Exploring food brand loyalty: the effects of clear label concept on product quality and brand credibility perception

Martina, Ferenčić

UNIVERSITY OF RIJEKA

FACULTY OF ECONOMICS AND BUSINESS

Martina Ferenčić

EXPLORING FOOD BRAND LOYALTY: THE EFFECTS OF CLEAR LABEL CONCEPT ON PRODUCT QUALITY AND BRAND CREDIBILITY PERCEPTION

DOCTORAL THESIS

Rijeka, 2024.

UNIVERSITY OF RIJEKA

FACULTY OF ECONOMICS AND BUSINESS

Martina Ferenčić

EXPLORING FOOD BRAND LOYALTY: THE EFFECTS OF CLEAR LABEL CONCEPT ON PRODUCT QUALITY AND BRAND CREDIBILITY PERCEPTION

DOCTORAL THESIS

Mentor: PhD Jasmina Dlačić, Associate Professor

Rijeka, 2024.

SVEUČILIŠTE U RIJECI

EKONOMSKI FAKULTET

Martina Ferenčić

LOJALNOST MARKAMA PREHRAMBENIH PROIZVODA: UTJECAJ *CLEAR LABELA* NA PERCEPCIJU KVALITETE PROIZVODA I KREDIBILITET MARKE

DOKTORSKI RAD

Rijeka, 2024.

Mentor rada: Izv. prof. dr. sc. Jasmina Dlačić

Doktorski rad obranjen je dana 27.05.2024. na Ekonomskom fakultetu u Rijeci, pred povjerenstvom u sastavu:

1. dr. sc. Bruno Grbac, profesor emeritus, predsjednik Povjerenstva

2. prof. dr. sc. Mirna Leko Šimić, Ekonomski fakultet Sveučilišta u Osijeku, članica

3. prof. dr. sc. Aleksandra Pisnik, Ekonomsko-poslovni fakultet Sveučilišta u Mariboru, članica

ABSTRACT

The purpose of this thesis is to investigate the relationship between perceived product quality, brand credibility and brand loyalty in food products. It also examines how these relationships change through the influence of communication elements on the design of food packaging (food labelling), focusing on the ongoing trend towards transparent communication with consumers. Transparency in communicating the content of food products has evolved in recent years from simple 'free from' claims to simplifying the content of the product and stating it on the front of the packaging. For the purposes of this research, the terminology 'Clear label' is used to describe this trend.

A conceptual model was set up to understand the relationship between the variables mentioned. Proven scales from the literature were used to test perceived product quality and brand credibility, and with slight adaptations to test food brand loyalty. However, the scale to test 'Clear label' had to be developed specifically for this study. To test the conceptual model, a survey was conducted among consumers who were divided into a test group and a control group.

To analyse the data collected in the survey, descriptive statistics were used to describe the individual constructs. The scales were tested and checked for reliability and validity in a pilot and a main study. An exploratory factor analysis was conducted to check the factor structure between measured variables and a confirmatory factor analysis was conducted to test how well measured variables represent the constructs used. Multivariate regression analysis was used to test the relationships between the variables and the Sobel test was used to test the moderator effect. The statistical programme SPSS is used for the statistical analysis and AMOS for the confirmatory factor analysis.

The overall conclusion from the research and all the analyses conducted is that the Nutritional and natural content and the Origin (the NANC and ORI scales), which form the construct Clear label perception, show a strong positive correlation not only with some levels of Food brand loyalty, but also to Product quality perception (PPQ) and Brand credibility (BRC). However, no moderating effect was found. This also means that the conceptual model proposed for this research was not confirmed.

In an additional analysis, mediation was also tested based on the conclusion about correlations. For this purpose, an additional model was set up with the parallel mediators, and the results showed that Nutritional and natural

content and the Origin (NANC and ORI) play a mediating role between Product quality perception (PPQ) / Brand credibility (BRC) and Food brand loyalty.

The findings presented in this thesis contribute to the overall understanding of the Clear label trend and its impact on consumer behaviour in relation to the constructs studied: brand loyalty, perceived product quality and brand credibility in packaged food.

The main methodological contribution is seen in the development of new measurement scales for measuring the constructs of the Clear label (Nutritional and natural content or NANC and the Origin or ORI scales).

The methodology and conclusions from the research could provide valuable insights for packaged food companies to improve their branding and integrated communication strategies on the one hand, and on the other hand the results could also be useful for authorities and regulators (e.g., inclusion of guidelines for legal requirements and mandatory information on packaging).

Key words: Clear label, brand loyalty, perceived product quality, brand credibility, packaged food

SAŽETAK

Svrha ovog doktorskog rada je istražiti odnos između percipirane kvalitete proizvoda, kredibiliteta marke i lojalnosti marki prehrambenih proizvoda. Također se ispituje i na koji način se ti odnosi mijenjaju kroz utjecaj komunikacijskih elemenata na dizajnu pakiranja prehrambenih proizvoda, fokusirajući se na stalni trend prema transparentnoj komunikaciji s potrošačima. Transparentnost u komunikaciji sadržaja prehrambenih proizvoda razvila se posljednjih godina od jednostavnih tvrdnji "ne sadrži" do pojednostavljivanja samog sastava proizvoda i njegovog navođenja na prednjoj strani pakiranja. Za potrebe ovog istraživanja koristi se terminologija *Clear label* za opis ovog trenda.

Za potrebe istraživanja postavljen je konceptualni model za razumijevanje odnosa između spomenutih varijabli. Potvrđene ljestvice iz prethodnih istraživanja korištene su za testiranje percipirane kvalitete proizvoda i kredibiliteta marki, te uz male prilagodbe za testiranje lojenosti prehrambenih marki. Međutim, ljestvica za testiranje *Clear label* konstrukta morala je biti razvijena posebno za ovo istraživanje. Za testiranje konceptualnog modela provedena je anketa među potrošačima koji su podijeljeni u testnu i kontrolnu skupinu.

Za analizu prikupljenih podataka korištena je deskriptivna statistika za opis pojedinačnih konstrukata. Ljestvice su testirane i provjerene na pouzdanost i validnost kako kroz pilot, tako i kroz glavno istraživanje. Provedena je eksplorativna faktorska analiza kako bi se provjerila faktorska struktura između mjerenih varijabli, te konfirmatorna faktorska analiza kako bi se ispitalo koliko dobro varijable predstavljaju korištene konstrukte. Multivarijantna regresijska analiza korištena je za testiranje odnosa između varijabli, a Sobelov test za testiranje učinka moderatora. Za statističku analizu korišten je statistički program SPSS, te AMOS za faktorsku analizu.

Generalni zaključak istraživanja i svih provedenih analiza je da nutritivni sadržaj i prirodnost (Nutritional and natural content - NANC) te podrijetlo (Origin - ORI), koji čine konstrukt *Clear label-a*, pokazuju snažnu pozitivnu korelaciju ne samo s nekim razinama lojalnosti prehrambenim markama, nego i s percepcijom kvalitete proizvoda (Percived product quality - PPQ) te kredibilitetom marki (Brand credibility - BRC). Međutim, nije pronađen moderirajući učinak. To također znači da konceptualni model predložen za ovo istraživanje nije potvrđen.

U dodatnoj analizi ispitana je i medijacija temeljem zaključka o korelacijama. U tu svrhu postavljen je dodatni model s paralelnim medijatorima,

a rezultati su pokazali da nutritivni sadržaj i prirodnost (NANC) te podrijetlo (ORI) imaju medijatorsku ulogu između percepcije kvalitete proizvoda (PPQ) / kredibiliteta marke (BRC) te lojalnosti prehrambenim markama.

Rezultati predstavljeni u ovom doktorskom radu pridonose cjelokupnom razumijevanju trenda *Clear label* i njegovog utjecaja na ponašanje potrošača u odnosu na proučavane konstrukte: lojalnost marki, percipiranu kvalitetu proizvoda i kredibilitet marki prehrambenih proizvoda. Glavni metodološki doprinos vidi se u razvoju novih mjernih ljestvica za mjerenje konstrukata *Clear label*.

Metodologija i zaključci istraživanja mogli bi pružiti vrijedne uvide prehrambenim tvrtkama za izgradnju svojih marki te kreiranja integrirane komunikacijske strategije s jedne strane, a s druge strane rezultati bi mogli biti korisni i za regulatore (npr. uključivanje smjernica u zakonski okvire i definiranje navođenja obveznih podatka na pakiranju).

Ključne riječi: *Clear label*, lojalnost marki, percipirana kvaliteta proizvoda, kredibilitet marke, prehrambeni proizvodi

TABLE OF CONTENTS

1. INTRODUCTION

Food occupies a significant position in the lives of individuals, extending beyond mere food intake into the realm of daily discussions, concerns and even pastimes. It is an ever-present topic that catches the attention of every average person. A common question that comes up in the course of our daily lives is none other than the familiar question, "What's for lunch?"

The importance of food goes far beyond its ability to satisfy hunger. Food is important for the normal functioning of the human organism, and proper nutrition is associated with health, so much so that some foods are believed to have healing properties. The claim that food has healing properties and the ability to heal and promote well-being can be traced back to ancient times and is deeply rooted in human history. A notable figure who emphasised the link between food and health was Hippocrates, a famous Greek physician who lived in the fifth century BC. He was famous for his statement: "Let food be thy medicine and medicine be thy food", and modern experts agree with him (Wegener, 2014; Vazelić n.d.).

1.1. Subject area of the thesis

As important as food is to human health, so is the food industry to the healthy functioning of any country's economy. The importance of the food industry goes far beyond its role in supplying people with food. Throughout history, food has been considered a strategic resource and the food industry an important economic sector, and its political considerations continue to play an important role in global agricultural policy and, by extension, in international trade and relations (Swinnen 2010). Leko-Šimić (2002) explains that food is a special strategic and political resource in most countries and that food production is ranked side by side with, for example, the energy sector because of its importance.

The food industry is also an important pillar of the Croatian economy. According to the Statistical Yearbook of the Republic of Croatia for 2017 (Ostroški, ed., 2018), it is the manufacturing industry with the highest turnover and the second largest export industry. In this context, food brand management should also be a very important topic for Croatian contemporary research in the field of marketing.

Looking into market of food products, this wider topic can be observed from two points of view:

- from the perspective of food producers and/or food marketers; where food is seen as a product within the food industry and where principles of food marketing and food branding are applied,

- or from the perspective of food buyers and consumers; where food is observed in the purchasing decision process and where brand loyalty is to be created.

The two approaches are linked and intertwined. In this sense, the broader scientific research area of this thesis is part of food marketing and brand management in general.

Although food products are part of the fast-moving consumer goods (FMCG) market and the general practise of branding and brand management also applies to it, food has its particularities. The specifics of food are generally related to its consumption and the direct link between consumption and health. If something is wrong with the food consumed (e.g. if it is spoiled or contains substances that are not complement with human nutrition), this can have an impact on human health.

There are numerous laws and regulations that govern the processing and distribution of food. In Croatia, this is the Food Act (Zakon o hrani 2013; 2014), which is in compliance with EU and European Commission regulations and prescribes quality standards, food safety measures, risk management, general rules of the rapid alert system, etc. The safety of food on the EU market is ensured by a control system that includes (European Union, 2017):

a) food hygiene,
b) animal and plant health; and
c) contaminants and residues.

These food specifics, which include detailed attributes and qualities of various food products, serve as important building blocks for brand development in the food industry. They are focused on meeting standards that ensure safe and healthy products are consumed.

On the other hand, consumers are also concerned with food quality in the sense that when they eat food, they want to be safe when consuming food, sure that the food is tasty (hedonically oriented consumers) and that the price

(economically, functionally oriented consumers) is at the expected level (Manning, 2007; Anić et al. 2015).

When it comes to brand building and brand management, brand loyalty is continuously studied by both academics and practitioners. There have been numerous contributions to the understanding and definition of brand loyalty (e.g. Jacoby and Kyner 1973; Tellis 1988; Oliver 1999; Chaudhuri and Holbrook 2001; Punniyamoorthy and Raj 2007; Moolla and Bisschoff 2012).

The research topic of the thesis is the exploration of food products brand loyalty. More specific research on the link between brand loyalty and food can be found in journals dealing with food quality and food technology (e.g. Manning 2007; Davick 2013; Balaji 2015; Magnier et al. 2016). In general, food quality (or minimum mandated quality) is a critical factor in the study of factors influencing food brands and food brand loyalty.

The idea of the thesis is to deepen the understanding of existing knowledge by examining factors that influence brand loyalty in general, but also by examining current market trends based on consumer insights and expanding the knowledge base.

In the case of food products, some research (e.g. Caswell and Padberg 1992; Magnier 2016) says that packaging labels play an important role in the marketing system through their influence on communication and consumer confidence in food quality. Therefore, it is understandable that food manufacturers are interested in exploring better ways to reach consumers through labels. “Clear label” is one of contemporary trends in food marketing and can be explained as a communication concept integrated into food packaging design (food labelling) based on consumers' increased search for transparency in food ingredients (what's really in it?) and transparency in ingredient communication on the front of the package (first described by Innova market insights, 2015).

“Clear label” can also be explained as the upgrading of “clean label” products (products that do not contain ingredients perceived as artificial or unhealthy) with full transparency in the presentation of ingredients (Bonciu, 2018) and even their origin (Pearson and Bailey, 2016).

Following the definition of Clear label 2015, food innovation publications (e.g. FoodIngredientsFirst 2015) reported its growth in 2016 and announced that it will continue to be the leading trend in 2017 (Australian Food News 2017). The trend towards clear labelling continues to evolve, so much so that Innova Market

Insights, who originally coined the term, have expanded it to "Clean Supreme" in their 2017 Trends, stating that the rules have been rewritten, clean and clear labelling is the new global standard and encompasses the entire supply chain (Global Food Forums 2016). The trend continues and is evolving as announced towards full transparency in communication with consumers, providing them with information that is easy to find and easy to read (Labelnet, 2018; Kalsec, 2019). McLeod et al. (2022, pp. 20), for example, state that "…consumers could benefit from clear labelling standards to make informed purchasing decisions". In recent years, consumers have sought more information about the environmental impact of food products, and the development of so-called 'eco-friendly' claims is a new direction this trend is taking (Southey, 2022; Innova Market Insights, 2023).

Although "Clean label" and "Clear label" are often used as synonyms and the term is not precisely defined by regulators, for the purposes of this study only the term "Clear label" will be used and understood as explained herein.

One of the foundations for this research is certainly the brand loyalty theory. In explaining brand loyalty, Aaker emphasises that a loyal customer base provides a barrier to entry, a basis for a price premium, time to respond to competitor innovations, and a bulwark against harmful price competition (Aaker, 1996, p. 106). There are numerous definitions of brand loyalty, but researchers agree that it is not unidimensional. It encompasses consumers' experiences, attitudes and feelings towards the brand, as well as intentions and repeat purchases - a complex mix of attitudinal and behavioural elements (Jacoby and Kyner 1973; Oliver, 1999; Chaudhuri and Holbrook 2001; Keller, 2003; Erdem and Swait 2004; Rundle-Thiele, 2005b; Punniyamoorthy and Raj, 2007; Kataria et al. 2019).

The relationship between brands and product quality generally arises from the basic definition of brands. Some definitions state that brands, in their simplified meaning, are perceived as a warranty of constant quality that is recognisable in the market (Vranešević 2007, p.3; Manning 2007). Kapferer (2008, p.44) even claims that "in some industries, such as the food industry, brands exist alongside other quality signs (seals, certificates, etc.)".

In the literature, product quality is not considered in a functional or objective sense, but it is recognised that consumers form subjective impressions of the quality of a product based on psychological processes that are influenced by the prior knowledge and cognitive competencies of individual consumers (Bredahl, 2003, p. 65); in short, perceived product quality (Manning 2007; Espejel et at. 2009).

However, Erdem and Swait (2004, p. 192) explain that brand credibility as a signal of product positioning is the most important attribute of a brand. They define the construct as: “the believability of the product information contained in a brand, which requires that consumers perceive that the brand has the ability and willingness to continuously deliver what has been promised” (Erdem and Swait 2004, p. 192; Kemp and Bui 2011). Credible brands minimise risk and increase consumer confidence (Delgado-Ballester and Munuera-Aleman 2001; Kemp and Bui 2011).

In conclusion, this thesis explores the complex interplay of brand loyalty, product quality and brand credibility in the context of food marketing and food branding. The research topic of this thesis focuses on exploring food brand loyalty, considering the factors that influence it and current market trends based on consumer insights. The concept of "Clear label" is a current trend in food marketing that emphasises the transparency of ingredients on packaging.

1.2. Purpose and aims of the research

As already indicated, the purpose of this thesis is to investigate how constructs such as Perceived product quality, Brand credibility and Brand loyalty of packaged food products influence each other. It also aims to investigate how one of the contemporary trends, described as Clear label, influences the relationship between the aforementioned constructs.

To achieve these, the specific aims of this research are set out as follows:

1. To explore the theoretical background to determine the impact on food brand loyalty and to determine the relationship between Perceived product quality, Brand credibility and Food brand loyalty.

2. To identify and describe the impact of Clear label on the relationships between Perceived product quality, Brand credibility and Food brand loyalty.

3. To propose a conceptual model that describes the relationships between the above mentioned constructs.

4. To empirically test the proposed conceptual model.

This thesis examines the relationships between Perceived product quality, Brand credibility, and Brand loyalty in the context of packaged food products. By examining the influence of the Clear label as a contemporary trend, this research aims to contribute to the understanding of consumer behaviour and provide practical insights for food brand management.

Based on the literature review following hypothesis are formed:

Previous research (e.g., Bredahl, 2004; Manning 2007; Kepferer, 2008; Wang, 2013; Ferenčić and Wölfling 2015) show that the level of perceived food product quality is related to how consumers perceive food brands. Since brand loyalty is considered as a multidimensional construct of consumer loyalty, this study, following Rundle-Thiele's (2005) research consider: Attitudinal loyalty, Complaining behaviour, Propensity to be loyal and Resistance to competing offers (adapted from Rundle-Thiele, 2005).

H1: Level of Perceived product quality positively affects the Food brand loyalty.

H1a: Level of Perceived product quality positively affects the Attitudinal loyalty.

H1b: Level of Perceived product quality positively affects Complaining behaviour.

H1c: Level of Perceived product quality positively affects Propensity to be loyal.

H1d: Level of Perceived product quality positively affects Resistance to competing offers.

Based on the research of Erdem and Swait (2004), in which they explain that brand credibility is defined as the believability of the product information contained in a brand (Erdem and Swait, 2004, p. 192), the second hypothesis is formed.

H2: Brand credibility positively affects the Food brand loyalty

H2a: Level of Brand credibility positively affects the Attitudinal loyalty.

H2b: Level of Brand credibility positively affects Complaining behaviour.

H2c: Level of Brand credibility positively affects Propensity to be loyal.

H2d: Level of Brand credibility positively affects Resistance to competing offers.

As Clear Label is about transparent communication on product packaging to consumers (Bonciu, 2018), i.e. when brands use Clear Label communication elements, the link between Perceived product quality and Food brand loyalty will be stronger. In other words, clear labelling is assumed to have a moderating effect between Perceived product quality and Food brand loyalty as well as

between Brand credibility and Food brand loyalty. Based on this assumption, the third and fourth hypotheses are formulated.

H3: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Perceived product quality and Food brand loyalty elements.

H4: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Brand credibility and Food brand loyalty elements.

Through theoretical investigation, the proposal of a conceptual model based on a formulated hypothesis and empirical testing, this study aspires to advance knowledge in the field and provide valuable guidance.

1.3. Assessment of the contribution of the thesis to the field of knowledge

The thesis is expected to contribute in theoretical, methodological, and managerial aspect.

The expected theoretical contribution is seen in:

- Developing marketing thoughts in the specific area of food marketing and investigating how brand elements, such as Perceived product quality and Brand credibility, affect Food brand loyalty;
- Analysing previous research on brands and brand loyalty as well as description and definition of the term Clear label;
- Proposing and testing a conceptual model to investigate the relationship between Perceived product quality and Brand credibility and Brand loyalty in food products under the influence of Clear label perceptions.

The thesis seeks to provide a deeper understanding of the subject by critically analysing the relevant literature and summarising the most important findings. In this way, it will help to broaden the theoretical foundations and contribute to the academic discourse in the field of food marketing and food branding.

By using appropriate methods, the thesis aims to improve chosen scales, test reliability and validity of the results and thus contribute to methodological

advances in the field. The research also contributes to the development of methodology in relation to:

- adapt brand loyalty measurement scales to better fit food brands,
- develop scales to measure Clear label constructs.

In addition, the thesis aims to provide valuable managerial insights and practical implications. It aims to bridge the gap between theory and practise by providing actionable recommendations and guidelines for practitioners, policy makers and industry professionals.

The study may be useful for other similar studies in the future and serve as a basis for conducting brand management processes in the food industry. The proposed scales are a way to design the measurement tool to consolidate future research. In addition, the conclusions from the research could be taken into account by the relevant regulatory authorities in future improvements and adjustments to the regulation of the food market in Croatia and ultimately in the EU.

1.4. Structure of the thesis

The first part is the Introduction and gives an overview of the subject area, the questions, the purpose and the aims of the thesis. It also proposes an assessment of the contribution to the field of knowledge.

After the introduction, the first chapter is dedicated to the analysis of the theoretical background of all aspects related to the subject area: Perception of food product quality, Brand credibility, Food brand loyalty and Clear label as one of the contemporary trends in food marketing. This analysis will provide an overview of the theories that serve as the basis for building the conceptual model and hypotheses for this thesis.

The next chapter explains the methodological approach for the research design to empirically test the proposed model and hypothesis. The scales developed to measure each construct are presented in detail: from finding similar scales in previous research, to adapting the scales, to testing the reliability of the scales, etc. Pilot tests and the process of data collection are also presented.

The following chapter is dedicated to the presentation of the results of the empirical research. The presentation includes an overview of the sample

characteristics, descriptive statistics, reliability tests, etc. Exploratory factor analysis is conducted to describe the variability between observed correlated variables and confirmatory factor analysis to test the constructs used. Multivariate regression analysis is used to test the relationships between variables and the Sobel test is used to test the moderator effect.

Furthermore, findings from research that go beyond the scope of hypothesis testing are explained in a separate chapter, namely chapter seven.

The final chapter summarises the findings of the thesis and provides conclusions and implications of the research. Finally, the limitations of the research and the possibilities for future research are explored.

2. THEORETICAL BACKGROUND

The introduction of the thesis sets out the background of the idea for the research. It also sets out the scope and theoretical framework on which the research is based, including the food industry and food marketing, food product quality, brand loyalty theory, brand credibility and how all this is influenced by one of the current trends – Clear label. This chapter is dedicated to defining key concepts and theories that need to be explored before establishing the actual methodology and research design.

2.1. Food producers and food labeling

As mentioned in the introduction, some research (e.g. Caswell and Padberg 1992; Silayoi and Speece 2004; Magnier 2016; Schifferstein et at. 2021) states that packaging labels play an important role in the marketing system as they influence consumers through communication and create trust in food quality.

Fernqvist et at. (2015) points out that until recently, the literature was limited and did not acknowledge the contribution of packaging to product and business development (Rundh 2005; Simms and Trott 2010) and also gives limited understanding of how consumers perceive the extrinsic attributes of packaging (Hollywood et al. 2013). Furthermore, consumers may not perceive products as intended by legislators or food companies (Schifferstein et at. 2021). Rundh (2013) concludes that in addition to the functional and logistical aspects, another important function of packaging is to communicate with the customer - a package must convey the content of the product, its uses and other necessary information.

Some authors (Barker et at. 2011; Percy 2014; Franjković et at. 2017) explain this approach, according to which packaging is a marketing communication tool, by connecting it with the concept of integrated marketing communication (IMC) and considering packaging as one of the crucial elements of IMC. As with all other forms of marketing communication, the visual elements of packaging, its "message", should distinguish a product from its competitors and attract attention at the point-of-purchase (Percy 2014, p. 142).

From different studies we can see that different information is expected on the packaging for different products, e.g. for beef the brand name and origin (Acebron and Dopico 2000), for vegetables, in addition to the brand and origin,

consumers also look for information on whether it is an organic product and a cooking instructions (Fernqvist et at. 2015), etc.

Food labelling consists of both voluntary and mandatory elements (Gokani 2022; Kraemer et at. 2023). When observing packaged foods in stores, it can be noticed that most of the mandatory information (product contents, manufacturer and distributor information, nutritional information, etc.) is placed on the back of the package. The front of the package (FOP), on the other hand contains voluntary elements (Gokani 2022) and is dedicated to branding, the product name, and selected data presented to the consumer as a sort of "first priority," or the data that brand owners believe is of most interest to the consumer and that differentiates a product from the competition (Dean et al. 2015).

Most rules governing the use of logos on the front of packaging are rooted in private law, as their requirements relate to specific purposes that are not governed by public law. However, there may be exceptions where the use of a logo can be interpreted as a nutrition or health claim (Schifferstein et al. 2021).

The World Health Organisation (WHO) is leading a global initiative to introduce nutrition claims on FOP because it believes it would help fight obesity and poor nutrition (Kelly and Jewel,2018). Kelly and Jewell (2018, p. 1) state that: "The main goal of nutrition labelling is to help consumers make informed and healthier food choices." WHO hopes that if this were the case, manufacturers would have to disclose or highlight unfavourable amounts of negative nutrients on labels, which would prompt the industry to reformulate food products. Recently, this has also been a topic of research (Scrinis and Parker 2016; Shangguan et al. 2019; Turnwald and Crum 2019) and lively policy debate worldwide (Kelly and Jewell 2018).

According to Shangguan et al. (2019, p. 302), food labelling represents:

1) Package labelling:
   All types of standardised nutrition or health information on packaging, such as nutrient content, nutrition and health-related claims, icons, symbols, and logos adopted by governments, industry groups or associations, or other nongovernmental organisations (i.e., excluding marketing labels developed by individual manufacturers or sellers of the product itself).

2) Menu or other point-of-sale labelling:

Standardised provision of nutrition or health information at the point of sale, including restaurant menus, supermarket or grocery shop menus, cafeterias, grocery/self-service outlets and vending machines.

Many countries around the world are trying to encourage manufacturers to provide voluntary nutritional information at FOP. Some examples are:

- In the United States, the Food and Drug Administration approved nutrition and health claims in 1990 (U.S. Food and Drug Administration 2018)

- in 1989, Sweden created the Keyhole logo, which later became a common Nordic label by expanding it to Denmark and Norway in 2009 and Iceland in 2013 (Shangguan et al. 2019)

- in 2006, the UK Food Standards Agency recommended a voluntary traffic light labelling system on the front of packaging to highlight total fat, saturated fat, sugar, and sodium content in selected food categories (Afshin et al. 2015; Shangguan et al. 2019)

- The Dutch Choice logo was introduced in 2006 on products containing higher fibre and less sodium, added sugars, saturated fat, trans fat, and total energy, and was introduced in Belgium, Poland, the Czech Republic, Argentina, and Nigeria. Due to increasing criticism, particularly because consumers found the Choice logo confusing, the Dutch government ordered it to be replaced with a cell phone app in 2016 (Shangguan et al. 2019)

- Other new front-of-pack labels include the Heart Symbol in Finland, Health Star Ratings and the Pick the Tick logo in Australia and New Zealand, and Guiding Stars, Smart Choices, and Heart-Check in the U.S. (Afshin et al. 2015; Shangguan et al. 2019)

- In Croatia, the Ministry of Agriculture issued a new Croatian quality mark called "Dokazana kvaliteta" (verified quality) for food and agricultural products in 2020 to promote Croatian food and agricultural producers and provide clear information about them to consumers (Milanković 2021).

- According to the Official Journal of the European Union (2010) and EU guidelines for voluntary certification, there were around 440

active certification schemes for agricultural products and foodstuffs in 2010. The EU regulations and quality policy prescribe three quality labels for food: protected designation of origin (PDO), protected geographical indication (PGI) and traditional speciality guaranteed (TSG) as mandatory for food products (European Commission 2013)

However, as trends in human nutrition change faster than regulators can respond to them, one can only speculate what the future will bring in terms of innovations and consumer expectations in the food market.

Keeping up with consumer trends is one of the biggest challenges facing food brands. So, it's understandable that food producers are interested in finding better ways to reach consumers through labels. Intense competition in the food market forces brands to be creative and innovative to stay competitive and survive in the long run. Packaging design has helped to create better opportunities for consumer information and marketing communication at the point of sale and to influence the purchase decision making process (Underwood and Ozanne, 1998; Underwood and Klein, 2002; Rundh, 2013; Franjković et at., 2017). Table 1 provides a brief overview of research to date in the field of food labelling.

Table 1: Review of previous research from the area of food labelling

Reference	Research aims and scope	Research results
Caswell and Padberg (1992)	Analysing the role of information, particularly labelling, in consumer goods markets and labelling regulations; discussing the limits of food labels as point-of-purchase shopping aids.	Framework is proposed for weighing the benefits and costs of alternative regulatory regimes.
Underwood and Ozanne (1998)	A normative framework is proposed to guide the design of effective communication in product packaging.	Framework suggests that a set of norms (i.e. the norm of truthfulness, the norm of sincerity, the norm of comprehensibility and the norm of legitimacy) can guide the complex task of designing good product packaging.

Acebron and Dopico (2000)	A model development that attempts to understand how consumers form expectations about beef quality and use them to optimise perceived beef quality.	Expected quality is a partial predictor of experienced quality, which confirms the importance of sensory perception at the time of consumption.
Underwood and Klein (2002)	Examines the impact of product imagery (on packages) on consumers' beliefs about the brand and their evaluations of the brand and package.	Provides evidence that consumers use packaging, an extrinsic cue, to infer intrinsic product attributes.
Silayoi and Speece (2004)	The importance of packaging design is observed as a means of communication and branding.	The visual elements of packaging greatly influence the choice of product, with graphics and colour often having the greatest influence. Informative elements are becoming increasingly important and influence the choice.
Rundh (2005)	Investigates how packaging can contribute to competitive advantage of a business.	The findings underscore the importance of packaging and packaging design for fulfilling multi-functions in relation to logistics and marketing in the supply chain.
Simms and Trott (2010)	Examines how packaging contributes to marketing in general and new product development in particular.	Development of a framework that can be used to evaluate the needs of all parties that are relevant to the development of packaging, including members of the distribution channel.
Hollywood (2013)	Investigates consumer attitudes towards packaging design as a strategy for	The majority of research participants found milk packaging to be

	increasing the commercial value of milk within the dairy industry.	functional; however, beyond this use, vast improvement could be made in terms of the aesthetics surrounding packaging design.
Rundh (2013)	Investigates the relationship between packaging and the influence it has on marketing from a management point of view.	The possibilities for innovative packaging solutions must be analyzed in relation to increased costs for packaging and the influence they can have on the environment.
Afshin (2015)	Reviews the evidence for effectiveness of specific policies to improve dietary habits and reduce cardiovascular and metabolic risk factors.	Review supports the effectiveness of specific policy strategies to improve diet: focused mass media campaigns, food pricing strategies, school procurement policies, worksite wellness programs.
Fernqvist et at. (2015)	Explores consumer views on different aspects of packaging; to identify advantages and disadvantages perceived by consumers purchasing packaged or unpackaged products.	Identifies challenges in communicating the benefits of packaging and ways to improve the attractiveness of items in the fresh food product category.
Magnier et al. (2016)	Examines the extent to which the sustainability of packaging influences consumers' perception of product quality.	The findings reveals: 1) Individuals evaluate the quality of food products based on a noticeably sustainable packaging; 2) A positive influence of organic labels on perceived food quality is confirmed; 3) While the sustainable packaging (an extrinsic attribute of

		the product) positively influences perceived quality when there is no information about the sustainability of the product, its effect becomes insignificant when presented jointly with a logo communicating the organic, intrinsic attributes of the product; 4) The strong relationship exists between the concepts of sustainability and naturalness.
Scrinis and Parker (2016)	Examines the potential for new front-of-pack (FOP) nutrition labelling initiatives to *nudge* consumers toward healthier food choices.	The potential of FOP labelling schemes is compromised by the coexistence on the food label of many other forms of nutrition information and food marketing.
Franjković et al. (2017)	Examines how demanding and comprehensive the Retail Ready Packaging (RRP) introduction was and what are the key benefits that can be recognized and utilized as marketing opportunities for manufacturers.	Results suggest improvements in impulsive buying of a product and faster shelf replenishment as most valuable factor of RRP for food manufacturers.
Kelly and Jewell (2018)	Examines whether interpretive front-of-pack food labelling (FOPL) is a policy priority for promoting healthy diets.	A government-endorsed interpretive FOPL policy was found in 15 Member States of the WHO. The report summarizes the evidence on their development and implementation to support policy-makers in

		navigating these processes.
Shangguan et al. (2019)	Evaluates food labelling and consumer purchases/orders, intakes, metabolic risk factors, and industry responses.	Food labelling reduces consumer dietary intake of selected nutrients and influences industry practices to reduce product contents of sodium and artificial trans-fat.
Turnwald and Crum (2019)	Comparison of the effects of traditional health-focused labelling approach to a taste-focused labelling approach on adults' selection and enjoyment of healthy foods.	The taste-focused labelling is a low-cost strategy that increases healthy food selection by 38% and outperforms health-focused labelling on multiple smart food policy mechanisms.
Schifferstein et al. (2021)	Examines the use of voluntary verbal claims, images, and general packaging features, as most relevant as instruments that can be used creatively by packaging designers.	Food labels provide consumers with a wide range of information, from mandatory (ingredients and allergens) to voluntary information such as health claims or environmental friendliness. Most voluntary information – apart from the fact that it must not be misleading – is not subject to any legal requirements. While ethical considerations by food manufacturers and packaging designers may support the transparent use of claims and logos on food, this overview illustrates the complexity of the trade-offs required to optimise such information and the

		potential impact on consumers.
Gokani (2022)	Examines how EU food information law regulates front-of-pack nutrition labelling (FoPNL) and what impact this has on the development of an effective FoPNL.	The EU should harmonise FoPNL through a single mandatory scheme or, if the EU cannot agree on a specific scheme, create a legal framework that allows Member States to introduce effective mandatory FoPNL schemes at national level.

Source: prepared by author

Overall, the research articles listed in the table above provide valuable insights into various aspects of food labelling and how labels address consumers. The studies highlight the importance of packaging design for consumer decision-making (Underwood and Klein 2002; Silayoi and Speece 2004; Magnier et at. 2016), brand perception and marketing strategies (Underwood and Ozanne 1998; Acebron and Dopico 2000; Rundh 2005; Simms and Trott 2010; Afshin 2015; Scrinis and Parker 2016; Turnwald and Crum 2019).

Once we recognize the crucial role that food labeling plays in providing consumers with essential information about the food products they purchase and its effect on brand perception and marketing strategies, we can turn our attention to one of the current trends in the food market: the emergence of the Clear label.

2.2. Clear label

Trends in the food market are under various influences. However, Kearney (2010) asserts that when two important conditions for global food availability are met, significant changes in food consumption occur. These preconditions were:

a) Changes in agricultural practices - over the past 50 years, these changes have increased the world's ability to provide food for people through increases in productivity, greater food diversity, and reduced seasonality;

b) the availability of food has also improved as a result of rising income levels and falling food prices.

The drivers of food consumption trends in recent decades identified by Kearney (2010) were:

- Income
  In the so-called developing countries, rising incomes mean higher-fat diets (e.g., in Mexico and Brazil, increased incomes or lower prices have led to increased consumption of animal-based foods and processed foods; in China, rising incomes have been shown to have led to dietary changes, shifting from a traditionally high-carbohydrate diet to a high-fat, high-energy diet); in the developed countries (e.g., the U.S. and the U.K.), the effects of increased income are generally considered beneficial, leading to better diet quality, better health care, lower morbidity and mortality from infectious diseases, and lower risk of obesity (Marmot 2002).

- Urbanization
  Higher caloric intake (cities offer more food choices) combined with lower energy expenditure at work in cities (compared to work in rural areas) and more inactivity during leisure time is causing obesity and diabetes to progress faster in developing countries in cities than in rural areas. The development of the fast-food industry, which provides quick access to cheap take-out meals that satisfy consumer demand for foods high in salt, fat, and sugar, has contributed to these health problems (Smil 2001; Mendez and Popkin 2004).

- Trade liberalization
  The availability of certain foods increased by removing barriers to foreign investment in food distribution or by allowing foreign investment in other types of food retailing (multinational fast-food companies have made significant investments in middle-income countries). Processed food supply has increased in developing countries following foreign direct investment by multinational food companies. Thus, changes in trade policies have encouraged the increasing availability and consumption of meat, dairy products, and processed foods (Thow and Hawkes 2009).

- Transnational food corporations (franchises and manufacturers)

Companies such as KFC, McDonalds, Kraft and Nestle are all drivers of the fast food market, processed foods and the western lifestyle (Hawkes 2005).

- Retailing
  For the consumer, supermarkets have brought many nutritional benefits with significant improvements in food quality and safety standards (e.g., supermarkets solved the problem of refrigeration of animal-based products; another example is that, thanks to supermarkets, affordable and, above all, safe milk became available to the poor in all countries). They also offer the advantage of convenience. However, supermarkets can also lead to a greater supply of cheaper, less healthy foods because of the large supply of processed foods high in fat, added-sugar, and salt, especially in developing countries (Kearney 2010).

- Food industry marketing
  A vivid example of how marketing communications (advertising) can change consumer behaviour over time is beverage consumption in the United States. In 1945, Americans drank more than four times as much milk as carbonated soft drinks; 50 years later, they consumed nearly two and a half times more carbonated beverages than milk. The reasons for the increase in soft drink consumption are advertising and heavy subsidies to producers of corn syrup, which surpassed cane and beet sugar for the first time in 1985 (Putnam and Allshouse, 1999).

- Consumer attitudes and behaviour
  Consumer health awareness is growing as health information becomes more available, and this awareness goes hand in hand with an ageing population and increased risk of lifestyle diseases. However, while public interest in health and sustainability continues to grow and consumer attitudes are overwhelmingly positive, behaviours do not always match these attitudes (Vermeir and Verbeke 2006).

