



The Impact of Economic Volatility on Consumer Preferences for Local Foods in Germany - The Influence of Labels and Perceived Value

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Abstract

Title: The impact of economic volatility and global crises on consumer preferences for local foods in Germany: The influence of labels and perceived value.

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This paper examines the relationship between economic uncertainty and consumer preferences for local food in Germany, focusing on perceived value and the influence of labelling. It analyses how economic instability affects German consumers' attitudes towards local and imported food, taking into account current economic challenges and increasing concerns about sustainability. Through a comprehensive analysis of consumer perceptions of quality, safety and environmental sustainability, the study shows that economic downturns increase the preference for locally sourced food, as consumers value higher quality, improved safety measures and support for the local economy. It also examines the crucial role of food labels and certifications in purchasing decisions by evaluating their trustworthiness and their impact on consumers' preference for local products over non-local alternatives. These results provide important insights into sustainable consumer behaviour and offer practical implications for policy makers, the food industry and marketers. These insights can help formulate strategies to promote local food consumption and strengthen local food systems in Germany and in similar contexts worldwide.

Keywords: Economic Uncertainty, Consumer Preferences for Local Food, Role of Trust in Labels, Value Perception of Local Food, Consumer Behaviour

Resumo

Título: O impacto da volatilidade económica e crises globais nas preferências dos consumidores por alimentos locais na Alemanha: A influência dos rótulos e do valor percebido.

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Esta dissertação explora a relação entre a incerteza económica e as preferências dos consumidores por alimentos locais na Alemanha, destacando o valor percebido e a influência da rotulagem. Investiga como a instabilidade económica afeta as atitudes dos consumidores alemães em relação aos alimentos locais versus importados, considerando os desafios económicos atuais e as crescentes preocupações com a sustentabilidade. Através de uma análise abrangente das percepções dos consumidores relacionadas à qualidade, segurança e sustentabilidade ambiental, o estudo demonstra que as recessões económicas aumentam a preferência por alimentos de origem local devido à maior valorização da qualidade superior, medidas de segurança aprimoradas e apoio à economia local. Além disso, examina o papel crucial dos rótulos e certificações alimentares na formação das decisões de compra, avaliando sua confiabilidade e seu impacto na preferência dos consumidores por produtos locais em detrimento dos não locais. As conclusões oferecem percepções vitais sobre o comportamento sustentável dos consumidores, fornecendo implicações práticas para formuladores de políticas, a indústria alimentar e profissionais de marketing. Essas percepções podem ajudar a formular estratégias para promover o consumo de alimentos locais e fortalecer os sistemas alimentares locais na Alemanha e em contextos semelhantes globalmente.

Palavras-chave: incerteza económica, preferências dos consumidores, alimentos locais, rotulagem de alimentos, certificações alimentares, Alemanha, sustentabilidade, comportamento do consumidor

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List of Abbreviations

CPLF - Consumer Preferences for Local Food
EU - Economic Uncertainty
PVLF - Perceived Value of Local Food
TIL - Trust in Labels
SEM - Structural Equation Modeling
CSA - Community-Supported Agriculture
COVID-19 - Coronavirus Disease 2019
SPSS - Statistical Package for the Social Sciences
ANOVA - Analysis of Variance
df - Degrees of Freedom
R ² - Coefficient of Determination
t-value - Test Statistic Value
p-value - Probability Value
β - Beta Coefficient
N - Sample Size
H1, H2, H3, H4 - Hypotheses 1, 2, 3, 4
R - Correlation Coefficient
CFA - Confirmatory Factor Analysis
AVE - Average Variance Extracted
CR - Composite Reliability
χ ² - Chi-Square

1 Introduction

In recent years, the global food industry has faced several significant challenges, from economic volatility and geopolitical tensions to global health crises such as the COVID-19 pandemic. These events have affected the economic stability of countries and have had a lasting impact on consumer behaviour, particularly in food consumption (Aldaco et al., 2020). With its robust food industry, Germany is no exception and is experiencing a shift in consumer preferences towards more locally produced food. This trend is underpinned by growing consumer concerns about food quality and safety, environmental sustainability and a desire to support the local economy (Hempel & Hamm, 2016); (Meyerding et al., 2019).

Economic uncertainty, characterised by market volatility, job insecurity and fluctuating incomes, has been shown to have a significant impact on consumer purchasing behaviour. In times of financial instability, consumers often resort to more conservative spending habits, favouring essential and reliable goods. The perception of local food, often associated with higher quality, safety and environmental benefits, becomes particularly attractive in such circumstances (Hempel & Hamm, 2016).

In addition, food labelling and certifications are playing an increasingly important role in consumer decision-making. Labelling is essential for consumers to navigate the complexity of the origin, production process and food quality. In Germany, it has been shown that labels indicating local origin or organic certification significantly influence purchasing decisions. Consumers are willing to pay a premium for products that align with their values and perceptions of quality and sustainability (Contini et al., 2017).

Despite the apparent preference for local and labelled food, the nuances of consumer trust, labelling transparency, and authenticity of local food still need to be clarified. The dynamics between consumer perceptions, economic uncertainty, and the effectiveness of labelling in the German food industry should be explored in more detail to fully understand these relationships and develop strategies to meet consumer expectations and promote sustainable consumption patterns.

1.1 Academic and Managerial Relevance

By understanding these underlying dynamics, the results can guide policymakers on how to support local food systems, particularly in times of economic instability. Through exploring factors such as economic volatility, consumer confidence, and the perceived value of local food, policies can be tailored to encourage local food production and consumption, thus improving food security and economic resilience (Weatherell et al., 2003).

The results of this study can serve as a basis for marketing strategies and product development for companies in the food industry. By capitalising on consumers' increasing preference for locally produced food, companies can emphasise the attributes of quality, safety and sustainability in their marketing campaigns. The study highlights the critical role of transparent and reliable labelling in influencing consumer purchasing decisions, which can be crucial for product positioning and differentiation (Cicia et al., 2002).

Furthermore, the study highlights the role of local food systems in achieving sustainability goals. Promoting local production and consumption can reduce environmental impacts and thus contribute to broader sustainability efforts. It is consistent with educating consumers about the environmental and health benefits of local food, thereby increasing its perceived value and promoting sustainable consumption patterns (Pirog & Larson, 2007).

Finally, this study contributes to the scientific literature on consumer behaviour under economic uncertainty by providing a nuanced understanding of how economic conditions influence consumer preferences. Variables such as perceived quality, security, and economic resilience play a critical role in consumer decision-making, especially in financial instability. These findings are valuable to scholars and practitioners in consumer behaviour and marketing and provide a solid framework for future research and practical applications (Zepeda & Li, 2006).

1.2 Structure & Problem Statement

This thesis explores the complex relationship between economic uncertainty, consumer perceptions of food value and the influence of food labelling and certification on purchasing decisions. Given global economic volatility and increasing concerns about food sustainability,

it is important to examine these factors in the context of the German food market. The central question directing this research is:

"How does economic uncertainty influence consumer preferences for local versus imported food in Germany, and what role do perceptions of food value and labeling play in shaping these preferences?"

To further explore this, the study is structured around three key research questions:

1. How does economic uncertainty influence German consumers' preferences for local versus imported food products?
2. What role do food value perceptions play in shaping these preferences?
3. How do food labels and certifications impact consumer purchasing decisions regarding local food products?

The fundamental problem arises from the need to understand how economic fluctuations affect consumer behaviour, particularly the preference for local food, which is perceived as safer and of higher quality in uncertain times (Bazzani, 2015). Taking a closer look at this dynamic, this dissertation analyses the perceived value of food - quality, safety and environmental benefits - and trust in food labels and certifications that help consumers make informed choices (Aprile et al., 2016).

The structure of this study allows for an intensive examination of these topics. In providing a solid theoretical foundation, the literature review chapter assesses the existing research on economic uncertainty, consumer perceptions of food and the influence of food labelling and certification. Following this, the methodology chapter describes the design and implementation of the consumer survey and the analytical techniques used to ensure rigorous data collection and analysis.

Finally, the results chapter presents the findings of the survey and demonstrates how economic uncertainty and values influence consumer preferences and the role of labelling and certification in this process. Lastly, the discussion and implications chapter links the findings to broader theoretical and practical perspectives and offers actionable insights and recommendations for policy makers, businesses and future research to support local food systems and increase consumer confidence.

