren ihren Fleischkonsum."

"People around me (e.g. family and friends) are reducing their meat consumption."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*

Q14 "Mir ist aufgefallen, dass Menschen in meinem Umfeld (z. B. Familie und Freunde) kürzlich pflanzenbasiertes Fleisch konsumiert haben."

"I have noticed that people around me (e.g. family and friends) have recently consumed plant-based meat."

- Stimme überhaupt nicht zu (1) *Do not agree at all*
- Stimme eher nicht zu (2) *Rather disagree*
- Weder noch / Neutral (3) *Neither / Neutral*
- Stimme eher zu (4) *Tend to agree*
- Stimme voll und ganz zu (5) *Fully agree*

Q20 Wie alt bist du
How old are you

- Unter 18 (1) *Under 18*
 - 18-24 (2)
 - 25-34 (3)
 - 35-44 (4)
 - 45-54 (5)
 - 55-64 (6)
 - 65+ (7)
-

Q21 Bitte gib dein Geschlecht an:
Please enter your gender:

- Frau (1) *Woman*
 - Mann (2) *Man*
 - Divers/ Nicht-binär (3) *Diverse/non-binary*
 - Möchte ich nicht angeben (4) *Prefer not to say*
-

Q27 Was ist dein höchster abgeschlossener Bildungsabschluss?
What is your highest educational qualification?

- Hauptschulabschluss (1) *Secondary school*
- Realschulabschluss (4) *Secondary school (special to Germany)*
- (Fach-)Abitur / Allgemeine Hochschulreife (5) *General higher education*
- Berufsausbildung (6) *Vocational training*
- Fachhochschulabschluss (z. B. Bachelor, Diplom FH) (7) *Degree from a university of applied sciences*
- Universitätsabschluss (z. B. Bachelor, Diplom, Staatsexamen) (2) *University degree*
- Masterabschluss (3) *Master degree*
- Promotion / Doktorgrad (8) *Phd*
- Keine Angabe / Sonstige (9) *Not specified / Other*

Appendix I: Sample distribution table

Category	Level	Count	Percent
Age group	18-24	74	44,8
	25-34	63	38,2
	35-44	10	6,1
	45-54	7	4,2
	55-64	9	5,5
	65+	2	1,2
Gender	Woman	88	53,3
	Man	77	46,7
Education	Intermediate-secondary certificate	9	5,5
	Lower-secondary certificate	2	1,2
	Master's degree	17	10,3
	No answer / other	1	0,6
	University degree	50	30,3
	University of Applied Sciences degree	25	15,2
	Upper-secondary certificate	46	27,9
	Vocational training certificate	15	9,1
Diet group	Flexitarian	47	28,5
	Omnivore	83	50,3
	Vegan	4	2,4
	Vegetarian	31	18,8

Appendix J: PBM consumption frequency overall table

Percent	Frequency	Count
28,5	Monthly	47
29,1	Weekly+	48
31,5	1-5 every 6 months	52
3,6	Never	6

Appendix K: PBM consumption per dietary group table

Dietary Habit	Never	1-5 / 6 mo	Monthly	Weekly+
Flexitarian	4,5	36,4	29,5	29,5
Omnivor	5,4	45,9	25,7	23
Vegan	0	0	25	75
Vegetarian	0	6,5	45,2	48,4

Appendix L: Motivations for meat reduction table

Motivation	Mean	%>=4
Animal welfare	4,3	41,8
Environmental sustainability	4,12	42,4
Health benefits	3,46	27,9
Personal environment	2,84	19,4
Taste	2,8	18,2
Food intolerance	1,89	7,9
Social-media challenges	1,52	1,8

Appendix M: Motivations for PBM consumption table

Motivation	Mean	%>=4
Animal welfare	3,93	69,1
Curiosity	3,58	57
Environmental concerns	3,48	56,4
Recommendations	3,05	37,6
Health benefits	2,8	24,8
Social-media challenges	1,49	3

Appendix N: Barriers to PBM consumption table

Barrier	Mean	%>=4
Taste	3,3	50,9
Texture / mouthfeel	3,01	40,6
Price	2,99	41,8
Availability	2,78	32,7
Unknown / processed ingredients	2,62	31,5
Lack of familiarity / uncertainty	2,37	20
Social influence	1,98	15,2

Appendix O: Forced Choice Barriers to PBM consumption table

Barrier	Count	Percent
Price	28	23,9
Taste	28	23,9
Unknown / processed ingredients	22	18,8
Lack of familiarity / uncertainty	11	9,4
Availability	9	7,7
Texture / mouthfeel	9	7,7
Other	8	6,8
Social influence	2	1,7