In the context of increasing interest in health and sustainability, consumers have recently been demanding more transparency in food labelling. They want more detailed and better information about what they eat and where their food comes from (Sapic, Filipovic and Dlacic, 2019; Sanchez-Siles et al. 2019). On the other hand, as Guine et al. (2021) explains, the food industry strives to develop

new products that follow modern trends and appeal to today's consumers, while maintaining the identity of certain products that are valued as traditional.

In search of an answer to this transparency in food labelling, the food manufacturer turns to Clear label as one of the logical approaches.

Clear label is one of the current trends in food marketing and can be explained as a communication concept integrated into food packaging design (food labelling) based on consumers' increased search for transparency in food products ingredients (what's really in it?) and transparency in ingredient communication on the front of the package (first described by Innova market insights, 2015). It can also be explained as an upgrade of clean label products (products that do not contain ingredients that can be perceived as artificial or unhealthy) with general transparency in the presentation of ingredients (Bonciu, 2018) and even their origin (Pearson and Bailey, 2016).

Following the definition of Clear label in 2015, food innovation publications (e.g., FoodIngredientsFirst 2015) reported its growth in 2016 and announced that it will continue to be the leading trend in 2017 (Australian Food News 2017). The trend towards clear labelling continues to evolve, so much so that Innova Market Insights, who originally coined the term, have expanded it to "Clean Supreme" in their 2017 Trends, stating that the rules have been rewritten and clean and clear labelling is the new global standard. It is also emphasised that the demand for full transparency encompasses the entire supply chain as clean label positioning becomes more holistic (Global Food Forums 2016). Nachay (2017) describes clean and clear label movement as an answer to increased demand for ingredients that are domestically sourced, organic, or not genetically modified. The trend continues to move toward full transparency in communicating with consumers, as advertised, by providing them with easy-to-find and easy-to-read information (Labelnet, 2018; Kalsec, 2019).

In 2019, the company Kalsec published the results of a large-scale consumer study with 6000 participants from 12 countries in North and South America, Asia and Europe, which analysed what Clean and Clear labels mean to consumers. For their study, they defined that clean label represents what consumers perceive as labels with less complicated and chemical-sounding ingredients. Clear labels, on the other hand, refer to consumers' desire for manufacturers to be more transparent in the way their products are made and sourced (Kalsec, 2019b).

These nine attributes for defining Clan and Clear label (Kalsec, 2019b):

- No artificial ingredients,

- Fresh ingredients,
- Short and understandable ingredient list,
- Not genetically modified or non-GMO

(the first four are classified as Clean label attributes),

- Ingredient origin,
- Minimally processed,
- Low environmental impact,
- Ethical treatment of humans, Ethical treatment of animals

(the following five are classified as Clear label attributes).

The research results show that the five Clear label attributes most frequently perceived by research participants are as follows: 1) No artificial ingredients 38%, 2) Fresh ingredients 35%, 3) Short ingredient list 31%, 4) Ingredient origin 28%, and 5) Minimally processed 26% (Kalsec, 2019b).

In 2020, the global pandemic COVID-19 broke out and changed lives worldwide. It drastically changed consumer behaviour. For example, from a study by McKinsey (2020), the consumer shift to digital continues across all countries and categories, as consumers in most parts of the world continue to do little shopping outside the home. In the grocery and household categories, the number of online shoppers has increased by more than 30 percent on average across countries (McKinsey, 2020).

Even in this new opportunity, the Clear label trend continues to evolve. Fusaro (2020), in announcing Innova's 2021 trends, said the pandemic has increased the focus on overall health and immunity, with consumers looking for foods and ingredients that support personal health. For this reason, transparency is at the top of Innova's top trends for 2021. According to Innova's consumer survey, six out of ten consumers worldwide are interested in learning more about where food comes from (Fusaro, 2020). Some researchers (Alcorta et al. 2021; Pasqualone, 2022) point out that "clear labelling" can prevent neophobia towards food, i.e. the tendency of consumers to reject or be reluctant to try new and unfamiliar foods, which is an obstacle to the introduction of plant-based or vegan foods. McLeod et al. (2022, pp. 20), for example, state that “…consumers could benefit from clear labelling standards to make informed purchasing decisions”.

In recent years, consumers have sought more information about the environmental impact of food products, and the development of so-called 'eco-friendly' claims is a new direction this trend is taking (Southey, 2022; Innova Market Insights, 2023).

To summarise, clear labelling is one of the current trends in food marketing. It can be described as a communication concept that is integrated into the design of food packaging (food labelling) and is based on consumers' increased search for transparency in food products ingredients (what's really inside?) and transparency in the communication of ingredients on the front of the package.

As mentioned in the introduction, although "Clean" and "Clear label" are sometimes used as synonyms and the term isn't precisely defined by regulators, for the purposes of this study only the term "Clear label" is used and understood as explained here. Table 2 provides a brief overview of previous research on Clear label.

Table 2: Review of previous research from the area of Clear Label

Reference	Research aims and scope	Research results
Thow and Hawkes (2009)	Describes the relationship between trade liberalization policies and food imports and availability, and draws implications for diet and health, using Central America as a case study region.	The policies of trade liberalization in Central American countries have implications for health in the region. Specifically, they have been a factor in facilitating the "nutrition transition", associated with rising rates of obesity, chronic diseases such and cancer.
Kearney (2010)	Explores the food consumption (availability) trends and projections of trends to 2050.	Ageing, globalisation and urbanisation pose new challenges. The pace and extent of urbanisation have a significant impact on global food supply, markets and trade. Future food policy considerations must take into account a sustainable pattern of food consumption that provides for an adequate supply of micronutrient-rich foods without encouraging the overconsumption of

		energy-rich, nutrient-poor foods. A "healthy" agriculture must be the goal, incorporating nutritional considerations into multinational agricultural policies, while integrating agricultural considerations into improving nutrition and health.
Pearson and Bailey (2012)	Profiles a well-established local food market; looks at ‘re-spatialising’ and ‘re-socialising’ within the food system to provide suggestions for further research.	This exploration of the market potential of local food leads to two priority areas for further research; exploring the possibility of providing a clearer definition of local food and to explore the possibility of developing some form of consumer assurance for the ‘localness’ of foods.
Nachay (2017)	Explores the trends from the industry.	The industry's emphasis on clean label, clear label, fresh, less processed, and the like means that food manufacturers and grocery stores are offering more foods and beverages that fulfil these characteristics and satisfy the needs of many consumers. However, the demand for these foods also has implications for food safety.
Bonciu (2018)	Examines how some aspects of the current necessity for food processing to make them safer for consumption, more accessible, improved nutrition and having an	In modern food processing, processors need to choose a particular technology only after considering a number of factors, of which the most

	adequate balance between the ingredients and the nutrients they provide.	important are food safety, nutritional benefits, and low energy consumption.
Sapic, Filipovic, and Dlacic (2019)	Analyses the behaviour of fast food consumers by comparing foreign and domestic restaurants in Serbia and Croatia.	In the context of country of origin in fast food restaurants, consumers' desire for variety and cosmopolitanism had a positive impact on consumers' evaluations and behavioural intentions, while the desire for unique products had a negative impact.
Sanchez-Siles et at. (2019)	Describes the development of the Food Naturalness Index (FNI), in the absence of clear rules to define and measure food naturalness.	The proposed FNI is comprised of four component measures, namely farming practices, free from additives, free from unexpected ingredients, and degree of processing.
Alcorta et al. (2021)	Explores eggs, seafood alternatives and new products that do not resemble any traditional animal food.	In a growing market for plant-based products, consumers demand products that are sustainable, safe, nutritious, available and affordable. The production of meat alternatives, such as cultured meat, has great potential but needs to be optimised. Other processes such as microalgae culture, fermentation or the addition of microorganisms that produce vitamin B12, for example, also have great potential.
Guiné et at. (2021)	Analyses the constraints and motivations for development	The value of tradition, recognized in many

	in the sector of traditional foods, from the point of view of marketing and consumer trends.	sectors of society, is also important in the food sector, which is particularly rich in ethnical elements, local ingredients, traditional formulations and social aspects, linked not only to the food itself but also to the act of eating and sharing.
McLeod et al. (2022)	Examines whether the information on the label affects consumer preference and whether there are correlations between food labels and food values.	The results show that preference proportions for each label changed the more information respondents were given about the different labels included in the study. The results should support food policy efforts that call for strict, clear label standards.
Pasqualone (2022)	Overview of challenges and innovations related to food preparation for plant-based diets.	Despite growing interest in a plant-based diet, the processing technology of alternative foods still needs to be optimised, with a focus on improving sensory properties. Information campaigns are needed to reduce neophobia towards the most innovative foods such as cultured cells, insects and microalgae and to change eating habits.

Source: prepared by author

The review of previous research connected to Clear label presented in this chapter and listed in the table above sheds light on the need to promote healthier diets (Kearney 2010; Bonciu 2018), sustainable food systems (Alcorta et al. 2021; Pasqualone 2022) and innovation in the food industry, including how to

communicate with consumers (Nachay 2017; Sapic, Filipovic, and Dlacic 2019; Sanchez-Siles et at. 2019; Guiné et at. 2021; McLeod et al. 2022).

Communicating via food labels and trying to find better ways of doing so is a constant concern for food manufacturers. Clear label means transparent communication of ingredients on the front of pack for consumers and an effective tool for food manufacturers to build brand loyalty.

2.3. Brand loyalty theory

As explained in the introduction, one of the foundations for this research is certainly the brand loyalty theory. Building brands and creating brand loyalty is a long-term process that is rooted in the field of brand management. Building a loyal customer base requires a comprehensive and long-term approach that encompasses various aspects of brand development and maintenance.

One of the most commonly cited definitions of brand loyalty is: "Loyalty is a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same- brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour." (Oliver, 1999, p. 34). Another widely cited author, Aaker (1996), states that loyalty is a core dimension of brand equity. Further, he adds, "A loyal customer base represents a barrier to entry, a basis for a price premium, time to respond to competitor innovations, and a bulwark against deleterious price competition. Loyalty is of sufficient importance that other measures, such as perceived quality and associations, can often be evaluated based on their ability to influence it." (Aaker, 1996, p. 106.)

An interesting overview of the branding process comes from Keller (2003). He summarizes that in order to understand all knowledge about brands, one must scratch through all the multiple dimensions of brands, such as awareness, attributes, benefits, images, thoughts, feelings, attitudes, and experiences.

As mentioned earlier, there are numerous definitions of brand loyalty, but researchers agree that it is not unidimensional. It encompasses consumers' experiences, attitudes and feelings towards the brand, as well as intentions and repeat purchases - a complex mix of attitudinal and behavioural elements (Jacoby and Kyner 1973; Oliver, 1999; Chaudhuri and Holbrook 2001; Keller, 2003; Erdem and Swait 2004; Rundle-Thiele, 2005b; Punniyamoorthy and Raj, 2007; Kataria et al. 2019).

Brand loyalty has been an extensively studied topic in the field of marketing since the 1950s. In reviewing the literature, few periods in the evolution of brand loyalty theory can be identified:

1) early research,

2) redefinition of brand loyalty from a one-dimensional to a two- and multi-dimensional construct,

3) contemporary research.

Early research. Research published in the 1950s, 1960s and early 1970s was based on various panel data, such as Chicago Tribune consumer panel (Morrison, 1966; Wind and Frank, 1969; Carman, 1970; Newman and Werbel, 1973). In the latter period, data were more often collected in the field, exclusively for specific research. This can be explained by the fact that in the early research period, collecting, and also processing data from the field was difficult and time-consuming, unlike today's research, where modern information and communication technologies have removed these barriers, especially after the 1990s.

Sheth (1968, p. 395) explains the main limitation of research based on panel data: "the panel data are gathered for monitoring market behaviour, and not for testing any specific stochastic model with its set of assumptions". A similar explanation can be found in McConnell's (1968) study.

These early published research papers also focused on improving methodology, such as the use of factor analysis (Sheth, 1968 and 1970), the Automatic Interaction Detector (AID) procedure (Carman, 1970), or multiple classification analysis (Newman and Werbel, 1973).

And in the end, it is clearly evident that all the papers included in this review, that were published before the 1990s, were published in the United States.

Redefinition of brand loyalty from a one-dimensional to a two- and multi-dimensional construct. In early research, brand loyalty was viewed as simple repeat purchase behaviour. For example, Tucker (1964) studied after how many repeat purchases of a product one is likely to become loyal to a particular brand; or Morrison (1966) studied the effect of time between two purchases. However, McConnell (1968) explains that the studies previously conducted focused mainly on developing models to predict repurchase rates and did not achieve this goal, so in addition to observing loyalty over time, McConnell's study

also attempted to explain it as a function of perceived quality (as measured by price level).

The one who seriously challenged the definition of brand loyalty was Jacoby and Kyner (1973), who claimed that brand loyalty research had not made a significant contribution to understanding the consumer decision-making process up to that point. Their solution to the problem was to attempt to offer a conceptual definition of loyalty, as opposed to the earlier operational approach (measurement methods). Theirs study summarized the problems of the major findings of the time and opened up new approaches to further study of the construct by adding the attitudinal aspect.

Jacoby continued to work on this approach over the years, and eventually Jacoby and Chessnut's (1978) definition became one of the most widely cited definitions of the following decades. The definition described brand loyalty with six requirements, where brand loyalty is: "The (a) biased, (b) behavioural response, (c) expressed over time, (d) by some decision-making unit, (e) with respect to one or more alternative brands out of a set of such brands, and (f) is a function of psychological (decision-making, evaluative) processes (Jacoby and Chestnut, 1978, p. 80)". Many authors have challenged and/or supported this definition over time (DuWors, and Haines, 1990; Dick and Basu, 1994; Mellens et al. 1996; Chaudhuri, 1999).

Oliver (1999) explains that parallel to the research on brand loyalty, a branch of marketing researchers is grappling with the problem of customer satisfaction theory: "... cracks in the satisfaction research dynasty are beginning to appear. Calls for a paradigm shift to the pursuit of loyalty as a strategic business goal are becoming prominent" (Oliver, 1999, p. 33). Oliver's research focuses on explaining the relationship between satisfaction and loyalty and, by extension, loyalty stages (cognitive, affective, conative and action loyalty).

This approach subsequently led to defining brand loyalty as a multidimensional (Chaudhuri and Holbrook, 2001; Punniyamoorthy and Raj, 2007 or Hollebeek, 2011) or composite construct (Rundle-Thiele, 2005b). Keller (2003) also argues that more holistic perspectives that synthesize the multidimensionality of brand knowledge are critical to advancing branding theory and practice.

Contemporary research. After more than 60 years of continuous research, one has to wonder if there is anything left for further research. At the end of his paper, Oliver (1999, p. 43) concludes, "It appears that there is much to be known about the much-lauded but little understood concept of loyalty."

Since the turn of the century, research on brand loyalty has not lost interest, but has been largely upgraded and various insights have been added to the concept, such as:

- Different marketing concepts have been integrated, for example new brand introduction or brand innovativeness (Ehrenberg and Goodhardt, 2000; Pappu and Quester, 2016), brand trust (Delgado-Ballester and Munuera-Alemán, 2001; Alhaddad, 2015; Veloutsou, 2015), loyalty programs (Roehm et al. 2002 or Yi and Jeon, 2003), the concept of brand community (McAlexander et al. 2003; Thompson and Sinha, 2008), the experience concept (Brakus et al. 2009), engagement concept (Bowden, 2009; Hollebeek, 2011), functional claim communication (Krystallis and Chrysochou, 2011), brand love (Drennan et al. 2015; Alnawas, and Altarifi, 2016; Huang, 2017; Bıçakcıoğlu et al. 2018) or integration of digital and social communication channels (Zheng et al. 2015; Giovanis and Athanasopoulou, 2018; Yoshida et al. 2018; Shanahan, 2019; Kaur et al. 2020)

- and psychology-based theories of consumer behaviour, e.g. game theory (Corstjens and Rajiv, 2000), consumer involvement (Knox and Walker, 2003), Hofstede's theory of cultural dimensions (Lam, 2007), the engagement concept (Hollebeek, 2011) or self-determination theory (O'Donnell and Brown, 2012)

However, returning to the narrower topic of this paper, food brand loyalty is more often studied from the perspective of food manufacturers, food technology or nutrition. Evidence for this claim is that studies of food brand loyalty are often published in food technology or nutrition journals (e.g.: Manning 2007; Davick 2013; Balaji 2015; Magnier et at. 2016; Kataria et at. 2019). Table 3 provides a review of previous research from the area of brand loyalty.

Table 3: Review of previous research from the area of Brand loyalty

Reference	Research aims and scope	Research results
Tucker (1964)	Examines the growth of brand loyalty in an environment where consumers have no prior knowledge of any of the available brands.	The experiment shows that search behaviour precedes the development of brand loyalty, which grows to measurable strength despite the virtual identity of the available brands, suggesting that some

		consumers tend to be brand loyal.
Morrison (1966)	Examines how the time elapsed between successive purchases influences consumers' brand loyalty.	Presents a common method of investigating this question. It also presents some empirical results on the effect of time between purchases on brand loyalty in coffee. The focus is on the methodology.
Sheth (1968)	Examines the need to develop a model that provides measures of brand loyalty for individual consumers in addition to aggregate brand loyalty measures.	The factor analytic model of brand loyalty can be useful to obtain individual and environmental parameters for different types of functional relations. It can work with theoretically and empirically derived functions.
McConnell (1968)	Tests the strength of brand loyalty as a function of subjectively perceived quality and time.	With price as an indication of brand quality and time as measured by total purchase trials, the strength of brand loyalty could be explained by perceived quality and a trend over time.
Wind and Frank (1969)	Calculates pairwise correlation coefficients between 38 food products based on two different measures of household brand purchasing behaviour.	Situation-specific, as opposed to general household characteristics, are the best candidates for predicting brand buying behaviour for products.
Sheth (1970)	Examines the extension of the factor analytic model of brand loyalty to multichotomies data in which the varying degree of a consumer's loyalty to multiple brands is estimated.	The resulting loyalty values are compared with simple probability measures and also examined in relation to aggregate market shares.
Carman (1970)	Using a special panel, examines the relationship between personal	Suggests a link between personal characteristics, the purchasing process and

	characteristics, the purchasing process and loyalty.	loyalty. It also introduces a new measure of brand loyalty and describes the use of the AID method for exploratory data analysis.
Newman and Werbel (1973)	Tests two different measures (brand consideration and brand repurchase) of brand loyalty.	A measure based on both brand consideration and brand repurchase seems to deliver better results than brand repurchase alone.
Jacoby and Kyner (1973)	Explores brand loyalty, first by distinguishing it from simple repeat purchase behaviour and then conceptually defining it based on six necessary and jointly sufficient conditions.	An experiment designed to test this conceptualization provided strong empirical support for the distinction as conceptualized.
Jacoby and Chestnut (1978)	Gives an understanding of what brand loyalty is and what it is not and how it can be measured and used.	Using behavioural, attitudinal and composite classifications, the authors review 53 operational definitions of brand loyalty.
DuWors and Haines (1990)	An operational measure of brand loyalty is presented that is not dependent on market share.	The estimation of brand loyalty for diary data and scanner data shows that brand loyalty is time dependent. The authors discuss these results and present event history analysis and its applications in marketing research.
Dick and Basu (1994)	Develops a new conceptual framework to better understand the cognitive, affective and conative antecedents of customer loyalty and its consequences.	The framework points to the importance of situational influence and social norms as moderators of the relationship between relative attitudes and repeat purchases.
Mellens et al. (1996)	Provides an overview of the main categories of brand loyalty instruments, focusing on developments	From a theoretical point of view, one could argue that the ideal measure should include attitudinal and behavioural

	since the monograph by Jacoby and Chestnut (1978), and to give guidance on the use of brand loyalty instruments in applied marketing.	components. And it should be able to reflect both individual and brand differences. However, due to budget or time constraints, marketing managers may prefer simpler measures to the theoretically better ones.
Aaker (1996)	Demonstrates an effort to create a set of measures of brand equity that can be applied to all markets and products.	The ten measures of brand equity are divided into five categories. The first four categories represent customer perception of the brand: Loyalty, Perceived Quality, Associations and Awareness. The fifth includes two measures of market behaviour that represent information derived from market-based information rather than directly from customers.
Oliver (1999)	Investigates which aspect of consumer satisfaction has an impact on loyalty and what proportion of the loyalty reaction is due to the satisfaction component.	The satisfaction is a necessary step in loyalty formation, but loses importance when loyalty begins to emerge through other mechanisms, such as the role of personal determinism ("fortitude") and social bonding at institutional and personal levels. When these additional factors are taken into account, ultimate loyalty emerges as a combination of perceived product superiority, personal fortitude, social bonding and their synergistic effects.
Chaudhuri (1999)	Uses path analysis to analyse the direct and indirect influences of brand attitudes and brand loyalty	The results suggest that attitudes towards the brand are directly and indirectly related to shelf facings and price, with

	on brand performance measures.	the indirect relationship being through brand loyalty.
Corstjens and Lal (2000)	Examines the role of a store brand in building store loyalty through a game-theoretic analysis.	The quality store brands can be a tool for retailers to increase store differentiation, store loyalty and store profitability, even if the store brand has no margin advantage over the national brand.
Ehrenberg and Goodhardt (2000)	Proposes a model for measuring customer loyalty for new brands.	Illustrates that the loyalty to the new brand in observed case studies was almost immediate: The average purchase frequency of the new brands at their introduction is already normal, i.e. it is at the same level as one or two years later and also as for the established competitor brands.
Chaudhuri and Holbrook (2001)	Examines two aspects of brand loyalty, purchase loyalty and attitudinal loyalty, as connecting variables in the chain of effects from brand trust to brand performance.	When the variables are controlled at the product and brand level, brand trust and brand affect together determine purchase loyalty (leading to a higher market share) and attitudinal loyalty (leading to a higher relative price).
Delgado-Ballester and Munuera-Alemán (2001)	Links the trust with the notion of satisfaction and loyalty at the conceptual level. Also illustrates the fact that these efforts are absent in the brand-consumer relationship.	Points the key role of brand trust as a variable that generates customers' commitment, especially in high involvement situations where its impact is stronger compared to overall satisfaction.
Roehm et at. (2002)	Examines the effects of loyalty programmes on loyalty to brands of packaged goods.	Suggests that incentives that are consistent with a brand's identity can reinforce positive associations and increase loyalty, while concrete

		incentives can undermine loyalty by overshadowing the brand. Also explains that incentive associations can affect access to brand associations and highlights the importance of designing incentives that are compatible with the brand.
Keller (2003)	Highlights some promising and productive current brand-related research and suggests new important topics for future research.	Adopting a broader, more holistic perspective that encapsulates the multidimensionality of brand knowledge is critical to advancing the theory and practise of brand management.
Knox and Walker (2003)	Reports on a research design that attempts to integrate previous theories of consumer involvement and brand loyalty into a longitudinal study of food product purchase.	Results confirms the existence of a weak but significant relationship between involvement and brand loyalty in food markets.
McAlexander, Kim and Roberts (2003)	Examines the relative impact of satisfaction, brand community integration and consumer experience on customer loyalty as expressed in future purchase intentions and behaviour.	The results suggest that satisfaction yields to brand community integration as an important factor for loyalty.
Yi and Jeon (2003)	Examines how reward schemes of a loyalty programme influence the perceived value of the programme and how the value perception of the loyalty programme influences customer loyalty.	Under high involvement conditions, the value perception of the loyalty programme influences brand loyalty both directly and indirectly through programme loyalty. Under low involvement conditions, there is no direct effect of value perception on brand loyalty.

Erdem and Swait (2004)	Examines the role of brand credibility (trustworthiness and expertise) in brand choice and consideration in different product categories that differ in terms of potential uncertainty about attributes and associated information acquisition, costs and perceived risks of consumption.	Brand credibility increases the likelihood that a brand will be considered. Although credibility affects brand choice and deliberation formation more strongly and across more constructs in contexts with high uncertainty and sensitivity to that uncertainty, credibility effects are present in all categories. Finally, the results suggest that trustworthiness, rather than expertise, has a stronger influence on consumer choices and brand considerations.
Rundle-Thiele (2005b)	Simplifies and shorten loyalty surveys for marketers and summarises and categorises more than 30 survey-based loyalty measures conducted in previous academic research.	The results of this research suggest that attitudinal loyalty may be the most important dimension for marketers to monitor. It also suggests that dimensions of loyalty could include propensity to be loyal, behavioural intentions, complaining behaviour, resistance to competing offers, attitudinal loyalty and behavioural loyalty.
Lam (2007)	Examines the cultural effects on individuals' reported propensity to brand loyalty by using Hofstede's cultural dimensions.	People who score high in the areas of individualism and uncertainty avoidance tend to be more brand loyal.
Punniyamoorthy and Raj (2007)	Develops an empirical model to measure brand loyalty (newspaper category).	The model developed to measure brand loyalty includes multidimensional constructs that encompass both attitudinal commitment and behavioural purchase loyalty. The model proposed that involvement,

		perceived value, trust, customer satisfaction and commitment have an impact on loyalty.
Thompson and Sinha (2008)	Examines the impact of brand community participation and length of membership on new product acceptance of both opposing brands and the preferred brand.	Higher levels of involvement and longer-term membership in a brand community not only increase the likelihood of adopting a new product from the preferred brand, but also decrease the likelihood of adopting new products from opposing brands. However, this loyalty to the opposing brand depends on whether a competitor's new product is launched first. In the case of overlapping memberships, higher participation in a brand community may increase the likelihood of adopting products from competing brands.
Bowden (2009)	Seeks to align satisfaction research with an approach that embraces an understanding of the role of commitment, involvement and trust in creating engaged and loyal customers.	A conceptual framework for segmenting customer-brand relationships based on the extent to which customers are either new customers or repeat purchase customers of a particular service brand is proposed.
Brakus, Schmit and Zarantonello (2009)	Brand experience is conceptualised as sensations, feelings, cognitions and behavioural responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communication and environment. Several experience dimensions are distinguished and	The scale is reliable, valid and different from other brand measures such as brand evaluation, brand involvement, brand attachment, customer delight, and brand personality. Furthermore, brand experience has a direct and indirect impact on consumer satisfaction and loyalty through associations with brand personality.

	construct a brand experience scale that includes four dimensions: sensory, affective, intellectual and behavioural.	
Hollebeek (2011)	Reviews literature from other disciplines and marketing and developing a three-part concept for customer brand engagement that encompasses the dimensions of activation, identification and absorption.	The conceptual model illustrates the conceptually distinct nature and relationships between customer brand engagement and other marketing constructs.
Krystallis. and Chrysochou (2011)	Investigates whether health claims, especially low-fat claims, can serve to improve the performance of brands and further increase their loyalty levels.	On average, brands with a low-fat claim perform better in the market than their high-fat counterparts. Compared to other health-related attributes, the "fat content" attribute also shows slightly higher loyalty, indicating the importance of the "low fat" claim as a communication tool.
O'Donnell and Brown (2012)	Introduces a Self-Determination Theory (SDT)-based framework to better understand the relationship of individuals to their brand community.	The impact that each of the defined influences has on brand community members depends on the degree to which an individual has internalised the brand community as assessed by their developmental stage. It is also postulated that these influences encourage individuals to become more loyal to the brand community.
Davick (2013)	Identifies the influencing factors and determine how they affect brand equity performance in the	Marketing investment, price, sales, brand ownership and perceived quality are highly associated with brand equity

	industry under study to develop a more effective brand strategy.	and consequently with higher brand equity in the food industry.
Alhaddad (2015)	Develops a brand loyalty model and to empirically investigate the relationships between perceived quality, brand image and brand trust in building brand loyalty.	Perceived quality has a significant impact on both brand image and brand loyalty.
Balaji (2015)	Helps managers choose between the ingredient branding strategy (IB) and the incremental product innovation (IPI) strategy based on two relevant criteria, namely the involvement level of the product category and the level of parent brand equity.	The IB strategy should be preferred when the product category is perceived as having low involvement or when parent brand equity of the brand is low. The IPI strategy should be preferred when the parent brand equity is high. In the case of high involvement products, one of the two strategies may be preferred.
Drennan et al. (2015)	Develops and tests a model using a multi-country study that takes into account consumers' wine knowledge and experience, wine brand trust and satisfaction as antecedents of wine brand love and wine brand loyalty.	Confirms the importance of brand love as a mediator and direct influence on brand loyalty among wine consumers.
Veloutsou (2015)	Investigates whether the strength of the positive brand relationship can either mediate between trust, satisfaction, attitude towards the brand and loyalty or moderate the relationship between these variables.	The strength of the consumer-brand relationship is a very strong predictor of brand loyalty. Also suggest that the brand relationship does not moderate the relationship between brand trust, satisfaction and brand loyalty, but mediates the link between these constructs.

Zheng et al. (2015)	Explores the concept of user engagement in the context of online brand communities.	The user engagement influences brand loyalty both directly and indirectly through online community engagement. Users are more likely to focus on the benefits (rather than the costs) of being involved in an online brand community.
Alnawas and Altarifi (2016)	Develops a model that integrates brand identity, brand life congruence, customer hotel brand identification (CHBI) and brand love into one model and test its predictive power to explain brand loyalty.	It tests how brand identity and brand-lifestyle congruence contribute to the development of CHBI, which in turn evokes a strong emotional experience with hotel brands and cultivates affection and passion for it.
Pappu and Quester (2016)	Examines how consumer perceptions of innovativeness affect consumer brand loyalty.	The perceived quality fully transmits the influence of brand innovativeness on brand loyalty. It also confirms the mediation relationship.
Huang (2017)	Examines the mediating role of brand love and brand trust on the relationships between brand experience and brand loyalty.	Sensory experience is the most important driver of brand love, it also drives promotes brand trust among customers, while intellectual experience has no impact on brand trust. Brand love is the most important mechanism for developing customers' behavioural loyalty, just as brand trust is for shaping their attitudinal loyalty. Brand love and brand trust have a mediating effect on the

		relationships between brand experience and brand loyalty.
Bıçakcıoğlu et al. (2018)	Proposes and test an integrative conceptual model that includes experience (i.e. brand experience) and non-experience-based (i.e. self-congruity) antecedents and behavioural outcomes (i.e. brand loyalty and positive word-of-mouth) of brand love.	The results show strong associations between experience-based and non-experience-based antecedents and brand love, and between brand love and its behavioural outcomes. Also confirms the mediating role of brand loyalty in the impact of brand love on positive word-of-mouth.
Giovanis and Athanasopoulou (2018)	Develops and test a model that examines the impact of three brand relationship dimensions, namely brand trust, brand satisfaction (cognitive dimensions) and brand commitment (emotional/affective dimension) on brand loyalty (repurchase intentions, positive recommendations and price tolerance) in the broadband services market.	The cognitive aspects of brand relationships are the most important drivers of behavioural intentions, followed by the affective aspects. On the other hand, the affective aspect of brand relationships has a stronger effect on price tolerance, while trust has no direct effect.
Yoshida et al. (2018)	Examines consumer responses in social media networks and brand loyalty.	Brand-related engagement in social media positively influences behavioural loyalty.
Kataria et al. (2019)	Investigates the relationship between brand affect, brand commitment; attitudinal loyalty and behavioural loyalty in the oral care segment.	The brand affect has a significant impact on both attitudinal and behavioural loyalty in terms of brand commitment. Even in the low involvement category (oral care segment), consumer purchase is based on the attributes associated with the brand and attitudinal loyalty is

		found to have a strong and positive influence on behavioural loyalty.
Shanahan et al. (2019)	Develops and tests a model of personalised advertising in the development of consumer brand perceptions.	Perceived personalisation has a positive impact on consumers' brand engagement and brand attachment, both increase the perceived quality and brand loyalty of brands advertised on Facebook
Kaur et al. (2020)	A conceptual model is proposed to determine how online consumer brand engagement (CBE) is facilitated on social media.	The brand community identification and rewards have a positive effect on CBE and that CBE has a positive effect on brand loyalty. Furthermore, results show a partial mediation effect of CBE in terms of linking identification with the brand community and reward with brand loyalty

Source: prepared by author

There are numerous approaches, such as methodology development (Sheth 1968 and 1970; Carman 1970; Newman and Werbel 1973), multidimensionality (Chaudhuri and Holbrook 2001; Keller 2003; Rundle-Thiele, 2005b; Punniyamoorthy and Raj 2007; Hollebeek 2011), new brand introduction or brand innovativeness (Ehrenberg and Goodhardt, 2000; Pappu and Quester, 2016) or brand trust (Delgado-Ballester and Munuera-Alemán, 2001; Alhaddad, 2015; Veloutsou, 2015) and other insights from the sources listed in the table above. Furthermore, the field of brand loyalty is constantly evolving. Recent studies and perspectives may provide further insights in the future. However, one could also conclude that food quality (or the minimum prescribed quality) is a crucial factor in the study of factors influencing food brands and brand loyalty of food products (Alhaddad 2015; Pappu and Quester 2016).

2.4. Perceived (food) product quality

When considering food labelling on the one hand and the process of branding on the other, product quality is a construct that also comes into the researcher's field of vision.

As mentioned in the introduction, the relationship between brands and product quality usually arises from a certain approach to defining brands. Some of the definitions state that brands, in their simplified meaning, are perceived as a guarantee of constant quality that is recognisable in the market (Vranešević 2007, p.3; Manning 2007). Kapferer (2008, p. 44) even claims that in some industries, such as the food industry, brands coexist with other quality signs (seals, certificates, etc.); similar results are also found in the research by Vranešević and Stančec (2003).

The literature, instead of looking into quality in a functional or objective sense, rather acknowledges that “consumers form subjective impressions of the quality of a product based on psychological processes that are influenced by the level of prior knowledge and cognitive competencies of each individual consumer” (Bredahl 2003, p. 65). - in short: perceived product quality (Steenkamp 1986; Pisnik 2000; Alonso, Gallego and Mangin 2005; Manning 2007; Grbac and Milohanovic 2008; Espejel et al. 2009). To quote Riva et al. (2022, p. 2010): “Perceived quality is a well-recognised construct in marketing where studies have shown that it has a positive relationship with customer loyalty”.

Some researchers explain that perceived product quality in food is also under the influence of labelling. For example, Liu et al. (2017) explain that despite the lack of regulation (in the US) and clear legal definition of 'all-natural' food labelling, this type of labelling can influence consumer choice, as products labelled as 'all-natural' may be perceived as being of better food quality. Also, Wang's (2013) study had shown that consumer attitudes towards packaging design have a direct impact on perceived food quality and brand preference.

In the end, it can be said that the relationship between branding and product quality is complex and multifaceted, and that perceived food quality has a positive relationship with food loyalty. Ultimately, understanding how branding and labelling influence perceived product quality is also particularly important for companies seeking to build strong brand loyalty and succeed in the competitive food industry. Table 4 presents a review of previous research from the area of perceived (food) product quality.

Table 4: Review of previous research from the area of perceived (food) product quality

Reference	Research aims and scope	Research results
Steenkamp (1986)	Analyses the importance of food quality for consumers (both theoretically and empirically) and what role perceived food quality plays in the formation of consumer preferences.	The perceived food quality plays an important role for branded products compared to non-branded products.
Pisnik (2000)	Combines the concepts of perceived product quality, perceived risk and perceived product value into a model that observes the relationships between them.	There are statistically significant relationships between the observed constructs.
Vranešević and Stančec (2003)	Investigates to what extent the consumer perceives the brand and to what extent it influences the evaluation of the functional characteristics of the product, especially the product quality.	Consumers do not evaluate products solely based on their physical characteristics, and when deciding to buy an alternative, consumers first perceive the brand as a quality feature and then other evaluation criteria.
Bredahl (2004)	Investigates how consumers use brand information about meat in combination with other quality attributes to form quality expectations in the shop and how quality is later experienced when consuming the product.	The brand serves as a basis for both expected taste quality and expected health quality. Familiarity with the product seems to influence the overall quality perception process, with consumers with low familiarity relying significantly more on the brand as a quality cue.
Alonso, Gallego and Mangin (2005)	Examines consumer perceptions of food quality	The relationship between Perceived Quality and the

	and attempts to analyse the various contributions associated with it.	Tangible dimension is most significant, leading to the conclusion that intrinsic characteristics or attributes predominate over extrinsic attributes.
Manning (2007)	Examines the interaction between an organisation's need to demonstrate compliance with legal requirements and private security standards and the protection of its corporate and/or product brands.	To protect the brand as an asset, effective food safety management must be at the heart of corporate strategy and, in the event that these controls fail, crisis management protocols should be in place that can be implemented quickly and effectively.
Grbac and Milohanovic (2008)	Highlights the changing customer behaviour in the tourism market, i.e. the trend towards increased consumption of typical food products, and then to examine tourists' satisfaction with these products.	Confirms the great importance of food as a factor influencing the quality of the tourist offer and its great importance as a motive for choosing a destination.
Espejel (2009)	Analyses the moderating effect of consumer involvement level on the impact of perceived quality on perceived risk, trust, satisfaction and loyalty of consumers.	For the group of highly involved consumers, the influence of both intrinsic and extrinsic perceived quality on consumer loyalty level is significantly higher.
Wang (2013)	Investigates the influence of attitudes towards food packaging (visual) on brand preferences and value perception through perceived product quality.	The attitudes towards packaging design have a direct influence on perceived food quality and brand preference. The perceived quality of food products also has a direct and indirect effect

		(via product value) on brand preference.
Liu et at. (2017)	Examines the role of an "all-natural" front-of-pack label on consumer' acceptance of peanut butter willingness to pay, perceived quality and nutritional content.	The results show that there were no differences in all four variables when the labels were blinded on the front of the package. When it comes to consumer' perception of nutritional content and product quality, the presence of the all-natural label had an impact.
Riva et al. (2022)	To extend previous studies by combining the theory of planned behaviour with cue utilization theory. It also examines these variables in a new context. Green consumption, perceived green values and revisit intention are examined.	The results show a significant moderating effect of perceived green quality on the relationship between green consumerism and customers' intention to revisit restaurants.

Source: prepared by author

The overview of previous research in the field of perceived (food) product quality, listed in the table above, shows that perceived food quality plays an important role in consumer preferences, decision-making and brand evaluation (Steenkamp 1986; Pisnik 2000; Wang 2013; Liu et at. 2017; Riva et at. 2022). It can also be said that branding and packaging design influence perceived quality, while intrinsic attributes and familiarity with the product also influence overall quality perception (Vranešević and Stančec 2003; Bredahl 2004; Alonso, Gallego and Mangin 2005; Espejel 2009).