2 Literature Review

2.1 Introduction to the Literature Review

The global food industry has been navigating through a storm of unprecedented challenges in recent years. Economic volatility, geopolitical tensions and health crises such as the COVID-19 pandemic have significantly shaken the stability of economies and changed consumer behaviour, particularly in terms of food consumption (Aldaco et al., 2020). Through that consumer preferences have shifted markedly amid these disruptions, leaning increasingly towards locally produced food.

This literature review addresses the intriguing relationship between economic uncertainty and consumer preferences, focusing on how economic instability affects German consumers' attitudes towards local food and highlights the perceived value of local food and the crucial role of food labelling in purchasing decisions.

2.2 Economic Uncertainty

Economic uncertainty, characterised by unpredictable changes in economic conditions and politics, significantly impacts consumer behaviour and market dynamics. This uncertainty can have various causes, including financial crises, geopolitical tensions, pandemics and significant political events, as for example the Brexit. In Germany, recent events such as the euro crisis and the COVID-19 pandemic have shown how economic uncertainty can affect both the economy and consumer confidence. In the face of such instability, consumers tend to adopt more conservative spending behaviour and often limit themselves to essential goods and services (Popescu & Smets, 2010).

Research shows that economic uncertainty can increase financial risk aversion, causing consumers to re-evaluate their spending priorities. Lusardi, Schneider and Tufano (2011) provide a basic understanding of how financial crises influence consumer behaviour and highlight a trend towards more cautious and value-oriented spending. This behaviour is particularly evident in food purchasing, where consumers clearly prefer products that they perceive to be safer, of higher quality and more beneficial to the local economy.

In addition, Baker, Meyer and Pagel (2020) analyse the general impact of economic uncertainty on household spending and find that consumers tend to focus on essential goods in times of instability. Their analysis shows that food as a basic need becomes a category on which spending is focussed. This prioritisation often leads to a preference for local food, which is considered cheaper, better quality and safer than imported alternatives.

Furthermore, economic policy uncertainty (EPU) has been shown to have a significant impact on market behaviour. Bohdalová and Greguš (2017) examine the impact of EPU on European market indices, including the German DAX, and show how increased uncertainty can lead to increased market volatility. This volatility in turn affects consumer confidence and spending behaviour, demonstrating the wide-ranging impact of economic uncertainty on consumer behaviour.

Athari, Kırıkkaleli and Adebayo (2022) further extend this research foundation by studying the long-term impact of the World Pandemic Uncertainty Index on the German stock market. Their results suggest a significant negative impact on economic performance and consumer confidence and underline the important role of global uncertainty in shaping consumer behaviour.

National and international political decisions also influence the economic environment in Germany. Rieth, Michelsen and Piffer (2016) analysed the impact of the Brexit vote and found that the associated uncertainty significantly reduced GDP and investment in Germany as uncertainty was created about future trade relations, regulatory environments, and market stability, leading businesses to delay or reduce investment. These reductions underline the broader economic impact of uncertainty and its influence on consumer behaviour.

These studies highlight the profound impact of economic uncertainty on consumer behaviour, particularly about food purchasing. The general trend suggests that in times of economic instability, consumers become more conservative and prioritise essential goods, often leading to a preference for local foods that are considered higher quality and safer.

2.2.1 Impact of Economic Uncertainty on Trust & Food Purchasing

Economic uncertainty has a considerable impact on consumer confidence in food labelling and therefore on their purchasing decisions. As in many other countries, increased economic instability in Germany leads consumers to seek reassurance about the quality and safety of their food. This becomes particularly clear during financial crises or geopolitical tensions, where

reliable information is of the utmost importance. The trust consumers have in food labelling is a key mediator of their purchasing behaviour, giving them a sense of security and affecting their preference for locally produced food (Tonkin et al. 2016).

Indeed, Wu et al. (2021) highlight that consumer trust in the food system is built through assurances on food packaging labels, including food attribute claims, certifications, country or region of origin, and traceability information. These elements are important to build consumer confidence, especially in times of economic instability. The heightened focus on food safety and quality is causing consumers to rely heavily on trustworthy labelling cues and information. A study by Wang, Tao and Chu (2020) shows that while food labelling is effective in informing consumers about the quality of goods, trust varies greatly depending on the certifying body. Further highlighting the importance of trust in influencing consumer behaviour, this study suggests that higher trust in labels leads to increased purchase intentions. Although the study focuses on China, its findings are relevant for understanding similar dynamics in the German market, where trust in food labelling can mitigate the uncertainties caused by economic instability.

Tonkin et al. (2016) provide further insight into the way food labelling influences consumer perceptions of the trustworthiness of the food system. Their study found that clear and credible labelling can increase consumer trust in the food system, which is crucial in times of economic uncertainty. This trust is built through the transparent communication of food safety and quality guarantees via labels, underlining the crucial role of labelling in guiding consumer perceptions and purchasing behaviour.

In light of these dynamics, it can be assumed that economic uncertainty influences consumer trust in food labelling, which in turn affects their purchasing decisions. Especially in times of economic uncertainty, consumers are more likely to trust and purchase products with clear, reliable labelling.

Hypothesis 1: Economic uncertainty positively influences trust in labels for local food.

2.3 Role of Trust in Labels & Certifications

The role of trust in labels and certifications is crucial for consumer behaviour, especially about the preference for local food. Labels and certifications are essential for consumers to navigate the complex food market. They provide important information about the product's origin,

quality and sustainability characteristics. Hasselbach and Roosen (2015) emphasise the significant influence of labels indicating local or organic origin on consumers' purchasing decisions. Their research shows that many consumers are willing to pay a premium for products with these labels, reflecting a deep-rooted trust in the information provided. This not only emphasises the importance of the credibility and transparency of labels, but also helps consumers to make an informed choice. Codron et al. (2006) examine the economic theories behind food labelling and suggest that labels reduce information asymmetry between producers and consumers by communicating key product attributes that are not directly observable. This transparency promotes a higher level of consumer trust and confidence in their purchasing decisions.

The role of certification and labelling is critically important in communicating these qualities and bridging the gap between consumer expectations and product reality. Golan et al. (2001) emphasise the regulatory aspects of food labelling and discuss how government standards and certification processes contribute to the overall trustworthiness of labels. These regulatory institutions ensure that labels reflect product attributes accurately and maintain consumer confidence in labelled products. Profeta and Hamm (2019) examine how label transparency affects consumer trust, particularly in the context of local foods and their production characteristics. Their research shows that consumers attach great importance to knowing the exact origin and production processes of their food, which increases trust and influences purchasing decisions. Based on these insights, Umberger et al. (2009) examine the broader impact of labelling transparency on consumer trust in different food categories. A transparent labelling that provides comprehensive information about production practices can increase consumer trust and willingness to pay a premium for products that meet their quality and ethical standards.

Moreover, Loureiro and Umberger (2007) stress the role of transparency in communicating the environmental and social benefits of local food production. Indeed, their study demonstrates that consumer confidence is significantly enhanced when the beneficial effects of buying locally produced food, such as reducing the carbon footprint and supporting the local economy, are communicated on the label, further motivating the choice of locally labelled products.

Beyond this, Briggeman and Lusk (2011) examine the psychological aspects of labelling transparency and find that transparent labels can mitigate consumers' perceived risks of food safety and ethical concerns. This reduction in perceived risk is critical to building trust,

particularly in markets where consumers are increasingly concerned about the origin and production methods of their food. Reflecting these dynamics, there is emerging evidence that trust in labelling and certification plays a critical role in shaping consumer preferences for local food, particularly in conditions of economic uncertainty. This confidence influences how consumers perceive the value of local food, which in turn affects their purchasing decisions.

Hypothesis 2: Trust in labels for local food positively influences the perceived value of local food.

2.4 Local Food Value Perception

2.4.1 Definition of Local Food

To capture the full extent of the perception of local food, it is vital to understand how consumers define and perceive local food. Feldmann and Hamm (2015) provide a basic overview of consumer perceptions of local food. Their work is crucial for defining what constitutes 'local food' from a consumer perspective and exploring the different dimensions that contribute to its perceived value. The study shows that consumers often associate local food with freshness and quality, positively impacting the local economy. These associations contribute to a broader understanding of the value placed on local food beyond mere geographical proximity. Consumers perceive local food as more trustworthy and ethical, which goes hand in hand with a desire to support sustainable agricultural practices and contribute to local communities. Furthermore, Bazzani (2015) emphasises that while local food is often viewed through the lens of regional boundaries, consumer perceptions can vary, sometimes leading to misconceptions about what constitutes local food.

2.4.2 Attitudes towards local food

Meyerding et al. (2019) investigate consumer attitudes toward local food, with a particular emphasis on labeling strategies. Their research provides critical insights into the ways in which labeling can impact consumer preferences and the perceived value of local food products. Their study explores the complex relationship between label information and consumer decision-making and shows how certain labelling features can significantly influence consumer purchase

intentions. Meyerding et al. (2019) found that labels indicating local origin, organic certification and sustainability claims play a crucial role in consumers' attitudes towards local food. Consumers tend to perceive products with these labels as higher quality and more environmentally friendly, which aligns with their values and increases their willingness to pay a premium. Building on the findings of Meyerding et al. (2019), Gracia and de Magistris (2016) investigate the effectiveness of different information on food labels in communicating the quality and sustainability of local food products. Their study confirms that consumers are more likely to buy local food when labels communicate these attributes, emphasising the importance of transparency in label design. In addition, Hughner et al. (2007) offer a broader perspective on the role of organic labelling in influencing consumer attitudes towards local and organic food. They highlight that organic labelling, similar to local food labelling, is perceived by consumers as a sign of product quality and environmental responsibility, which further influences their food choices. Caswell and Mojduszka (1996) discuss the economic impact of food labelling on consumer behaviour, pointing out that labels inform consumers and help create market segments based on perceived product quality and values. This segmentation emphasises the importance of label information for consumer attitudes and preferences towards local food. In addition, Weon et al. (2015) found that consumers' perceptions of local food as high-quality products and their respect for customers significantly influence purchasing behaviour. Jensen et al. (2019) also emphasise the role of geographical proximity and relational aspects in defining local food, which further influences consumer attitudes and preferences.

Given these findings, it is to be assumed that understanding and capitalising on the perceived value of local food is critical to influencing consumer preferences and promoting local food systems in Germany.

Hypothesis 3: The perceived value of local food positively influences consumer preferences for local food.

2.5 Consumer Preferences for Local Food

Consumer preferences for local food have attracted considerable attention in recent years, with various studies investigating the factors that influence these preferences. Aprile, Caputo and Nayga (2016) highlight that consumer behaviour towards local food is influenced by a

combination of consumption styles, purchasing motives, perceived quality and socio-demographic characteristics. Their segmentation of consumers into ethnocentric consumers, environmentalists, strict localists and quality label-orientated individuals highlights the diverse motivations behind the preference for local food. Feldmann and Hamm (2015) provide a comprehensive overview of the scientific literature on local food from the consumer's perspective, noting that local food is often perceived as less expensive than organic food. This perception, coupled with a willingness to pay a premium for local food, highlights the value that consumers place on local attributes. In Germany, Hempel and Hamm (2016) found that consumers generally favour locally produced food over organic products, indicating a strong preference for products that support the local economy and align with consumers' ethical and environmental values.

Multiple factors also influence the willingness to pay for local food. Berg and Preston (2017) found that consumers at the Otago Farmers Market in New Zealand are willing to pay a premium for local food due to quality and a desire to support local producers. Similarly, Contini et al. (2017) observed that German and Italian consumers are willing to pay a premium for meals made from locally sourced ingredients, further emphasising the importance of local provenance in food purchasing decisions. However, this preference is not limited to fresh produce. Lillywhite and Simonsen (2014) found that consumers also favour locally sourced ingredients in restaurants, which can significantly influence food choices. There are many reasons for these preferences. Hasselbach and Roosen (2015) identified health, naturalness, price, animal welfare and sensory impressions as the main motives that drive consumers to favour local food. Consumers who favour these attributes value the perceived quality and ethical production methods associated with local food.

Further, Arsil et al. (2018) highlighted that spatial factors, such as rural or urban environments, can influence consumer preferences for local food. While their study in Indonesia found that urban consumers have a positive attitude towards local food, rural consumers show an even higher awareness and motivation to buy locally sourced products. Similarly, Zepeda and Li (2006) emphasise that consumer preferences for local food are driven by a desire to support the local economy and sustainable practices, as well as a perception of higher quality and freshness compared to non-local alternatives.

Given these different motivations and the significant influence of local food characteristics on consumer preferences, understanding and capitalising on these preferences is critical to promoting local food systems.

Hypothesis 4: Trust in labels for local food and the perceived value of local food mediate the relationship between economic uncertainty and consumer preferences for local food.

2.6 Research Gaps and Justification

Despite the solid body of research on consumer preferences for local food, the effectiveness of food labelling and the impact of economic uncertainty, there are still significant gaps, particularly concerning recent global developments such as the COVID-19 pandemic. Much of the existing research needs to consider the profound changes in consumer behaviour triggered by these events. Feldmann and Hamm (2015) state that cross-national comparisons and further research on the influence of personal and social norms on attitudes towards local food are needed. Furthermore, Hempel and Hamm (2016) highlight the lack of longitudinal studies that track changes in consumer behaviour towards local food and trust in labels before, during and after crises such as the COVID-19 pandemic. This gap is crucial as the pandemic has significantly changed consumer purchasing habits, supply chain dynamics and perceptions of food safety and sustainability. In addition, the digitalisation of food labelling and consumer trust still needs to be sufficiently researched.

The increase in online shopping and digital platforms for food purchasing creates new consumer trust and transparency dynamics that need to be adequately addressed in current studies. Meyerding et al. (2019) highlight the importance of digital labels, QR codes and online product information for consumer trust and suggest that this digital context needs further exploration. Furthermore, the intersection of economic uncertainty and environmental and ethical concerns in food purchasing decisions must be better understood. Recent economic uncertainties, including those triggered by the pandemic and geopolitical tensions, have increased consumer interest in sustainability and ethical production. However, more research is needed on how these

factors influence consumer preferences for local food and the perceived value of different labels and certifications.

The German market offers a unique context for investigating consumer preferences for local food due to its economic, cultural and agricultural characteristics. Germany's position as one of Europe's largest economies, combined with its significant role in global trade and agriculture, makes it an ideal setting to understand the nuances of consumer behaviour towards food, especially in times of economic uncertainty and global crises. Germany's strong industrial base and growing service sector characterise consumer purchasing power and habits. Despite its economic resilience, Germany, like many other countries, faces challenges during economic crises. Understanding how these economic shocks influence consumer priorities and values about food consumption is essential for developing effective marketing strategies and policies. German culture highly values sustainability, quality, and supporting local industries. These cultural values align with the growing consumer demand for local, organic and sustainably produced food. Examining how these values influence consumer behaviour in Germany can show how effective food labelling and certification are in communicating these attributes to consumers.

Furthermore, the German agricultural sector is highly diverse, encompassing large-scale industrial agriculture and small-scale organic and local food production. This diversity calls for a closer examination of how labels and certifications differentiate products in the eyes of consumers, especially in terms of local origin and sustainability. Examining the German market allows a comprehensive exploration of how agricultural practices and the local food movement intersect with consumer preferences and economic behaviour.

The COVID-19 pandemic has further emphasised the need to study the German market. The impact of the pandemic on supply chains, consumer access to food and the shift towards online shopping and digital labelling are current challenges that require updated research. Understanding how these factors affect consumer trust in labels and their preference for local food in Germany can provide valuable insights for other markets facing similar issues. In summary, the unique economic, cultural and agricultural context in Germany, combined with recent global challenges, emphasises the need for this study. It aims to provide up-to-date insights into consumer behaviour towards local food, the role of labelling in building trust and how economic uncertainty and cultural values influence these dynamics. Addressing the

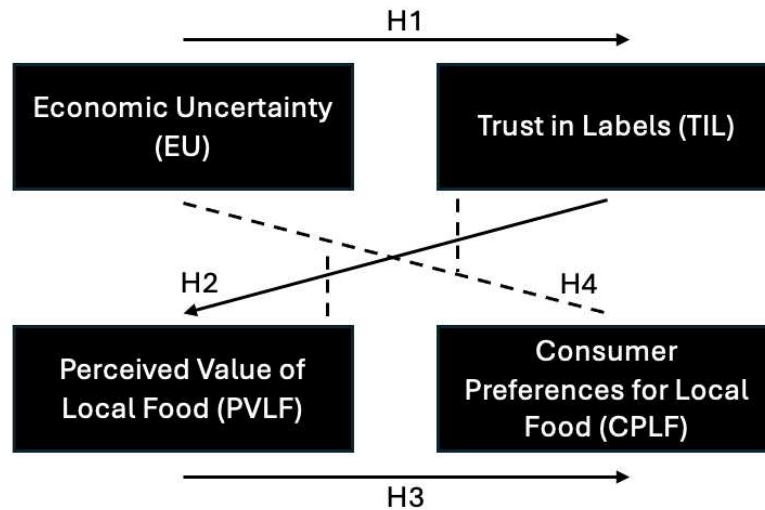
research gaps identified in the German context can contribute to a broader understanding and provide strategies to support sustainable food consumption worldwide.