The perceived quality of food is not the only factor that can influence brand loyalty. This study also looks at the credibility of the brand.

2.5. Brand credibility

In addition to perceived (food) product quality, which was examined in the previous chapter, brand credibility is considered as the second construct influencing brand loyalty in this research. The inclusion of brand credibility in the study is intended to take into account the fact that consumers not only evaluate the quality of the product itself, but also consider the trustworthiness of the brand.

As mentioned earlier in the introduction, Erdem and Swait (2004, p. 192) explain that brand credibility as a signal of product positioning is the most important attribute of a brand. They define the construct as: the believability of the product information contained in a brand, which requires that consumers perceive that the brand has the ability and willingness to continuously deliver what has been promised (Erdem and Swait 2004, p. 192; Kemp and Bui, 2011). Credible brands minimise risk and increase consumer confidence (Delgado-Ballester and Munuera-Aleman, 2001; Baek, T. H. et al. 2010; Kemp and Bui, 2011).

In addition, Kemp and Bui (2011) examined the relationship between brand credibility and health perceptions, purchase intention and price of branded food products and found that these constructs are positively related. This means that brand loyalty can develop when consumers believe that a brand is credible, and they buy it repeatedly. This implies that it can be assumed that the credibility of a brand can positively influence behavioural loyalty.

Some research also examines the relationship between brand credibility and attitudinal loyalty (Kaur and Soch 2018; Haq 2022). But the research that relates to food brands (Ngo et al. 2020; Sekhar et al. 2022) focuses mainly on health safety and the risks associated with food consumption. Brand credibility is important for food brands as it minimises risk and builds consumer trust. Table 5 provides an overview of previous research in the area of brand credibility.

Table 5: Review of previous research from the area of brand credibility

Reference	Research aims and scope	Research results
Delgado-Ballester and Munuera-Alemán (2001)	Links trust with the notion of satisfaction and loyalty, and the fact that these efforts are absent in the brand-consumer relationship on conceptual	Brand trust has a key role as a variable that generates customers' commitment, especially in high involvement situations where its impact is

	level. Leads the authors to focus on analysing the relationships between these concepts.	stronger compared to overall satisfaction.
Erdem and Swait (2004)	Examines the role of brand credibility (trustworthiness and expertise) in brand choice and consideration in different product categories that differ in terms of potential uncertainty about attributes and associated information acquisition costs and perceived risks of consumption.	Brand credibility increases the likelihood that a brand will be considered and the brand choice that depends on the consideration. Although credibility affects brand choice and deliberation formation more strongly and across more constructs in contexts with high uncertainty and sensitivity to that uncertainty, credibility effects are present in all categories. Suggest that trustworthiness, rather than expertise, has a stronger influence on consumer choices and brand considerations.
Baek et al. (2010)	Investigates how brand credibility and brand prestige affect brand purchase intention and empirically examines how these constructs materialise across several product categories.	The brand credibility and brand prestige positively influence the purchase intention for a brand through perceived quality, information costs and perceived risk.
Kemp and Bui (2011)	Investigates variables that are crucial to the branding process of brands perceived as 'healthy'.	The brand credibility, engagement and connectedness are essential in developing branding strategies for ‘healthy brands’.
Kaur and Soch (2018)	Develops an understanding of the factors that influence consumer loyalty by examining the mediating role of commitment,	Corporate image proved to be the strongest determinant of attitudinal loyalty. Calculative commitment and corporate image emerged as partial mediators between

	corporate image and switching costs on the causal relationships between customer satisfaction, trust and loyalty.	satisfaction and attitudinal loyalty. Calculative commitment and switching costs each prove to be partial mediators between trust and attitudinal loyalty, while corporate image proves to be a complete mediator.
Ngo et al. (2020)	Investigates factors that influence consumer trust in brands.	The brand credibility and brand reputation positively affected brand trust. The trustworthiness of a safe vegetable system had a more important role than the competence in building brand trust. Notably, while risk recall directly reduced brand trust, risk information caused a directly positive effect on brand trust. In addition, the impact of food hazards on brand trust was indirect through brand credibility.
Haq et al. (2022)	Examines the direct effect of brand credibility on brand loyalty and attitude towards the brand, as well as the direct effect of attitude towards the brand and on brand loyalty, respectively.	The brand credibility has a positive influence on attitude toward the brand and brand loyalty, respectively.
Sekhar et al. (2022)	Investigates the influence of brand credibility on the intention to buy organic food.	The brand credibility is positively related to purchase intention. Healthiness, high quality and sensory attributes (i.e., natural taste) were identified as some of the most important characteristics of organic food.

Source: prepared by author

Overall, based on the findings presented in the table above and the review of previous research in the field of brand credibility, it is believed that brand credibility plays an important role in building consumer trust, commitment and loyalty (Delgado-Ballester and Munuera-Alemán 2001; Erdem and Swait 2004; Baek et al. 2010; Kemp and Bui 2011; Haq et al. 2022). In the context of the food market, this also extends to reducing risk perceptions related to food safety and health issues (Ngo et al. 2020; Sekhar et al. 2022).

The literature review in this thesis deals with the complex interplay of brand loyalty, product quality and brand credibility in the context of food marketing and food branding. As well as in connection with the development of food labelling and current market trends, in particular the trend towards Clear labels. After considering the theoretical framework, aims, hypotheses and methodology can be addressed.

3. RESEARCH DESIGN

Having provided a comprehensive overview of the theoretical framework and delineation of the scope of the thesis, it is important to establish the purpose and aims that serve as the basis for formulating the hypotheses. These aims provide a clear direction and focus for the research and guide the subsequent hypothesis development. This process also ensures that the research remains focused on the intended idea and helps to maintain a coherent and structured approach throughout the thesis.

3.1. Aims and hypotheses of the research

Purpose of this thesis is to explore how constructs such as Perceived product quality, Brand credibility and Brand loyalty of packed food products influence each other. Also, how one of the contemporary trends, described as Clear label, effects relationship between mentioned constructs.

Specific aims of this research are:

- To explore theoretical background in order to identify what effects Food brand loyalty and to determine relationship between Perceived product quality, Brand credibility and Food brand loyalty. In other words, through a thorough review of existing literature and theories, this study aims to provide a comprehensive understanding of the underlying mechanisms that shape consumer attitudes and behaviour towards packaged foods.

- To identify and describe how Clear label effects relationships between Perceived product quality, Brand credibility and Food brand loyalty.
  By examining the impact of the Clear label on the above constructs, valuable insights can be gained regarding its potential to enhance or change the consumer-brand relationship in the context of packaged food products.

- To propose a conceptual model that describes relationships of the above mentioned constructs.
  The model is intended to illustrate the interconnections and influences of these constructs, including the role of the Clear label.

- To empirically test proposed conceptual model.
  The aim of this research is to provide empirical evidence to support or refine the conceptual model.

Based on literature review, purpose and aims of this research, following hypothesis are proposed.

Many researchers (e.g., Bredahl, 2004; Manning 2007; Kepferer, 2008; Wang, 2013; Ferenčić and Wölfling 2015) agree that the level of perceived food product quality is related to how consumers perceive food brands, how they form their attitudes toward food brands, and how loyal they are. Previous studies show that the relationship between perceived product quality and brand loyalty is particularly important for food brands, as food brands coexist with other quality attributes (such as seals, certificates, etc.) that lead to higher loyalty of food brands (Vranešević and Stančec 2003; Alhaddad 2015; Kapferer 2008; Espejel et al. 2009).

H1: Level of Perceived product quality positively affects the Food brand loyalty.

In this study, brand loyalty is considered as a multidimensional construct (Chaudhuri and Holbrook 2001; Keller 2003; Punniyamoorthy and Raj 2007; Hollebeek 2011) that includes four levels of consumer loyalty, following Rundle-Thiele's (2005) research:

- Attitudinal loyalty,
- Complaining behaviour,
- Propensity to be loyal,
- and Resistance to competing offers (adapted from Rundle-Thiele, 2005).

Noting that the positive effect of Complaining behaviour is the absence of or no Complaining behaviour (Rundle-Thiele, 2005b).

In terms of multidimensionality, H1 must be further subdivided so that the influence of Perceived product quality on each of the four identified dimensions of Food brand loyalty (Attitudinal loyalty, Complaining behaviour, Propensity to be loyal and Resistance to competing offers) is considered separately.

H1a: Level of Perceived product quality positively affects the Attitudinal loyalty.
H1b: Level of Perceived product quality positively affects Complaining behaviour.
H1c: Level of Perceived product quality positively affects Propensity to be loyal.

H1d: Level of Perceived product quality positively affects Resistance to competing offers.

Second hypothesis is based on research from Erdem and Swait (2004), where they explain that brand credibility is defined as the believability of the product information contained in a brand, which requires that consumers perceive that the brand has the ability (i.e., expertise) and willingness (i.e., trustworthiness) to continuously deliver what has been promised (Erdem and Swait, 2004, p. 192).

Credible brands minimise risk and increase consumer confidence (Delgado-Ballester and Munuera-Aleman, 2001; Baek, T. H. et al. 2010; Kemp and Bui 2011). The link between Brand credibility and Food brand loyalty has been demonstrated in previous studies, which showed that brand loyalty can develop when consumers perceive a brand to be credible at a behavioural (Kemp and Bui 2011) or attitudinal level (Kaur and Soch 2018; Haq 2022).

H2: Brand credibility positively affects the Food brand loyalty

With regard to the multidimensionality as explained for H1, the second hypothesis H2 must also be further subdivided so that the influence of Brand credibility on each of the four identified dimensions of Food brand loyalty (Attitudinal loyalty, Complaining behaviour, Propensity to be loyal and Resistance to competing offers) is considered separately. Again, noting that the positive effect of Complaining behaviour is the absence of or no Complaining behaviour (Rundle-Thiele, 2005b).

H2a: Level of Brand credibility positively affects the Attitudinal loyalty.
H2b: Level of Brand credibility positively affects Complaining behaviour.
H2c: Level of Brand credibility positively affects Propensity to be loyal.
H2d: Level of Brand credibility positively affects Resistance to competing offers.

Due to previously mentioned conclusions that Clear label is about transparent communication on product packaging towards consumers (Bonciu, 2018) and that there is evidence of a positive impact of food labels on perceived quality (Magnier et al. 2016) as well as on brand loyalty in food through the use of communication with functional claims (Krystallis and Chrysochou, 2011), there is a possibility that the link between Perceived product quality and Food brand loyalty will be stronger when brands use Clear label communication elements.

Based on this conclusion and Espejel's (2009) study showing a moderating effect of consumers' level of involvement on the impact of perceived quality on perceived risk, trust, satisfaction and loyalty, it is assumed that Clear Label has moderating effect between Perceived product quality and Food brand loyalty and

between Brand credibility and Food brand loyalty. In other words, food brands that apply the principles of Clear labelling are expected to increase the positive impact of Perceived product quality and Brand credibility on loyalty.

H3: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Perceived product quality and Food brand loyalty elements.

H4: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Brand credibility and Food brand loyalty elements.

All hypothesis, together with the theoretical basis and the most important references, can be found in the overview in Table 6.

Table 6: Hypothesis overview

HYPOTHESIS	THEORETICAL BASE	REFERENCE
H1: Level of Perceived product quality positively affects the Food brand loyalty	Level of perceived product quality of food products is in connection to how consumers perceive food brands, how they form their attitudes towards food brands, and how loyal they are.	Vranešević and Stančec (2003) Bredahl (2004) Manning (2007) Kepferer (2008) Espejel et al. (2009) Wang (2013) Alhaddad (2015)
H1a: Level of Perceived product quality positively affects the Attitudinal loyalty. H1b: Level of Perceived product quality positively affects Complaining behaviour. H1c: Level of Perceived product quality positively affects Propensity to be loyal. H1d: Level of Perceived product quality positively affects Resistance to competing offers.	Brand loyalty – multidimensional construct with four levels of consumer loyalty: attitudinal loyalty, complaining behaviour, propensity to be loyal and resistance to competing offers	Chaudhuri and Holbrook (2001) Keller (2003) Rundle-Thiele (2005) Punniyamoorthy and Raj (2007) Hollebeek (2011)

H2: Brand credibility positively affects the Food brand loyalty	Brand credibility is defined as the believability of the product information contained in a brand, which requires that consumers perceive that the brand has the ability (i.e., expertise) and willingness (i.e., trustworthiness) to continuously deliver what has been promised.	Erdem and Swait 2004 Kemp and Bui 2011) Kaur and Soch (2018) Haq (2022)
H2a: Level of Brand credibility positively affects the Attitudinal loyalty. H2b: Level of Brand credibility positively affects Complaining behaviour. H2c: Level of Brand credibility positively affects Propensity to be loyal. H2d: Level of Brand credibility positively affects Resistance to competing offers.	Brand loyalty – multidimensional construct with four levels of consumer loyalty: attitudinal loyalty, complaining behaviour, propensity to be loyal and resistance to competing offers	Chaudhuri and Holbrook (2001) Keller (2003) Rundle-Thiele (2005) Punniyamoorthy and Raj (2007) Hollebeek (2011)
H3: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Perceived product quality and Food brand loyalty elements. **H4: Introducing Clear label elements to food product packaging design has moderating effect to the relationship between Brand credibility and Food brand loyalty elements.**	Clear Label is about transparent communications on product packaging towards consumers. If brands use Clear Label communication elements, connection between perceived product quality and food consumer loyalty will be stronger.	Espejel's (2009) Magnier et al. (2016) Bonciu (2018) Krystallis and Chrysochou (2011)

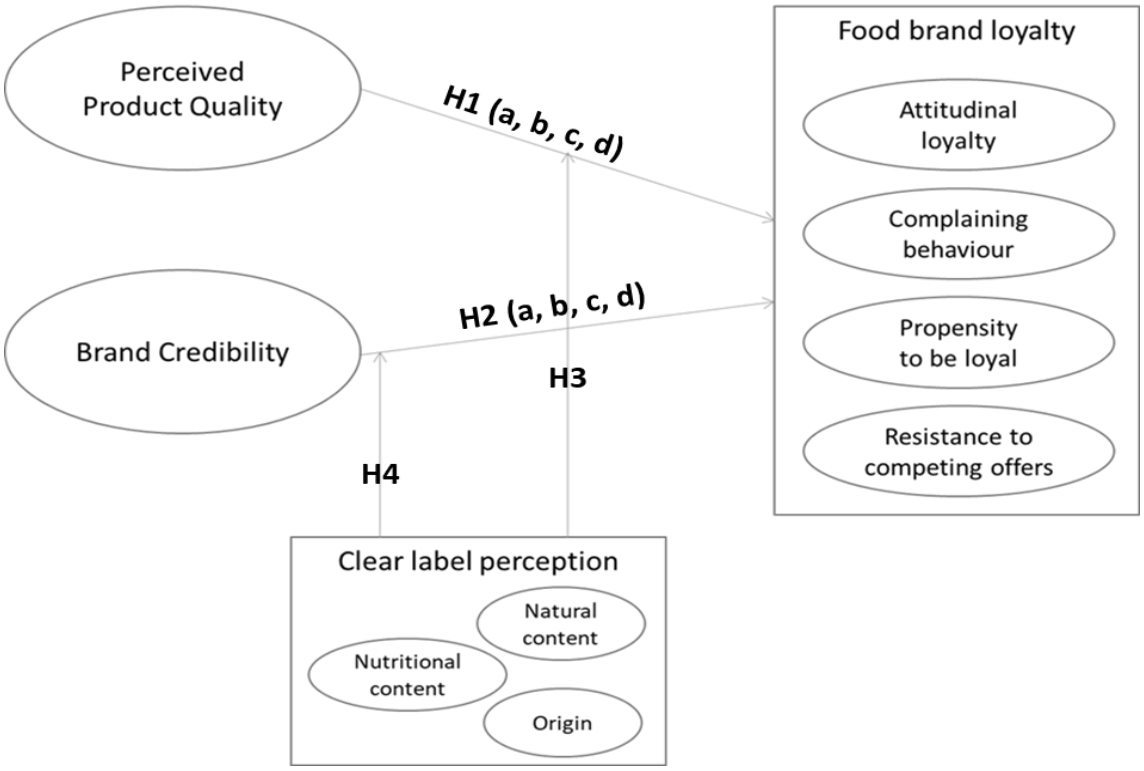
Source: prepared by author

The definition and presentation of the hypotheses on the basis of previous research and the underlying theory is followed by conceptual modelling.

3.2. Conceptual model and constructs operationalization

Based on the literature review presented, a new conceptual model is proposed (Figure 1) that includes the following constructs: Perceived product quality, Brand credibility, Food brand loyalty, and Clear label. The conceptual model shows the hypothetical relationship between the constructs described.

Figure 1: Proposed conceptual model



Source: prepared by author

The relationships between the constructs are expected to be positive as previously described, meaning that higher Perceived product quality and higher levels of Brand credibility will lead to higher levels of each dimension of Food brand loyalty. In addition, perceptions of Clear label elements consisting of Nutritional content, Natural content and Origin are expected to reinforce these positive relationships through their moderating role.

For measuring constructs within the model (Figure 1), scales from previous research are used:

1. Since Perceived product quality in food is connected with Food brand loyalty and in H1 is expected to have a positive relationship that becomes even stronger when the Clear label is included in the model (H3); and since Clear label is basically the communication on the packaging design, it is appropriate to choose a scale that measures Perceived product quality of food products based on the packaging communication. Such a scale was defined by Magnier et al. (2016) and is used in this research.

2. Brand credibility construct is measured by scale Erdem and Swait (2004) and Erdem, Swait and Venezuela (2006). This scale is selected because it was applied across multiple product categories (athletic shoes, cellular telecommunications services, headache medication, personal computers), including FMCG products such as juice (food category) or hair shampoo. It was also applied across seven countries and proved reliable by various previous research.

3. Food brand loyalty construct combined from Attitudinal loyalty, Complaining behaviour, Propensity to be loyal, and Resistance to competing offers is measured based on scales from Rundle-Thiele (2005). Rundle-Thiele (2005) also uses Situational loyalty construct as fifth layer of loyalty but since in this research it is considered that situation is in-home consumption, this construct is omitted from this research.

4. Clear label perception construct in this research is combined from construct Nutritional content and Natural content from Lee and Yun (2015) and with Origin based on Van Ittersum, Candel and Torelli (2000) scale for Perceptual beliefs for PDO/PGI protection labels (PDO – protected designation of origin; PGI – protected geographical indication). Origin scale contains part of Van Ittersum, Candel and Torelli (2000) scale but is customized for the purpose of this research, based on interviews conducted with marketing experts.

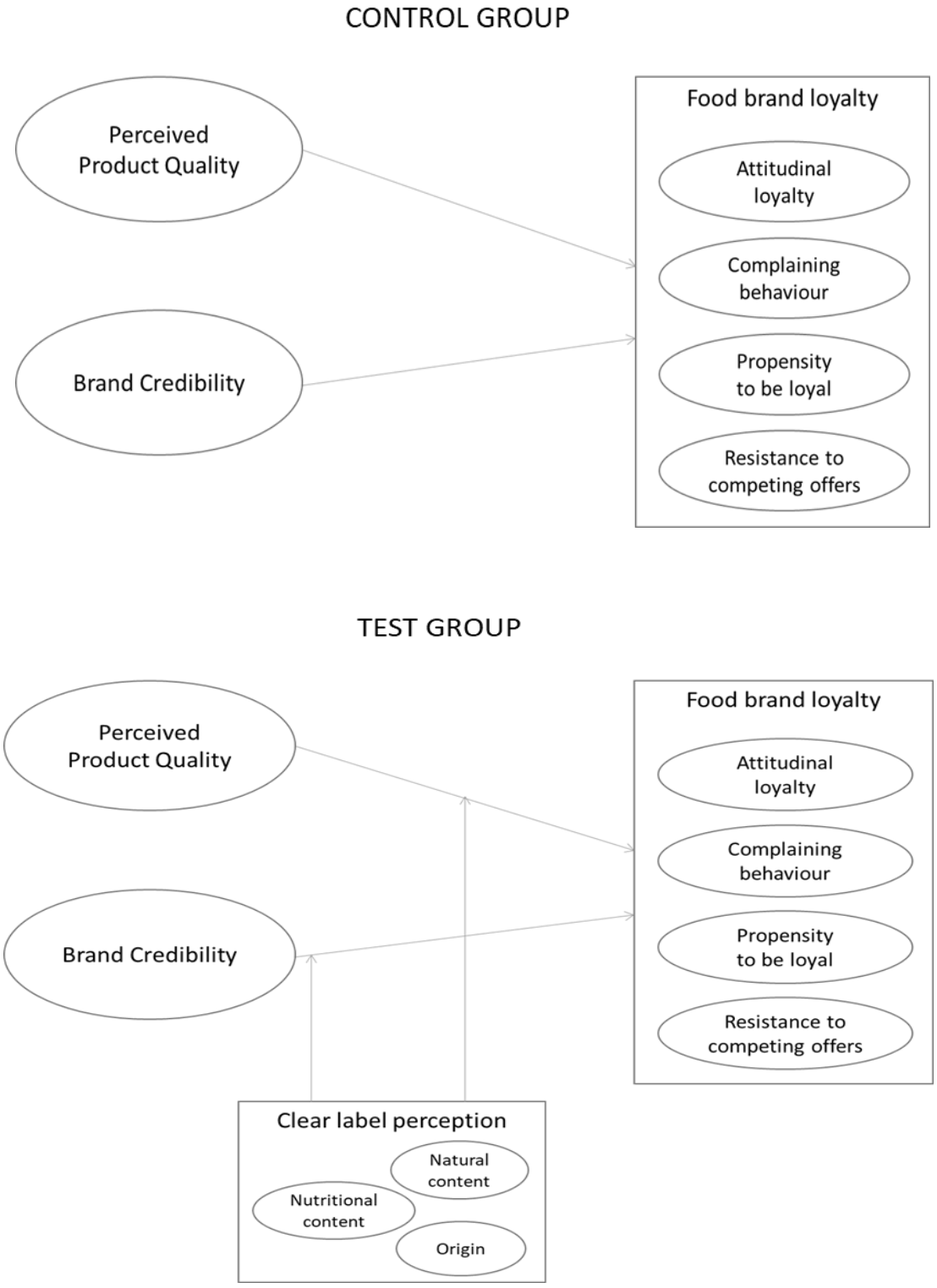
Selected scales had to be adapted for the purpose of this study. Based on the ideas of Churchill (1979), interviews with several marketing experts (two experts with academic background and three experts with professional background in food marketing and food brand management) were organised and the adaptation of the scales was discussed. All selected scales were presented to each expert. After a brief review, the impressions about the scales and their suitability for testing the model were discussed.

The conclusions from the interviews led to a change in the wording of the items in the Rundle-Thiele (2005) scale for measuring brand loyalty, which was adapted to the Croatian language. The omission of the construct of Situational loyalty as the fifth level of loyalty (from the Rundle-Thiele 2005 scale) was also confirmed. From Lee and Yun (2015), only part of the Nutritional content and Natural content scales were selected, and the rest of the scales measuring Ecological welfare, Sensory appeal and Price were omitted. From the Van Ittersum, Candel and Torelli (2000) scale for Origin, the items measuring economic support and price were also omitted as it was concluded that they were not relevant for this study. In addition, based on these interviews, all scales were converted to a 7-point Likert scale.

All selected scales were originally in English. In order to use them in Croatia, they had to be translated (questionnaire in Croatian language available in the Appendix), and to ensure that the translation was done correctly so that the items measure the same thing in the same way, the back-translation from Croatian to English was done by different translators. The back-translation was also checked with selected experts during the interviews conducted.

The research plan included testing the conceptual model with two groups of participants: a test group and a control group. In the control group, the scales measuring Clear label were not included because it was expected that the difference between brands using Clear label in their package design and brands not using Clear label would make a significant difference in the results for the constructs of Food brand loyalty. Figure 2 illustrates this idea.

Figure 2: Proposed conceptual model prepared for testing with control and test group of participants



Source: prepared by author

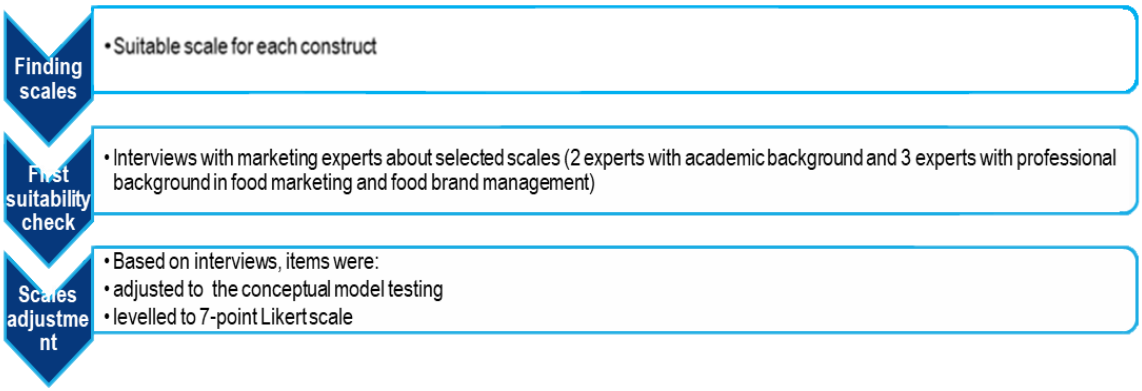
The research design, which is characterised by its mixed-methods approach, combines qualitative methods (interviews and focus groups with marketing experts) with quantitative instruments (surveys). After carefully operationalising the research construct, the following sections set out the research framework and methodology to provide a roadmap for the overall research presented in this thesis.

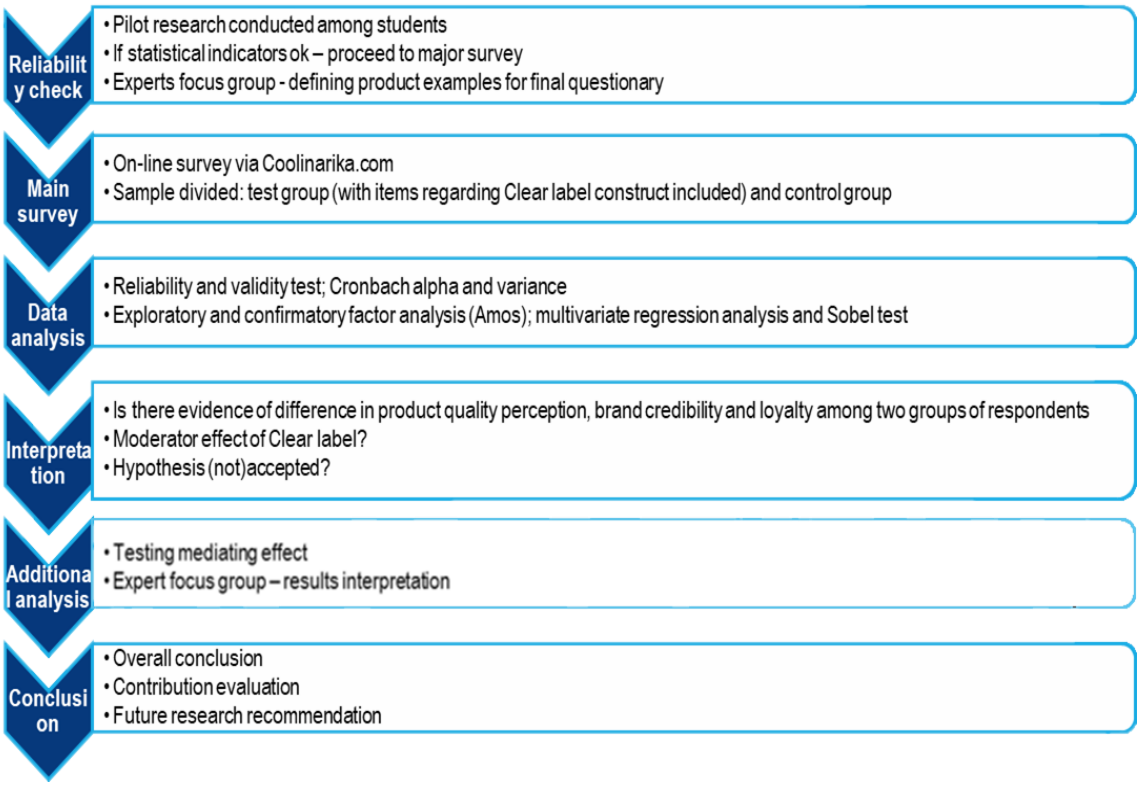
3.3. Research plan and methodology

This research relies on standard scientific approaches and methods to ensure rigorous and reliable findings. Throughout the research process, various methodological procedures were used to collect, analyse and present the results (e.g., inductive and deductive method, analysis and synthesis method, descriptive method, comparative method, classification method, compilation method, etc.).

After selecting the appropriate scales for testing the conceptual model, the research process continued with interviews with marketing experts. These interactions played a crucial role in refining and finalising the selected scales, which were then converted into questionnaires. Once the groundwork was laid, the focus was placed on ensuring the reliability of the instruments by conducting a pilot study. The entire research framework is visualised in Figure 3 to provide a comprehensive overview of the entirety of the research framework.

Figure 3: Research framework





Source: prepared by author

As above mentioned, after scales adjusting and customizing, their reliability was also tested in a pilot study conducted among students from the Faculty of Economics and Business in Rijeka and the Polytechnic of Međimurje in Čakovec before the main survey was conducted. The pilot study was conducted to verify that all scales actually measured the constructs as they were designed and intended.

To ensure the comparability and consistency of the study, the conceptual model was tested on two groups, as shown in Figure 2. Each group of respondents was presented with an identical set of four brands for four different products. The aim was to investigate the influence of design elements on the front of the products, in particular the presentation of claims.

To achieve this, the questionnaires were carefully designed to control for these conditions and to ensure that the only discernible difference between the brands presented was the design elements on the front of the products. Keeping product features, package size and other relevant factors constant, the study focussed exclusively on the impact of these design elements on consumer perceptions and preferences, as shown in Figure 4.

Figure 4: Products included in the survey (pilot study) with packaging design alterations

Source: Illustrations from the questionnaire

The products shown in Figure 4 served as a visual representation of the design variants used in the study. It illustrates the different colour schemes, food styling choices and presentation of claims used across the four brands. These design differences were carefully selected to reflect real-life scenarios and industry practises, and to ensure the relevance and validity of the research findings.

Before conducting the main study, a focus group with experts was organised to discuss the results of the pilot study and to check whether anything needed to be adjusted, e.g. whether the product or brand examples from the questionnaires needed to be changed. The focus group was intended to serve as a checkpoint before conducting the main survey.

In the end, a highly structured questionnaire was developed consisting of a series of items to which respondents expressed their agreement or disagreement on a seven-point Likert scale.

For the control group, the questionnaire consisted of eight parts (Table 7). For the test group, on the other hand, it consisted of the same eight parts as for the control group plus three parts related to the constructs of the Clear Label, i.e. a total of eleven parts (Table 8).

This differentiation in the composition of the questionnaire between the control and test groups was strategically designed to assess the impact of the additional three parts relating to the constructs of the Clear label. The inclusion of these specific components for the test group was intended to measure the nuanced responses and insights that emerge when participants are exposed to the various elements associated with the Clear Label, in order to allow for comparative analysis with the control group. This careful structuring of the questionnaires enabled a focussed investigation of the research hypotheses in a controlled experimental environment.

Table 7: Item list of the questionnaire for the control group

Construct		Items
PECIVED PRODUCT QUALITY	a4	All things considered, I would say would say that this product is : "bad quality / excellent quality "
	a5	This product seems to be 'very poor quality / very good quality'
	a6	Globally, this product seems to be: 'bad / great'
BRAND CREADIBILITY	a7	This brand delivers what it promises
	a8	This brand's product claims are believable.
	a9	This brand has a name you can trust.
	a10	This brand doesn't pretend to be something it isn't.
	a11	This brand has the ability to deliver what it promises.
ATTITUDINAL LOYALTY	a12	How likely are you to purchase more products from this brand?
	a13	How likely are you to purchase this brand the next time when you are buying the same type of product?
	a14	How likely are you to purchase this brand for other similar products?
	a15	How likely are you to recommend this brand to friends or relatives?
	a16	How likely are you to contact (call) brand owner with new ideas or suggestions that you may have?
COMPLAINING BEHAVIOUR	a17	How likely are you to make negative comments about this brand to friends or family?
	a18	How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?
	a19	How likely are you to will contact (by phone, in writing, on-line, etc.). brand owner, if you are not satisfied with their products?
	a20	How likely are you to harm the reputation of the brand, if there was no answer?
PROPENSITY TO BE LOYAL	a21	I rarely introduce a new brand to my friends and family.
	a22	I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.
	a23	I would rather wait for others rather than try a new brand myself.
	a24	I would rather stick to well known brands than trying the new ones.
RESISTANCE TO COMPETING OFFERS	a25	How likely are you to pay 5% more for this brand?
	a26	How likely are you to buy this brand even if a media had a highly critical review of it?
	a27	How likely are you to buy this brand regardless of price?
	a28	How likely are you to stay with this brand even if other brands offer better features of the product?

Source: prepared by author

Table 8: Item list from test group questionnaire

Construct		Items
PECIVED PRODUCT QUALITY	a4	All things considered, I would say would say that this product is : "bad quality / excellent quality "
	a5	This product seems to be 'very poor quality / very good quality'
	a6	Globally, this product seems to be: 'bad / great'
BRAND CREADIBILITY	a7	This brand delivers what it promises
	a8	This brand's product claims are believable.
	a9	This brand has a name you can trust.
	a10	This brand doesn't pretend to be something it isn't.
	a11	This brand has the ability to deliver what it promises.
ATTITUDINAL LOYALTY	a12	How likely are you to purchase more products from this brand?
	a13	How likely are you to purchase this brand the next time when you are buying the same type of product?
	a14	How likely are you to purchase this brand for other similar products?
	a15	How likely are you to recommend this brand to friends or relatives?
	a16	How likely are you to contact (call) brand owner with new ideas or suggestions that you may have?
COMPLAINING BEHAVIOUR	a17	How likely are you to make negative comments about this brand to friends or family?
	a18	How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?
	a19	How likely are you to will contact (by phone, in writing, on-line, etc.). brand owner, if you are not satisfied with their products?
	a20	How likely are you to harm the reputation of the brand, if there was no answer?
PROPENSITY TO BE LOYAL	a21	I rarely introduce a new brand to my friends and family.
	a22	I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.
	a23	I would rather wait for others rather than try a new brand myself.
	a24	I would rather stick to well known brands than trying the new ones.
RESISTANCE TO COMPETING OFFERS	a25	How likely are you to pay 5% more for this brand?
	a26	How likely are you to buy this brand even if a media had a highly critical review of it?
	a27	How likely are you to buy this brand regardless of price?
	a28	How likely are you to stay with this brand even if other brands offer better features of the product?
NUTRUTIONAL CONTENT	a29	Observed product contains a lot of vitamins and minerals
	a30	Observed product keeps me healthy
	a31	Observed product is nutritious
	a32	Observed product is high in protein
NATURAL CONTENT	a33	Observed product contains no additives
	a34	Observed product contains natural ingredients
	a35	Observed product contains no artificial ingredients
ORIGIN	a36	The product origin mark will protect the authenticity of the product
	a37	The product origin mark will preserve a higher product quality
	a38	The product origin mark will guarantee a constant product quality
	a39	The product origin mark will fully guarantee the region of origin of the product
	a40	The product origin mark will lead to more employment in the region of origin
	a41	The product origin mark will lead to higher product prices

Source: prepared by author

The main survey was conducted on a sample of Coolinarika.com users. Coolinarika.com is in top of Croatian web portals with the reach of 30.4 % in August 2020, or more than 887 thousand visitors on a monthly base (Gemius S.A, 2021) during sample recruiting period, and with more than 200 thousand of active users (Šipljak, 2021). Sample from Coolinarika.com users was also used for other food related consumer research in the past (Ferenčić and Wölfling 2015).

The sample was randomly divided into two groups: test group and control group. The test group was presented with product examples where Clear label elements were integrated into the packaging design (along with a set of questions related to this construct), and the control group was presented with the same product examples without Clear label elements (and without questions from the Clear label scale).

This approach was chosen because it was expected that differences in quality perception, brand credibility and loyalty between the two groups of respondents would become apparent after analysing the results.

The data collected in the survey was analysed using descriptive statistics to describe the individual constructs (Perceived product quality, Brand credibility, Attitudinal loyalty, Complaining behaviour, Propensity to be loyal, Resistance to competing offers, Nutritional content, Natural content, and Origin; with the last three representing Clear label perception).

Exploratory factor analysis was conducted to describe variability among observed, correlated variables and confirmatory factor analysis for testing used constructs. Scales were tested for reliability, discriminant and convergent validity. Cronbach alpha was used together with construct reliability and average variance extracted. Multivariate regression analysis was used to test relationships between variables and Sobel test for testing moderator effect. Statistical program SPSS ver. 25 was used for statistical analysis and AMOS ver. 17 for confirmatory factor analysis and the Hayes PROCESS (v. 3.5) macro for SPSS was used to test the moderating and mediating effects.

During the interpretation of the results and hypothesis testing, it was determined that additional analyses were required. To get deeper insight into research results, another focus group with marketing experts was organised. This helped in the interpretation of the final results and recommendation for future research.

After performing all analyses, conclusions can be drawn, along with an overview of limitations, constraints, and recommendations for future research.

In addition to presenting the comprehensive research framework, the following sections will analyse the results of the pilot study in detail. This will shed light on the initial findings and pave the way for a more in-depth examination of the research objectives, which will provide a solid foundation for the subsequent phases of the study.

3.4. Pilot study

Considering the methodological design and using the scale construction described in the previous chapter, a pilot study was conducted to collect data and test the reliability of the scales before the main survey was conducted.

The food decision-making process is associated with greater attention to reading food labels, with younger consumers in particular (aged 18-30) paying more attention to nutritional value and food quality (Kumar and Kapoor, 2017). Based on these findings by Kumar and Kapoor (2017), it was decided to conduct the pilot study with the student population.

The pilot study was conducted with a sample of 142 respondents - students at two public higher education institutions:

- Faculty of Economics and Business in Rijeka
- and at the Polytechnic of Međimurje in Čakovec.

In the data collected in the pilot study, 79.6% of the respondents were female. The sample was randomly divided into two groups:

- test group (71 respondents)
- and Control group (71 respondents)

with differences in the packaging design of the products (see Figure 4) included in the questionnaires.

To begin the analysis of the data collected in the pilot study, descriptive statistics were conducted for all research constructs (Perceived product quality, Brand credibility, Attitudinal loyalty, Complaining behaviour, Propensity to be loyal, Resistance to competing offers, Nutritional content, Natural content, and Origin) and for both groups.

First, an analysis of the arithmetic mean values of each item was conducted. Examination of the values of the arithmetic means revealed that, from a statistical point of view, it is necessary to eliminate item a16, since both the control and test groups had below-average values and a slightly larger relative deviation (Tables 9 - 14).

Table 9: Descriptive statistics for the construct Perceived product quality

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a4	4.53	1.14	4.99	0.95
a5	4.60	1.27	5.03	1.13
a6	4.63	1.10	5.22	1.02

Source: Research results

Table 10: Descriptive statistics for the construct Brand credibility

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a7	4.93	1.21	5.12	1.00
a8	4.57	1.36	4.91	1.20
a9	4.98	1.23	5.50	1.03
a10	4.70	1.42	5.00	1.43
a11	4.87	1.15	5.31	0.97

Source: Research results

Table 11: Descriptive statistics for the construct Attitudinal loyalty

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a12	4.90	1.29	5.18	1.23
a13	4.75	1.36	4.92	1.19
a14	4.71	1.33	4.74	1.16
a15	4.43	1.53	4.71	1.30
a16	1.97	1.32	1.93	1.28

Source: Research results

Table 12: Descriptive statistics for the construct Complaining behaviour

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a17	3.64	1.76	3.74	1.96
a18	3.21	1.54	3.33	1.71
a19	2.16	1.44	2.20	1.59
a20	2.69	1.72	2.53	1.68

Source: Research results

Table 13: Descriptive statistics for the construct Propensity to be loyal construct

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a21	4.07	1.70	4.08	1.60
a22	3.84	1.57	3.80	1.72
a23	3.36	1.60	3.34	1.71
a24	4.34	1.59	4.40	1.84

Source: Research results

Table 14: Descriptive statistics for the construct Resistance to competing offers

Item	Control group (N=71)		Test group (N=71)	
	Mean	SD	Mean	SD
a25	4.05	1.51	4.05	1.60
a26	3.53	1.52	3.27	1.52
a27	4.04	1.31	3.76	1.55
a28	3.69	1.29	3.47	1.35

Source: Research results

Low values of variance and standard deviation for the control and test groups show low dispersion of the data, i.e., the data are close to the arithmetic mean. This proves the homogeneity of the control and test groups in the responses.

Comparing the results of the control and test groups, it is found that respondents in the test group have higher scores on Perceived product quality, slightly higher scores on Brand credibility, also slightly higher scores on Attitudinal loyalty, roughly equal scores on Propensity to be loyal and on Resistance to competing offers from competing brands. Both groups are equally unlikely to engage in Complaining behaviour.

The descriptive statistics in Tables 15 to 17 are for the test group only, as these items measure the construct Clear label perception, which is only tested in the test group. Respondents do not perceive the products shown as natural in content (all items score low), but the items on the construct Origin score high. The values of the arithmetic mean of the items within the constructs show that there are no items that should be eliminated. Low values of variance and standard deviation for the mentioned constructs show a small scatter of the data, i.e., that the data are close to the arithmetic mean - the homogeneity of the test group in the answers is proven.

Table 15: Descriptive statistics for the construct Nutritional Content

Item	Test group (N=71)	
	Mean	SD
a29	3.60	1.55
a30	3.22	1.56
a31	4.28	1.72
a32	3.42	1.56

Source: Research results

Table 16: Descriptive statistics for the construct Natural Content

Item	Test group (N=71)	
	Mean	SD
a33	2.76	1.61
a34	3.53	1.51
a35	2.50	1.40

Source: Research results

Table 17: Descriptive statistics for the construct Origin

Item	Test group (N=71)	
	Mean	SD
a36	4.45	1.50
a37	4.73	1.22
a38	4.46	1.44
a39	4.11	1.53
a40	3.08	1.08
a41	4.39	1.31

Source: Research results

Further analysis of the data is performed with the aim of testing the reliability of the measurement scales. The reliability test was performed using the Cronbach's alpha coefficient for the following constructs in the control group: Perceived product quality (3 items), Brand credibility (5 items), Attitudinal loyalty (4 items), Complaining behaviour (4 items), Propensity to be loyal (4 items), Resistance to competing offers (4 items), and additionally Nutritional content (4 items), Natural content (3 items), and Origin (6 items) for the test group.

The Cronbach's alpha reliability test shows that all constructs are acceptable (values above 0.7) according to Nunnally (1978 in Peterson 1994), except for Propensity to be loyal in the control group, which is close to 0.6 (which is considered the lowest acceptable value (Taber, 2018)), so this construct is borderline acceptable in the control group data (Table 18).

Table 18: Cronbach's alpha coefficient for scales in the control group

Scales	**No. of items**	**Cronbach alpha coefficient**	
		Control group (N=71)	Test group (N=71)
Perceived product quality	3	0.927	0.873
Brand credibility	5	0.885	0.857
Attitudinal loyalty	4	0.821	0.885
Complaining behaviour	4	0.782	0.830
Propensity to be loyal	4	0.590	0.748
Resistance to competing offers	4	0.782	0.702
Nutritional content	4	/	0.911
Natural content	3	/	0.816
Origin	6	/	0.852

Source: Research results

After determining the reliability of the measurement scales, a parameter evaluation was performed.

The corrected overall correlation was calculated, which indicates how strongly each statement is correlated with the overall value of the measurement scale. Correlations below r = 0.30 are an indication that the item should be considered for deletion from the scale (researchers assume that the average correlation values between items above 0.30 are appropriate and thus measure the same construct (Souza and Guirardello, 2017)).

Accordingly, items a20 and a21 should be omitted from the control group because the corrected overall correlation for this item is 0.257 and 0.279,

respectively. And omitting these items increases their Cronbach's alpha to 0.912. For the test group, there are no items that should be omitted (Table 19).

Table 19: Reliability evaluation of the measurement scales

	Control Group				Test group			
Item	Mean if the item is omitted	Variance if the item is omitted	Corrected overall correlation	Cronbach's alpha if the item is omitted	Mean if the statement is omitted	Variance if the item is omitted	Corrected overall correlation	Cronbach's alpha if the item is omitted
Scale Perceived product quality								
a4	96.6360	368.976	0.658	0.904	10.284	3.816	0.767	0.818
a5	96.5702	363.147	0.709	0.903	10.203	3.061	0.803	0.780
a6	96.5395	370.189	0.654	0.904	10.027	3.609	0.714	0.858
Scale Brand credibility								
a7	96.2412	364.455	0.721	0.903	20.645	14.236	0.704	0.824
a8	96.6009	360.341	0.717	0.902	20.841	12.861	0.661	0.832
a9	96.1842	365.934	0.676	0.904	20.270	14.195	0.672	0.829
a10	96.4649	368.738	0.520	0.906	20.780	12.387	0.587	0.865
a11	96.2982	365.262	0.743	0.903	20.503	13.448	0.847	0.792
Scale Attitudinal loyalty								
a12	96.2632	365.088	0.661	0.904	14.305	9.539	0.764	0.846
a13	96.4211	366.929	0.583	0.905	14.579	9.545	0.801	0.832
a14	96.4518	365.604	0.628	0.904	14.777	9.876	0.755	0.850
a15	96.7412	360.995	0.616	0.904	14.829	9.677	0.681	0.880
Scale Complaining behaviour								
a17	97.5219	374.246	0.321	0.911	7.918	15.722	0.751	0.742
a18	97.9605	372.055	0.419	0.908	8.349	18.538	0.692	0.770
a19	99.0088	379.283	0.319	0.910	9.493	20.866	0.552	0.829
a20	98.4737	379.100	0.257	0.912	9.140	18.911	0.650	0.789
Scale Propensity to be loyal								
a21	97.0965	377.890	0.279	0.912	11.458	18.769	0.386	0.767
a22	97.3289	371.793	0.413	0.908	11.809	15.337	0.632	0.639
a23	97.8114	374.978	0.349	0.910	12.281	15.743	0.584	0.666
a24	96.8289	368.150	0.467	0.907	11.170	14.500	0.580	0.669
Scale Resistance to competing offers								
a25	97.1184	361.328	0.620	0.904	10.465	11.308	0.462	0.656
a26	97.6360	365.366	0.544	0.906	11.261	12.049	0.405	0.690
a27	97.1316	368.819	0.570	0.905	10.694	10.474	0.606	0.561
a28	97.4781	373.184	0.488	0.907	11.007	12.325	0.491	0.639

	Control Group				Test group			
Item	Mean if the item is omitted	Variance if the item is omitted	Corrected overall correlation	Cronbach's alpha if the item is omitted	Mean if the statement is omitted	Variance if the item is omitted	Corrected overall correlation	Cronbach's alpha if the item is omitted
Scale Nutritional content								
a29	/				10.800	17.530	0.887	0.854
a30					11.146	18.474	0.813	0.880
a31					10.132	18.499	0.693	0.925
a32					11.014	18.259	0.815	0.880
Scale Natural content								
a33	/				5.986	6.252	0.683	0.736
a34					5.212	6.817	0.674	0.741
a35					6.226	7.483	0.656	0.763
Scale Origin								
a36	/				20.824	26.059	0.596	0.836
a37					20.564	26.707	0.703	0.816
a38					20.818	25.001	0.729	0.809
a39					21.166	24.119	0.726	0.809
a40					22.230	28.751	0.618	0.833
a41					20.919	28.146	0.486	0.855

Source: Research results

After analysing the characteristics of each scale used in the study, an exploratory factor analysis was performed, first for the control group and then for the test group. Exploratory factor analysis is conducted to determine the underlying structure of a relatively large set of variables and the relationships among the measured variables, and to identify a set of latent constructs underlying a set of measured variables (Fabrigar 1999; Evanschitzky et al. 2006).

In this study, factor selection was performed by the principal component method with oblimin rotation and Kaiser normalisation. To test whether the results were a good fit to the factors, the sampling adequacy was measured by the Kaise-Mayer-Olkin (KMO) measure. If the KMO values are between 0.5 and 0.7, they are acceptable, between 0.7 and 0.8 they are good, and above 0.8 they are excellent (Field, 2005).

Bartlett's test for sphericity compares the correlation matrix with the identity matrix, where $p < 0.05$, and indicates whether the use of the principal component method is justified in exploratory factor analysis (Field, 2005; Hair et al. 2006).

An exploratory factor analysis for the control group was performed from the collected data and presented in Table 20.

Table 20: Results of the exploratory factor analysis of the control group

	Factor						Communalities
	Perceived product quality	Brand credibility	Attitudinal loyalty	Complaining behaviour	Propensity to be loyal	Resistance to competing offers	
a4	0.620						0.679
a5	0.659						0.736
a6	0.757						0.794
a7	0.733						0.779
a8	0.781						0.724
a9	0.731						0.684
a10	0.824						0.591
a11	0.833						0.825
a12					-0.778		0.807
a13					-0.870		0.845
a14					-0.598		0.716
a15					-0.609		0.659
a17				-0.942			0.928
a18				-0.875			0.883
a19		0.873					0.795
a20		0.604					0.543
a22			0.799				0.717
a23			0.836				0.751
a24						-0.470	0.598
a25						-0.552	0.716
a26					-0.560		0.635
a27						-0.749	0.718
a28						-0.784	0.766

Extraction Method: Principal Component Analysis.

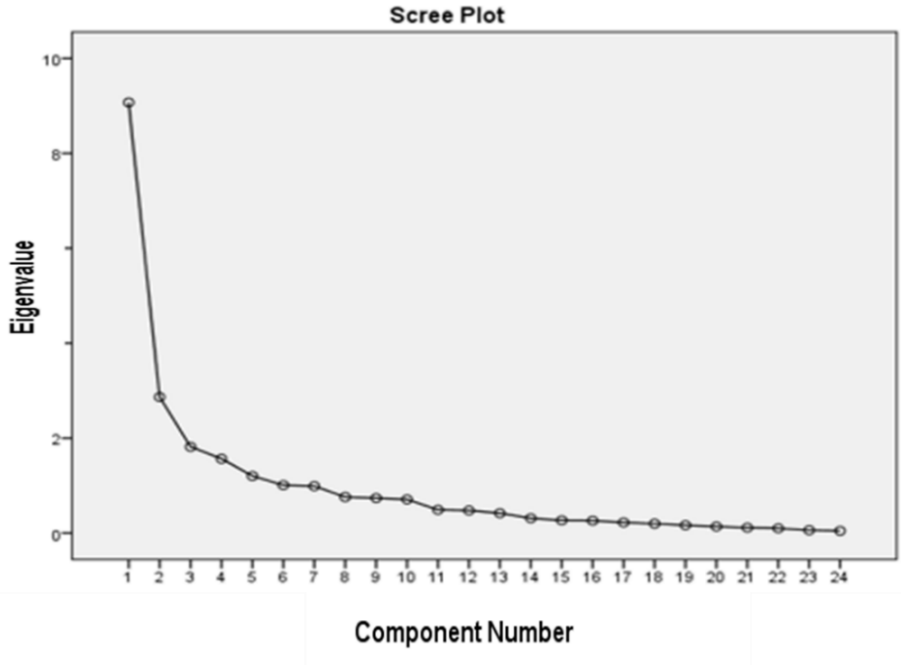
Rotation Method: Oblimin with Kaiser Normalization.

Source: Research results

In the control group, none of the items loaded on more than one factor, and all items were retained in further analysis. The items also had high communalities (min. 0.5 according to Field (2009)).

According to the Kaiser-Guttman criterion, the number of factors is determined by the number of initial eigenvalues, i.e., those factors whose initial eigenvalue is greater than 1 are retained. Scree plot (Figure 5) was also consulted, as suggested by Field (2009).

Figure 5: Scree plot for control group



Source: Research results

Using the principal components method, in addition to the Kaiser-Gutman criterion for variable selection and scree plot, six factors were identified (Table 21), explaining 73.042% of the variance in the survey results.

Table 21: Scales characteristics for control group

Scale	% variance explained
Perceived Quality	37.790
Brand Credibility	11.939
Attitudinal Loyalty	7.574
Complaining Behaviour	6.524
Propensity To Be Loyal	5.011
Resistance to Competing Offers	4.204

Source: Research results

The KMO value for the control group is 0.773, which means that the minimum KMO criterion of 0.7 was met to proceed with further analysis (Hair et al. 2006). The Bartlett's test for sphericity is statistically relevant $\chi 2 = 954.229$, $df=276$; $p<0.05$. This shows that the use of principal component analysis in the exploratory factor analysis was justified.

In the test group, the results are as follows in Table 22. Since no item in the test group loaded on more than one factor and there were high communalities between 0.599 and 0.887, all of the items were retained in further analysis.

Table 22: Results of the exploratory factor analysis of the test group

	Factor									Communalities
	Perceived product quality	Brand credibility	Attitudinal loyalty	Complaining behaviour	Propensity to be loyal	Resistance to competing offers	Nutritional content	Natural content	Origin	
a4	0.659									0.782
a5	0.778									0.684
a6	0.676									0.661
a7	0.782									0.714
a8	0.859									0.757
a9	0.624									0.668
a10	0.619									0.708
a11	0.826									0.837
a12						-0.830				0.849
a13						-0.908				0.872
a14						-0.708				0.792
a15						-0.589				0.762
a17			0.891							0.887
a18			0.905							0.878
a19									0.764	0.778
a20									0.558	0.770
a21		0.664								0.720
a21		0.820								0.726
a21		0.681								0.599
a24		0.739								0.728
a25								-0.636		0.765
a26								-0.648		0.612
a27		0.469								0.789
a28		0.401								0.659
a29					-0.840					0.882
a30					-0.896					0.848

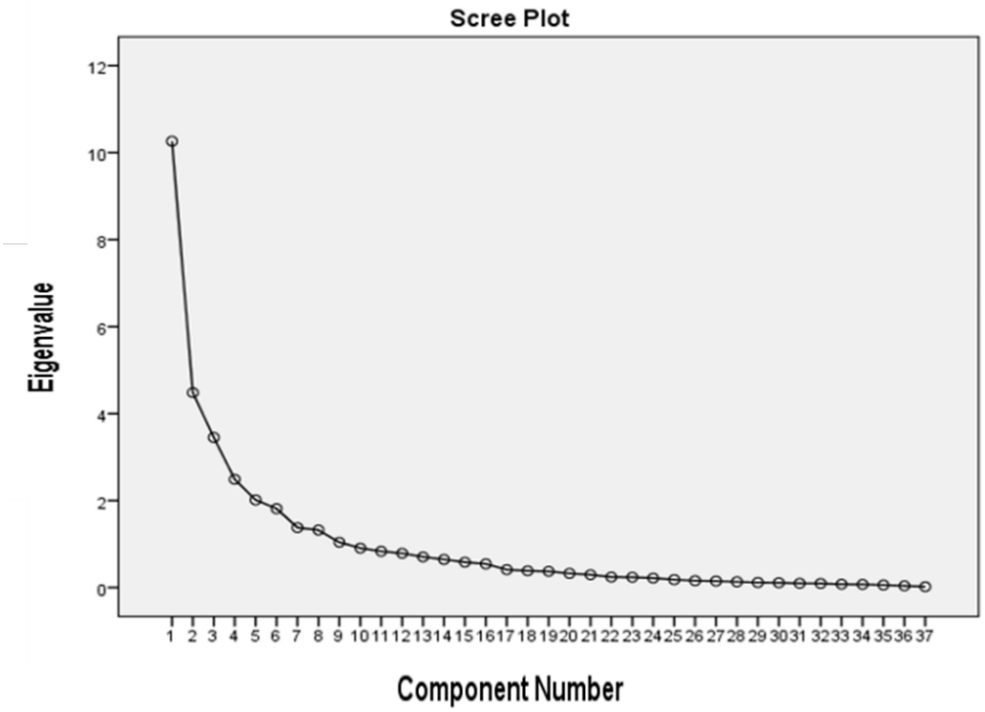
a31					-0.565					0.761
a32					-0.941					0.882
a33					-0.652					0.756
a34					-0.685					0.711
a35					-0.580					0.759
a36				-0.800						0.816
a37				-0.846						0.804
a38				-0.668						0.816
a39				-0.686						0.830
a40							0.462			0.611
a41							0.794			0.771

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Source: Research results

According to the Kaiser-Guttman criterion, the number of factors is determined by the number of initial eigenvalues, i.e., those factors whose initial eigenvalue is greater than 1 are retained. Scree plot (Figure 6) was also consulted, as suggested by Field (2009).

Figure 6: Scree plot for test group



Source: Research results

Using the principal components method, in addition to the Kaiser-Gutmann criterion for variable selection and scree plot, nine factors were identified (Table 23), explaining 76.332% of the variance in the survey results.

Table 23: Scales characteristics for test group

Scale	% variance explained
Perceived Quality	27.736
Brand Credibility	12.110
Attitudinal Loyalty	9.322
Complaining Behaviour	6.722
Propensity To Be Loyal	5.441
Resistance to Competing Offers	4.901
Nutritional Content	3.722
Natural Content	3.568
Origin	2.811

Source: Research results

In the case of analysis test group, the KMO value for the test group is 0.656, which is an acceptable value (according to Hair et al. (2006) minimum acceptable value is 0.6). Bartlett's test for sphericity is statistically significant $\chi 2 = 1836.270$, $df=666$; $p<0.05$.

From the analysis of the data collected in the pilot study, despite the small sample, it can be concluded that the measurement scales used are reliable. The items measure the constructs reliably and the main study can be approached with a larger sample (according to Hair et al. (2006), the sample size should be at least five times the number of variables).

As a final step before the actual data collection in the main survey, a focus group was organized to discuss once again the selection of product examples to be included in the survey.

Selected experts from the field (five food marketing experts from different food companies, each of them with more than fifteen years of experience) participated in the focus group. The main task was to find four products that were similar to each other but represented different categories of packaged foods.

The conclusion of the focus group was:

- to select four brands that are perceived as a domestic Croatian brand (in order to exclude a possible preference for Croatian and non-Croatian brands). As one of the participants commented:

"Croats prefer domestic brands, mixing Croatian brands with foreign brands could influence the results."

- which have approximately the same price level (to exclude a different perception due to the influence of the price level). During focus group a comment was repeated: *"The product examples for the survey should be at approximately the same price level. The price also influences the perception of quality and the brand."*

- and be the leading brand in its own product category (largest shelf share according to focus group participants' assessment). One of the participants commented: *"If some of the selected products are market leaders and some are challengers with low market share, this could also be a problem. Because of general brand awareness and the number of loyal consumers."*

In the end, only one product (passata) was retained from the pilot study and three new product examples were selected based on the findings from the focus group (Figure 7): all domestic brands, all with a price level between 1 and 1.50 euros at the time of data collection and all market leaders in their product categories.

Figure 7: Products included in the survey (main research) with packaging design alterations

Source: Illustrations from the questionnaire

New products selected after the focus group focus even more on the goal of controlling the conditions of the study by ensuring that the only discernible

difference between the brands presented are the design elements related to the product claims on the front of the packaging design.

After analysing the results of the pilot study and the conclusions of the expert focus group, all requirements for conducting the main study were met. The next chapter will present the results of the main study.

4. RESULTS OF EMPIRICAL RESEARCH

Based on the research design and the scales of the questionnaire, which were confirmed and validated in the pilot study, all prerequisites for conducting the main study were given.

The main research was conducted with a sample of 657 respondents. As part of the recruitment process, a total of 16,827 Coolinarika.com users from Croatia were invited to participate in the survey, with a response rate of 3.9%. The data was collected in July and August 2020.

The sample was randomly divided into two groups: the test group (328 respondents) and the control group (329 respondents), and the questionnaires contained differences in the packaging design of the products (see Figure 7). The design of the selected product in the questionnaire of the control group does not contain any Clear label elements, while that of the test group does.

Prior to statistical analysis of the data, an additional 32 respondents were omitted because the questionnaires were not fully completed. This resulted in a total sample for the control group of N=306 and the test group of N=319.

Following the recommended guidelines for determining sample size, which states that the sample size should be at least five times the number of variables (Hair et al. 2006), careful attention was given to ensure an adequate and representative sample size for the research study. In the case of the test group, the questionnaire comprised a comprehensive set of 51 questions, including control questions and the collection of demographic information, calculating on that basis, the minimum sample size of 255 respondents was not only achieved, but even exceeded.

Exceeding the recommended minimum sample size suggests that the data collected provide a good basis for the validity and reliability of the results. The large sample size provided a rich data set for analysis, allowed for more accurate estimates, increased the statistical power of the data and improved the ability to identify meaningful relationships and patterns within the data.

4.1. Sample characteristics

Before analysing the results, the characteristics of the sample were considered. Tables 24 to 29 present descriptive statistics for the socio-demographic description of the sample and the introductory control questions. For the categorical variables, frequencies (f) and percentages (%) of individual responses are given. For ordinal variables, the minimum (Min) and maximum (Max) values, the median (C) and the interquartile range (Q3-1) are given.

Table 24: Gender-specific characteristics of the sample

		F	%
Control group	Male	30	9.8
	Female	276	90.2
	Total	306	100.0
Test group	Male	32	10.0
	Female	286	89.7
	No answer	1	0.3
	Total	319	100.0

Source: Research results

Table 25: Age-specific characteristics of the sample

		F	%
Control group	15-24	9	2.9
	25-34	76	24.8
	35-44	133	43.5
	45-54	52	17.0
	55-64	24	7.8
	65 or more	12	3.9
	Total	306	100.0

		F	%
Test group	15-24	16	5.0
	25-34	84	26.3

35-44	117	36.7
45-54	67	21.0
55-64	29	9.1
65 or more	6	1.9
Total	319	100.0

Source: Research results

Table 26: Education-specific characteristics of the sample

What is your highest completed level of education?

		F	%
Control group	Elementary school	5	1.6
	Vocational/grammar school	122	39.9
	Higher education (professional and university study, Master of Science degree, doctorate)	179	58.5
	Total	306	100.0
Test group	Elementary school	2	0.6
	Vocational/grammar school	122	38.2
	Higher education (professional and university study, Master of Science degree, doctorate)	194	60.8
	No answer	1	0.3
	Total	319	100.0

Source: Research results

Table 27: Household members number structure in the sample

		f	%
Control group	1	22	7.2
	2	71	23.2
	3	71	23.2
	4	100	32.7
	5+	42	13.7

	Total	306	100.0
Test group	1	21	6.6
	2	83	26.0
	3	83	26.0
	4	94	29.5
	5+	38	11.9
	Total	319	100.0

Source: Research results

Table 28: Sample characteristics regarding settlement size

Indicate the size of the settlement in which you live

Group		F	%
Control group	Less than 2.000 inhabitants	36	11.8
	2.000-10.000 inhabitants	74	24.2
	10.000-100.000 inhabitants	99	32.4
	More than 100.000 inhabitants	97	31.7
	Total	306	100.0
Test group	Less than 2.000 inhabitants	40	12.5
	2.000-10.000 inhabitants	64	20.1
	10.000-100.000 inhabitants	81	25.4
	More than 100.000 inhabitants	132	41.4
	No answer	2	0.6
	Total	319	100.0

Source: Research results

Table 29: Sample characteristics regarding income

What is (in HRK) your average monthly net personal income?

Group		F	%
Control group	No income	14	4.6
	Less than 2.000 HRK	6	2.0

	2.001-3.500 HRK	23	7.5
	3.501-6.000 HRK	93	30.4
	6.001-8.500 HRK	69	22.5
	More than 8.500 HRK	46	15.0
	I do not want to answer	55	18.0
	Total	306	100.0
Test group	No income	22	6.9
	Less than 2.000 HRK	12	3.8
	2.001-3.500 HRK	16	5.0
	3.501-6.000 HRK	80	25.1
	6.001-8.500 HRK	89	27.9
	More than 8.500 HRK	50	15.7
	I do not want to answer	47	14.7
	No answer	3	0.9
	Total	319	100.0

Source: Research results

If we look at the sociodemographic data of the sample, we can establish some facts. For example, only 10% of the respondents are male. In general, previous studies on socio-demographic characteristics say that gender is one of the most commonly used characteristics for market segmentation (Anić et al. 2010; Štulec et al. 2017). However, some studies state that women make more than 80% of all purchase decisions (Schiffman and Kanuk 2007; Štulec et al. 2017), enjoy shopping more than men, and are more impulsive in the purchase process and loyal to brands (Tifferet and Herstein 2012).

The age distribution of the sample is slightly more towards the younger population. The age groups 25 - 34 and 35 - 44 represent 68.3% in the control group and 63% in the test group. There is also a higher percentage of respondents with higher education in the sample, 58.5% in the control group and 60.8% in the test group.

The distribution of the sample by settlement size leans slightly more towards smaller towns with fewer than 10,000 inhabitants; 36% of the sample in the control group live in a settlement with fewer than 10,000 inhabitants and

32.6% in the test group. This does not correspond to the distribution of the population in Croatia, where only about 12% of the population live in settlements with less than 10,000 inhabitants (Ostroški ed., 2018).

For this survey, however, it is important that the respondent has experience and knowledge of the products tested in the survey. Thus, in order to make a statement about the representativeness of the sample, these factors must also be taken into account, as well as the good size of each of the individual samples.

Tables 30 and 31 show that over 93% of respondents are predominantly responsible for grocery shopping in their household and over 84% are familiar with the brands depicted on the product packaging included in the research.

Table 30: Control question: Are you usually the one responsible for buying groceries in your household?

		f	%
Control group	Yes	286	93.5
	No	20	6.5
	Total	306	100.0
Test group	Yes	298	93.4
	No	21	6.6
	Total	319	100.0

Source: Research results

Table 31: Control question: Do you know the brand name that is on the product packaging?

		A*		B*		C*		D*	
		f	%	F	%	f	%	F	%
Control group	Yes	282	92.2	275	89.9	269	87.9	278	90.8
	No	24	7.8	31	10.1	37	12.1	28	9.2
	Total	306	100.0	306	100.0	306	100.0	306	100.0
Test group	Yes	276	86.5	268	84.0	270	84.6	267	83.7

No	43	13.5	51	16.0	49	15.4	52	16.3
Total	319	100.0	319	100.0	319	100.0	319	100.0

*see Figure 7: A = Podravka passata; B = Eva sardines; C = ABC classic; D = Argeta chicken pate

Source: Research results

The brand awareness in Table 29 shows that brand B* (Eva sardines) has the lowest value in the test group with 84% and brand A* (Podravka passata) has the highest value in the control group with 92.2%. However, all brands have very high percentages and do not differ significantly from brand to brand.

4.2. Statistical data analysis

Statistical analysis of the data is presented separately for each construct. The validity and reliability of all measurement constructs were examined. Exploratory factor analysis was conducted to examine the factor structure of each construct. The principal components method was used, as Field (2009) suggested, for reducing the number of factors. The Kaiser-Guttman criterion (retention of factors with an eigenvalue greater than 1) and Cattell's scree plot graphical representation (retention of factors to the inflection point) were used as criteria for factor extraction (how many factors should be retained). For analyses that indicated a multifactorial structure, oblique oblimin rotation was used, assuming correlations between factors.

The reliability of each scale was then examined. Internal consistency reliability coefficients of Cronbach's alpha (α) type were calculated for each scale. Descriptive statistics were calculated at the level of statements belonging to each scale (M - arithmetic mean and SD - standard deviation), corrected correlations between each statement and the total score on the scale (rit), and the level of Cronbach's alpha if a single statement were omitted from the scale. Satisfaction coefficients of 0.70 or higher are satisfactory. Corrected correlations of statements with the total score on the scale are acceptable if they are greater than 0.30.

Multigroup factor analyses were conducted to examine the invariance of the constructs Brand credibility and Food brand loyalty constructs. In this way, the equivalence of the factor structures of these questionnaires (obtained through exploratory factor analyses) was examined in the control and test group subsamples. At each step, a model was tested with more stringent parameter

restrictions. Each subsequent model is considered invariant if the fit (agreement of the model with more restrictions) is not significantly different from the previous model with fewer restrictions. The configural model is a least constraint model where the factor saturation of a particle is fixed at 1. The metric model (measurement weights) tests the invariance of factor saturations in the control and test group samples, the structural model (structural covariances) tests the structural invariance of variance, the scalar model (measurement segments) tests segment invariance, and the residual model (measurement residuals) tests error covariances. The metric invariance is considered weak, the scalar is considered strong and the residuals are considered strict (Kline, 2016).

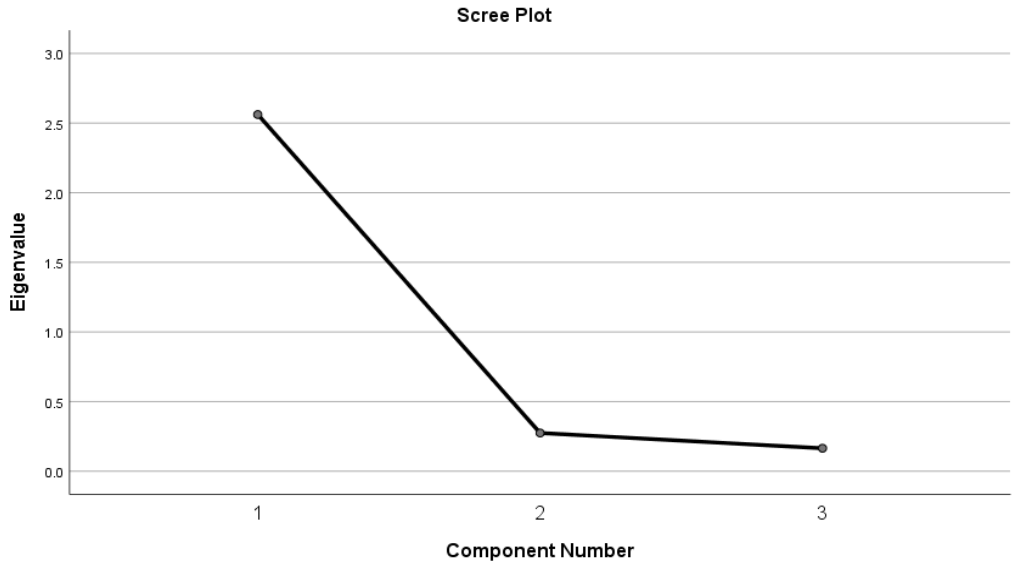
In the subsequent analysis the criteria used to evaluate the fit of the model to the data are χ^2, the CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation). Good fit of the configural model to the data is indicated by RMSEA ≤ 0.06 and CFI ≥ 0.95, and since χ^2 is usually significant for large samples, these indices are more often used to evaluate the model. The invariance of the model is estimated using the difference test in χ^2 ($\Delta\chi^2$), the changes in the indices CFI (ΔCFI) and RMSEA (ΔRMSEA). Significance of the $\Delta\chi^2$ test in large samples can also be achieved when differences in parameter estimates are negligible and the result may indicate a lack of invariance, and when placing equal restrictions on groups results in negligible differences in model agreement (Kline, 2016). Therefore, changes in CFI≤0.010 and changes in RMSEA≤0.015 were used as criteria for assessing invariance, which Chen (2007) cites as criteria for large samples (n>300).

After factor analysis and reliability analysis, the results for the obtained scales were calculated. The score on each scale is calculated as the average of the responses on the corresponding items, so that the theoretical range of scores is from 1 to 7. Descriptive statistics are calculated for each scale (N - number of respondents, Min - minimum result, Max - maximum result, M - arithmetic mean, SD - standard deviation, Sk - skewness, Ku – kurtosis). Extreme results based on z-values are excluded.

4.2.1. Perceived product quality (PPQ) analysis

The adequacy of the correlation matrix for factorization was indicated by the Kaiser-Meyer-Olkin coefficient (KMO=0.745) and Bartlett's sphericity test (χ^2=1341.554, df=3, p<0.001). Based on the Kaiser-Guttman criterion (eigenvalues greater than 1) and the Scree plot (Figure 8) of the graphical representation, a factor explaining 85.365% of the variance was filtered out.

Figure 8: Scree plot for Perceived product quality construct



Source: Research results

The results of the analysis are shown in the Table 32 (factor saturations, commonalities, eigenvalues, and percentage of variance explained).

Table 32: Results of the exploratory factor analysis for the construct Perceived product quality

	Factor	
	1	Commonalities
a7 Globally, this product seems to be: 'bad / great'	0.94	0.89
a6 This product seems to be 'very poor quality / very good quality'	0.93	0.86
a5 All things considered, I would say that this product is: "bad quality / excellent quality'	0.90	0.82
Eigenvalues	2.56	
% of variance explained	85.37	

Source: Research results

The PPQ scale has a high reliability (0.91), as shown in Table 33. All corrected correlations of claims with total scores on the scale are high. The reliability coefficient for the control group is 0.86 and for the test group 0.94, so the scale is reliable.

Table 33: Statistical reliability indicators for the Perceived product quality scale

	M	SD	r_{it}	Cronbach α if the item is omitted
a5 All things considered, I would say that this product is: "bad quality / excellent quality'	5.69	1.22	0.79	0.91
a6 This product seems to be 'very poor quality / very good quality'	5.82	1.20	0.83	0.87
a7 Globally, this product seems to be: 'bad / great'	5.89	1.10	0.86	0.85

Source: Research results

The PPQ construct assumes three items. Since such a construct is just identified, i.e., the number of known parameters corresponds to unknown values (model with zero degrees of freedom), the fit of the model to the data cannot be estimated. Therefore, the invariance of the PPQ construct was not examined by confirmatory factor analysis. Descriptive statistics for the Perceived product quality scale is shown in Table 34.

Table 34: Descriptive statistics for the Perceived product quality scale

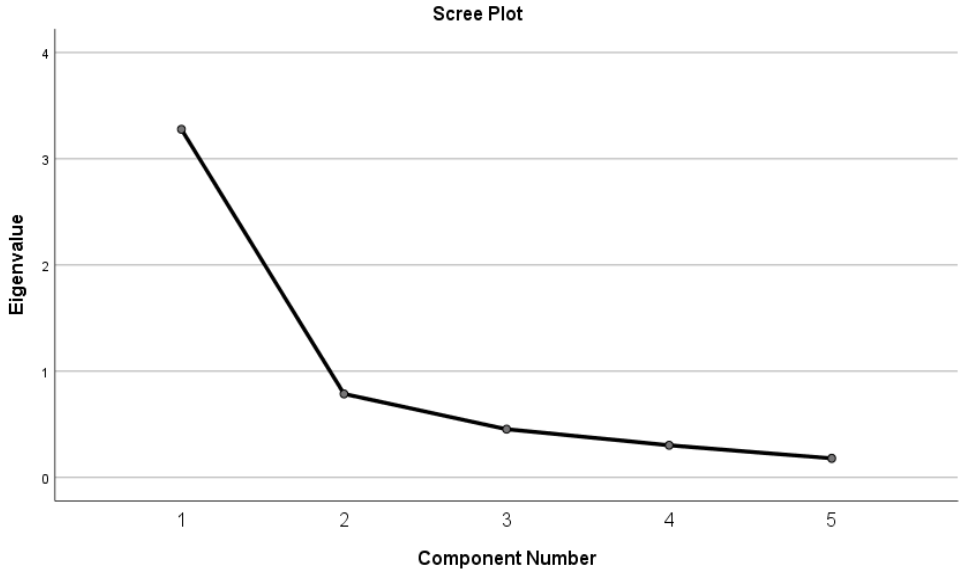
Scale	Number of items	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Perceived product quality (PPQ)	3	0.91	612	3.33	7.00	5.89	0.90	-0.65	-0.29

Source: Research results

4.2.2. Brand credibility (BRC) analysis

The Kaiser-Meyer-Olkin coefficient (KMO=0.841) and Bartlett's sphericity test ($|^2$=1712.593, df=10, p<0.001) indicated the suitability of the correlation matrix for factorization. Based on the Kaiser-Guttman criterion and Catell's scree plot (Figure 9) representation, a factor explaining 65.55% of the variance was filtered out.