2.7 Conceptual Model

The conceptual model for this study was developed to illuminate the relationships between economic uncertainty, trust in labels, perceived value of local food, and consumer preferences for local food. This model aims to provide a comprehensive understanding of how these variables interact and influence each other, forming the basis for the hypotheses tested in this study.

Economic uncertainty is postulated as an independent variable that influences consumer behaviour through two key mediators: Trust in labels and the perceived value of local food. Trust in labelling represents consumer confidence in the accuracy and reliability of food labelling, which is particularly important in times of economic instability. With increasing economic uncertainty, consumers are expected to rely more heavily on trustworthy labelling to make informed purchasing decisions. This increased trust in labelling has a positive impact on the perceived value of local food, including aspects such as quality, safety and ethical production methods.

The perceived value of local food is a second mediator linking trust in labelling to consumer preferences for local food. If consumers trust the labels, they are likely to perceive local food as more valuable, which increases their preference for these products. This sequence of influences emphasises the double mediation effect in which trust in labels and perceived value jointly mediate the relationship between economic uncertainty and consumer preferences.



3. Methodology

3.1 Objective & Study Design

The main objective of this study is to investigate the impact of economic uncertainty on consumer preferences for local food in Germany, as mediated by trust in labels and the perceived value of local food. A quantitative research design was employed, involving an online survey via Qualtrics. This platform enabled efficient data collection from a representative sample of German consumers and ensured that the relevant variables were captured to test the hypothesised relationships within the conceptual model. The survey included validated scales to measure economic uncertainty, trust in labels, perceived value of local food and consumer preferences.

3.2 Sample

Targeting German consumers, the survey was distributed across various online platforms such as LinkedIn, WhatsApp, Instagram, and relevant social media groups. To ensure a representative sample of the German population, a stratified sampling method was employed, incorporating participants from different age groups, genders, and employment statuses. Initially, the sample size comprised the responses of 312 participants. However, strict

data cleansing processes were carried out to ensure the quality and reliability of the data. Responses that did not pass the attention check, had missing values or contained inconsistent demographic information were excluded. This rigorous data cleansing reduced the final sample size to 223 respondents, sufficient for robust statistical analysis (Creswell & Creswell, 2018). This careful approach highlights the importance of maintaining high data integrity to ensure the results are credible and generalisable to the broader population.

The age distribution of respondents revealed that the majority were aged between 18 and 24 (59.2%, n=132), followed by those aged 25-34 (30.0%, n=67), with only a tiny proportion aged under 18 or over 35. This demographic distribution highlights the predominance of younger participants, possibly due to the sampling methods and platforms used to distribute the survey. The gender distribution was relatively balanced, with 52.0% (n=116) female and 47.1% (n=105) male respondents, while a minimal percentage (0.9%, n=2) preferred not to state their gender. This gender distribution ensures that the results reflect male and female views on local food preferences during economic uncertainty. Respondents' employment status indicated that a large proportion of respondents were students (43.9%, n=98), followed by full-time employees (31.4%, n=70). Other employment categories included working students (10.8%, n=24), self-employed (6.7%, n=15), part-time employees (2.7%, n=6) and unemployed participants (3.6%, n=8). In addition, the survey confirmed that all respondents were either German citizens or had lived in Germany for at least three years (100%, n=223), ensuring that the findings are highly relevant to the German context.

The comprehensive and well-structured sample, characterised by its demographic diversity and rigorous data quality checks, provides a solid basis for analysing consumer preferences and behaviour in the context of economic uncertainty in Germany.

3.3 Survey Procedure

The survey aimed to explore consumer preferences for local food during economic uncertainty and was distributed to German consumers via LinkedIn, WhatsApp, Instagram and relevant social media groups. Participants received a personalised invitation explaining the study's objectives and ensuring the anonymity and scientific use of their responses. The survey began with demographic questions to categorise participants by age, gender, employment status, income range and residence in Germany.

Following the demographic section, participants rated their concern about economic uncertainty and described how it affects their spending habits. They then rated the importance of quality, safety, environmental sustainability and supporting the local economy when choosing local food products. The survey also explored the impact of economic uncertainty on local food preferences, including the likelihood that participants would buy local food in the face of economic instability and if they are prioritising local food over other spending categories.

The following sections explored the influence of certifications and labels on consumers' purchasing decisions, participants' concerns about food safety and supply chain disruption, and their primary motivations for buying local food. The survey also assessed participants' knowledge and awareness of food provenance and the influence of retail promotions and presentations on their purchasing decisions.

An attention check was integrated into the survey to ensure the quality of the data. This check was crucial to recognise and exclude inattentive or insincere responses, as is common in survey research (Krosnick et al., 1999). After conducting this check and cleaning the data for consistency and completeness, the final data set comprised 223 valid responses.

3.4 Measurement Variables

This study focuses on four main variables influencing consumer preferences for local food in the context of economic uncertainty. Each variable is measured using established scales to ensure accurate and reliable data collection and to gain a comprehensive understanding of the factors that influence consumer behaviour. This section will describe the specific measurement tools and scales used for each variable.

3.4.1 Economic Uncertainty (EU) as the Independent Variable

Economic uncertainty captures consumers' perceptions of the current economic environment and its impact on purchasing habits. This variable is critical to understanding how general economic instability affects consumer behaviour and decision-making processes.

Participants rated their level of concern about the current economic uncertainties in Germany on a scale of 1 to 10, with 1 being "not concerned" and 10 being "extremely concerned". In addition, participants were asked how recent economic uncertainties, e.g. due to COVID-19 or geopolitical tensions, have affected their spending habits, with options ranging from reduced spending to increased savings or spending (Baker et al., 2020).

3.4.2 Trust in Labels (TIL) as the First Mediator

Trust in labelling reflects the extent to which consumers rely on and believe the information on food labels. This variable is essential for understanding how trust in food labels and certifications influences consumer behaviour and preferences for local food. The measurement scale for trust in labels was adapted from studies examining consumer trust in labelling accuracy, certification and credibility (Hasselbach & Roosen, 2015; Loureiro & Umberger, 2007).

Participants were asked to rate their agreement with statements about the accuracy and reliability of food labelling and certification. These statements included the perceived trustworthiness of labels indicating local origin, organic certification and sustainability claims. Respondents rated the extent to which these labels influence their trust in the quality and safety of local food.

3.4.3 Perceived Value of Local Food (PVLf) as the Second Mediator

The perceived value of local food includes consumers' perceptions of the quality, safety and overall benefits of local food products. This variable is critical to understanding why consumers favour local food over imported alternatives, especially during economic uncertainty. The measurement scale for the perceived value of local food was adapted from existing literature that assesses consumer perceptions of food quality, safety, and ethical production practices (Feldmann & Hamm, 2015; McEachern & McClean, 2002).

Participants were asked to rate their agreement with statements about local food's perceived quality, safety and sustainability. These statements included freshness ratings, nutritional value,

and the environmental and economic benefits of supporting local producers. Respondents also rated the importance of these factors in their purchasing decisions

3.4.4 Consumer Preferences for Local Food (CPLF) as the Dependent Variable

Consumer preference for local food indicates how much consumers favour local food products over non-local alternatives. This variable integrates the influences of economic uncertainty, trust in labels and perceived value and provides a holistic view of consumer behaviour. The measurement scale for consumer preferences for local food was adapted from existing studies examining consumer attitudes and purchasing behaviour towards local food (Megicks et al., 2012; Onozaka et al., 2010).

Participants were asked to rate their preferences for local food in various contexts, such as the likelihood that they prefer local food to imported food, their willingness to pay a premium for local produce, and their importance of supporting local producers. These questions captured the extent of their preference for local food and reflected how the other variables influenced their final purchasing decisions.

3.5 Secondary Variables

In addition to the primary variables, multiple secondary variables were included to enrich the analysis and provide a broader understanding of the factors influencing consumer preferences for local food. These secondary variables help to contextualise the primary variables and provide additional insights into consumer behaviour, allowing for a more comprehensive analysis.