Figure 9: Scree plot for Brand credibility



Source: Research results

The results of the analysis are shown in the Table 35 (factor saturations, commonalities, eigenvalues, and percentage of variance explained).

Table 35: Results of the exploratory factor analysis for the construct Brand credibility

	Factor	Commonalities
	1	
a12 This brand has the ability to deliver what it promises.	0.91	0.83
a10 This brand has a name you can trust.	0.89	0.80
a9 This brand's product claims are believable.	0.87	0.75
a8 This brand delivers what it promises.	0.77	0.60
a11 This brand doesn't pretend to be something it isn't.	0.55	0.31
Eigenvalues	3.28	
% of variance explained	65.55	

Source: Research results

The reliability coefficient for the BRC scale is 0.82 (for the control group 0.81 and for the test group 0.84). This coefficient indicates good reliability of the scale. Omitting item a11 "This brand doesn't pretend to be something it isn't" would increase the reliability to 0.89 (for the control group 0.87 and for the test

group 0.91), as shown in Table 36. Although item a11 has the lowest commonality (0.31), the lowest factor saturation (0.55), and the lowest corrected correlation with the overall scale score (0.41), these values are satisfactory. However, given the indicator to increase the reliability of the scale without this item, its exclusion was considered.

Table 36: Statistical reliability indicators for the Brand credibility scale

	M	SD	r_{it}	Cronbach α if the item is omitted
a8 This brand delivers what it promises.	5.84	1.42	0.60	0.79
a9 This brand's product claims are believable.	5.66	1.35	0.73	0.76
a10 This brand has a name you can trust.	6.06	1.24	0.76	0.76
a11 This brand doesn't pretend to be something it isn't.	5.22	2.09	0.41	0.89
a12 This brand has the ability to deliver what it promises.	6.03	1.23	0.80	0.75

Source: Research results

The exploratory factor analysis was conducted without claim a11 "This brand doesn't pretend to be something it isn't" to test whether its exclusion affects the factor structure of the BRC. The Kaiser-Meyer-Olkin coefficient (KMO=0.823) and Bartlett's test for sphericity (χ^2=1571.886, df=6; p <0.001) showed that the correlation matrix was appropriate for factorization even after claim a11 was excluded. The isolated factor explained 76.08% of the variance. The Table 37 shows the results of the analysis performed after excluding item a11.

Table 37: Results of the exploratory factor analysis for the construct Brand credibility after excluding item a11

	Factor	Commonalities
	1	
a12 This brand has the ability to deliver what it promises.	0.91	0.83
a10 This brand has a name you can trust.	0.91	0.82
a9 This brand's product claims are believable.	0.88	0.77
a8 This brand delivers what it promises.	0.79	0.63

Eigenvalues	3.04
% of variance explained	76.08

Source: Research results

The confirmatory factor analysis examined the invariance of the two BRC models, the 4-item model and the 5-item model (Tables 38 and 39).

The four-item BRC configural model showed only partial agreement with the data: CFI>0.95, RMSEA>0.06. The comparison of the metric model with the configural model already shows a significant change in model fit at this level (RMSEA change is greater than 0.015), indicating that the assumption of factor saturation invariance is not accepted in the control and test group samples.

Table 38: Results of confirmatory multigroup factor analysis of Brand credibility (4 items) with respect to the group

Model	χ^2	df	P	χ^2/df	CFI	RMSEA [90%CI]	Δdf	Δχ^2	P	ΔCFI	ΔRMSEA
Configural	16.221	4	0.003	4.055	0.992	0.070 [0.037-0.107]					
Metric	17.459	7	0.015	2.494	0.993	0.049 [0.020-0.078]	3	1.238	0.744	0.001	-0.021
Scalar	29.616	11	0.002	2.692	0.988	0.052 [0.030-0.075]	4	12.157	0.016	-0.005	0.003
Structural	33.728	12	0.001	2.811	0.986	0.054 [0.033-0.076]	1	4.112	0.043	-0.002	0.002
Residual	41.636	16	0.000	2.602	0.984	0.051 [0.032-0.070]	4	7.908	0.095	-0.002	-0.003

Source: Research results

The agreement index for the five-item BRC model showed good agreement with the data for the configural model (CFI > 0.95, RMSEA=0.06). Comparison of the metric model with the configural model showed that there was

no significant change at this level (there was a 0.002 increase in CFI and a 0.012 decrease in RMSEA). Comparison of the scalar model with the metric shows that there is no significant change at this level (ΔCFI=-0.005, ΔRMSEA=-0.002). The comparison of the residual model with the structural model (ΔCFI=-0.002, ΔRMSEA=-0.002) shows invariance at the residual level, i.e., it indicates strict invariance of the BRC model consisting of 5 items.

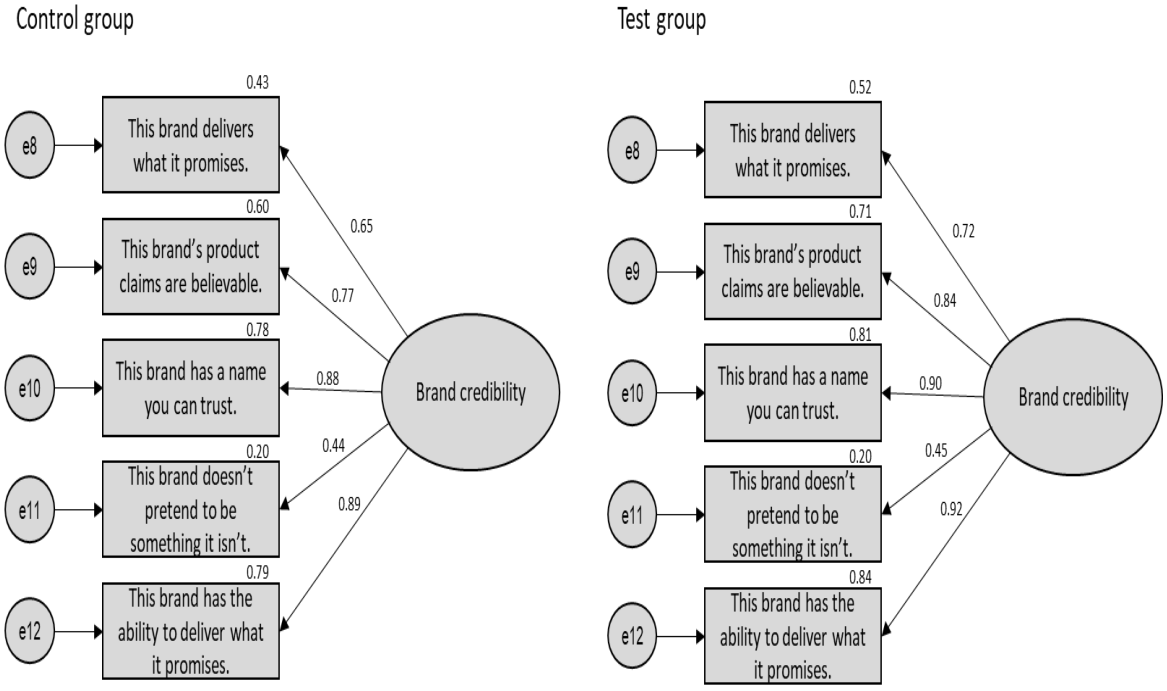
Table 39: Results of confirmatory multigroup factor analysis of Brand credibility (5 items) with respect to the group

Model	χ^2	df	P	χ^2/df	CFI	RMSEA [90%CI]	Δdf	Δχ^2	P	ΔCFI	ΔRMSEA
Configural	31.319	10	0.001	3.132	0.987	0.058 [0.036-0.082]					
Metric	32.556	14	0.003	2.325	0.989	0.046 [0.025-0.067]	4	1238	0.872	0.002	-0.012
Scalar	45.847	19	0.001	2.413	0.984	0.048 [0.030-0.065]	5	13.291	0.021	-0.005	-0.002
Structural	49.895	20	0.000	2.495	0.982	0.049 [0.032-0.066]	1	4.048	0.044	-0.002	-0.002
Residual	59.131	25	0.000	2.365	0.980	0.047 [0.031-0.062]	5	9.236	0.100	-0.002	-0.002

Source: Research results

Figure 10 illustrates confirmatory factor analysis for the single factorial Brand credibility structure, for the control and the test group.

Figure 10: Confirmatory factor analysis for the single factorial Brand credibility structure, for the control and the test group (standardized saturations)



Source: Research results

Since the results of the confirmatory multi-group analysis showed better invariance for the BRC construct consisting of all five statements, statement a11 was retained. A BRC scale was formed consisting of all five statements and showing satisfactory reliability. Descriptive statistics for the Brand credibility scale is shown in Table 40.

Table 40: Descriptive statistics for the Brand credibility scale

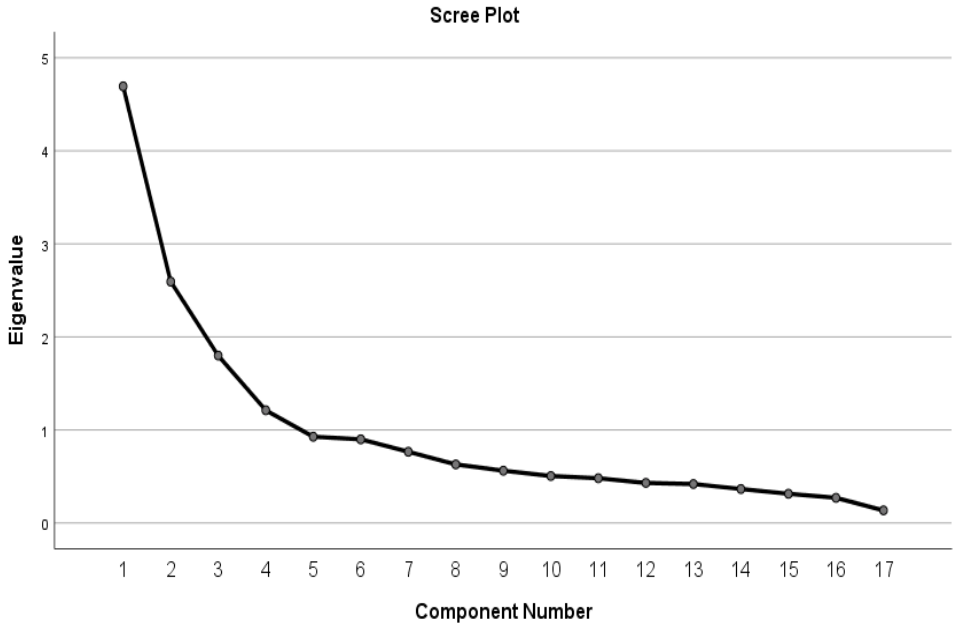
Scale	Number of items	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Brand credibility (BRC)	5	0.82	615	2.60	7.00	5.84	0.99	-0.84	0.23

Source: Research results

4.2.3. Food brand loyalty analysis

The Kaiser-Meyer-Olkin coefficient (KMO = 0.836) and Bartlett's sphericity test (χ^2=4206.687, df=136, p<0.001) indicated the suitability of the correlation matrix for factorization. The Kaiser-Guttman criterion indicates four factors, and the Scree plot (Figure 11) is more difficult to interpret as it indicates a possible solution of four or six factors.

Figure 11: Scree plot for Food brand loyalty



Source: Research results

Four factors were filtered out, consistent with the Kaiser-Guttman criterion and the theoretical assumption, explaining 60.573% of the variance. Oblimin oblique rotation was applied.

The Table 41 shows the matrix of the form of factor analysis performed (principal component methods with oblimin rotation, commonalities, initial eigenvalues and percentage of variance explained for each factor). Factor saturations greater than 0.30 are in bold.

Table 41: Results of the exploratory factor analysis for the construct Food brand loyalty

	Factor				Commonalities
	1	2	3	4	
a14 How likely are you to purchase this brand the next time when you are buying the same type of product?	**0.91**	-0.02	0.01	-0.04	0.87
a15 How likely are you to purchase this brand for other similar products?	**0.89**	-0.01	-0.03	-0.04	0.84
a13 How likely are you to purchase more products from this brand?	**0.88**	-0.02	0.00	0.08	0.72
a16 How likely are you to recommend this brand to friends or relatives?	**0.82**	0.02	0.02	-0.07	0.74
a20 How likely are you to contact (by phone, in writing, on-line, etc.) the brand owner, if you are not satisfied with their products?	0.12	**0.72**	0.09	-0.06	0.54
a18 How likely are you to make negative comments about this brand to friends or family?	-0.15	**0.70**	-0.02	-0.04	0.52
a19 How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?	-0.19	**0.70**	-0.06	0.03	0.54
a21 How likely are you to harm the reputation of the brand, if there was no answer?	0.02	**0.68**	-0.01	0.22	0.49
a17 How likely are you to contact (call) the brand owner with new ideas or suggestions that you may have?	0.21	**0.53**	-0.05	-0.18	0.41
a23 I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.	0.08	0.01	**-0.79**	0.02	0.64
a25 I would rather stick to well known brands than trying the new ones.	0.04	0.00	**-0.75**	-0.19	0.64
a24 I would rather wait for others rather than try a new brand myself.	-0.03	0.14	**-0.74**	0.03	0.59
a22 I rarely introduce a new brand to my friends and family.	-0.05	-0.09	**-0.56**	0.06	0.30
a28 How likely are you to buy this brand regardless of price?	0.01	-0.03	0.05	**-0.85**	0.72
a27 How likely are you to buy this brand even if a media had a highly critical review of it?	-0.10	0.00	0.01	**-0.75**	0.50
a26 How likely are you to pay 5% more for this brand?	0.10	0.01	-0.02	**-0.72**	0.61

a29 How likely are you to stay with this brand even if other brands offer better features of the product?	0.15	0.00	-0.11	**-0.68**	0.62
Eigenvalues	4.69	2.59	1.80	1.21	
% of variance explained	27.61	15.26	10.58	7.13	

Source: Research results

A look at the items saturated with a specific factor shows that the first factor is Attitudinal loyalty (ATL). Item a17 "How likely are you to contact (call) brand owner with new ideas or suggestions that you may have?" is saturated by the second factor and theoretically belongs to the first factor. Without item a17, the second factor is Complaining behaviour (COB). The third factor is Propensity to be loyal (PTBL), and the fourth is Resistance to competing offers (RTCO).

To check the factor structure without item a17, an exploratory analysis (principal component method with oblimin rotation) was performed after excluding a17. The Kaiser-Meyer-Olkin coefficient (KMO=0.832) and Bartlett's sphericity test ($|^2$=4013.361, df=120, p<0.001) indicated the suitability of the correlation matrix for factorization. Separate four factors explained 62.448% of the variance. The results are shown in the Table 42.

Table 42: Results of the exploratory factor analysis for the construct Food brand loyalty after excluding item a17

	Factor				Commonalities
	1	2	3	4	
a14 How likely are you to purchase this brand the next time when you are buying the same type of product?	**0.91**	0.00	-0.02	-0.05	0.88
a15 How likely are you to purchase this brand for other similar products?	**0.89**	0.04	-0.01	-0.04	0.84
a13 How likely are you to purchase more products from this brand?	**0.88**	0.00	-0.01	0.07	0.73
a16 How likely are you to recommend this brand to friends or relatives?	**0.82**	-0.02	0.02	-0.08	0.75
a23 I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.	0.08	**0.79**	0.01	0.01	0.64
a25 I would rather stick to well known brands than trying the new ones.	0.05	**0.75**	0.01	-0.20	0.64
a24 I would rather wait for others rather than try a new brand myself.	-0.02	**0.74**	0.13	0.03	0.59

a22 I rarely introduce a new brand to my friends and family.	-0.06	**0.55**	-0.08	0.06	0.30
a19 How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?	-0.15	0.07	**0.73**	-0.01	0.59
a18 How likely are you to make negative comments about this brand to friends or family?	-0.11	0.03	**0.73**	-0.08	0.56
a21 How likely are you to harm the reputation of the brand, if there was no answer?	0.06	0.01	**0.70**	0.19	0.52
a20 How likely are you to contact (by phone, in writing, on-line, etc.) the brand owner if you are not satisfied with their products?	0.15	-0.07	**0.70**	-0.08	0.51
a28 How likely are you to buy this brand regardless of price?	0.02	-0.05	-0.01	**-0.85**	0.72
a27 How likely are you to buy this brand even if a media had a highly critical review of it?	-0.09	-0.01	0.00	**-0.75**	0.50
a26 How likely are you to pay 5% more for this brand?	0.11	0.01	0.02	**-0.72**	0.62
a29 How likely are you to stay with this brand even if other brands offer better features of the product?	0.16	0.11	-0.02	**-0.67**	0.62
Eigenvalues	4.59	2.46	1.74	1.21	
% of variance explained	28.67	15.36	10.85	7.57	

Source: Research results

Based on the insight into the items saturated with individual factors, it appears that the first factor is Attitudinal loyalty (ATL), the second factor is Propensity to be loyal (PTBL), the third factor is Complaining behaviour (COB), and the fourth is Resistance to competing offers (RTCO).

The reliability coefficient for the ATL scale is 0.91 (for the control group 0.90 and for the test group 0.92). For the PTBL scale Cronbach α is 0.69 (for the control group 0.69 and for the test group 0.68).

Item a22 "I rarely introduce new brands to my friends and family" has a low corrected correlation with the overall scale score (0.29). This item has the lowest commonality (0.30) and factor saturation (0.55). Its exclusion would increase the reliability of the PTBL scale to an acceptable level of 0.73 (for the control group 0.72 and for the test group 0.73). It is therefore assumed that the above item can be excluded.

The Cronbach α value for the COB scale is 0.68 (for the control group 0.66 and for the test group 0.70), which is a minimum acceptable level of reliability.

The corrected correlations of the items belonging to this scale with the total score are greater than 0.40, and the exclusion of individual items would reduce the reliability of the scale. The reliability of the RTCO scale is 0.79 (for the control group 0.80 and for the test group 0.77).

Table 43 shows the statistical reliability indicators for all four scales of Food brand loyalty measurement.

Table 43: Statistical reliability indicators for the ATL, COB, PTBL and RTCO scales

	M	SD	r_{it}	Cronbach α if the item is omitted
ATTITUDINAL LOYALTY (ATL)				
a13 How likely are you to purchase more products from this brand?	5.95	1.15	0.74	0.91
a14 How likely are you to purchase this brand the next time when you are buying the same type of product?	5.71	1.17	0.88	0.86
a15 How likely are you to purchase this brand for other similar products?	5.61	1.22	0.84	0.88
a16 How likely are you to recommend this brand to friends or relatives?	5.63	1.35	0.77	0.90
COMPLAINING BEHAVIOUR (COB)				
a18 How likely are you to make negative comments about this brand to friends or family?	2.59	1.94	0.48	0.60
a19 How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?	1.97	1.56	0.51	0.59
a20 How likely are you to contact (by phone, in writing, on-line, etc.) the brand owner if you are not satisfied with their products?	2.80	2.13	0.41	0.65
a21 How likely are you to harm the reputation of the brand, if there was no answer?	2.10	1.75	0.47	0.61
PROPENSITY TO BE LOYAL (PTBL)				
a22 I rarely introduce a new brand to my friends and family.	3.53	1.88	0.29	0.73
a23 I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.	3.47	1.97	0.57	0.56

a24 I would rather wait for others than try a new brand myself.	2.33	1.69	0.51	0.60
a25 I would rather stick to well known brands than trying the new ones.	4.02	2.07	0.54	0.58

RESISTANCE TO COMPETING OFFERS (RTCO)	M	SD	r_{it}	Cronbach α if the item is omitted
a26 How likely are you to pay 5% more for this brand?	4.50	1.80	0.60	0.73
a27 How likely are you to buy this brand even if a media had a highly critical review of it?	4.04	1.73	0.48	0.79
a28 How likely are you to buy this brand regardless of price?	4.34	1.74	0.69	0.68
a29 How likely are you to stay with this brand even if other brands offer better features of the product?	4.00	1.81	0.60	0.73

Source: Research results

To examine the factor structure after exclusion of item a22, factor analysis was repeated (principal component method with oblimin rotation).

The Kaiser-Meyer-Olkin coefficient (KMO=0.834) and Bartlett's sphericity test (χ^2=3928.188, df=105, p<0.001) confirmed the suitability of the correlation matrix for factorization. Separate four factors explained 65.494% of the variance. The results are presented in the Table 44. Factor saturations in bold are greater than 0.30. The first factor is Attitudinal loyalty (ATL), the second factor is Complaining behaviour (COB), the third factor is Propensity to be loyal (PTBL), and the fourth factor is Resistance to competing offers (RTCO).

Table 44: Results of the exploratory factor analysis for the construct Food brand loyalty after excluding items a17 and a22

	Factor				Commonalities
	1	2	3	4	
a14 How likely are you to purchase this brand the next time when you are buying the same type of product?	**0.91**	-0.02	-0.01	-0.04	0.88
a15 How likely are you to purchase this brand for other similar products?	**0.89**	-0.02	-0.05	-0.04	0.84
a13 How likely are you to purchase more products from this brand?	**0.88**	0.00	0.01	0.06	0.73

a16 How likely are you to recommend this brand to friends or relatives?	**0.82**	0.02	0.02	-0.08	0.75
a18 How likely are you to make negative comments about this brand to friends or family?	-0.10	**0.73**	-0.03	-0.08	0.56
a19 How likely are you to discourage friends or family from using this brand for their own needs (for the observed product)?	-0.15	**0.73**	-0.08	-0.01	0.59
a21 How likely are you to harm the reputation of the brand, if there was no answer?	0.06	**0.71**	0.00	0.18	0.53
a20 How likely are you to contact (by phone, in writing, on-line, etc.). brand owner if you are not satisfied with their products?	0.16	**0.70**	0.07	-0.09	0.51
a24 I would rather wait for others than try a new brand myself.	-0.05	0.08	**-0.80**	0.07	0.66
a25 I would rather stick to well known brands than trying the new ones.	0.02	-0.04	**-0.80**	-0.15	0.70
a23 I rarely use the opportunity to buy unknown brands even if it means sacrificing variety of purchase.	0.04	-0.02	**-0.80**	0.04	0.63
a28 How likely are you to buy this brand regardless of price?	0.02	-0.01	0.03	**-0.84**	0.72
a27 How likely are you to buy this brand even if a media had a highly critical review of it?	-0.09	0.02	0.04	**-0.77**	0.52
a26 How likely are you to pay 5% more for this brand?	0.12	0.02	-0.04	**-0.71**	0.61
a29 How likely are you to stay with this brand even if other brands offer better features of the product?	0.16	-0.03	-0.14	**-0.66**	0.61
Eigenvalues	4.59	2.38	1.65	1.20	
% of variance explained	30.58	15.90	10.99	8.03	

Source: Research results

The following are the results of a confirmatory multi-group factor analysis that tested the invariance of the model of Food brand loyalty model obtained through the exploratory analysis for the control and test groups. The configural model showed a good fit with the data (RMSEA<0.06, CFI>0.95). The results obtained indicate invariance at all levels tested.

Successive comparisons of the model with more restrictions with the model with fewer restrictions (metric with configural, scalar with metric, structural with scalar, and residual with structural) show that invariance was achieved at all levels tested, i.e., there is no significant difference in the agreement indicators at each level (a change from CFI is less than 0.010 and a change from RMSEA is less than 0.015). The results (Table 45) of the analysis show invariance at the residual level.

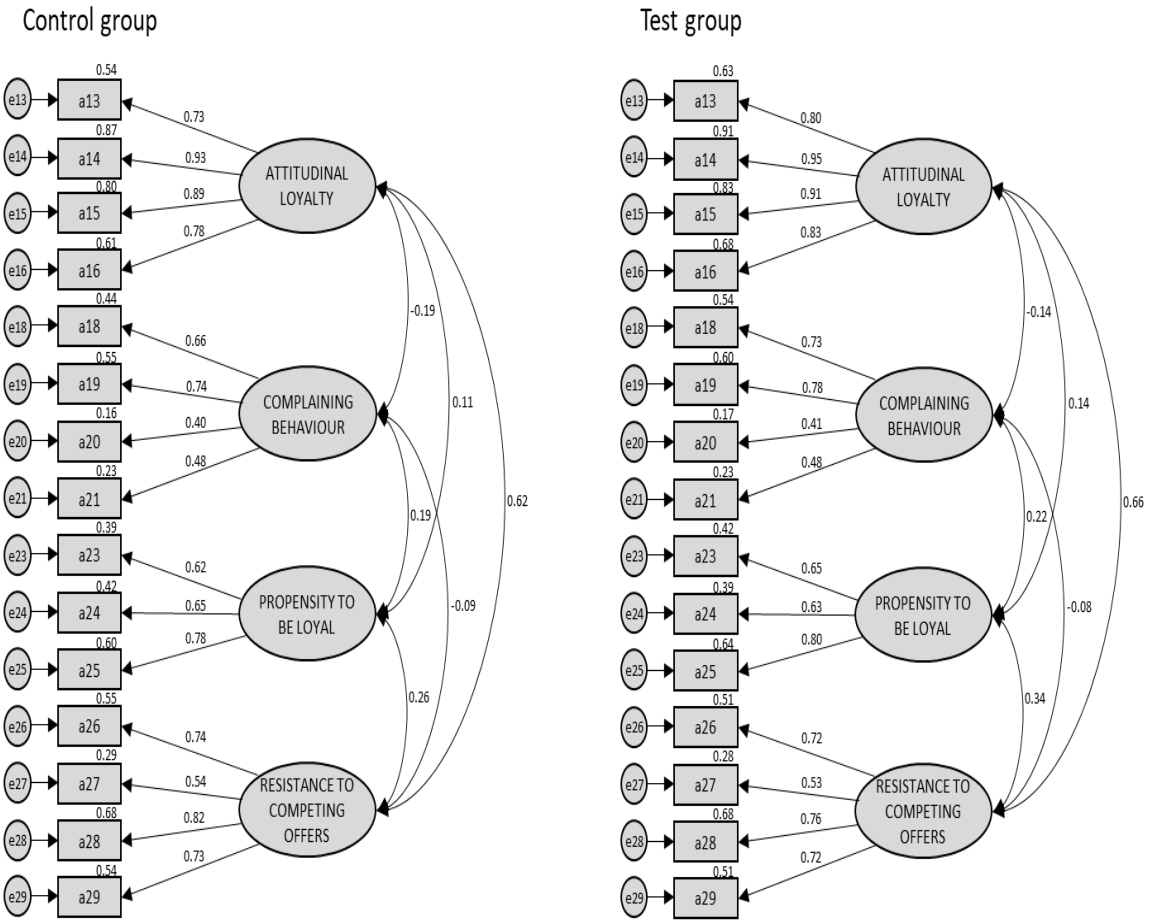
Table 45: Results of confirmatory multi-group factor analysis of Food brand loyalty with respect to the group

Model	χ^2	df	P	χ^2/df	CFI	RMSEA [90%CI]	Δdf	Δχ^2	P	ΔCFI	Δ RMSEA
Configural	356.765	168	0.000	2.124	0.951	0.042 [0.036-0.049]	-	-	-	-	-
Metric	363.558	179	0.000	2.031	0.952	0.041 [0.035-0.047]	11	6.793	0.816	0.001	-0.001
Scalar	381.378	194	0.000	1.966	0.951	0.039 [0.034-0.045]	15	17.820	0.272	-0.001	-0.002
Structural	392.524	204	0.000	1.924	0.951	0.039 [0.033-0.044]	10	11.145	0.346	0.000	0.000
Residual	403.983	219	0.000	1.845	0.952	0.037 [0.031-0.042]	15	11.460	0.719	0.001	-0.002

Source: Research results

Figure 12 illustrates confirmatory factor analysis for the four-factor structure of the Food brand loyalty, for the control and test groups.

Figure 12: Confirmatory factor analysis for the four-factor structure of the Food brand loyalty, for the control and test groups (standardised saturations)



Source: Research results

Since the results of the confirmatory multi-group analysis showed better invariance for the ATL construct consisting of four items (excluding item a17) and for the PTBL construct consisting of three items (excluding item a22), new scales were formed for ATL consisting of four items and for PTBL consisting of three items, which showed satisfactory reliability. Descriptive statistics for finalized ATL, COB, PTBL and RTCO scales is shown in Table 46.

Table 46: Descriptive statistics for ATL, COB, PTBL and RTCO scales

Scale	Number of items	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Attitudinal loyalty (ATL)	4	0.91	620	2.38	7.00	5.76	1.03	-0.75	-0.08

Complaining behaviour (COB)	4	0.68	618	1.00	6.25	2.31	1.24	0.93	0.19
Propensity to be loyal (PTBL)	3	0.73	625	1.00	7.00	3.27	1.54	0.27	-0.70
Resistance to competing offers (RTCO)	4	0.79	625	1.00	7.00	4.22	1.38	-0.17	-0.54

Source: Research results

The scale Complaining behaviour (COB) has marginally acceptable reliability (α=0.68) and all other scales have satisfactory or high reliability.

For Cronbach α above 0.6 is considered as lowest acceptable value or marginally acceptable; although in some studies values above 0.5 or even 0.4 were considered as acceptable (Taber, 2018).

Pearson correlation coefficients between each scale were calculated (Table 47). ATL has a low negative correlation with COB and a positive correlation with RTCO, which is also the highest correlation obtained (r=0.54, p<0.01). PTBL is positively correlated with COB and RTCO. The other correlations are not statistically significant.

Table 47: Pearson correlation coefficients among scales for Food brand loyalty

	ATL	COB	PTBL	RTCO
Attitudinal loyalty (ATL)	1			
Complaining behaviour (COB)	-0.080*	1		
Propensity to be loyal (PTBL)	0.062	0.115**	1	
Resistance to competing offers (RTCO)	0.541**	-0.047	0.215**	1

*p<0.05, **p<0.01

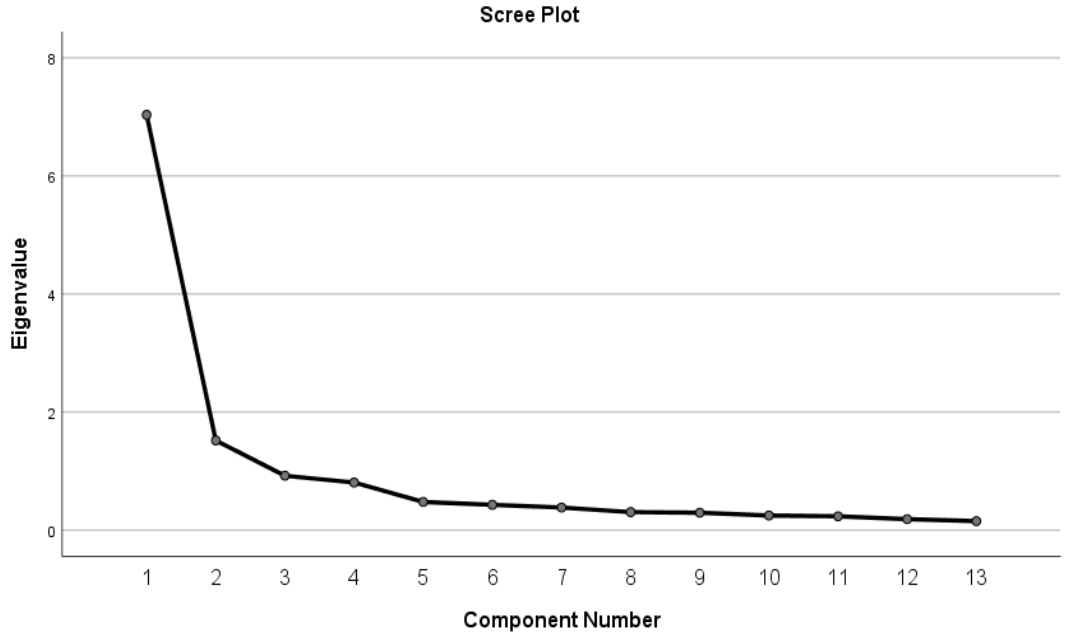
Source: Research results

4.2.4. Clear label perception analysis

The pilot study has already confirmed that the scales are reliable, but as the research sample was small and the scales were being tested for the first time, confirming on a larger sample that the scales developed measure what they were designed to measure is one of the crucial parts of the data analysis.

The Kaiser-Meyer-Olkin coefficient (KMO=0.919) and Bartlett's sphericity test (χ^2=2897.197, df=78; p<0.001) indicated the suitability of the correlation matrix for factorization. Based on Kaiser-Guttman criterion, two factors were filtered out. The Scree plot (Figure 13) is more difficult to interpret, it suggests two or four factors.

Figure 13: Scree plot for Clear label perception construct



Source: Research results

Although three factors were expected based on theory, two separate factors were retained. Oblique oblimin rotation was applied. The isolated factors explained 65.792% of the variance. Table 48 shows the matrix of the factor analysis performed with the listed commonalities, eigenvalues and percentage of variance explained for each factor. The selected factors based on the insight of the associated items are: 1. Nutritional and natural content (NANC) and 2. Origin (ORI).

Table 48: Results of the exploratory factor analysis for the construct Clear label perception

	Factor		Commonalities
	1	2	
a36 Observed product contains no artificial ingredients.	**0.85**	-0.08	0.67
a34 Observed product contains no additives.	**0.85**	-0.06	0.68
a35 Observed product contains natural ingredients.	**0.82**	0.03	0.70
a32 Observed product is nutritious.	**0.80**	0.06	0.69
a31 Observed product keeps me healthy.	**0.80**	0.08	0.71
a30 Observed product contains a lot of vitamins and minerals.	**0.75**	0.11	0.66
a33 Observed product is high in protein.	**0.73**	0.07	0.60
a38 The product origin mark will preserve a higher product quality.	0.15	**0.81**	0.80
a39 The product origin mark will guarantee a constant product quality.	0.15	**0.81**	0.81
a41 The product origin mark will lead to more employment in the region of origin.	0.13	**0.74**	0.65
a37 The product origin mark will protect the authenticity of the product.	0.19	**0.73**	0.70
a40 The product origin mark will fully guarantee the region of origin of the product.	0.21	**0.73**	0.72
a42 The product origin mark will lead to higher product prices.	-0.14	**0.45**	0.16
Eigenvalues	7.03	1.52	
% of variance explained	54.10	11.69	

Source: Research results

The reliability coefficient for the NANC scale is 0.92 and for the ORI scale is 0.87. Item a42 "The product origin mark will lead to higher product prices" has a low corrected correlation with the overall scale score (0.24) and has a low commonality (0.16). If this item is omitted from the scale, the Cronbach's value increases to 0.92, so it is recommended to exclude it, as shown in Table 49.

Table 49: Statistical reliability indicators for the Nutritional and natural content and Origin scales

	M	SD	r_{it}	Cronbach α if the item is omitted
NUTRUTIONAL AND NATURAL CONTENT (NANC)				
a30 Observed product contains a lot of vitamins and minerals.	4.38	1.46	0.74	0.90
a31 Observed product keeps me healthy.	4.22	1.64	0.77	0.90
a32 Observed product is nutritious.	4.92	1.50	0.76	0.90
a33 Observed product is high in protein.	4.11	1.44	0.69	0.91
a34 Observed product contains no additives.	4.01	1.86	0.75	0.90
a35 Observed product contains natural ingredients.	4.87	1.57	0.78	0.90
a36 Observed product contains no artificial ingredients.	4.24	1.88	0.73	0.91
ORIGIN (ORI)				
a37 The product origin mark will protect the authenticity of the product.	5.51	1.68	0.73	0.84
a38 The product origin mark will preserve a higher product quality.	5.31	1.67	0.81	0.82
a39 The product origin mark will guarantee a constant product quality.	5.21	1.73	0.81	0.82
a40 The product origin mark will fully guarantee the region of origin of the product.	5.10	1.79	0.76	0.83
a41 The product origin mark will lead to more employment in the region of origin.	4.85	1.85	0.71	0.84
a42 The product origin mark will lead to higher product prices.	4.50	1.76	0.24	0.92

Source: Research results

After excluding item a42, the principal component analysis was repeated to examine whether the exclusion of this item altered the factor structure. The Kaiser-Meyer-Olkin coefficient (KMO=0.920) and Bartlett's sphericity test (χ^2=2872.593, df=66, p<0.001) indicated the suitability of the correlation matrix for factorization. The isolated factors explained 70.53% of the variance. The results are shown in the Table 50. The first factor is Nutritional and natural content (NANC), the second is Origin (ORI).

Table 50: Results of the exploratory factor analysis for the construct Clear label after excluding item a42

	Factor		Commonalities
	1	2	
a34 Observed product contains no additives.	**0.89**	0.09	0.69
a36 Observed product contains no artificial ingredients.	**0.87**	0.09	0.66
a35 Observed product contains natural ingredients.	**0.83**	-0.01	0.71
a32 Observed product is nutritious.	**0.81**	-0.04	0.69
a31 Observed product keeps me healthy.	**0.79**	-0.08	0.71
a30 Observed product contains a lot of vitamins and minerals.	**0.73**	-0.12	0.66
a33 Observed product is high in protein.	**0.73**	-0.06	0.60
a39 The product origin mark will guarantee a constant product quality.	-0.02	**-0.91**	0.82
a38 The product origin mark will preserve a higher product quality.	-0.01	**-0.91**	0.81
a37 The product origin mark will protect the authenticity of the product.	0.03	**-0.83**	0.72
a40 The product origin mark will fully guarantee the region of origin of the product.	0.05	**-0.83**	0.74
a41 The product origin mark will lead to more employment in the region of origin.	-0.01	**-0.82**	0.66
Eigenvalues	6.99	1.48	
% of variance explained	58.21	12.31	

Source: Research results

After omitting a42 scale, construct Nutritional and natural content or NANC has 7 items and Origin or ORI 5 items.

Table 51 shows descriptive statistics for both Clear label scales, Nutritional and natural content and Origin.

Table 51: Descriptive statistics for Nutritional and natural content and Origin scales

Scale	Number of items	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Nutritional and natural content (NANC)	7	0.92	319	1.00	7.00	4.39	1.33	-0.33	-0.17
Origin (ORI)	5	0.92	319	1.00	7.00	5.20	1.51	-1.10	0.89

Source: Research results

The analysis showed that the scales have a high reliability. The Pearson correlation coefficient (r) between the scores of the NANC and the ORI scales is 0.64 ($p < 0.01$) and shows a positive correlation.