Risk perception in food purchasing

Food purchasing risk perception assesses consumers' concerns about food safety and supply chain disruptions, particularly in light of recent global crises such as the COVID-19 pandemic. Participants rated their level of concern on a scale and indicated how this concern influenced

their purchasing decisions. Understanding this variable is crucial to understanding how perceived risks affect consumer behaviour towards local food (Jones & Comfort, 2021).

Demographic factors

Demographic factors, including age, gender, income and employment status, were collected to analyse how different demographic groups perceive and prioritise local food during economic uncertainty. This information shows how demographic characteristics influence consumer attitudes and behaviour towards local food consumption. Langen (2013), for example, examines how age and income can significantly influence consumer decisions.

Motivational factors for purchasing local food

The motivating factors for buying local food explore the intrinsic and extrinsic motivations behind consumers' preference for local food. Participants rated motivations such as supporting local farmers, ensuring food quality and promoting environmental sustainability. Identifying these motivations helps to identify the main reasons consumers choose local food, as outlined by Megicks, Memery and Angell (2012).

Consumer knowledge and awareness of food origin

Consumer knowledge and awareness of food origin measures how well-informed consumers are about the provenance of the food they buy and how this knowledge influences their choices. Participants indicated from which sources they obtained their information and how important it is to know the origin of the food. This variable illustrates the role of information in shaping consumer preferences. McEachern and McClean (2002) emphasise the importance of consumer knowledge in shaping ethical purchasing behaviour.

Retail influence on consumer purchasing decisions

The influence of retailers on consumer purchasing decisions examines how changes in retail strategies and the presentation of local foods affect consumer access and perceptions. Participants evaluated the influence of promotions, displays and availability on the likelihood of buying local food.

4 Result

4.1 Data Cleansing

In the data preparation phase for our analysis of consumer preferences towards local food amid economic uncertainties, thorough data cleaning was paramount to ensure the integrity of our results. This process began with removing incomplete responses and failing attention checks, a critical step to preserve the dataset's quality, as emphasized by Meade and Craig (2012). Such measures are essential to filter out inattentive or non-serious participants, enhancing data reliability.

To construct the critical variables for this study, the following latent variables were utilized: Economic Uncertainty (EU), Trust in Labels (TIL), Perceived Value of Local Food (PVLF), and Consumer Preferences for Local Food (CPLF). These variables were constructed by calculating the means of the associated survey items, ensuring a comprehensive representation of each construct.

Additionally, a meticulous approach was adopted for missing data, informed by the guidelines of Schafer and Graham (2002), to mitigate any distortion in the subsequent analysis. This included removing responses with missing values on critical variables such as longitudes and latitudes. This process underscored our commitment to maintaining the dataset's robustness, facilitating a sound foundation for the forthcoming inferential statistics.

After data cleaning, the resulting sample size was 223 respondents. This cleaned dataset was subsequently used for all analyses and hypothesis testing. This detailed and documented cleansing procedure, excluding responses failing attention checks and those with missing critical data, underscores our dedication to methodological rigour. Such diligence enhances the credibility of the research findings and adheres to the highest standards of empirical inquiry, ensuring that the outcomes are reliable and representative of the studied phenomena.

4.2 Scale Reliability Check

Cronbach's Alpha is a widely recognized measure of internal consistency. It is frequently used to assess the reliability of a set of items in measuring a single construct. This measure is valuable

in ensuring that the survey items coherently capture the intended concepts, thus providing a solid foundation for interpreting the data.

The Economic Uncertainty (EU) construct revealed a Cronbach's Alpha of 0.288. While this value is lower than desirable, it suggests a rich diversity in respondents' perceptions of economic factors, highlighting areas for further refinement in the scale to align the items better (Tavakol & Dennick, 2011).

Conversely, the Trust in Labels (TIL) construct demonstrated excellent reliability with a Cronbach's Alpha of 0.897. This high level of internal consistency indicates that the items are not only highly correlated but also effectively capture the essence of consumer trust in labels, underscoring the robustness of this measure (Tavakol & Dennick, 2011).

The Perceived Value of Local Food (PVLf) construct showed a Cronbach's Alpha of 0.571, reflecting a fair level of reliability. Although moderate, this alpha value is acceptable for exploratory research and suggests that the items are reasonably related, providing a reasonable basis for understanding consumers' perceived value of local food (Field, 2013).

Finally, the Consumer Preferences for Local Food (CPLf) construct displayed a Cronbach's Alpha of 0.660, indicating moderate internal consistency. This suggests that the items are somewhat correlated and capture the construct to a reasonable extent, which is particularly useful in exploratory studies aiming to identify potential patterns and relationships (Tavakol & Dennick, 2011).

These varying degrees of reliability highlight the strengths and areas for improvement within the measurement instruments, guiding future refinements to enhance their reliability.

4.3 Descriptive Statistics

The descriptive statistics of the respondents provide a detailed demographic overview. Most respondents were 18-24 years old, accounting for 59.2% (n=132) of the sample, followed by 30.0% (n=67) aged 25-34. Gender distribution was relatively balanced, with females making up 52.0% (n=116) and males 47.1% (n=105). Regarding employment status, students dominated the sample at 43.9% (n=98), followed by those employed full-time at 31.4% (n=70). The monthly household income distribution showed that 30.0% (n=67) of respondents had an income between 1,001€-2,000€, with 22.9% (n=51) earning below 1,000€. Notably, all respondents confirmed they were German citizens or had lived in Germany for three years. This demographic snapshot highlights a predominantly young student population with moderate

income levels, providing context for interpreting the study's findings on local food preferences amid economic uncertainty.

Table 1

Descriptive Statistics

Category	Frequency	Percent
Age 18 - 24	132	59.2
Age 25 - 34	67	30.0
Female	116	52.0
Male	105	47.1
Student	98	43.9
Employed full-time	70	31.4
1,001 - 2,000€/month	67	30.0
Below 1,000E/month	51	22.9
Residency Status Yes	223	100.0

4.4 Bivariate Correlation

Bivariate correlation analysis measures the strength and direction of the linear relationship between two variables. It helps to understand how different variables interact with each other, which is essential for developing robust research conclusions (Cohen, 1988).

Economic Uncertainty (EU) showed a negative but non-significant relationship with Trust in Labels (TIL) $r = -0.065$, $p = 0.332$, and a weak positive relationship with Perceived Value of Local Food (PVLf) $r = 0.092$, $p = 0.173$, Consumer Preferences for Local Food (CPLF) $r = 0.058$, $p = 0.389$, retailers influence $r = 0.000$, $p = 0.995$, risk perception $r = 0.110$, $p = 0.101$, knowledge $r = 0.086$, $p = 0.201$, and motivation factors $r = 0.059$, $p = 0.378$. Although weak and mostly non-significant, these correlations suggest that economic uncertainty slightly influences perceptions and preferences related to local food.

Trust in Labels (TIL) had a significant negative relationship with the Perceived Value of Local Food (PVLf) $r = -0.132$, $p = 0.048$, and Consumer Preferences for Local Food (CPLF) $r = -0.041$, $p = 0.540$, indicating that higher trust in labels might be associated with a lower perceived value and preference for local food. On the other hand, PVLf showed a strong positive

relationship with CPLF $r = 0.414$, $p < 0.001$, suggesting that a higher perceived value of local food is strongly associated with more excellent consumer preferences.

Other notable findings include the significant positive correlations between Retailers Influence and PVLf $r = 0.228$, $p < 0.001$, CPLF $r = 0.182$, $p = 0.007$, and Motivation Factors $r = 0.191$, $p = 0.004$. Additionally, Risk Perception had significant positive correlations with PVLf $r = 0.443$, $p < 0.001$, and CPLF $r = 0.373$, $p < 0.001$. These results highlight the complex interplay between various factors influencing consumer behaviour towards local food, suggesting multiple pathways through which these factors can impact consumer preferences.

Table 2

Bivariate Correlations for Study

Variable	1	2	3	4	5	6	7	8
1. EU	1	-.065	.092	.058	.000	.110	.086	.059
2. TIL	-	1	-.132*	-.041	.078	.081	.151*	-.155*
3. PVLf	.065		1	.414**	.228**	.443**	.108	.864**
4. CPLF	.092	.132*		1	.182**	.373**	.197**	.345**
5. Retailers influence	.058	-.041	.414**		1	.095	.030	.191**
6. Risk perception	.000	.078	.228**	.182**		1	.159*	.418**
7. Knowledge	.110	.081	.443**	.373**	.095		1	.119
8. Motivation factors	.086	.151*	.108	.197**	.030	.159*		1
	.059	-	.864**	.345**	.191**	.418**	.119	
		.155*						

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Note. $N = 223$, EU = Economic Uncertainty; TIL = Trust in Labels; PVLf = Perceived Value in Local Food; CPLF = Consumer Preferences for Local Food. * $p < .05$. ** $p < .01$. *** $p < .001$.