4.2.5. Descriptive statistics for all scales and correlation

The score on each scale is calculated as the average of the responses on the corresponding items. The Table 52 shows the descriptive statistics for all scales. From the symmetry indicators - Sk (up to -1.10) and kurtosis - Ku (up to 0.89), it can be seen that the distributions of the variables are not significantly different from normal. The scale COB has marginally acceptable reliability (α=0.68) and all other scales have satisfactory or high reliability.

Table 52: Descriptive statistics for all scales

Scale	Number of items	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Perceived product quality (PPQ)	3	0.91	612	3.33	7.00	5.89	0.90	-0.65	-0.29
Brand credibility (BRC)	5	0.82	615	2.60	7.00	5.84	0.99	-0.84	0.23
Attitudinal loyalty (ATL)	4	0.91	620	2.38	7.00	5.76	1.03	-0.75	-0.08
Complaining behaviour (COB)	4	0.68	618	1.00	6.25	2.31	1.24	0.93	0.19
Propensity to be loyal (PTBL)	3	0.73	625	1.00	7.00	3.27	1.54	0.27	-0.70
Resistance to competing offers (RTCO)	4	0.79	625	1.00	7.00	4.22	1.38	-0.17	-0.54
Nutritional and natural content (NANC)	7	0.92	319	1.00	7.00	4.39	1.33	-0.33	-0.17
Origin (ORI)	5	0.92	319	1.00	7.00	5.20	1.51	-1.10	0.89

Source: Research results

At the end of statistical analysis the overall correlation among all scales was calculated (Table 53). This step aimed to provide a comprehensive understanding of the relationships and associations between the different scales used in the study.

Table 53: Pearson correlation coefficients (r) among scales

	PPQ	BRC	ATL	COB	PTBL	RTCO	NANC	ORI
PPQ	1							
BRC	0.632**	1						
ATL	0.622**	0.604**	1					
COB	-0.147**	-0.071	-0.080*	1				
PTBL	0.024	0.053	0.062	0.115**	1			
RTCO	0.355**	0.379**	0.541**	-0.047	0.215**	1		
NANC	0.574**	0.591**	0.507**	-0.011	0.121*	0.543**	1	
ORI	0.417**	0.478**	0.450**	0.077	0.072	0.507**	0.644**	1

*p<0.05, **p<0.01

Source: Research results

Pearson's correlation coefficients show that Perceived product quality (PPQ) has a positive correlation with Brand credibility (BRC), Attitudinal loyalty (ATL), Resistance to competing offers (RTCO), Nutritional and natural content (NANC) and Origin (ORI) and a negative correlation with Complaining behaviour (COB). However, there is no statistically significant correlation with Propensity to be loyal (PTLB).

For the Brand credibility (BRC) scale, there is also a positive correlation with ATL, RTCO, NANC, and ORI. Again, there is no statistically significant correlation with COB and PTBL.

The Attitudinal loyalty (ATL) scale additionally has a low negative correlation with COB and a positive correlation with RTCO, NANC, and ORI. The COB scale has only one positive correlation and that is with PTLB. The PTLB scale also has a positive correlation with RTCO and NANC.

The Nutritional and natural content (NANC) and Origin (ORI) scales, which represent the Clear label perception construct, have a strong positive correlation with all other scales except COB and PTLB. This is a good indicator that Clear label is positively related not only to some layers of Food brand loyalty, but also to Product quality perception and Brand credibility.

4.3. Testing the hypotheses

The hypothesis testing procedure was divided into two parts. The first part focused on the relationship between Perceived product quality and Food brand loyalty scales and the second part focused on the relationship between Brand credibility and Food brand loyalty scales.

4.3.1. Investigating the relationship between Perceived product quality and Food brand loyalty scales with testing moderator effects of the Clear label

To test the hypotheses about the relationship between the Perceived product quality (PPQ) construct and the variables used to measure Food brand loyalty: Attitudinal loyalty (ATL), Complaining behaviour (COB), Propensity to be loyal (PTLB) and Resistance to competing offers (RTCO) (hypotheses H1a, H1b, H1c, H1d) and to test the moderating effect of Clear label perception elements on these relationships (H3), hierarchical regression analyses, i.e. moderating multiple regression analyses, were conducted. One analysis was conducted for each of the criteria (ATL, COB, PTBL and RTCO).

In the first step (Model 1), PPQ was included as a predictor in each analysis. In the second step (Model 2), the dummy variable Clear label perception elements (CLE) was added, indicating whether the product contained Clear label elements and referring to membership in a control or test group (0 - no clear label elements / control group, 1 - clear label elements / test group). In the third step (Model 3), a variable representing the interaction between PPQ and CLE was added (a product of the PPQ and CLE variables). The predictor variable PPQ is centred (by subtracting the arithmetic mean from the gross score). Based on the significance of the interaction of the variables PPQ and CLE (PPQ x CLE), the moderating influence of CLE on the relationship between predictors and criteria is inferred. The results are shown in the table 54.

Table 54: Results of hierarchical regression analysis for the Attitudinal loyalty (N=609)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	β	B	SE B	B	B	SE B	β
PPQ	0.71	0.04	0.62**	0.71	0.04	0.62**	0.65	0.05	0.57**
CLE				-0.15	0.06	-0.07*	-0.15	0.06	-0.07*
PPQ x CLE							0.12	0.07	0.08
ΔR^2	0.387**			0.006*			0.003		
ΔF	382.96			5.51			2.95		
Df	1.607			1.606			1.605		
Final model: R^2=0.40**, F=131.84, df=3.605									

*p<0.05, **p<0.01

Source: Research results

The results of Model 1 (see Table 54) show that PPQ is a statistically significant predictor of ATL (R^2=0.39, F=382.96, df=1.607, p<0.01; β=0.62), explaining 38.7% of the variance in ATL. Thus, model 1 *confirms hypothesis H1a*.

The addition of the CLE predictor in Model 2 indicates that CLE is a statistically significant negative ATL predictor (β=-0.72, p<0.05), but the addition of CLE increased the percentage of variance explained by less than 1%. The results of Model 3, in which the interaction of PPQ and CLE was added, indicate that there was no statistically significant increase in explained variance, i.e., no significant moderating effect of CLE on the relationship between PPQ and ATL (β=0.08, p>0.05). Hypothesis H3, in this analysis which relates to ATL, is not accepted.

The results in Table 55 show that PPQ is a statistically significant negative predictor of COB (R2=0.02**, F=13.31, df=1.603; β=-0.15), implying that the greater the perception of product quality, the lower the chance of complaining behaviour. Thus, model 1 *confirms hypothesis H1b*. However, it explains only 2.2% of the COB variance.

Table 55: Results of hierarchical regression analysis for the Complaining behaviour (N=605)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	B	B	SE B	β	B	SE B	β
PPQ	-0.20	0.06	-0.15**	-0.20	0.06	-0.15**	-0.20	0.08	-0.14*
CLE				0.06	0.10	0.02	0.06	0.10	0.02
PPQ x CLE							-0.01	0.11	-0.01
ΔR^2	0.022**			0.001		0.000			
ΔF	13.31			0.31		0.02			
Df	1.603			1.602			1.601		
Final model: R^2=0.02**, F=4.53, df=3.601									

*p<0.05, **p<0.01

Source: Research results

Model 2 shows that CLE is not a significant predictor of COB (β=0.02, p>0.05). No significant moderating effect of CLE on the relationship between PPQ and COB was found (β=0.01, p>0.05). The addition of the interaction of PPQ and CLE in Model 3 did not result in a statistically significant increase in explained variance. Hypothesis H3 in the analysis, relating to COB, is not accepted.

The results of the hierarchical regression analysis for PTLB from Table 56 show that PPQ is not a statistically significant predictor of PTLB (R2=0.001, F=0.34, df=1.610, p>0.05; β=0.02). Thus, *hypothesis H1c is not accepted*.

Table 56: Results of hierarchical regression analysis for the Propensity to be loyal (N=612)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	B	B	SE B	β	B	SE B	β
PPQ	0.04	0.07	0.02	0.04	0.07	0.02	-0.03	0.10	-0.02
CLE				-0.09	0.13	-0.03	-0.09	0.13	-0.03
PPQ x CLE							0.15	0.14	0.06
ΔR^2	0.001			0.001			0.002		
ΔF	0.34			0.49			1.15		
Df	1.610			1.609			1.608		
Final model: R^2=0.003, F=0.66, df=3.608									

Source: Research results

The addition of the interaction of PPQ and CLE in Model 3 did not result in a statistically significant increase in explained variance. Hypothesis H3 in the analysis, relating to PTLB, is also not accepted.

The results of the hierarchical regression analysis for the variable RTCO (Table 57) show that PPQ is a statistically significant predictor of RTCO (R2=0.13, F=88.05, df=1.610, p<0.01; β=0.36), explaining 12.6% of the RTCO variance. Thus, model 1 *confirms hypothesis H1d*.

Table 57: Results of hierarchical regression analysis for the Resistance to competing offers (N=612)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	B	B	SE B	β	B	SE B	β
PPQ	0.54	0.06	0.36**	0.54	0.06	0.36**	0.48	0.08	0.31**
CLE				-0.02	0.10	-0.01	-0.02	0.10	-0.01
PPQ x CLE							0.13	0.12	0.06
ΔR^2	0.126**			0.000			0.002		
ΔF	88.05			0.04			1.25		
Df	1.610			1.609			1.608		
Final model: R^2=0.13**, F=29.75, df=3.608									

**p<0.01

Source: Research results

The addition of the predictor CLE in Model 2 shows that CLE is not a significant predictor of RTCO (β=-0.01, p>0.05), and no statistically significant moderating effect of CLE on the relationship between PPQ and RTCO was found (β=0.06, p>0.05). Again, hypothesis H3 of the analysis related to RTCO is not accepted.

From the first part of the hypothesis tests, it can be concluded that H1a, H1b and H1d are confirmed. Even if H1c is not accepted, we can say that H1 is conditionally confirmed (by excluding PTLB when observing Food brand loyalty).

4.3.1.1. Testing the moderation effect of Clear label perception on the relationship between Perceived product quality and Food brand loyalty scales

Since hypothesis H3 was not confirmed in the previous analysis, a two-moderator model test was conducted to further examine the moderating effect of NANC and ORI (variables measuring Clear label perception) on the relationship between PPQ and the variables measuring Food brand loyalty.

Four analyses were conducted in which one of the variables measuring Food brand loyalty (ATL, COB, PTBL and RTCO) were entered as criterion, predictor of PPQ and moderators NANC and ORI. Based on the significance of the interaction between predictors and moderators (PPQ x NANC and PPQ x ORI), the influence of moderators on the relationship between predictors and criteria is inferred. Hayes' PROCESS (v 3.5) in macro for SPSS was used to conduct this multiple moderation analysis (Hayes, 2018). Hayes' Model 2 was tested for centred predictors with a covariance and standard error matrix estimator that did not require homoscedasticity of residuals (Cribari-Neto, 2004). The results are reported in the Tables 58 to 61.

Table 58: Results of the analysis of the moderating influence of NANC and ORI on the relationship between PPQ and ATL

	B	SE B	T	P
PPQ	0.654	0.068	9.558	<0.01
NANC	0.053	0.058	0.913	0.362
PPQ x NANC	0.052	0.066	0.780	0.436
ORI	0.149	0.050	2.996	<0.01
PPQ x ORI	0.012	0.061	0.200	0.842
PPQ x NANC: ΔR^2=0.002, F(1.303)=0.61, p>0.05				
PPQ x ORI: ΔR^2=0.000, F(1.303)=0.04, p>0.05				

Source: Research results

The results of the tested model (F(5,303)=60.36, p<0.01, R^2=0.465) show that no statistically significant moderating effect of NANC (PPQ x NANC: B=0.05, p>0.05) or ORI (PPQ x ORI: B=0.01, p>0.05) was obtained on the relationship between PPQ and ATL.

Table 59: Results of the analysis of the moderating influence of NANC and ORI on the relationship between PPQ and COB

	B	SE B	T	P
PPQ	-0.336	0.104	-3.214	<0.01
NANC	0.010	0.084	0.123	0.902
PPQ x NANC	-0.047	0.097	-0.487	0.627
ORI	0.153	0.060	2.561	<0.05
PPQ x ORI	0.016	0.104	0.150	0.881
PPQ x NANC: ΔR^2=0.001, F(1.301)=0.24, p>0.05				
PPQ x ORI: ΔR^2=0.000, F(1.301)=0.02, p>0.05				

Source: Research results

The results of the tested model (F(5,301)=3.59, p<0.01, R^2=0.051) show that there was no statistically significant moderating effect of NANC (PPQ x NANC: B=0.05, p>0.05) or ORI (PPQ x ORI: B=0.02, p>0.05) on the relationship between PPQ and COB.

Table 60: Results of the analysis of the moderating influence of NANC and ORI on the relationship between PPQ and PTBL

	B	SE B	T	P
PPQ	0.040	0.120	0.336	0.737
NANC	0.142	0.103	1.370	0.172
PPQ x NANC	0.124	0.104	1.193	0.234
ORI	-0.012	0.083	-0.145	0.885
PPQ x ORI	-0.048	0.102	-0.469	0.640
PPQ x NANC: ΔR^2=.005, F(1.306)=1.42, p>0.05				
PPQ x ORI: ΔR^2=.001, F(1.306)=0.22, p>0.05				

Source: Research results

The results of the tested model (F(5,306)=1.07, p>0.05, R^2=0.020) indicate that no statistically significant moderating effect of NANC (PPQ x NANC: B=0.12, p>0.05) or ORI (PPQ x ORI: B=-0.05, p>0.05) on the relationship between PPQ and PTBL was obtained.

Table 61: Results of the analysis of the moderating influence of NANC and ORI on the relationship between PPQ and RTCO

	B	SE B	T	P
PPQ	0.233	0.089	2.628	<0.01
NANC	0.285	0.084	3.406	<0.01
PPQ x NANC	0.111	0.083	1.338	0.182
ORI	0.266	0.067	3.984	<0.01
PPQ x ORI	0.030	0.077	0.389	0.697
PPQ x NANC: ΔR^2=0.005, F(1.306)=1.79, p>0.05				
PPQ x ORI: ΔR^2=0.000, F(1.306)=0.15, p>0.05				

Source: Research results

The results of the tested model (F(5,306)=38.48, p<0.01, R^2=0.348) indicate that no statistically significant moderating effect of NANC (PPQ x NANC: B=0.11, p>0.05) or ORI (PPQ x ORI: B=0.03, p>0.05) on the relationship between PPQ and RTCO was obtained.

Finally, after additional analysis, it can be concluded that *hypothesis H3 is not accepted.*

4.3.2. Investigating the relationship between Brand credibility and Food brand loyalty scales with testing moderator effects of the Clear label

Hierarchical regression analyses, i.e., moderating multiple regression analyses, were conducted to test hypotheses about the relationship between BRC and the variables measuring Food brand loyalty: ATL, COB, PTBL, RTCO (H2a, H2b, H2c, H2d) and to test the moderating effect of Clear label perception on these relationships (H4).

One analysis was conducted for each of the criteria (ATL, COB, PTBL, and RTCO), with BRC included as a predictor in each analysis in the first step (Model 1), the dummy variable Clear label (CLE) added in the second step (Model 2), and a variable representing the interaction between BRC and CLE added in the third step (Model 3) (BRC x CLE). The dummy variable CLE indicates whether Clear label elements are listed (0 - no clear label elements / control group, 1 - clear label elements / test group). The predictor BRC variable is centred (by subtracting the arithmetic mean from the gross score). Based on the significance of the interaction of the variables BRC and CLE (significance of the β coefficient

for BRC x CLE), the moderating influence of CLE on the relationship between predictors and criteria is inferred.

The results of Model 1 in the analysis performed provide an answer to hypotheses H2a, H2b, H2c, H2d and Model 3 to hypothesis H4. The tables 62 to 65 show the results of the performed analysis.

Table 62: Results of hierarchical regression analysis for the Attitudinal loyalty (N=611)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	β	B	SE B	β	B	SE B	B
BRC	0.64	0.03	0.60**	0.64	0.03	0.60**	0.67	0.05	0.64**
CLE				-0.04	0.07	-0.02	-0.03	0.07	-0.02
BRC x CLE							-0.07	0.07	-0.05
ΔR^2	0.365**			0.000			0.001		
ΔF	350.54			0.27			0.95		
Df	1.609			1.608			1.607		
Final model: R^2=0.37**, F=117.11, df=3.607									

*p<0.05, **p<0.01

Source: Research results

The results of Model 1 show that BRC is a significant predictor of ATL (R2 =0.37, F=350.54, df=1.609, p<0.01, β=0.60) and explains 36.5% of the ATL variance. Thus, Model 1 *confirms hypothesis H2a*.

The addition of the predictor CLE in Model 2 shows that CLE is not a significant predictor of ATL (β=-0.02, p>0.05). The results of Model 3 show that no statistically significant moderating effect of CLE on the relationship between BRC and ATL was obtained (β=-0.05, p>0.05). Hypothesis H4, which refers to ATL in this analysis, is not accepted.

Table 63: Results of hierarchical regression analysis for the Complaining behaviour (N=608)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	β	B	SE B	β	B	SE B	B
BRC	-0.09	0.05	-0.07	-0.09	0.05	-0.07	-0.05	0.07	-0.04
CLE				0.07	0.10	0.03	0.07	0.10	0.03
BRC x CLE							-0.06	0.10	-0.04
ΔR^2	0.005			0.001			0.001		
ΔF	3.09			0.43			0.38		
Df	1.606			1.605			1.604		
Final model: R^2=0.006, F=1.30, df=3.604									

Source: Research results

The results of the hierarchical regression analysis for the criterion COB show that BRC is not a statistically significant predictor of COB (R2=0.005, F=3.09, df=1.606, p>0.05; β=-0.07). Thus, *hypothesis H2b is not accepted*.

The addition of the interaction of BRC and CLE in Model 3 did not result in a statistically significant increase in explained variance. Meaning that hypothesis H4 of the analysis, relating to COB, is also not accepted.

Table 64: Results of hierarchical regression analysis for the Propensity to be loyal (N=615)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	β	B	SE B	B	B	SE B	B
BRC	0.08	0.06	0.05	0.08	0.06	0.05	0.07	0.09	0.05
CLE				-0.06	0.12	-0.02	-0.07	0.12	-0.02
BRC x CLE							0.02	0.13	0.01
ΔR^2	0.003			0.000			0.000		

ΔF	1.70	0.27	0.01
Df	1.613	1.612	1.611
Final model: R^2=0.003, F=0.66, df=3.611			

Source: Research results

The results of the hierarchical regression analysis for the PTLB criterion show that BRC is not a statistically significant predictor of PTLB (R2 =0.003, F=1.70, df=1.613, p>0.05, β=0.38). Therefore, *hypothesis H2c is not accepted*.

The addition of the interaction of BRC and CLE in Model 3 did not result in a statistically significant increase in explained variance. Hypothesis H4 of the analysis, relating to PTLB, is also not accepted.

Table 65: Results of hierarchical regression analysis for the Resistance to competing offers (N=615)

	Model 1			Model 2			Model 3		
Predictors	B	SE B	β	B	SE B	β	B	SE B	B
BRC	0.53	0.05	0.38**	0.53	0.05	0.38**	0.55	0.08	0.39**
CLE				0.09	0.10	0.03	0.09	0.10	0.03
BRC x CLE							-0.02	0.11	-0.01
ΔR^2	0.144**			0.001			0.000		
ΔF	103.14			0.76			0.04		
Df	1,613			1,612			1,611		
Final model: R^2=0.15**, F=34.58, df=3.611									

**p<0.01

Source: Research results

The results show that BRC is a statistically significant predictor of RTCO (R^2=0.15, F=103.14, df=1.613, p<0.01, β=0.38) explaining 14.4% of the RTCO variance. Thus, Model 1 *confirms hypothesis H2d*.

The addition of the CLE predictor in Model 2 indicates that CLE is not a significant predictor of RTCO (β=0.03, p>0.05). No significant moderating effect of CLE on the relationship between BRC and RTCO (β=-0.01, p>0.05) was found. Hypothesis H4, which refers to RTCO in this analysis, is not accepted.

From the second part of the hypothesis tests, it can be concluded that H2a and H2d are confirmed. Even if H2b and H2c are not accepted, it can be said that *H2 is partially confirmed* (by excluding COB and PTLB when observing Food brand loyalty).

4.3.2.1. Testing the moderation effect of the Clear label perception on the relationship between Brand credibility and Food brand loyalty scales

Since hypothesis H4 was not confirmed in the previous analysis, a two-moderator model test was conducted to further examine the moderating effect of NANC and ORI (variables measuring Clear label perception) on the relationship between BRC and the variables measuring Food brand loyalty.

Four analyses were conducted, one for each of the criteria (ATL, COB, PTBL and RTCO) where the predictor was BRC and the moderators were NANC and ORI. Based on the significance of the interaction between predictors and moderators (BRC x NANC and BRC x ORI), the influence of moderators on the relationship between predictors and criteria is inferred.

The Hayes PROCESS (v. 3.5) macro for SPSS was used to conduct the analysis. Hayes' Model 2 was tested for centred predictors with a covariance and standard error matrix estimator that does not require homoscedasticity of residuals (Cribari-Neto, 2004). The results are reported in the tables 66 to 69.

Table 66: Results of the analysis of the moderating influence of NANC and ORI on the relationship between BRC and ATL

	B	SE B	T	p
BRC	0.442	0.066	6701	<0.01
NANC	0.155	0.057	2.702	<0.05
BRC x NANC	0.086	0.058	1.492	0.137
ORI	0.096	0.055	1.750	0.081
BRC x ORI	-0.069	0.052	-1.320	0.188
BRC x NANC: ΔR^2=0.007, F(1.303)=2.23, p>0.05				
BRC x ORI: ΔR^2=0.005, F(1.303)=1.74, p>0.05				

Source: Research results

The results of the tested model ($F(5,303)=50.66$, $p<0.01$, $R^2=0.399$) show that no statistically significant moderating effect of NANC (BRC x NANC: B =0.09, p>0.05) or ORI (BRC x ORI: B=-0.07, p>0.05) on the relationship between BRC and ATL was obtained.

Table 67: Results of the analysis of the moderating influence of NANC and ORI on the relationship between BRC and COB

	B	SE B	T	P
BRC	-0.212	0.093	-2.288	<0.05
NANC	-0.032	0.080	-0.400	0.690
BRC x NANC	-0.077	0.072	-1.057	0.292
ORI	0.185	0.064	2.900	<0.01
BRC x ORI	0.090	0.077	1.171	0.242
BRC x NANC: $\Delta R^2=0.004$, $F(1.302)=1.12$, $p>0.05$				
BRC x ORI: $\Delta R^2=0.007$, $F(1.302)=1.37$, $p>0.05$				

Source: Research results

The results of the tested model ($F(5,302)=2.97$, $p<0.05$, $R^2=0.038$) show that no statistically significant moderating effect of NANC (BRC x NANC: B=-0.08, p>0.05) or ORI was obtained. BRC x ORI: B=-0.09, p>0.05) on the relationship between BRC and COB.

However, it is interesting to note that although hypothesis H2b (based on the results in Table 61) cannot be accepted, the conditional effect of BRC on COB is statistically significant and negative when NANC=0 and ORI=0 (B=-0.21, p<0.05).

Table 68: Results of the analysis of the moderating influence of NANC and ORI on the relationship between BRC and PTBL

	B	SE B	T	P
BRC	-0.022	0.113	-0.191	0.848
NANC	0.205	0.097	2.111	<0.05
BRC x NANC	0.143	0.084	1.695	0.091
ORI	-0.053	0.091	-0.584	0.560

BRC x ORI	-0.135	0.088	-1.526	0.128

BRC x NANC: ΔR^2=0.010, F(1.307)=2.87, p>0.05
BRC x ORI: ΔR^2=0.010, F(1.307)=1.59, p>0.05

Source: Research results

The results of the tested model (F(5,307)=1.61, p>0.05, R2=0.031) indicate that no statistically significant moderating effect of NANC (BRC x NANC: B=0.14, p>0.05) or ORI (BRC x ORI: B=-0.14, p>0.05) on the relationship between BRC and PTBL was obtained.

Table 69: Results of the analysis of the moderating influence of NANC and ORI on the relationship between BRC and RTCO

	B	SE B	T	P
BRC	0.133	0.084	1.582	0.115
NANC	0.338	0.083	4.079	<0.01
BRC x NANC	0.077	0.080	0.971	0.332
ORI	0.252	0.069	3.647	<0.01
BRC x ORI	-0.017	0.075	-0.222	0.825

BRC x NANC: ΔR^2=0.004, F(1.307)=0.94, p>0.05
BRC x ORI: ΔR^2=0.000, F(1.307)=0.05, p>0.05

Source: Research results

The results of the tested model (F(5,307)=36.22, p<0.01, R^2=0.348) indicate that no statistically significant moderating effect of NANC (BRC x NANC: B=0.08, p>0.05) or ORI (BRC x ORI: B=-0.02, p>0.05) on the relationship between BRC and RTCO was obtained.

Overall, after additional analysis, it can finally be concluded that hypothesis H4 is not accepted. Additional analyses are needed to understand the relationships between the observed constructs and to complete the conclusions that can be drawn from this study.

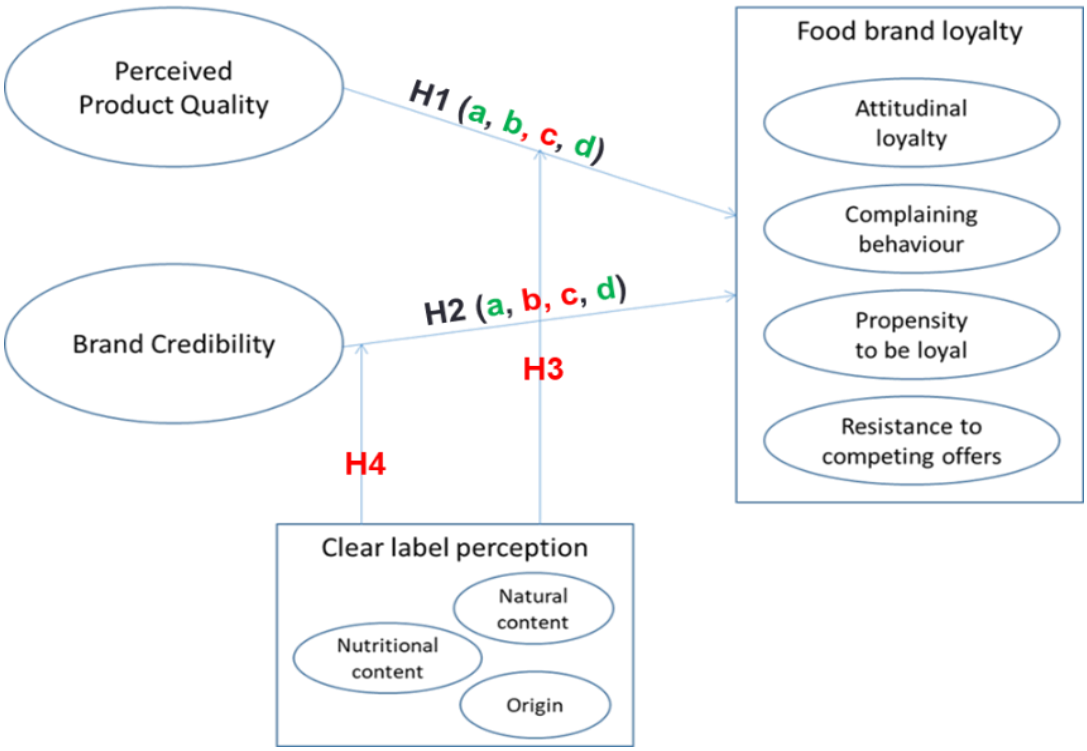
4.3.3. Overview of the results

After the process of hypothesis testing, the next phase involves summarising the results and deriving comprehensive conclusions from them. This phase of analysis includes not only the specific results relating to the individual hypotheses, but also extends to overarching findings that contribute to the understanding of the conceptual model proposed in this thesis.

At the end, it can be concluded that hypotheses H1 and H2 were partially confirmed (H1a, H1b, H1d, H2a and H2d confirmed and H1c, H2b and H2c not confirmed) and H3 and H4 were not confirmed. This means that the Clear label does not have a moderating effect on the relationship between Product quality perception (PPQ) / Brand credibility (BRC), on the one hand, and Food brand loyalty, on the other, as described in the proposed conceptual model.

The hypothesis overview is shown in Figure 14 and summarised in Table 70. Accepted hypotheses that have been confirmed are marked in green, those that have not been confirmed are marked in red.

Figure 14: The hypothesis overview – results of hypothesis testing



Source: prepared by author

Table 70: Results of hypothesis testing

Hypothesis	Status
H1: Level of perceived product quality positively affects the food brand loyalty	**Partially confirmed**
H1a: Level of perceived product quality positively affects the attitudinal loyalty.	Confirmed
H1b: Level of perceived product quality positively affects complaining behaviour.	Confirmed
H1c: Level of perceived product quality positively affects propensity to be loyal.	Not confirmed
H1d: Level of perceived product quality positively affects resistance to competing offers.	Confirmed
H2: Brand credibility positively affects the food brand loyalty	**Partially confirmed**
H2a: Level of brand credibility positively affects the attitudinal loyalty.	Confirmed
H2b: Level of brand credibility positively affects complaining behaviour.	Not confirmed
H2c: Level of brand credibility positively affects propensity to be loyal.	Not confirmed
H2d: Level of brand credibility positively affects resistance to competing offers.	Confirmed
H3: Introducing clear label elements to food product packaging design has moderating effect to the relationship between perceived product quality and food brand loyalty elements.	**Not confirmed**
H4: Introducing clear label elements to food product packaging design has moderating effect to the relationship between brand credibility and food brand loyalty elements.	**Not confirmed**

Source: prepared by author

5. ADDITIONAL FINDINGS FROM THE RESEARCH RESULTS

Since the data analyses did not reveal the expected moderating effect and the hypothesis that Clear label has a moderating effect on the relationship between Perceived product quality / Brand Credibility and elements of Food brand loyalty could not be demonstrated (hypothesis H3 and H4 not confirmed), the data were examined from a different perspective.

Based on the correlation coefficients between all the scales (Table 51), where the relationship between the scales became apparent, the question was raised: If there is no moderating effect, can the data reveal other implications?

In defining the Clear label construct it was stated that it can be described as a *communication concept incorporated into food packaging design (food labelling) based on the increased consumer search for the transparency in food products ingredients (what is really inside?) and transparency in the communication of ingredients on the front of the package*. Some researchers (Aitken et al. 2020; Dumitru et al. 2021) explain that labelling plays an important role in the intention to develop behaviours and attitudes, especially for organic food. In another study, the food decision-making process is associated with greater attention to reading food labels when (especially younger) consumers pay more attention to nutritional value and food quality due to potential health risks associated with food consumption (Kumar and Kapoor, 2017).

Finally, Dimitru et. al (2021) explains that consumers' increased need for food safety includes numerous aspects such as the origin of the product, the content of nutrients (which in this research are constructs for Clear label perception), warranty conditions, etc. And that all these different aspects, if successfully integrated into packaging design and brand image, can mediate between products and consumers.

Based on this idea mediating effect was also tested.

5.1. Investigating the relationship between Perceived product quality, Brand credibility and Food brand loyalty constructs with testing mediating effect of the Clear label

To examine the mediating effect of Clear label perception in the relationship between PPQ and measures of Food brand loyalty, and in the relationship between BRC and measures of Food brand loyalty, multiple mediation analyses were conducted with parallel mediators (NANC and ORI) for individual predictor combinations of predictors (BRC/PPQ) and criteria (Food brand loyalty). In the model with parallel mediators, the predictor is modelled as influencing the criterion both directly and indirectly through the mediator, provided there is no causal influence between the mediators.

Those correlations that were significant at the $p<0.01$ level (Table 45) were tested, i.e., the association of PPQ with ATL and RTCO and the association of BRC with ATL and RTCO. Hayes' macro PROCESS (v. 3.5) for SPSS was used to perform the analyses (Hayes, 2018). This macro uses OLS (ordinary least squares) regression.

The analysis determines:
a_i - the effect of predictor (X) on individual mediator (Mi),
b_i - the effect of an individual mediator (Mi) on the criterion (Y) with control of the effect of the predictor and another mediator,
c '- the direct effect (predictor effect (X) on the criterion (Y) with control of mediator effects),
aibi - specific indirect effect (predictor effect (X) on the criterion (Y) by a presumed mediator under control of another mediator).

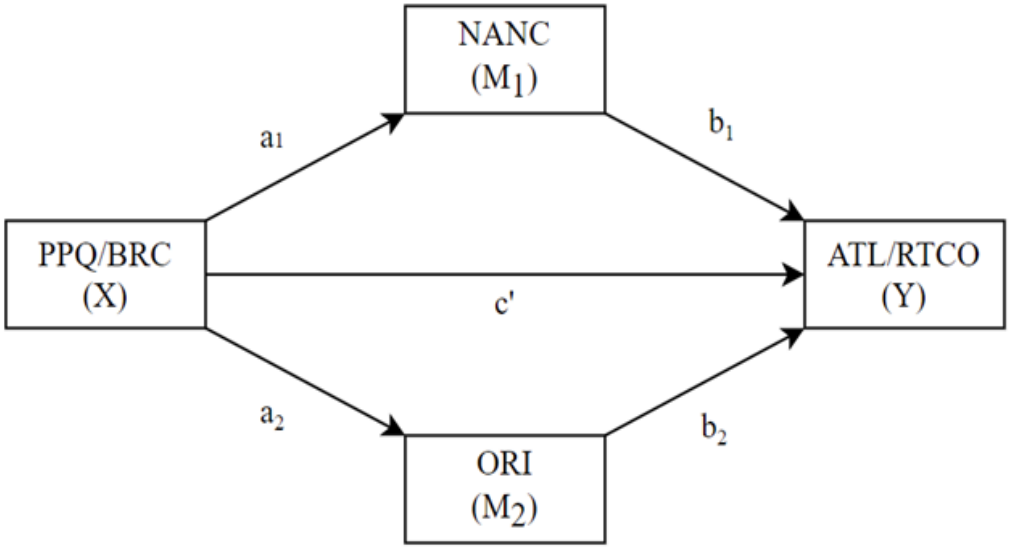
The aim of multiple mediation analysis is to evaluate the specific indirect effect of a single mediator. The estimation of indirect effects is based on 95% certainty intervals (IP) calculated using the bootstrap (repeated samples) procedure based on 5000 samples. For the case where a given IP does not affect zero, we can conclude with 95% certainty that the indirect effect is different from zero, while in cases where the IP affects zero, we cannot detect a mediation effect. Moreover, we can determine the total indirect effect ($a_1b_1 + a_2b_2$), which is the effect of the predictor on the criterion through all mediators in the model (Hayes, 2018).

However, this effect is not of great interest in the model with multiple mediators and can sometimes be small, although the specific indirect effects are

large. The total effect of the predictor on the criterion is the sum of the direct effect and the total indirect effect ($c = c' + a_1b_1 + a_2b_2$) (Hayes, 2018).

Figure 15 shows a statistical diagram of the hypothesised model in relation to four analyses of multiple mediation in which the predictor (PPQ and BRC) and criterion (ATL and RTCO) were varied.

Figure 15. Representation of a parallel multiple mediation model with two mediators



Source: prepared by author

Tables 71 to 74 show the test results of the mediation models presented in Figure 11. The tested models of the association between PPQ / BRC and ATL / RTCO, with the mediation of NANC and ORI (representing Clear label), are also presented graphically (Figures 16 to 19). The tests were performed only on the data of the test group, i.e., the group in which the scales for the Clear label construct ware included in the questionnaire.

Table 71: Results of the analysis of the mediation effect of NANC and ORI in the relationship between PPQ and ATL (N = 309)

		M_1 (NANC)				M_2 (ORI)				Y (ATL)		
Predictor		B	SE B	p		B	SE B	P		B	SE B	p
X (PPQ)	a_1	0.835	0.075	<0.001	a_2	0.676	0.095	<0.001	c'	0.628	0.068	<0.001
M_1 (NANC)		-	-	-		-	-	-	b_1	0.063	0.055	0.246

M_2 (ORI)		-	-	-		-	-	-	b_2	0.140	0.051	<0.01
Constant	i_{M1}	-0.487	0.445	0.275	i_{M2}	1.257	0.586	<0.05	i_y	0.979	0.367	<0.01
			R^2=0.320				R^2=0.165				R^2=0.460	
			F(1.307)=124.786, p<0.001				F(1.307)=51.013, p<0.001				F(3.305)=67.288, p<0.001	

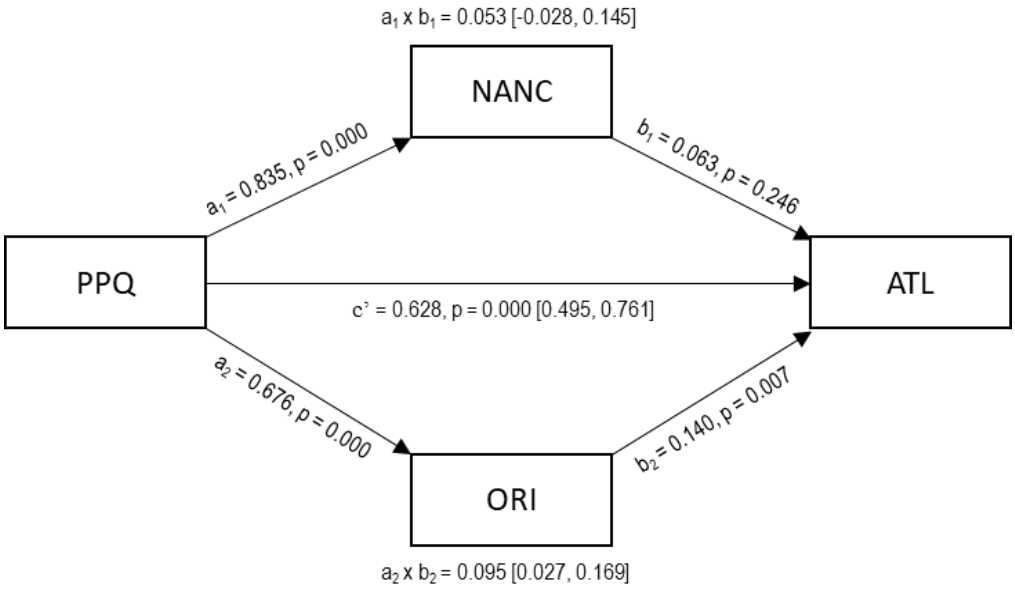
a_1b_1=0.053, SE=0.044, 95% IP [-0.028, 0.145]
a_2b_2=0.095, SE=0.036, 95% IP [0.027, 0.169]

Source: Research results

PPQ explains 32% of the NANC variance and 16.5% of the ORI variance. PPQ, NANC and ORI together explain 46% of the ATL variance. The results of the analysis show that PPQ has a twofold effect on ATL (partial mediation was achieved): a direct effect (c'= 0.628, SE = 0.068, 95% IP [0.495, 0.761]) and an indirect effect achieved by ORI (a_2b_2 = 0.095, SE = 0.036, 95% IP [0.027, 0.169]). The indirect effect of PPQ on ATL via NANC is not significant (a_1b_1 = 0.053, SE = 0.044, 95% IP [-0.028, 0.145]). *ORI has a significant mediating role in the relationship between PPQ and ATL*.