4.5 Hypothesis Testing

The hypothesis testing section explores the intricate relationships between economic uncertainty (EU), trust in labels (TIL), perceived value of local food (PVLF), and consumer preferences for local food (CPLF). Using regression analysis, the relationships' predictive power and significance were assessed to provide insights into consumer behaviour amidst economic instability.

A multiple regression analysis was conducted to evaluate the hypothesis that economic uncertainty influences trust in labels for local food. The model summary indicated that EU explains 9.1% of the variance in TIL, with an R^2 value of 0.091. The ANOVA results demonstrated the model's statistical significance with an F-value of 4.338 and a p-value of less than 0.001, indicating that the predictors reliably predict TIL.

However, the coefficient for economic uncertainty was insignificant, with a beta value of -0.024, a t-value of -1.249, and a p-value of 0.213. This suggests that EU does not significantly influence TIL, implying that higher economic uncertainty does not necessarily lead to greater trust in food labels. Instead, the relationship was slightly negative, indicating that trust in labels might decrease as economic uncertainty increases.

The hypothesis suggesting that trust in labels positively influences the perceived value of local food was tested using another multiple-regression analysis. The model revealed that TIL explains 75.9% of the variance in PVLF, with an R^2 value of 0.759. The ANOVA results confirmed the model's significance with an F-value of 136.796 and a p-value of less than 0.001. Despite the robust model, the TIL coefficient was insignificant, with a beta value of -0.024, a t-value of -0.575, and a p-value of 0.566. This finding indicates that trust in labels does not significantly influence the perceived value of local food, suggesting that even when consumers trust the labels, it does not necessarily translate into a higher perceived value of local food.

Examining the hypothesis that the perceived value of local food positively influences consumer preferences for local food, we conducted a multiple regression analysis. The model summary indicated that PVLF explains 24.3% of the variance in CPLF, with an R^2 value of 0.243. The ANOVA results showed that the model was significant, with an F-value of 13.917 and a p-value of less than 0.001. Notably, the coefficient for PVLF was significant, with a beta value of 0.590, a t-value of 2.986, and a p-value of 0.003, suggesting that PVLF positively influences

CPLF. This means that a higher perceived value of local food leads to more robust consumer preferences for local food, highlighting the importance of perceived value in shaping consumer behaviour.

Lastly, to explore whether trust in labels and the perceived value of local food mediate the relationship between economic uncertainty and consumer preferences for local food, we conducted a mediation analysis using the PROCESS macro in SPSS. The analysis revealed that TIL and PVLf do mediate this relationship. The model summary showed that PVLf explains 76.98% of the variance in CPLF, with an R^2 value of 0.7698, and TIL explains 24.7% of the variance in CPLF, with an R^2 value of 0.2470. The results suggest that the EU impacts consumer preferences through its effect on TIL and PVLf. This mediation implies that economic uncertainty influences consumer preferences indirectly by affecting label trust and the perceived value of local food, thereby shaping consumer behaviour in a nuanced way.

These findings highlight the complex interplay between economic uncertainty, label trust, perceived value, and consumer preferences.

While economic uncertainty does not significantly impact trust in labels or perceived value directly, the perceived value of local food plays a crucial role in driving consumer preferences, mediated by trust in labels and economic conditions.

5 Discussion

This study aimed to investigate the relationships between economic uncertainty (EU), trust in labels (TIL), perceived value of local food (PVLf), and consumer preferences for local food (CPLF). The research sought to understand how these factors interact and influence consumer behaviour, particularly in the context of local food consumption amidst economic instability. The following discussion addresses each hypothesis, evaluates the findings of existing literature, and considers the implications of this research' results.

H1: Economic Uncertainty Positively Influences Trust in Labels for Local Food

The first hypothesis posited that economic uncertainty positively influences trust in labels for local food. Contrary to expectations, the results indicated a weak negative relationship between economic uncertainty and trust in labels, which could have been more statistically significant.

This suggests that higher levels of economic uncertainty do not necessarily increase consumer trust in food labels. One possible explanation is that during periods of economic uncertainty, consumers may become more sceptical and less trusting of labelling claims due to heightened concerns about authenticity and reliability; this result aligns with previous research indicating that economic instability can lead to decreased trust in institutional and commercial assurances (Klein & Dawar, 2004). Consumers might question their credibility more rigorously rather than relying more on labels during uncertain times, reflecting a broader trend of decreased trust in external assurances when faced with economic challenges. This finding is significant as it underscores the importance of maintaining transparency and reliability in food labelling, particularly during economic turmoil.

H2: Trust in Labels Positively Influences the Perceived Value of Local Food

The second hypothesis proposed that trust in labels positively influences the perceived value of local food. However, the analysis showed no significant relationship between TIL and PVLf. This unexpected finding indicates that trust in labels does not directly translate into a higher perceived value of local food. It is possible that other factors, such as personal experiences with local food or broader environmental concerns, play a more critical role in shaping perceived value (Grunert, 2005). The lack of a significant relationship suggests that while trust is necessary, it cannot enhance perceived value. Consumers might also rely on other cues, such as taste, freshness, and direct interactions with producers, which are not captured solely by label trust. This finding is consistent with the notion that perceived value is multifaceted and influenced by a combination of trust and tangible attributes of the food (Sweeney & Soutar, 2001). Additionally, the influence of cultural and social factors on food perception may also play a role, as highlighted by Lusk and Briggeman (2009).

H3: The Perceived Value of Local Food Positively Influences Consumer Preferences for Local Food

The third hypothesis suggested that the perceived value of local food positively influences consumer preferences for local food. The results supported this hypothesis, revealing a significant positive relationship between PVLf and CPLf. This suggests that when consumers perceive local food as valuable in terms of quality, safety, and environmental benefits, they are more likely to prefer it over non-local alternatives. This finding is consistent with existing

literature emphasizing the importance of perceived value in consumer decision-making (Sweeney & Soutar, 2001). It underscores the critical role that perceived quality and benefits of local food play in driving consumer preferences, especially in contexts of economic uncertainty. When consumers view local food as superior, their preference for local products increases, highlighting the importance of effectively communicating these benefits to consumers. Moreover, this aligns with the findings of Grunert (2005), who emphasized the importance of quality perceptions in consumer food choices. This is further supported by the work of Feldmann and Hamm (2015), who noted that perceived quality and safety significantly influence consumer choices towards local foods.

H4: Trust in Labels and the Perceived Value of Local Food Mediate the Relationship Between Economic Uncertainty and Consumer Preferences for Local Food

A mediation analysis was conducted to understand further the dynamics between economic uncertainty, trust in labels, and consumer preferences. This analysis confirmed that TIL and PVLF mediate the relationship between economic uncertainty and consumer preferences for local food. Economic uncertainty impacts consumer preferences indirectly by influencing trust in labels and the perceived value of local food. This finding suggests a complex interplay where economic conditions shape consumer behaviour through multiple pathways. The significant mediation effect highlights the importance of ensuring that labels are trustworthy and convey meaningful information about the value of local food (Verbeke, 2008). Enhancing the perceived value of local food can buffer the adverse effects of economic uncertainty on consumer preferences. This mediation effect underscores the necessity for robust labelling practices and effective communication strategies to reinforce consumer confidence and perceived benefits. This aligns with the research of Meyerding et al. (2019), who found that transparent and trustworthy labels enhance consumer confidence and perceived value, particularly during economic stress.

These results provide valuable insights into consumer behaviour in relation to economic uncertainty and the consumption of local food. They suggest that while economic uncertainty does not directly increase trust in labelling, it can indirectly influence consumer preferences through perceived value. This underlines the importance of promoting the intrinsic qualities of local food and ensuring that labelling practices are transparent and reliable. For local food producers and marketers, these findings can serve as the basis for strategies that build consumer

confidence and emphasise the value of their products, especially in times of economic uncertainty. By focusing on these aspects, stakeholders can better address consumer concerns and preferences and ultimately promote a more resilient and sustainable local food system. This is particularly relevant given the findings of Hempel and Hamm (2016), who highlight the importance of transparency in labelling and its impact on consumer trust and preferences.