The results show that a higher level of PPQ contributes directly and indirectly (positive effect of ORI) to a higher level of ATL. For better visualisation, the results are also shown in Figure 16.

Figure 16: Representation of test results of models with NANC and ORI as mediators in the relationship between PPQ and ATL (N = 309)



Source: Research results

Table 72: Results of the analysis of the mediation effect of NANC and ORI in the relationship between PPQ and RTCO (N=312)

		M_1 (NANC)				M_2 (ORI)				Y (RTCO)		
Predictors		B	SE B	p		B	SE B	p		B	SE B	p
X (PPQ)	a_1	0.850	0.069	<0.001	a_2	0.711	0.088	<.001	c'	0.174	0.089	0.051
M_1 (NANC)		-	-	-		-	-	-	b_1	0.306	0.072	<0.001
M_2 (ORI)		-	-	-		-	-	-	b_2	0.244	0.056	<0.001
Constant	i_{M1}	-0.588	0.410	0.153	i_{M2}	1.019	0.525	0.053	i_y	0.579	0.441	0.190
		R^2=0.330				R^2=0.174				R^2=0.333		
		F(1.310)=152.672, p<0.001				F(1.310)=65.071, p<0.001				F(3.308)=51.230, p<0.001		

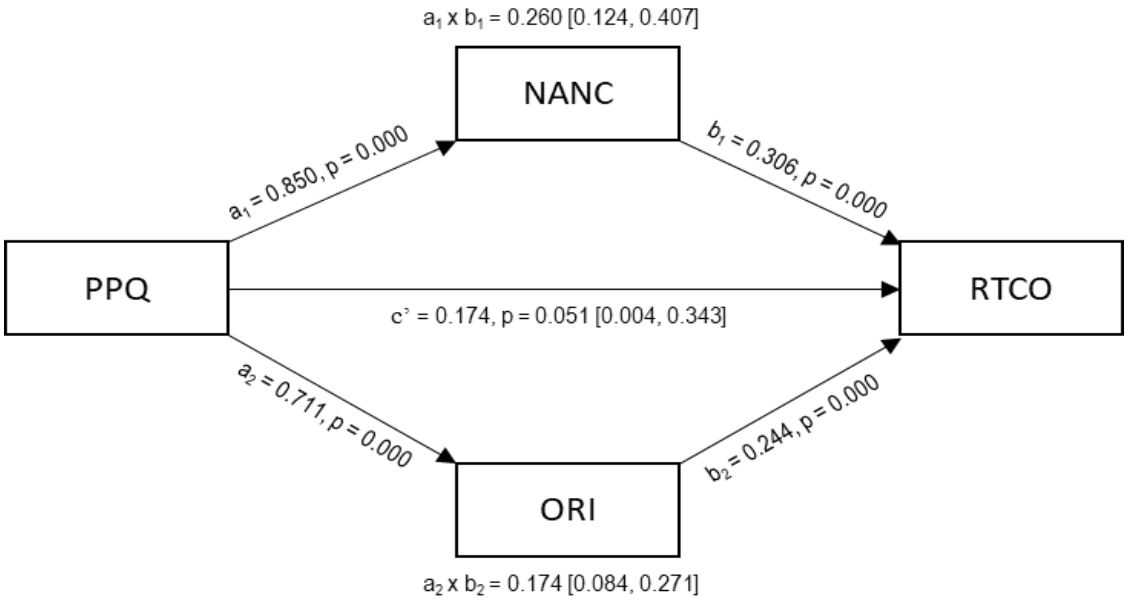
a_1b_1=0.260, SE=0.073, 95% IP [0.124, 0.407]
a_2b_2=0.174, SE=0.048, 95% IP [0.084, 0.271]

Source: Research results

PPQ explains 33% of the NANC variance and 17.4% of the ORI variance. PPQ, NANC and ORI together explain 33.3% of the RTCO variance. Results of the analysis show a significant direct effect of PPQ on RTCO (c '= 0.174, SE = 0.086, 95% IP [0.004, 0.343]), a significant indirect effect of PPQ on RTCO via NANC (a_1b_1 = 0.260, SE = 0.073, 95% IP [0.124, 0.407]) and a significant indirect effect of PPQ on RTCO via ORI (a_2b_2 = 0.174, SE = 0.048, 95% IP [0.084, 0.271]). *Partial mediation was achieved. NANC and ORI are significant mediators in the relationship between PPQ and RTCO.*

The results show that higher levels of PPQ contribute directly and indirectly (through a positive effect on NANC and through a positive effect on ORI) to higher levels of RTCO.

Figure 17: Representation of the test results of models with NANC and ORI as mediators in the relationship between PPQ and RTCO (N = 312)



Source: Research results

Table 73: Results of the analysis of the mediation effect of NANC and ORI in the relationship between BRC and ATL (N=309)

		M1 (NANC)				M2 (ORI)				Y (ATL)		
Predictor		B	SE B	p		B	SE B	p		B	SE B	p
X (BRC)	a_1	0.739	0.066	<0.001	a_2	0.656	0.084	<0.001	c'	0.422	0.064	<0.001
M1 (NANC)		-	-	-		-	-	-	b_1	0.146	0.056	<0.05
M2 (ORI)		-	-	-		-	-	-	b_2	0.118	0.054	<0.05
Constant	i_{M1}	0.161	0.390	0.681	i_{M2}	1.467	0.513	<0.01	i_y	1.992	0.298	<0.001
		R^2=0.328 F(1.307)=125.557, p<0.001				R^2=0.216 F(1.307)=61.260, p<0.001				R^2=0.391 F(3.305)=64.203, p<0.001		

a_1b_1=0.108, SE=0.042, 95% IP [0.029, 0.194]
a_2b_2=0.077, SE=0.036, 95% IP [0.010, 0.151]

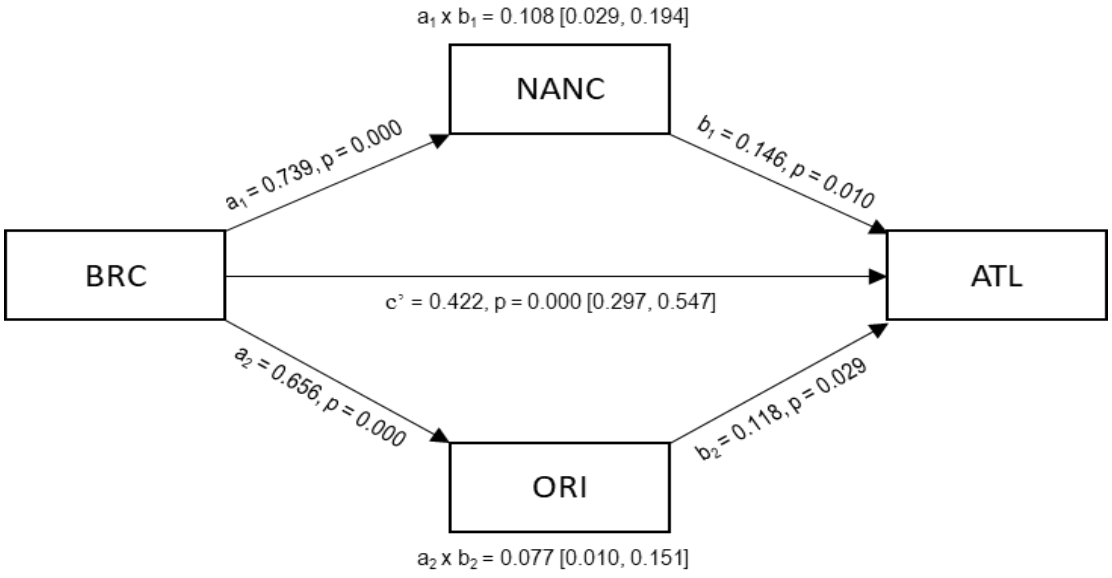
Source: Research results

BRC explains 32.8% of the NANC variance and 21.6% of the ORI variance. BRC, NANC and ORI together explain 39.1% of the ATL variance.

The results of the analysis show a significant direct effect of BRC on ATL (c'= 0.422, SE = 0.064, 95% IP [0.297, 0.547]), a significant indirect effect of BRC on ATL via NANC (a_1b_1 = 0.108, SE = 0.042, 95% IP [0.029, 0.194]) and a significant indirect effect of BRC on ATL via ORI (a_2b_2 = 0.077, SE = 0.036, 95% IP [0.010, 0.151]). *Partial mediation was achieved. NANC and ORI have a significant mediating role in the relationship between BRC and ATL.*

The results show that a higher BRC level contributes directly and indirectly (through a positive effect on NANC and through a positive effect on ORI) to a higher ATL level.

Figure 18: Representation of the test results of models with NANC and ORI as mediators in the relationship between BRC and ATL (N = 309)



Source: Research results

Table 74: Results of the analysis of the mediation effect of NANC and ORI in the relationship between BRC and RTCO (N=313)

		M_1 (NANC)				M_2 (ORI)				Y (RTCO)		
Predictors		B	SE B	p		B	SE B	P		B	SE B	p
X (BRC)	a_1	0.761	0.059	<0.001	a_2	0.685	0.071	<0.001	c'	0.097	0.078	0.213
M_1 (NANC)		-	-	-		-	-	-	b_1	0.336	0.069	<0.001
M_2 (ORI)		-	-	-		-	-	-	b_2	0.253	0.057	<0.001

Constant	i_{M1}	0.019	0.345	0.957	i_{M2}	1.274	0.418	<.01	i_y	0.868	0.369	<0.05
			R^2=0.349				R^2=0.228				R^2=0.342	
			F(1.311)=166.551, p<0.001				F(1.311)=91.890, p<0.001				F(3.309)=53.577, p<0.001	

a_1b_1=0.256, SE=0.065, 95% IP [0.135, 0.390]
a_2b_2=0.173, SE=0.048, 95% IP [0.082, 0.271]

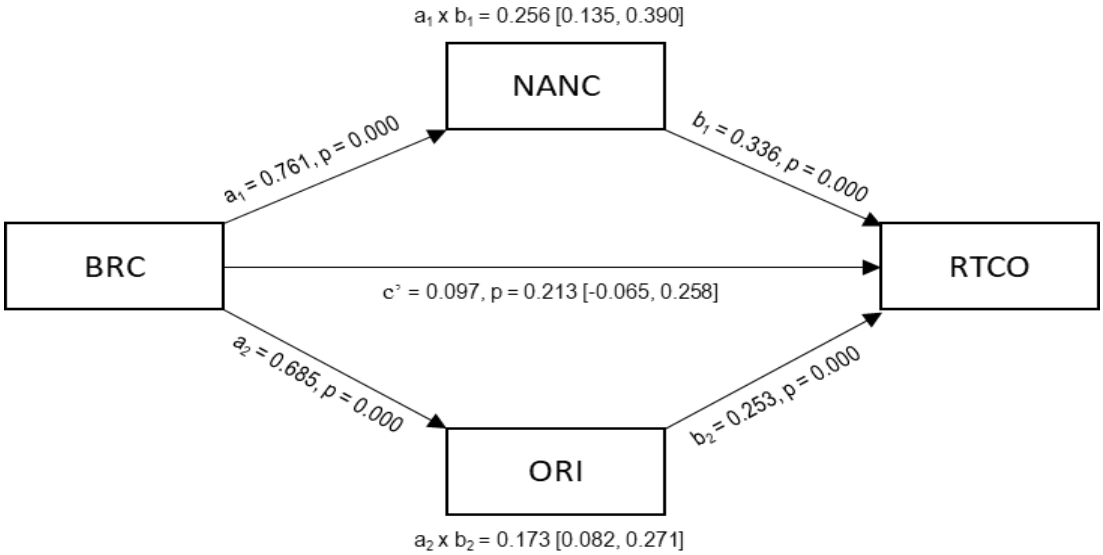
Source: Research results

BRC explains 34.9% of the NANC variance and 22.8% of the ORI variance. BRC, NANC and ORI together explain 34.2% of the RTCO variance.

The results of the analysis show that the direct effect of BRC on RTCO is not significant (c'= 0.097, SE = 0.082, 95% IP [-0.065, 0.258]) and that *complete mediation was achieved*, i.e., *the effect of BRC on RTCO is achieved by mediators.* There is a significant indirect effect of BRC on RTCO via NANC (a_1b_1 = 0.256, SE = 0.065, 95% IP [0.135, 0.390]), as well as an indirect effect of BRC on RTCO via ORI (a_2b_2 = 0.173, SE = 0.048, 95% IP [0.082, 0.271]).

The results show that NANC and ORI play a significant mediating role in the relationship between BRC and RTCO, i.e., a higher BRC level indirectly contributes to a higher RTCO level through a positive effect on NANC and through a positive effect on ORI.

Figure 19: Representation of the test results of models with NANC and ORI as mediators in the relationship between BRC and RTCO (N = 313)



Source: Research results

Since the moderator effect was not confirmed by the tested results and, on the other hand, the correlation results, i.e., $p<0.01$ in Table 45 (Pearson correlation coefficients between scales), indicated a strong positive relationship, the association of PPQ with ATL and RTCO and the association of BRC with ATL and RTCO were examined from a different point of view. This time, NANC and ORI (or Clear label) were examined as parallel mediators.

The analysis revealed the following:

- Origin (ORI) has a significant mediating role in the relationship between Perceived product quality (PPQ) and Attitudinal loyalty (ATL).
- Nutritional and natural content (NANC) and ORI are significant mediators in the relationship between PPQ and Resistance to competing offers (RTCO).
- Nutritional and natural content (NANC) and Origin (ORI) have a significant mediator role in the relationship between Brand credibility (BRC) and Attitudinal loyalty (ATL).
- NANC and Origin (ORI) play a significant mediator role in the relationship between Brand credibility (BRC) and Resistance to competing offers (RTCO).

When looking at the results holistically, it becomes evident that the Clear label, as a communication concept embedded in the packaging, plays an important role in shaping and fostering Food brand loyalty. Through its influence on key factors such as Attitudinal loyalty (ATL) and Resistance to competing offers (RTCO), the Clear label acts as a mediator that facilitates the development and maintenance of brand loyalty in the food industry.

5.2. Comments of food marketing experts

Finally, another focus group was conducted with marketing experts to find possible answers to the question of which uncontrolled variables might influence the results, to try to understand and answer the question of why the expected moderating effect was not achieved.

Five food marketing professionals from different companies were recruited to participate in the focus group. All participants have more than fifteen years of experience in working with top brands in the food sector.

The focus group guidelines were divided into three topics:

1. understanding the key concepts (food brand loyalty, Clear label);
2. evaluating the conceptual model (see Figure 1); and
3. discussing the reasons why the conceptual model was not accepted in the conducted research.

The focus group provided the following insights (following three sections of discussion):

1. In describing the Clear label, participants cited the following as critical:
   - simplification of the product (ingredients),
   - minimalism,
   - and transparency.

   One of the participants commented: *"It's about simplicity. A calm, clear, peaceful visual interpretation of the product design."*

2. The conceptual model presented is logical from both a theoretical and market perspective. Participants indicated that consumers can more easily identify with the brand if brand communication, including packaging communication, is more transparent. In this sense, participants were surprised to learn that the moderating effect of the Clear label has not been demonstrated.

   One of the participants mentioned: *"I expect a positive connection, because when I think of a brand that I am loyal to, I believe that it will deliver what I expect".* However, another added: *"I find it difficult to see a direct link between Clear label and loyalty. But it makes sense that Clear label contributes to loyalty building based on the perceived quality resulting from the perception of the packaging design."*

3. When discussing what might be reasons for conceptual model not being confirmed, participants mentioned following:

3.1. The products included in the study are well-known basic products that are considered to be of high quality and brands that are considered trustworthy and have a high degree of loyalty. No additional claims are needed to reinforce these perceptions, but rather to maintain the already high level of brand loyalty; adding Clear label elements to the design could only be considered a design upgrade and cannot really change the general perception already formed.

Participant commented: *"For these brands (included in the study), loyalty is based on values such as tradition, taste, nostalgia or similar. It is not based on clean, healthy or natural ingredients."*

3.2. There are some categories in the market for which a Clear label is more appropriate, such as: plant-based products, smoothie-like products, honey, organic products, specialty coffee, etc. If the model were tested on these product types, the results might be different.
A comment from one of the participants was: "*It is for beauty and health categories. Not for indulgences.*"

3.3. If the product/brand examples included in the research were brands that have no name recognition (e.g., imaginary brands) instead of high loyalty brands, the research results might also be different. They could be presented to consumers as a new story that doesn't carry brand perceptions from the past. However, building brand loyalty is a relatively lengthy process, and communication via product packaging design, although very important, is only one of the tools needed for the long journey of building brand loyalty.
One of the participants commented: *"It is more difficult for big brands to make headway in the clear/clean product segment than for new brands that tell this story from the beginning. Unless they enter new market niches in this way, such as speciality segments, plant-based products or similar."*

3.4. Non-food brands such as beauty and health products (cosmetics) and clothing (issues such as sustainability, cotton origin, fair trade) are also product categories that can be considered for testing Clear label and loyalty models.
An observation from one of the participants was: *"The cosmetics industry is a good example. Some brands have made significant progress in changing consumer expectations in terms of environmental issues (recycling), animal testing or origin and naturalness of ingredients."*

Regarding the first and second findings from the focus group with the experts, both are consistent with the findings from the literature review - proposed definition of the construct Clear label and conceptual model.

Regarding finding 3.1, we can revisit the statements in Table 52 and find that the mean values for PPQ and BRC are significantly high. In addition, the mean value for ATL is also significantly high. Thus, this focus group finding fits well with the data from the survey.

The remaining findings from the focus group can only be verified in a new quantitative study. These findings could serve as a basis for recommendations for possible future research.

Overall, the focus group provided insights into the critical elements of the Clear label, the logic of the conceptual model, but the possible reasons for not confirming the moderating effect in the research were not identified. Some of the findings were consistent with the literature review and survey data. While some findings can only be verified in a new quantitative study, they could serve as a basis for future research recommendations.

In conclusion, the focus group provided valuable insights into further understanding the factors that influence food brand loyalty and the potential of Clear label to improve it. The discussion of all the results presented follows in the next chapter.

6. DISCUSION

The main purpose of this thesis is to investigate how constructs such as Perceived product quality, Brand credibility and Brand loyalty of packaged food products influence each other. In addition, it was analysed how one of the contemporary trends, referred to as Clear label, influences the relationship between the above constructs.

Empirical research has confirmed the positive influence of Perceived product quality on Food brand loyalty (Attitudinal loyalty, Propensity to be loyal and Resistance to competing offers). This conclusion is consistent with previous research, in particular with the finding that the relationship between perceived product quality and brand loyalty is especially important for food brands, as food brands coexist with other quality attributes that lead to higher loyalty (Vranešević and Stančec 2003; Alhaddad 2015; Kapferer 2008; Espejel et al. 2009).

A further confirmation is seen in the positive influence of Brand credibility on Food brand loyalty (Attitudinal loyalty and Resistance to competing offers). The relationship between Brand credibility and Food brand loyalty has been demonstrated in previous studies, which showed that brand loyalty can develop when consumers perceive a brand as credible at a behavioural (Kemp and Bui 2011) or attitudinal level (Kaur and Soch 2018; Haq 2022).

However, the Rundle-Thiele (2005; 2005b) scales, which comprise four constructs, were used to measure Food brand loyalty in this study: Attitudinal loyalty, Complaining behaviour, Propensity to be loyal and Resistance to competing offers. Although all scales showed satisfactory reliability, the arithmetic mean for two scales, Complaining behaviour and Propensity to be loyal, showed lower values and no statistically relevant correlations with other scales. Ultimately, the expected positive influence of Perceived product quality and Brand credibility on Propensity to be loyal could not be confirmed as expected. The same applies to the positive influence of Brand credibility on Complaining behaviour (also not confirmed). Possible reasons for the results being different than expected could be that the original scales were developed to measure different FMCG categories or that the original scales were used for studies in Australia and consumers in Croatia have some special characteristics (e.g. they are generally less complaint-orientated or similar).

The particular focus of this study was on the description of the Clear label and its perception, in the expectation that this construct has a moderating effect on the relationships between Perceived product quality and Brand credibility on

the one hand and Food brand loyalty on the other. According to Bonciu (2018), Clear label is about transparent communication on the product packaging to the consumer. Previous research (Aitken et al. 2020; Dumitru et al. 2021) also explains that labelling plays an important role in the intention to develop behaviours and attitudes towards food. Empirical research has confirmed that Clear label is positively related not only with some layers of Food brand loyalty, but also to Product quality perception and Brand credibility. This conclusion is consistent with the evidence of a positive impact of food labels on perceived quality (Magnier et al. 2016) as well as on food brand loyalty through the use of functional claims communication (Krystallis and Chrysochou, 2011) found in previous research.

The moderating effect expected on the basis of Espejel's (2009) study, which showed a moderating effect of the level of consumer involvement on the impact of perceived quality on perceived risk, trust, satisfaction and loyalty, was not confirmed. Some other research (Veloutsou 2015; Pappu and Quester 2016; Dimitru et. al 2021) indicated that one should focus on mediation rather than on the moderating effect.

In the end, the results confirmed that a significant mediation of Clear label is evident for the relationship between Perceived product quality and Brand credibility on the one hand and Food brand loyalty (including Attitudinal loyalty and Resistance to competing offers) on the other. A similar conclusion can be found in Veloutsou's (2015) research, which suggested that the brand relationship does not moderate the relationship between brand trust, satisfaction and brand loyalty, but mediates the link between these constructs. Also, Dimitru et. al (2021) explains that consumers' increased need for food safety encompasses numerous aspects such as the origin of the product, nutritional content (which are constructs for Clear label perception in this research), guarantee conditions, etc. And that all these different aspects, if successfully integrated into the packaging design and brand image, can mediate between products and consumers. This means that it should not be surprising how the moderating effect for the relationship is not confirmed in view of the fact that brand loyalty is a very complex, multidimensional construct (Chaudhuri and Holbrook 2001; Keller 2003; Rundle-Thiele's 2005; Punniyamoorthy and Raj 2007; Hollebeek 2011) that can be influenced by many different elements both directly and indirectly, and that previous research examines effects of moderation (Espejel's 2009; Veloutsou 2015; Riva et al. 2022) as well as mediation (Drennan et al. 2015; Pappu and Quester 2016; Huang 2017; Dimitru et. al 2021).

7. CONCLUSIONS AND RESEARCH IMPLICATION

The importance of food goes far beyond its ability to satisfy hunger. Food is important for the normal functioning of the human organism, and adequate nutrition is associated with health. As important as food is to human health, the food industry is equally important to the healthy functioning of any country's economy. Its role goes far beyond providing people with food; it is considered a strategic resource and an important economic sector. In this context, the management of food brands should also be an important topic for current research in the field of marketing.

The main objective of this thesis was to investigate how constructs such as Perceived product quality, Brand credibility and Brand loyalty of packaged foods influence each other. It was also investigated how one of the current trends, Clear label, influences the relationship between these constructs. The findings presented in this paper contribute to the overall understanding of the Clear label trend, where Clear label is described as a communication concept integrated into food packaging design (food labelling) based on consumers' increased search for transparency in food products ingredients (what's really inside?) and transparency in communicating ingredients on the front of the package. And its impact on consumer behaviour in relation to the constructs studied: brand loyalty, perceived product quality and brand credibility for packaged foods.

Firstly, an extensive literature review was conducted in order to establish the theoretical background for the research, identify possible gaps and create a basis for the development of hypotheses and conceptual models as well as for the design of the research framework and methodology. The literature review in this thesis deals with the complex interplay of brand loyalty, product quality and brand credibility in the context of food marketing and food branding. As well as in the context of the development of food labelling and current market trends, in particular the trend towards Clear labels. It is interesting to note that brand loyalty in food is more often the subject of research in the field of food technology or nutrition than in the field of marketing.

Conceptual model development was based on the literature review and findings from previous research. In order to test the model, the scales used to measure the constructs had to be adapted to fit this study. Furthermore, as there was no known scale to measure Clear label, a specific new scale was developed. The data obtained from the survey conducted allowed the scales to be validated and the conceptual model to be tested.

The overall conclusion from the research and all the analyses conducted is that the Nutritional and natural content and the Origin (the NANC and ORI scales), which constitute the construct Clear label perception, show a strong positive correlation with all the other constructs of the proposed conceptual model (noting that the absence of the Complaining behaviour or COB is actually considered a positive relationship), except for the Propensity to be loyal (or PTLB). This means that Clear label is positively related not only to some levels of Food brand loyalty, but also to Product quality perception (PPQ) and Brand credibility (BRC).

Although there is evidence of a strong positive correlation, no moderating effect was found – hypotheses H3 and H4 were not accepted. This also means that the proposed conceptual model designed for this research was not confirmed.

In an additional analysis, however, mediation was also tested on the basis of the conclusion about correlations. For this purpose, an additional model was set up with the parallel mediators the Nutritional and natural content and the Origin (NANC and ORI). The results show that Nutritional and natural content and the Origin (NANC and ORI) play a mediating role between Product quality perception (PPQ) / Brand credibility (BRC) and Food brand loyalty.

The additional analysis has shown that this relationship is twofold when considering Product quality perception (PPQ) and Food brand loyalty (constructs Attitudinal loyalty or ATL and Resistance to competing offers or RTCO) both directly and indirectly, achieving partial mediation between the observed constructs.

When considering Brand credibility (BRC) and Food brand loyalty (constructs Attitudinal loyalty or ATL and Resistance to competing offers or RTCO), the relationship is also significant both directly and indirectly, with partial mediation achieved between the constructs Brand credibility (BRC) and Attitudinal loyalty (ATL), but the Clear label also plays a significant mediating role in the relationship between Brand credibility (BRC) and Resistance to competing offers (RTCO), where full mediation was achieved, i.e., the effect of Brand credibility (BRC) on Resistance to competing offers (RTCO) is achieved through mediators.

Based on the results shown, this research is expected to contribute to theory development as well as methodological contribution. Finally, it could provide valuable insights for packaged food companies to improve their branding and integrated communication strategies.

7.1. Contribution

As mentioned in the introduction, one of the aims of this thesis was to make important contributions in three key areas, which include theoretical, methodological, and managerial aspects. These contributions are important to improve knowledge and understanding in the respective areas related to the research topic.

The theoretical contribution of this thesis lies in the systematisation of previous research in food marketing in connection with food labelling, new trends, brand loyalty, quality perception and brand credibility. The expansion of marketing knowledge is seen in the linking of brand loyalty theory with new trends in food marketing, such as the Clear label described here (gap-filling contribution). One of the conclusions that can be drawn from the literature review is that most research on food brand loyalty is published in food technology and nutrition journals, suggesting that this area is under-researched in marketing journals. This also applies to the investigation of current trends in food marketing.

The Clear label trend has only been on the market for less than a decade and there are not yet many academic papers dealing with this topic. The definition of the term proposed here could therefore form a basis for similar research in the future. The results of the study demonstrate a basis for considering the Clear label as a communication element in packaging design, but also provide guidelines for deciding whether or not certain products can be described as Clear label. The proposal of a conceptual model to analyse the relationship between Perceived product quality, Brand credibility and Brand loyalty in food products under the influence of Clear label perceptions can also be seen as a theoretical contribution.

The most important methodological contribution is seen primarily in the development of completely new measurement scales for measuring Clear label constructs (Nutritional and natural content or NANC and the Origin or ORI scales). The basis for the development of the scales was the combination of Lee and Yun's (2015) Nutritional content and Natural content scales with part of the Van Ittersum, Candel and Torelli's (2000) Origin scale for Perceptual beliefs for PDO/PGI protection labels. These scales were selected because the construct definition they measure corresponds to the description of the important characteristics of the products that are considered Clear label. The developed scales were tested and validated twice. First in the pilot study on a small sample and then in the main study on a larger sample. On this basis, it is expected that

they should be considered as reliable scales for future research involving the measurement of the construct Clear label.

Another methodological contribution can also be seen in the adaptation of scales for measuring brand loyalty of food products. The scales had to be adapted and validated for the conceptual model testing developed for this study in order to adjust the wording of the items in the selected scale of Rundle-Thiele (2005) (by using translations and back-translations) and also to take into account in-home consumption as a predefined aspect of situational loyalty. In addition, all scales selected for testing the conceptual model were converted to a 7-point Likert scale to ensure the consistency of the scales, which is important for conducting complex statistical analyses.

Finally, this thesis is expected to also have managerial implications. It provides an overview of the importance of the Clear label in food marketing and its influence on perceptions of product quality, brand credibility and loyalty.

By incorporating the Clear label concept into the design of packaged foods (simplifying visualisation and adding transparent communication of ingredients on the front of the packaging), companies can benefit in several ways. On the one hand, companies have additional arguments towards (current and potential) consumers that can influence consumer trust in the brand and increase brand loyalty. On the other hand, companies can use Clear label as a tool to strengthen the market position of their brands and possibly gain a competitive advantage.

In addition, the research results are expected to serve as a basis for new guidelines for communication with consumers (better understanding of product content), but also with authorities and regulators (e.g., inclusion of guidelines for legal requirements and mandatory information on packaging). In practise, this means that the research results can be used to create updated guidelines for communicating with consumers, enabling a better understanding of product content. At the same time, these results can inform interactions with authorities and regulators by incorporating guidelines that meet legal requirements and advocate for the mandatory inclusion of information on product packaging.

The Clear label concept addresses an important concern of modern consumers: the desire for transparency. In an era characterised by heightened awareness of health, nutrition and ethical considerations, consumers are increasingly conscious of the products they consume. Ultimately, consumers also benefit from the integration of the Clear label concept, as it aims to provide more transparent information about product content in a simple and understandable way. This increased transparency could enable consumers to make more

informed choices, improving their overall shopping experience and increasing trust in the brand.

7.2. Research limitation and further research recommendation

Like any research, this one has some limitations, but also sheds light on possible future research.

From the literature review on brand loyalty studies, it is clear that studying brand loyalty from different angles can lead to different findings. Researchers (Chaudhuri and Holbrook, 2001; Keller, 2003; Rundle-Thiele, 2005b; Punniyamoorthy and Raj, 2007 or Hollebeek, 2011) agree that the construct is complex due to its many layers and dimensions. This multidimensionality also offers a multitude of interpretive possibilities to determine which layers or dimensions are relevant for developing new hypotheses and designing new research. This is undoubtedly true for this research as well, as it can be viewed from different angles. The non-confirmation of the conceptual model and the decision to look at the collected data from different angles are clear evidence of this.

To measure Food brand loyalty, Rundle-Thiele (2005; 2005b) scales ware used, which include four constructs: Attitudinal loyalty or ATL, Complaining behaviour or COB, Propensity to be loyal or PTBL and Resistance to competing offers or RTCO. Although all scales had satisfactory reliability, the arithmetic mean (M) for two scales, Complaining behaviour or COB and Propensity to be loyal or PTBL, showed lower values and had no statistically relevant correlations with other scales.

There could be numerous reasons why the results for Complaining behaviour or COB and Propensity to be loyal or PTBL differ from all other scales. Some of these could be that the original scales were developed to measure brand loyalty for wine retailers, and that consumer behaviour in this regard is different for food brands. Or that the original scales were used for research in Australia and consumers in Croatia have some peculiarities (e.g. they are generally less likely to complain).

Further research recommendations in this regard would be to re-evaluate the substitution of Complaining behaviour (COB) and Propensity to be loyal (PTBL) by other brand loyalty dimensions or to exclude them and focus only on Attitudinal loyalty (ATL) and Resistance to competing offers (RTCO) dimensions.

Another limitation could also be seen in the characteristics of the sample. Although the predominantly female sample is not seen as a limitation and the participants meet well the requirements of the main decision makers in their household regarding food purchases and have experience with the brands presented in the questionnaire, the sample is also slightly biased towards younger age groups and participants living in smaller towns. The recommendation for future research would be to achieve a better distribution of age groups and sample characteristics across settlement size.

The data was collected in July and August 2020. This was the initial phase of the global COVID-19 crises, shortly after the first wave and the introduction of restrictions, which included restrictions on travel / commuting and retail working hours. Research has shown that consumer behaviour has changed (Topolko Herceg, 2021; Timotius and Octavius, 2021), mainly due to the shift to online purchases, including groceries. This could also influence the way participants answered the questions and needs to be acknowledged as a limitation.

From the focus group conducted with food marketing experts following the main research, some interesting findings can be considered as recommendations for future research. One direction is exploring market challengers. Instead of brands that are considered market leaders, another research could look at brands that are market challengers. And can the introduction of Clear label to the product packaging design help to increase their market share.

Another approach would be to perform a category-specific analysis. For example, to examine the impact of the Clear label on brands in categories where clear labelling is considered more appropriate, e.g. plant-based products, smoothie-like products, honey, organic products, speciality coffee, etc.

One idea for future research could focus on brand recognition and awareness creation. For example, product/brand examples could be included in the study where the brands have no brand awareness (e.g. imaginary brands) rather than brands with high loyalty.

Finally, one approach could also be to examine clear labelling beyond food brands. To investigate Clear label for non-food brands such as beauty and health products (cosmetics) and clothing (issues such as sustainability, cotton origin, fair trade).

The results of the focus group discussions have provided valuable guidance for future research on the impact and scope of Clear label in different

market scenarios and industries. By examining market challengers, category-specific applications, lesser-known brands and non-food sectors, researchers could deepen their understanding of Clear label's potential and impact. Such research can contribute to the continued development of marketing strategies, brand loyalty and wider acceptance of Clear label as a valuable communication concept in designing product packaging and building brand loyalty in food.

REFRENCES

1. Aaker, D. A. 1996, 'Measuring Brand Equity Across Products and Markets', *California management review*, vol. 38, no. 3, pp. 102-120.
2. Acebron, L. B. and Dopico, D. C., 2000, The importance of intrinsic and extrinsic cues to expected and experienced quality: an empirical application for beef. *Food quality and preference,* vol. 11, no. 3, pp. 229-238.
3. Afshin, A., Penalvo, J., Del Gobbo, L., Kashaf, M.; Micha, R., Morrish, K., … and Mozaffarian, D., 2015, SVD prevention through policy: a review of mass media, food/menu labelling, taxation/subsidies, built environment, school procurement, worksite wellness, and marketing standards to improve diet. *Current cardiology reports,* vol. 17, no. 11, pp. 98 (1-12)
4. Alcorta, A., Porta, A., Tárrega, A., Alvarez, M. D., and Vaquero, M. P., 2021, 'Foods for plant-based diets: Challenges and innovations', *Foods*, vol. 10, no. pp. 293.
5. Alhaddad, A. 2015, 'Perceived quality, brand image and brand trust as determinants of brand loyalty', *Journal of Research in Business and Management*, vol. 3, no. 4, pp. 1-8.
6. Alnawas, I., and Altarifi, S. 2016, 'Exploring the role of brand identification and brand love in generating higher levels of brand loyalty', *Journal of Vacation Marketing*, vol. 22, no. 2, 111-128.
7. Alonso, M. A. S., Gallego, P. A. M., and Mangin, J. P. L. 2005, 'Testing a Model of Perceived Food Quality Determinants', *Journal of International Food & Agribusiness Marketing*, vol. 17, no. 1, pp. 9-33
8. Anić, I.D., Rajh, E. and Piri Rajh, S., 2015. Exploring consumers' food-related decision-making style groups and their shopping behaviour. *Economic research-Ekonomska istraživanja*, vol. 28, no, 1, pp.63-74.
9. Australian Food News 2017, *Top five food and beverage trends for 2017 - Innova Market Insights*, viewed on April 2017, <http://www.ausfoodnews.com.au/2016/11/21/top-five-food-and-beverage-trends-for-2017-innova-market-insights.html>.
10. Baek, T. H. et al. 2010, 'The differential roles of brand credibility and brand prestige in consumer brand choice', Psychology & Marketing, vol. 27, no. 7, pp. 662-678.
11. Balaji, A. P. S. 2015, 'Investigating the effects of product innovation and ingredient branding strategies on brand equity of food products', *British Food Journal*, vol 177, no. 2, pp 523-537.
12. Barker, N., Valos, M., Shim, T. A., 2011, *Integrated Marketing Communication*. Cengage Learning, UK

13. Bıçakcıoğlu, N., İpek, İ. and Bayraktaroğlu, G. 2018, 'Antecedents and outcomes of brand love: the mediating role of brand loyalty', *Journal of Marketing Communications*, vol. 24, no. 8, pp. 863-877.
14. Bonciu, E. 2018, 'Food processing, a necessity for the modern world in the context of food safety: A review', *Annals of the University of Craiova-Agriculture, Montanology, Cadastre Series*, vol. 47, no. 1, pp. 391-398.
15. Bowden, J. L. H. 2009, 'The process of customer engagement: A conceptual framework', *Journal of marketing theory and practice*, Vol 17, No 1, pp 63-74.
16. Brakus, J. J., Schmit, B. H. and Zarantonello, L. 2009, 'Brand Experience: What Is It? How is it Measured? Does It Affect Loyalty?', *Journal of Marketing*, vol. 27, pp. 52-68.
17. Bredahl, L. 2004, 'Cue utilisation and quality perception with regard to branded beef', *Food quality and preference*, vol. 15, no. 1, pp. 65-75.
18. Carman, J. M. 1970, 'Correlates of Brand Loyalty: Some Positive Results', *Journal of Marketing Research*, vol. 7, pp. 67-76.
19. Caswell, J.A. and Padberg, D.I. 1992, 'Toward a more comprehensive theory of food labels', *American Journal of Agricultural Economics*, vol. 74, no. 2, pp. 460-468.
20. Chaudhuri, A. 1999, 'The relationship of brand attitudes and brand performance: the role of brand loyalty', *Journal of Marketing Management*, vol. 9, no. 3, pp. 1-9.
21. Chaudhuri, A. and Holbrook, M. B. 2001, 'The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty', *Journal of Marketing*, vol. 65, no. 2, pp 81-93.
22. Churchill Jr, G. A. 1979, 'A paradigm for developing better measures of marketing constructs', *Journal of marketing research*, vol. 16, no. 1, pp. 64-73.
23. Coolinarika.com 2019, viewed on January 2019, <http://www.coolinarika.com/>
24. Corstjens, M., and Lal, R. 2000, 'Building store loyalty through store brands', *Journal of marketing research*, vol. 37, no. 3, pp. 281-291.
25. Cribari-Neto, F. 2004, 'Asymptotic inference under heteroskedasticity of unknown form', Computational Statistics & Data Analysis, vol. 45, no. 2, pp. 215-233.
26. Davick, N. S. 2013, 'An empirical investigation of brand equity: drivers and their consequences', *British Food Journal*, vol. 30, no. 1, pp. 62-74.
27. Dean, M., Spence, M., Hodgkins, C. A., and Raats, M. M. 2015, 'Front-of-pack (FOP) labelling of foods and beverages', in Berryman, p. (ed.), *Advances in Food and Beverage Labelling*, Woodhead Publishing, pp. 113-131.