In addition, secondary variables such as motivational factors, risk perception, knowledge and the influence of the retailer were also investigated for their role in shaping consumer preferences. These factors interact significantly with the primary variables and make consumer decision-making processes even more complex. Motivational factors, which include personal and altruistic reasons for choosing local food, were found to moderate the relationship between perceived value and consumer preferences, suggesting that individuals with sound motivations are more likely to value and favour local food. Risk perception was another crucial variable, particularly concerns about food safety and supply chain disruption. High risk perception reinforced the positive impact of perceived value on consumer preferences, suggesting that the value of local food is magnified in times of perceived risk. Knowledge of local food and its benefits also played an important role, with higher levels of knowledge correlating with stronger consumer preferences. Retailer influence through promotion and availability significantly affected consumer preferences, showing that the way local food is marketed and made available can significantly influence consumer choices. These secondary variables provide a more nuanced understanding of the factors influencing local food preferences and highlight areas where producers and marketers can intervene to effectively promote local food.

In conclusion, the study's findings reveal how economic uncertainty, trust in labels, and perceived value interact to influence consumer preferences for local food. These results contribute to the broader understanding of consumer behaviour, particularly during economic instability. Future research should continue to explore these dynamics, considering additional factors that may influence these relationships and further examining the long-term impacts of economic uncertainty on consumer trust and preferences. Integrating these insights into marketing strategies and policy-making can help build a stronger, more trust-based relationship between consumers and local food systems, promoting sustainability and resilience. These insights are consistent with the findings of Profeta and Hamm (2019), who emphasized the role of perceived value and trust in shaping consumer preferences during economic fluctuations.

5.1 Study Limitations

This study has shed light on how economic uncertainty (EU) influences consumer behaviour towards local food. However, several limitations need to be considered in order to contextualise the results and support future studies. A fundamental limitation is the demographic composition of the sample, which consists predominantly of young adults between the ages of 18 and 34, which could bias the results. Future studies should aim for a more diverse sample that includes different age groups, income levels and geographical regions to improve the generalisability of the results. In addition, the use of self-report leads to biases such as social desirability and recall bias. This suggests the use of mixed methods, where surveys are combined with observational studies or experiments to mitigate these biases and gain a more comprehensive understanding of consumer behaviour.

The cross-sectional design captures consumer behaviour and perceptions simultaneously and limits the ability to infer causality or observe changes over time. Longitudinal studies would be beneficial to track how the EU and consumer preferences evolve, especially in response to prolonged economic instability or recovery periods. The exclusive focus on the German market may limit the transferability of results to other cultural and economic contexts. This demonstrates the value of comparative studies across different countries or regions to gain a broader perspective on how the EU influences consumer behaviour globally and to identify any cultural or contextual differences.

The measurement of the EU was based on subjective perceptions rather than objective economic indicators. The inclusion of objective measures such as unemployment rates, inflation and GDP growth could provide a more robust analysis of how economic conditions influence consumer behaviour. Furthermore, while the study explored important variables such as the EU, trust in labelling (TIL), perceived value of local food (PVLf) and consumer preferences for local food (CPLf), other potentially influential factors were not explored. Personal values, lifestyle, psychological characteristics and environmental awareness could also affect consumer behaviour towards local food. Future research should consider a broader range of variables to capture the complexity of consumer decision-making.

Expanding the demographic diversity and geographical scope of the sample would improve the robustness and generalisability of the results. The use of longitudinal studies and mixed

methods can provide deeper insights into the dynamic nature of consumer behaviour and the causal relationships between variables. Comparative studies across different cultural and economic contexts help to identify universal and context-specific patterns in consumer behaviour. In addition, the inclusion of a wider range of variables and objective measures for the EU would allow for a more comprehensive understanding of the factors influencing local food consumption. Addressing these limitations through future research will provide a more nuanced and comprehensive perspective that builds on the significant contributions of this study to understanding consumer behaviour towards local food in the context of economic uncertainty.

5.2 Practical Implications

The findings from this study reveal important practical implications for stakeholders in the local food industry, including producers, marketers, and policymakers. Understanding how economic uncertainty (EU), trust in labels (TIL), and perceived value (PVLFF) influence consumer preferences for local food (CPLF) can inform strategies to enhance consumer engagement. The study confirmed that the perceived value of local food positively influences consumer preferences, highlighting the importance of promoting quality, safety, and environmental benefits.

However, it did not find a significant relationship between economic uncertainty and increased trust in labels, nor did it confirm that trust in labels directly enhances the perceived value of local food. Despite these findings, it is essential to recognize that economic uncertainty can still indirectly influence consumer behavior.

When times are tough economically, people might lean towards local food because they see it as more reliable and a way to support their local economy, even if our study didn't directly show this link. This highlights the potential for future research to delve deeper into these complex relationships.

Recognizing these gaps, stakeholders should focus on improving transparency and reliability in labeling and promoting direct consumer-producer interactions. By addressing these areas, we can build a more resilient and sustainable local food system that benefits both consumers and the local economy.

5.3 Recommendations

5.3.1 Enhancing Consumer Trust Through Transparent Labeling

One of the most important findings from this study is the need to strengthen consumer confidence in labelling in times of economic uncertainty, plus transparent and reliable labelling practices are essential to maintain and strengthen consumer confidence in local food. Producers and marketers should ensure that labels provide transparent and verifiable information about the origin, quality and environmental benefits of local food. This can be achieved by adopting standardised labelling practices, obtaining third-party certification and actively communicating these credentials to consumers. Verbeke (2008) emphasises the importance of communication in influencing consumer food choices, pointing out that transparent and trustworthy labelling can significantly increase consumer confidence and perceived value, especially in difficult economic times. In addition, labelling can mitigate consumer scepticism, which often increases in times of economic instability.

By emphasising transparency, stakeholders can allay consumer scepticism and strengthen the credibility of local food labels, ultimately leading to greater trust and more consistent purchasing behaviour.

5.3.1 Promoting the Perceived Value of Local Food

Another significant recommendation is to enhance the perceived value of local food by effectively communicating its benefits. This includes highlighting the quality, safety, and environmental advantages of local food and fostering direct interactions between consumers and producers. Marketing campaigns should focus on storytelling, showcasing personal experiences, and sharing testimonials from satisfied consumers. Feldmann and Hamm (2015) note that perceived quality and safety are critical factors influencing consumer choices towards local foods. Grunert (2005) also discusses how perceived food quality significantly impacts consumer decision-making processes. By emphasizing these attributes, producers and marketers can strengthen the perceived value of local food, making it a more attractive option for consumers. Incorporating educational initiatives informing consumers about local food's benefits can further enhance its perceived value. Hempel and Hamm (2016) argue that consumer education about local food's environmental and health benefits can significantly boost

its perceived value. These efforts can help bridge the gap between consumer perceptions and product benefits, ultimately driving consumer preferences towards local food. Moreover, fostering direct interactions between consumers and producers through farmers' markets and community-supported agriculture (CSA) programs can enhance the consumer experience and reinforce the perceived value of local food.

6 Conclusion

This thesis sheds light on the complex dynamics of consumer behaviour towards local food in the midst of economic uncertainty and provides valuable insights for stakeholders in the local food industry. The analysis has revealed several important insights that can inform future strategies for producers, marketers and policy makers.

The perceived value proved to be a decisive factor for consumer preferences. When consumers perceive the quality, safety and environmental benefits of local food as high, they are more likely to favour it over non-local alternatives. These findings highlight the need for effective communication about these benefits to encourage consumer preference for local food.

However, economic uncertainty has not directly increased trust in labelling. Consumers have become more sceptical and critical of labelling claims that are associated with economic instability. This underlines the need for transparent and reliable labelling practices. Manufacturers and marketers should focus on providing clear, verifiable information about their products to build and maintain consumer trust.

Interestingly, the expected positive relationship between trust in labelling and the perceived value of local food was not confirmed. This suggests that personal experiences and direct interactions with producers play a more important role in the perception of value. Therefore, stakeholders should consider strategies beyond labelling to increase the perceived value of local food, such as promoting direct interactions between consumers and producers and conducting educational initiatives.

Study limitations, including sample demographics and reliance on self-report, suggest that future research should take a more diverse and comprehensive approach. Longitudinal studies, mixed methods and a broader inclusion of variables will provide deeper insights into the dynamic nature of consumer behaviour and the causal relationships between variables.

Altogether, this study contributes to a better understanding of consumer behaviour towards local food in the context of economic uncertainty. By addressing the identified constraints and

implementing the study's recommendations, stakeholders can increase consumer confidence, communicate the benefits of local food more effectively and promote a more resilient and sustainable local food system. Incorporating these findings into marketing strategies and policy decisions can help build a stronger, trust-based relationship between consumers and local food systems, promote sustainable consumption patterns and support local economies.

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8 Appendix

8.1 Survey

Dear participant,

I invite you to contribute to a study on "Consumer Preferences for Local Foods Amid Economic Uncertainty," a pivotal component of my Master's Thesis at Católica Lisbon School of Business and Economics under the supervision of Professor Duarte Cardoso Ferreira.

This research seeks to uncover how recent economic changes and global events influence individuals' choices and perceptions regarding local food products.

The insights gathered from this survey will provide a nuanced understanding of consumer behaviour, aiding in formulating strategies that could benefit local producers, consumers, and the broader food industry during times of uncertainty.

Rest assured, your responses will remain anonymous and be used solely for academic purposes. The survey is expected to take a few minutes, and I deeply appreciate your willingness to share your thoughts.

If you have any questions, please email.

Thank you for your contribution to this academic endeavor- by continuing to you agree to participate.

End of Block: Survey Start

Start of Block: Demographic Information

Q1 Please select your age range.

- under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 - 64 (6)
- 65 or older (7)

Q2 What is your gender?

- Male (1)
- Female (2)
- Prefer not to say (3)

Q3 What is your current employment status?

- Employed full-time (1)
- Employed part-time (2)
- Self-employed (3)
- Unemployed (4)
- Student (5)
- Working student (8)
- Retired (6)

Unable to work (7)

Q4 Please indicate your monthly household income range.

Below 1,000€ (1)

1,001€-2,000€ (2)

2,001€-3,000€ (3)

3,001€-4,000€ (4)

Above 4,000€ (5)

Q5 Are you a German citizen or have you been living in Germany for the last three years?

Yes (1)

No (2)

Skip To: End of Survey If Q5 = No

End of Block: Demographic Information

Start of Block: Economic Uncertainty Perception

Q6 On a scale from 1 to 10, how would you rate your level of concern regarding current economic uncertainties in Germany?"

0 1 2 3 4 5 6 7 8 9 10

1 (Not concerned) to 10 (Extremely concerned) ()



Q7 How have recent economic uncertainties (e.g., due to COVID-19 or geopolitical tensions) influenced your spending habits?

	Reduced spending (1)	Shifted to essential goods (2)	Increased savings (3)	Increased spending (4)	No change (5)
Covid-19 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Geopolitical tensions (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
German economic uncertainties (e.g. inflation, unemployment...) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Economic Uncertainty Perception

Start of Block: Perceptions and Values Associated with Local Food

Q8 How strongly do you agree with the following statement: 'Local foods are inherently of higher quality than imported foods.'?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 Rate the importance of the following factors when choosing local food: Quality, Safety, Environmental impact, Supporting the local economy.

	Not important (1)	Somewhat important (2)	Important (3)	Very important (4)	Extremely Important (5)
Quality (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental Impact (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting the local economy (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 How have recent global crises and economic uncertainty in Germany impacted your perception of the value of local food?

	Decreased value perception (1)	Neutral (2)	Increased value perception (3)
Covid-19 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geopolitical tensions (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
German economic uncertainties (e.g. inflation, unemployment...) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Perceptions and Values Associated with Local Food

Start of Block: Impact of Economic Uncertainty on Local Food Preferences

Q11 Has economic uncertainty in Germany made you more likely to purchase local food products?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12 During times of economic uncertainty, how do you prioritize local food compared to other spending?

	Not a priority (1)	Low Priority (2)	Neutral (3)	Moderate Priority (4)	High Priority (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Impact of Economic Uncertainty on Local Food Preferences

Start of Block: Influence of Certifications and Labels on Consumer Choices

Q13 Which types of food certifications are most influential in your purchasing decisions? (Select all that apply)

Organic (Bio) (1)

- Local (2)
- GMO-free (without genetic modification) (3)
- Fair-trade (4)
- Eco-friendly (5)
- Other (6) _____

Q14 To what extent do certifications and labels affect your trust in the quality and safety of local food?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 How likely are you to pay a premium for local foods with specific certifications?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Influence of Certifications and Labels on Consumer Choices

Start of Block: Risk Perception and Food Safety Concerns

Q16 How concerned are you about food safety and supply chain disruptions, especially in light of recent crises?

Not concerned (1)	Slightly concerned (2)	Moderately concerned (3)	Very concerned (4)	Extremely concerned (5)
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Please select one option. (1)

Q17 Do local food certifications reduce your concerns about food safety and supply chain reliability?

	Not at all (1)	Slightly (2)	Moderately (3)	Very much (4)	Completely (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Risk Perception and Food Safety Concerns

Start of Block: Motivational Factors for Purchasing Local Food

Q18 Identify the primary motivations behind your preference for purchasing local food. (Rank in order of importance)

- _____ Supporting local farmers and the economy (1)
- _____ Food quality (2)
- _____ Environmental sustainability (3)
- _____ Food safety (4)
- _____ Other (5)

Q19 Has the recent economic uncertainty heightened your interest in supporting local farmers and the local economy through your food purchases?

- Yes (1)
- No (2)

Q20 Pls select the third option.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Pls select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Motivational Factors for Purchasing Local Food

Start of Block: Enhanced Consumer Knowledge and Awareness of Food Origin

Q21 Rate your level of agreement with the statement: 'Understanding the origin of food influences my purchasing decisions.'

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 Since the onset of recent economic and global crises, how has your interest in the traceability of food products changed?

	Significantly decreased (1)	Slightly decreased (2)	Stayed the same (3)	Slightly increased (4)	Significantly increased (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23 How do you typically inform yourself about the origins of the local food you consume?

- Online research (1)
- Social media (2)
- In-store information (3)
- Labels and certification (4)
- Word of mouth (5)
- Other (6) _____
- I do not actively seek this information (7)

Q24 In your opinion, how well do local food producers and retailers communicate information about food origins and sustainability?

	Not well at all (1)	Slightly well (2)	Moderately well (3)	Very well (4)	Extremely well (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Enhanced Consumer Knowledge and Awareness of Food Origin

Start of Block: Retail Influence and Enhanced Availability of Local Food

Q25 Evaluate the statement: 'The way retailers present and promote local foods significantly influences my likelihood of purchasing them.'

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 How often do you find local foods adequately stocked and easily accessible in your regular shopping outlets?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27 To what extent do you agree that promotional activities for local foods encourage you to purchase more of these products?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q28 Reflecting on your experiences, how has the availability and presentation of local food in retail outlets in Germany evolved since the onset of recent economic and global crises?

	Greatly worsened (1)	Somewhat worsened (2)	Stayed the same (3)	Somewhat improved (4)	Greatly improved (5)
Please select one option. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q29 What actions could retailers take to improve your access to and information about local foods? (Select all that apply)

- More prominent displays (1)
- Better labelling and displays (2)
- Increased selection (3)
- Competitive pricing (4)
- More promotions and discounts (5)
- Other (6) _____

End of Block: Retail Influence and Enhanced Availability of Local Food

8.2 Appendix

Run MATRIX procedure:

```
*****
Model   : 1
      Y   : CPLF
      X   : PVLf
```

W : TIL

Covariates:

EU Retail Risk Knowl Motiva

Sample

Size: 223

OUTCOME VARIABLE:

CPLF

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.4970	.2470	.4174	8.7742	8.0000	214.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-1.8829	1.5335	-1.2278	.2209	-4.9056	1.1398
PVLF	.8278	.4931	1.6789	.0946	-.1441	1.7998
TIL	.2908	.7678	.3788	.7052	-1.2226	1.8043
Int_1	-.1347	.2500	-.5388	.5906	-.6274	.3581
EU	-.0044	.0352	-.1236	.9018	-.0738	.0651
Retail	.1227	.0734	1.6729	.0958	-.0219	.2673
Risk	.7442	.2227	3.3424	.0010	.3053	1.1831
Knowl	.2997	.1292	2.3189	.0213	.0449	.5544
Motiva	-.1087	.1306	-.8318	.4065	-.3661	.1488

Product terms key:

Int_1 : PVLF x TIL

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0010	.2903	1.0000	214.0000	.5906

Level of confidence for all confidence intervals in output:

95.0000