28. Delgado-Ballester, E. and Munuera-Alemán, J.L. 2001, ‘Brand trust in the context of consumer loyalty’, *European Journal of Marketing*, vol. 25, no 11/12, pp. 1238-1258.
29. Dick, A. S. and Basu, K. 1994,’ Customer Loyalty: Toward an Integrated Conceptual Framework’, *Journal of the Academy of Marketing Science*, vol. 22, no. 2, pp. 99-113.
30. Drennan, J., Bianchi, C., Cacho-Elizondo, S., Louriero, S., Guibert, N. and Proud, W. 2015, ‘Examining the role of wine brand love on brand loyalty: A multi-country comparison’, *International Journal of Hospitality Management*, vol. 49, pp. 47-55.
31. DuWors, R. E. jr. and Haines, G. H. jr. 1990, ‘Event History Analysis Measure of Brand Loyalty’, *Journal of Marketing Research*, vol. 27, no, 4, pp. 485-493.
32. Ehrenberg, A. and Goodhardt, G. 2000, ‘New Brands: Near-Instant Loyalty’, *Journal of Marketing Management*, vol. 16, pp. 607-617.
33. Erdem, T. and Swait, J., 2004, ‘Brand credibility, brand consideration, and choice’, *Journal of consumer research*, vol. 31, no. 1, pp. 191-198.
34. Erdem, T., Swait, J. and Valenzuela, A. 2006, ‘Brands as signals: A cross-country validation study’, *Journal of Marketing*, vol. 70, no. 1, pp.34-49.
35. Espejel, J., Fandos, C. and Flavián, C. 2009, ‘The influence of consumer involvement on quality signals perception’, *British food journal*, vol. 111, no. 11, pp. 1212-1236.
36. European Commission, 2013, *Geographical indications and quality schemes explained*, viewed on May 2023. < https://agriculture.ec.europa.eu/farming/geographical-indications-and-quality-schemes/geographical-indications-and-quality-schemes-explained_en>
37. European Union, 2017, *Ensuring food is safe - The veterinary and phytosanitary system of the European Union explained*, Publication Office of the European Union, Luxembourg, viewed on March 2019 <https://publications.europa.eu/en/publication-detail/-/publication/b70d1b20-499a-11e7-aea8-01aa75ed71a1/language-en/format-PDF/source-76151396>
38. Evanschitzky, H. et al. 2006. "The relative strength of affective commitment in securing loyalty in service relationships." *Journal of business research* vol. 59, no.12, pp. 1207-1213.
39. Fabrigar, L. R., et al. 1999, "Evaluating the use of exploratory factor analysis in psychological research." *Psychological methods*, vol. 4, no. 3, pp. 272-299.

40. Fernqvist, F., Olsson, A., and Spendrup, S., 2015, What's in it for me? Food packaging and consumer responses, a focus group study. *British Food Journal,* vol. 117, no. 3, pp. 1122-1135.
41. Ferenčić, M. and Wölfling, A. 2015, 'Impact of negative quality inconsistency on brand loyalty – Case of Croatian food market', *Economic and Business Review Journal*, vol. 17, no. 1, pp. 5-23.
42. Field, A., 2005, *Discovering Statistics Using SPSS*, Sage.
43. FoodIngredientsFirst 2015, *Top Ten Trends for 2016*, viewed April 12th 2017, <http://www.foodingredientsfirst.com/Key-Trends/108/860/1/Top-Ten-Trends-for-2016.html >
44. Franjković, J., Ferenčić, M. and Dujak, D., 2017, 'Marketing opportunities of Retail Ready Packaging – the case of Croatian food manufactures', *Ekonomska misao i praksa*, no. 1, pp. 85-106.
45. Fusaro, D., 2020, Transparency Top Trend for 2021: Innova. *Food Processing,* viewed February 2nd 2021, <https://www.foodprocessing.com/industrynews/2020/innova-trends-for-2021/>
46. Gemius S.A, Croatia, *gemiusAudience, 2018-12-01 - 2018-12-31*, viewed on Jannuary 2019, < https://rating.gemius.com/hr/tree/8>
47. Giovanis, A. N. and Athanasopoulou, P. 2018, 'Consumer-brand relationships and brand loyalty in technology-mediated services', *Journal of Retailing and Consumer Services*, vol. 40, pp. 287-294.
48. Global Food Forums 2016, *2017 Food Trends*, viewed on April 2017, <https://www.globalfoodforums.com/food-news-bites/2017-food-trends/>
49. Gokani, N. 2022, 'Front-of-pack nutrition labelling: A tussle between EU food law and national measures', *European Law Review*, vol. 47, no. 2, pp. 153-174.
50. Grbac, B., and Milohanovic, A. 2008, 'Contribution of food products in creating cultural identity of tourist destination', *In WSEAS International Conference. Proceedings. Mathematics and Computers in Science and Engineering,* pp. 83-88
51. Guiné, R. P., Florença, S. G., Barroca, M. J., and Anjos, O., 2021, The duality of innovation and food development versus purely traditional foods. *Trends in Food Science & Technology*, vol. 109, pp. 16-24.
52. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R., 2006. *Multivariate data analysis*. Uppersaddle River.
53. Haq, M. I. U., Khaliq Alvi, A., Somroo, M. A., Akhtar, N., and Ahmed, A. (2022). Relationship of brand credibility and brand loyalty: the mediating effects of attitude toward brand. *Journal of Economic and Administrative Sciences*
54. Hawkes, C. 2005, 'The role of foreign direct investment in the nutrition transition', *Public Health Nutrition,* vol. 8, no. 4, pp. 357–365.

55. Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication monographs*, vol. 85, no. 1, pp. 4-40.
56. Hollebeek, L. D. 2011,' Demystifying customer brand engagement: Exploring the loyalty nexus', *Journal of Marketing Management*, vol. 27, no. 7-8, pp. 785-807.
57. Hollywood, L., Wells, L., Armstrong, G. and Farley, H., 2013, Thinking outside the carton: attitudes toward milk packaging. *British Food Journal*, vol. 115, no. 6, pp. 899-912
58. Huang, C. C. 2017, 'The impacts of brand experiences on brand loyalty: mediators of brand love and trust', *Management Decision,* vol. 55, no. 5, 915-934.
59. Innova market insights 2015, *Clean Label & the Consumer - What consumers are looking for*, Anuga 2015, Cologne
60. Innova Market Insights 2023, Clean Label Trends: Global Market Overview, viewed on May 2023 < https://www.innovamarketinsights.com/trends/clean-label-trends/>
61. Jacoby, J. and Kyner, D. B. 1973, Brand Loyalty Vs. Repeat Purchasing Behaviour, *Journal of Marketing Research*, Vol. 10, No. 1, pp 1-9
62. Jacoby, J. and Chestnut, R.W., 1978, *Brand Loyalty: Measurement and Management,* John Wiley & Sons, New York.
63. Kalsec, 2019, *Our Predictions for Food and Flavor Trends*, viewed on May 2019 <https://www.kalsec.com/food-trends-2019/>
64. Kalsec, 2019b, *Clean to Clear: Clean Label Expectations*, viewed on January 2021 < https://info.kalsec.com/consumer-trends-clean-and-clear-labels?submissionGuid=19d7e0e1-f76b-445e-ba58-e5e40019427f>
65. Kapferer, J. N. 2008, *New strategic brand management : creating and sustaining brand equity long term* – 4th ed., Kogan page, London and Philadelphia
66. Kataria, S., Saini, V.K. and Sharma, A. 2019, 'Understanding Brand Loyalty in relation with Brand Affect and Brand Commitment: Evidence from Oral Care Segment', *International Journal of Recent Technology and Engineering*, vol. 8, no. 3S, pp. 450-460.
67. Kaur, H., Paruthi, M., Islam, J. and Hollebeek, L. D. 2020, 'The role of brand community identification and reward on consumer brand engagement and brand loyalty in virtual brand communities', *Telematics and Informatics*, vol. 46, 101321.
68. Kaur, H. and Soch, H. 2018, 'Satisfaction, trust and loyalty: investigating the mediating effects of commitment, switching costs and corporate image', *Journal of Asia Business Studies*, Vol. 12

69. Kearney, J. 2010, 'Food consumption trends and drivers', *Philosophical transactions of the royal society B: biological sciences*, Vol 365, No. 1554, pp. 2793-2807.
70. Kelly, J., and Jewell, 2018, *What is the evidence on the policy specifications, development processes and effectiveness of existing front-of-pack food labelling policies in the WHO European Region?* WHO Regional Office for Europe (Health Evidence Network (HEN) synthesis report 61).
71. Kemp, E. and Bui, M. 2011, 'Healthy brands: establishing brand credibility, commitment and connection among consumers', *Journal of Consumer Marketing,* vol. 28, no. 6, pp. 429–437.
72. Keller, K. L. 2003, 'Brand Synthesis: The Multidimensionality of Brand Knowledge', *Journal of Consumer Research*, vol. 29, no. 4, pp. 595-600.
73. Knox, S., and Walker, D. 2003, 'Empirical developments in the measurement of involvement, brand loyalty and their relationship in grocery markets', *Journal of Strategic marketing*, vol. 11, no. 4, pp. 271-286.
74. Kraemer, M. V., Fernandes, A. C., Chaddad, M. C. C., Uggioni, P. L., Bernardo, G. L., and Proença, R. P. 2023, 'Is the List of Ingredients a Source of Nutrition and Health Information in Food Labeling? A Scoping Review', *Nutrients*, vol. 15, no. 21, pp. 4513/1-13.
75. Krystallis, A. and Chrysochou, P. 2011, 'Health claims as communication tools that enhance brand loyalty: The case of low-fat claims within the dairy food category', *Journal of Marketing Communication*, vol. 7, no. 3, pp. 213-228.
76. Labelnet, 2018, *Clean & Clear Labels To Dominate 2018*, viewed on May 2019 <https://www.labelnet.co.uk/clean-clear-labels-dominate-2018/>
77. Lam, D. 2007, 'Cultural influence on proneness to brand loyalty', *Journal of International Consumer Marketing*, vol. 19, no. 3, pp. 7-21.
78. Lee, H. J., and Yun, Z. S. 2015, 'Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food', *Food quality and preference*, vol 39, pp. 259-267.
79. Leko-Šimić, M. 2002, *Marketing hrane,* Ekonomski fakultet, Osijek
80. Liu, R., Hooker, N. H., Parasidis, E., and Simons, C. T. 2017, 'A natural experiment: using immersive technologies to study the impact of "All-Natural" labelling on perceived food quality, nutritional content, and liking', *Journal of Food Science*, vol. 82, no. 3, pp. 825-833.
81. Magnier, L., Schoormans, J. and Mugge, R. 2016, 'Judging a product by its cover: Packaging sustainability and perceptions of quality in food products'*, Food Quality and Preference*, vol. 53, pp. 132-142.

82. Marmot, M., 2002, The influence of income on health: views of an epidemiologist. *Health affairs*, vol. 21, no. 2, pp. 31-46.
83. Manning, L. 2007, 'Food safety and brand equity', *British Food Journal*, vol. 109, no. 7, pp. 496-510.
84. McAlexander, J. H., Kim, S. K. and Roberts, S. D., 2003, 'Loyalty: The influences of satisfaction and brand community integration', *Journal of Marketing Theory and Practice*, vol. 11, no. 4, pp. 1-11.
85. McConnell, J. D., 1968, '*The Development of Brand Loyalty: An Experimental Study*', *Journal of Marketing Research*, vol. 5, no. 1, pp. 13-19.
86. McKinsey, 2020, *Consumer sentiment and behaviour continue to reflect the uncertainty of the COVID-19 crisis*, viewed on January 2021 < https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19#>
87. McLeod, A., Yang, W., Fang, D., and Nayga, R. M. 2022, 'Aligning values to labels: A best-worst analysis of food labels', Agricultural and Resource Economics Review, pp. 1-25.
88. Mellens, M., Dekimpe, M., and Steenkamp, J. B. E. M., 1996, 'A review of brand-loyalty measures in marketing', *Tijdschrift voor economie en management*, vol. 4, pp. 507-533.
89. Mendez, M. A., and Popkin, B. M., 2004, 'Globalization, urbanization and nutritional change in the developing world', *eJADE: electronic Journal of Agricultural and Development Economics*, vol. 1, no. 853-2016-56106, pp. 220-241.
90. Milanković, I., 2021, 'Uskoro oznake "Dokazana kvaliteta", evo što znače', *HRT,* viewed on May 2021 <https://vijesti.hrt.hr/gospodarstvo/uskoro-oznake-dokazana-kvaliteta-1848932>
91. Morrison, D. G. 1966, 'Interpurchase Time and Brand Loyalty', *Journal of Marketing Research*, vol. 3, no. 3, pp. 289-291.
92. Moolla, A.I. and Bisschoff, C.A., 2012, 'Empirical evaluation of a model that measures the brand loyalty for fast moving consumer goods', *Journal of Social Sciences*, vol. 32, no. 3, pp. 341-355.
93. Nachay, K. 2017, Clean label approaches to food safety. *Food Technology*, vol. 71, no. 11, pp. 53-63.
94. Newman, J. W. and Werbel, R. A. 1973, 'Multivariate Analysis of Brand Loyalty for Major Household Appliances', *Journal of Marketing Research*, vol. 10, no. 4, pp. 404-409.
95. Ngo, H.M., Liu, R., Moritaka, M. and Fukuda, S. 2020, 'Effects of industry-level factors, brand credibility and brand reputation on brand

trust in safe food: evidence from the safe vegetable sector in Vietnam', *British Food Journal*, Vol. 122 No. 9, pp. 2993-3007.
96. O'Donnell, E., and Brown, S. 2012, 'Brand Community Loyalty: A Self Determination Theory Perpective', *Academy of Marketing Studies Journal*, vol. 16, no. 2, pp. 107.
97. Official Journal of the European Union, 2010, *Commission Communication — EU best practice guidelines for voluntary certification schemes for agricultural products and foodstuffs*, 2010/C 341/04
98. Oliver, R. L. 1999, 'Whence Consumer Loyalty', *Journal of Marketing*, vol. 63, Special Issue, pp. 33-44.
99. Ostroški, Lj. (ed.) 2018, *Statistički ljetopis Republike Hrvatske – Statistical Yearbook of the Republic of Croatia 2018*, Državni zavod za statistiku Republike Hrvatske, Zagreb
100. Pappu, R. and Quester, P. G. 2016, 'How does brand innovativeness affect brand loyalty?' *European Journal of Marketing,* vol. 50, vo. 1/2, pp. 2-28.
101. Pasqualone, A. 2022, 'Balancing innovation and neophobia in the production of food for plant-based diets', *Foods*, vol. 11, no. 12, pp. 1702.
102. Pearson, D. and Bailey, A., 2012. Exploring the market potential of 'local'in food systems. *Locale: The Australasian-Pacific Journal of Regional Food Studies*, Vol 2, No. 12, pp. 82-103.
103. Percy, L., 2014, *Strategic Integrated Marketing Communication*. Routledge, Abigdon and New York
104. Peterson, R. A., 1994, 'A meta-analysis of Cronbach's coefficient alpha', *Journal of consumer research*, vol. 21, no. 2, pp. 381-391.
105. Pisnik, A. 2000, 'Vpliv zaznane kakovosti in zaznanih tveganj na zaznano vrednost izdelka', *Akademija MM*, vol. 4, no. 7, pp. 9-18.
106. Punniyamoorthy, M and Raj, P. M. 2007, 'An empirical model for brand loyalty measurement', *Journal of Targeting, Measurement and Analysis for Marketing*, vol. 15, pp. 222-233.
107. Putnam, J. J. and Allshouse, J. E., 1999, Food consumption, prices and expenditures 1970–97 (Statistical Bulletin no. 965). Washington, DC: US Department of Agriculture.
108. Riva, F., Magrizos, S., Rubel, M. R. B. and Rizomyliotis, I., 2022, 'Green consumerism, green perceived value, and restaurant revisit intention: Millennials' sustainable consumption with moderating effect of green perceived quality', *Business Strategy and the Environment*, vol. 31, no. 7, pp. 2807-2819.
109. Roehm, M. L., Bolman Pullins, E. and Reehm, H. A. Jr. 2002, 'Designing Loyalty-Building Programs for Packaged Goods Brands', *Journal of Marketing Research*, vol. 39, no. 2, pp. 202-213.

110. Rundh, B., 2005, The multi-faceted dimension of packaging, marketing logistics or marketing tool?, *British Food Journal*, vol. 108, no. 9, pp, 670-684
111. Rundh, B., 2013, Linking packaging to marketing: how packaging is influencing the marketing strategy. *British Food Journal*, vol. 115, no. 11, pp. 1547-1563.
112. Rundle-Thiele, S., 2005, 'Elaborating customer loyalty: exploring loyalty to wine retailers', *Journal of Retailing and Consumer Services*, vol. 12, no. 5, pp. 333-344.
113. Rundle-Thiele, S., 2005b, 'Exploring loyal qualities: assessing survey-based loyalty measures', *Journal of Services Marketing*, vol. 19, no. 7, pp. 492–500.
114. Sanchez-Siles, L. M., Michel, F., Román, S., Bernal, M. J., Philipsen, B., Haro, J. F., ... and Siegrist, M., 2019, The Food Naturalness Index (FNI): An integrative tool to measure the degree of food naturalness. *Trends in Food Science & Technology*, vol. 91, pp. 681-690.
115. Sapic, S., Filipovic, J., and Dlacic, J. 2019, 'Consumption in fast-food restaurants in Croatia and Serbia', *British Food Journal,* Vol. 121, No. 8, pp. 1715-1729.
116. Schifferstein, H. N., de Boer, A., and Lemke, M. 2021, Conveying information through food packaging: A literature review comparing legislation with consumer perception. Journal of Functional Foods, vol 86, Article 104734.
117. Schiffman LG, Kanuk LL 2007, Consumer Behaviour. (9th ed.), New Jersey: Pearson Prentice Hall.
118. Scrinis, G. and Parker, C., 2016, 'Front-of-pack food labelling and the politics of nutritional nudges', *Law & Policy,* vol. 38, no. 3, pp. 234-249.
119. Sekhar, C., Krishna, S., Kayal, G.G. and Rana, N.P. 2022, 'Does brand credibility matter? The case of organic food products', *British Food Journal*, Vol. 124 No. 3, pp. 987-1008.
120. Shanahan, T., Tran, T. P. and Taylor, E. C. 2019, 'Getting to know you: Social media personalization as a means of enhancing brand loyalty and perceived quality', *Journal of Retailing and Consumer Services*, vol. 47, pp. 57-65.
121. Shangguan, S, Afshin, A., Shulkin, M., Ma, W., Marsden, D., Smith, J., … and Mozaffarian, D., 2019, A meta-analysis of food labelling effects on consumer diet behaviours and industry practices. *American Journal of Preventive Medicine*, vol. 56, no. 2, pp. 300-314.
122. Sheth, J. N. 1968. 'A factor analytical model of brand loyalty', *Journal of Marketing Research*, Vol. 5, No. 4, 395-404.

123. Sheth, J. N. 1970, ‘Measurement of Multidimensional Brand Loyalty of a Consumer’, *Journal of Marketing Research*, vol. 7, no. 3, pp. 348-354.
124. Silayoi, P. and Speece, M. 2004, ‘Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure’, *British food journal*, vol. 106, no. 8, pp. 607-628.
125. Simms, C. and Trott, P., 2010, Packaging and development: a conceptual framework for identifying new product opportunities. *Marketing Theory*, vol. 10, no. 4, pp.397-415
126. Smil, V., 2001, *Feeding the world: A challenge for the twenty-first century*. MIT press.
127. Southey, F. 2022, ‘How is clean label evolving? Mintel talks regulation, processing, and linking ‘clean with green’’, FoodNavigator, viewed on May 2023 < https://www.foodnavigator.com/Article/2022/08/04/How-is-the-clean-label-trend-evolving-Mintel>
128. Souza, A. C. D., Alexandre, N. M. C., and Guirardello, E. D. B. 2017, ‘Psychometric properties in instruments evaluation of reliability and validity’, *Epidemiologia e servicos de saude*, vol 26, pp. 649-659.
129. Steenkamp, J. B. E. 1986, ‘Perceived quality of food products and its relationship to consumer preferences: Theory and measurement’, *Journal of Food Quality*, vol 9, no. 6, pp. 373-373.
130. Swinnen, F. M., 2010, ‘The Political Economy of Agricultural and Food Policies: Recent Contributions, New Insights, and Areas for Further Research’, *Applied Economic Perspectives and Policy,* vol. 32, no. 1, pp. 33–58.
131. Štulec, I., Petljak, K., and Rakarić, J. 2017, ‘Utjecaj demografskih karakteristika potrošača na proces donošenja odluke o kupovini’, *Ekonomska misao i praksa*, vol 1, pp. 381-404.
132. Taber, K. S., 2018, ‘The use of Cronbach’s alpha when developing and reporting research instruments in science education’, *Research in science education*, vol 48, no. 6, pp. 1273-1296.
133. Teliss, G. J. 1988, ‘Advertising Exposure, Loyalty, and Brand Purchase: A Two-Stage Model of Choice’, *Journal of Marketing Research*, vol. 25, no. 2, pp. 134-144.
134. Thow, A. M., and Hawkes, C., 2009, The implications of trade liberalization for diet and health: a case study from Central America. *Globalization and health*, vol. 5, no. 1, pp. 1-15.
135. Thompson, S. A. and Sinha, R. K. 2008, ‘Brand Communities and New Product Adoption: The Influence and Limits of Oppositional Loyalty’, *Journal of Marketing*, vol. 72, pp. 65-80.

136. Tifferet, S., and Herstein, R. 2012, 'Gender differences in brand commitment, impulse buying, and hedonic consumption', *Journal of product & brand management,* vol. 21, no. 3, pp. 176-182.
137. Timotius, E., and Octavius, G. S. 2021, 'Global changing of consumer behavior to retail distribution due to pandemic of COVID-19: a systematic review', *Journal of Distribution Science*, vol. 19, no. 11, pp. 69-80.
138. Topolko Herceg, K. 2021, 'Impact of COVID-19 pandemic on online consumer behavior in Croatia', CroDiM: International Journal of Marketing Science, vol. 4, no. 1, pp. 131-140.
139. Tucker, W. T. (1964), 'The Development of Brand Loyalty', *Journal of Marketing Research*, vol. 1, no. 3, pp. 32-35.
140. Turnwald, B. P. and Crum, A. J., 2019, Smart food policy for healthy food labelling: Leading with taste, not healthiness, to shift consumption and enjoyment of healthy foods. *Preventive medicine,* vol. 119, pp. 7-13.
141. Underwood, R. L. and Klein, N. M., 2002, Packaging as brand communication: effects of product pictures on consumer responses to the package and brand. *Journal of Marketing Theory and Practice*, vol. 10, no. 4, pp. 58-68.
142. Underwood, R. L. and Ozanne, J. L., 1998, Is your package an effective communicator? A normative framework for increasing the communicative competence of packaging. *Journal of Marketing Communications*, vol 4, no. 4, pp. 207-220
143. U.S. Food and Drug Administration, 2018, *Label Claims for Conventional Foods and Dietary Supplements*. Viewed December 2020 <www.fda.gov/Food/LabelingNutrition/ucm111447.htm>
144. Veloutsou, C. 2015, 'Brand evaluation, satisfaction and trust as predictors of brand loyalty: the mediator-moderator effect of brand relationships', *Journal of Consumer Marketing*, vol. 32, no. 6, pp. 405-421.
145. Van Ittersum, K., Candel, M.J.J.M. and Torelli, F. 2000, 'The market for PDO/PGI protected regional products: consumer attitudes and behaviour', *The Socio-Economics of origin labelled Products in Agri-Food Supply Chains: Spatial*, Institutional and Co-ordination Aspects, pp. 209-221.
146. Vermeir, I. and Verbeke, W., 2006, 'Sustainable food consumption: Exploring the consumer "attitude–behavioral intention" gap', *Journal of Agricultural and Environmental ethics*, vol. 19, pp. 169-194.
147. Vezelić, M. (n.d.) *Osnovne informacije o pravilnoj prehrani*, Hrvatski zavod za javno zdravstvo Dubrovačko-neretvanske županije,

viewed Novemeber 2014 <http://www.zzjzdnz.hr/hr/zdravlje/hrana_i_zdravlje/300-ch-0?&l_over=1>
148. Vranešević, T. 2007, *Upravljanje markama (Brand management),* Accent, Zagreb
149. Vranešević, T. and Stančec, R. 2003, 'The effect of the brand on perceived quality of food products', British Food Journal, vol. 105, no. 11, pp. 811-825.
150. Wang, E. S. 2013, 'The influence of visual packaging design on perceived food product quality, value, and brand preference', *International journal of retail & distribution management*, vol. 41, no. 10, pp. 805-816
151. Wegener, G., 2014, 'Let food be thy medicine, and medicine be thy food': Hippocrates revisited. *Acta neuropsychiatrica,* vol. 26, no. 1, pp.1-3.
152. Wind, Y. and Frank, R. E. (1969), 'Interproduct Household Loyalty to Brands', *Journal of Marketing Research*, vol. 6, pp. 434-435.
153. Yi, Y. and Jeon, H. 2003, 'Effects of Loyalty Programs ion Value Perception, Program Loyalty, and Brand Loyalty', *Journal of the Academy of Marketing Science*, vol. 31, no. 3, pp. 229-240.
154. Yoshida, M., Gordon, B. S., Nakazawa, M., Shibuya, S. and Fujiwara, N. 2018, 'Bridging the gap between social media and behavioral brand loyalty', *Electronic Commerce Research and Applications*, vol. 28, no. 208-218.
155. Zakon o hrani NN 81/13 i 14/14
156. Zheng, X., Cheung, C.M.K., Lee, M.K.O. and Liang, L. 2015, 'Building brand loyalty through user engagement in online brand communities in social networking sites', *Information Technology & People*, vol. 28, no. 1, pp. 90-106.

LIST OF TABLES

LIST OF FIGURES

APPENDIX – questionnaire

The original questionnaire for this study is in Croatian. The questionnaire presented here was used for the test group. The difference to the control group is the visual presentation of the product examples, as shown in Figure 7, and ends with question number 29 (the remaining questions are items from scales measuring Clear label and merchandise, which were only used for the test group)

1. Da li ste uglavnom vi zaduženi za kupovinu hrane i ostalih namirnica u vašem kućanstvu? DA/NE

Na fotografijama su prikazana četiri različita prehrambena proizvoda, promotrite ih te odgovorite na slijedeća pitanja za svaki od prikazanih proizvoda.

Proizvod A

Proizvod B

Proizvod C

Proizvod D

2. Jeste li upoznati s markom prezentiranom na pakiranju? – označite sa X

	DA	NE
Proizvod A		
Proizvod B		
Proizvod C		
Proizvod D		

3. Ovo pakiranje je: - označite sa X

	ATRAKTIVNO	NEATRAKTIVNO
Proizvod A		
Proizvod B		
Proizvod C		
Proizvod D		

4. Konzumirati promatrani proizvod dugoročno ima pozitivne posljedice na zdravlje - označite sa X

	DA	NE
Proizvod A		
Proizvod B		
Proizvod C		
Proizvod D		

Kod odgovaranja na slijedeća pitanja odaberite broj na skali koji najviše odgovara Vašem mišljenju o razini kvalitete prikazanih proizvoda:

5. Uzimajući sve u obzir, rekao/rekla bih da je prikazani proizvod općenito:

	(1) Loše kvalitete	(2) ...	(3) ...	(4) Niti loše niti dobre kvalitete	(5) ...	(6) ...	(7) Odlične kvalitete
Proizvod A							
Proizvod B							
Proizvod C							
Proizvod D							

6. Prikazani proizvod se čini da ima:

	(1) Vrlo lošu kvalitetu	(2) ...	(3) ...	(4) Niti ima lošu niti dobru kvalitetu	(5) ...	(6) ...	(7) Vrlo dobru kvalitetu
Proizvod A							
Proizvod B							
Proizvod C							
Proizvod D							

7. Općenito, prikazani proizvod se čini:

	(1) Loš	(2) ...	(3) ...	(4) Niti loš niti dobar	(5) ...	(6) ...	(7) Izvrstan
Proizvod A							
Proizvod B							
Proizvod C							
Proizvod D							

Kod odgovaranja na slijedeća pitanja ponovno promotrite fotografije s prve stranice te označite vaše slaganje, odnosno ne slaganje s tvrdnjama pri čemu koristite sljedeću ljestvicu:

(1) Izrazito se ne slažem	(2) Ne slažem se	(3) Donekle se ne slažem	(4) Niti se slažem niti se ne slažem	(5) Donekle se slažem	(6) Slažem se	(7) Izrazito se slažem

UNESITE u kvadrat BROJ koji najbolje odražava vaše mišljenje

8. Ova marka isporučuje ono što obećava.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

9. Tvrdnje na proizvodu ove marke su uvjerljive.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

10. Ova marka ima ime/naziv kojem možeš vjerovati.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

11. Ova marka se ne pretvara da je nešto što nije.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

12. Ova marka je sposobna isporučiti obećano.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

Kod odgovaranja na slijedeća pitanja ponovno promotrite fotografije s prve stranice te označite razinu vjerojatnosti da poduzmete opisanu akciju, koristite sljedeću ljestvicu:

(1) U potpunosti nije vjerojatno	(2) Nije vjerojatno	(3) Donekle nije vjerojatno	(4) Niti je vjerojatno niti nije vjerojatno	(5) Donekle je vjerojatno	(6) Vjerojatno je	(7) U potpunosti je vjerojatno

UNESITE u kvadrat BROJ koji najbolje odražava vaše mišljenje

13. Kolika je vjerojatnost da ćete kupiti još proizvoda od ove marke?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

14. Kolika je vjerojatnost da ćete kupiti ovu marku slijedeći puta kad kupujete istu vrstu proizvoda?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

15. Kolika je vjerojatnost da ćete kupiti ovu marku kad kupujete druge slične proizvode?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

16. Kolika je vjerojatnost da ćete preporučiti ovu marku prijateljima ili rodbini?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

17. Kolika je vjerojatnost da ćete kontaktirati (nazvati) tvrtku vlasnika marke sa novim idejama ili prijedlozima koje možda imate?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

18. Kolika je vjerojatnost da ćete prenijeti negativne komentare o ovoj marki prijateljima ili obitelji?

Proizvod A	

Proizvod B	
Proizvod C	
Proizvod D	

19. Kolika je vjerojatnost da ćete obeshrabriti prijatelje ili obitelj da upotrijebe ovu marku za svoje potrebe za promatranim proizvodom?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

20. Kolika je vjerojatnost da ćete kontaktirati (telefonom, pismenim putem, on-line ili sl.) tvrtku vlasnika marke ako ste nezadovoljni sa njihovim proizvodima?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

21. Kolika je vjerojatnost da naštetite reputaciji marke ukoliko nije bilo odgovora na Vaš prigovor?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

Kod odgovaranja na slijedeća pitanja ponovno promotrite fotografije s prve stranice te označite razinu vjerojatnosti da poduzmete opisanu akciju, koristite sljedeću ljestvicu:

(1) U potpunosti nije vjerojatno	(2) Nije vjerojatno	(3) Donekle nije vjerojatno	(4) Niti je vjerojatno niti nije vjerojatno	(5) Donekle je vjerojatno	(6) Vjerojatno je	(7) U potpunosti je vjerojatno

UNESITE u kvadrat BROJ koji najbolje odražava vaše mišljenje

22. Rijetko predstavljam nove marke svojim prijateljima i obitelji.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

23. Rijetko koristim priliku kupnje nepoznatih marki makar to značilo da ću žrtvovati raznolikost kupnje.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

24. Radije ću pričekati druge osobe nego isprobati marku samostalno.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

25. Radije se držim dobro poznatih marki prilikom kupnje, nego što isprobavam nove.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

26. Kolika je vjerojatnost da ćete platiti 5% više za promatranu marku?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

27. Kolika je vjerojatnost da kupite promatranu marku iako je o njoj u medijima bio vrlo kritičan osvrt?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

28. Kolika je vjerojatnost da kupite promatranu marku neovisno o cijeni?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

29. Kolika je vjerojatnost da ćete ostati s promatranom markom iako konkurentske marke nude bolje značajke proizvoda?

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

Kod odgovaranja na slijedeća pitanja ponovno promotrite fotografije s prve stranice te označite vaše slaganje, odnosno ne slaganje s tvrdnjama pri čemu koristite sljedeću ljestvicu:

(1) Izrazito se ne slažem	(2) Ne slažem se	(3) Donekle se ne slažem	(4) Niti se slažem niti se ne slažem	(5) Donekle se slažem	(6) Slažem se	(7) Izrazito se slažem

UNESITE u kvadrat BROJ koji najbolje odražava vaše mišljenje

30. Promatrani proizvod sadrži puno vitamina i minerala.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

31. Promatrani proizvod čuva moje zdravlje.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

32. Promatrani proizvod je hranjiv.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

33. Promatrani proizvod ima visok udio proteina.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

34. Promatrani proizvod ne sadrži aditive.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

35. Promatrani proizvod sadrži prirodne sastojke.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

36. Promatrani proizvod ne sadrži umjetne sastojke.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

Kod odgovaranja na slijedeća pitanja ponovno promotrite fotografije s prve stranice te označite vaše slaganje, odnosno ne slaganje s tvrdnjama pri čemu koristite sljedeću ljestvicu:

(1) Izrazito se ne slažem	(2) Ne slažem se	(3) Donekle se ne slažem	(4) Niti se slažem niti se ne slažem	(5) Donekle se slažem	(6) Slažem se	(7) Izrazito se slažem

UNESITE u kvadrat BROJ koji najbolje odražava vaše mišljenje

Oznaka porijekla sirovine ili glavnog sastojka proizvoda će:

37. Zaštiti autentičnost proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

38. Sačuvati višu kvalitetu proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

39. Garantirati konstantnu kvalitetu proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

40. U potpunosti garantirati regiju porijekla proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

41. Voditi prema većoj zaposlenosti u regiji porijekla ključnog sastojka (sirovine) proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

42. Voditi prema višim cijenama proizvoda.

Proizvod A	
Proizvod B	
Proizvod C	
Proizvod D	

PROŠIRENI SAŽETAK

Uvod

Hrana je važna za normalno funkcioniranje ljudskog organizma, a pravilna prehrana povezana je sa zdravljem do te mjere da se neka hrana percipira kao ima ljekovita svojstva. Tvrdnja o ljekovitim svojstvima hrane duboko je ukorijenjena u ljudsku povijest. Primjerice, Hipokrat iz 5. stoljeća prije Krista je rekao "Neka hrana bude tvoj lijek, a lijek tvoja hrana", a suvremeni stručnjaci se s njim slažu (Wegener, 2014; Vazelić, n.d.).

Koliko je hrana važna za ljudsko zdravlje, toliko je i prehrambena industrija važna za zdravo funkcioniranje ekonomije svake zemlje. Kroz povijest, hrana je uvijek smatrana strateškim resursom, a prehrambena industrija važnim sektorom industrije. Političke odluke vezane uz opskrbu stanovništva hranom i dalje igraju važnu ulogu u poljoprivrednoj politici diljem svijeta i time utječu na međunarodnu trgovinu i odnose (Swinnen, 2010). Prema objašnjenju Leko-Šimić (2002), u većini zemalja hrana je poseban strateški i politički resurs, a proizvodnja hrane u većini zemalja, zbog svoje važnosti, rangirana je rame uz rame s, primjerice, energetskim sektorom.

Prehrambena industrija je također važan stup hrvatske ekonomije (najveća industrija prema vrijednosti prodaje i druga najveća izvozna industrija prema Statističkom ljetopisu Republike Hrvatske za 2017. godinu, Ostroški, ur., 2018.). U tom kontekstu, upravljanje prehrambenim markama trebalo bi biti vrlo važno pitanje za suvremene istraživače iz područja marketinga u Hrvatskoj.

Teorijske postavke

Prehrambeni proizvodi dio su tržišta roba široke potrošnje (FMCG) te se na njih primjenjuje opća praksa izgradnje i upravljanja markama. No, prehrambena industrija ima svoje specifičnosti. Specifičnosti hrane uglavnom su povezane s njenom konzumacijom i izravnim vezama između konzumacije i zdravlja. Ako nešto nije u redu s konzumiranom hranom to može imati posljedice po ljudsko zdravlje. Zbog toga postoje zakoni i propisi koji reguliraju preradu i distribuciju hrane. U Hrvatskoj je to Zakon o hrani (2013, 2014), koji je u skladu s propisima EU i Europske komisije te propisuje standarde kvalitete, politike sigurnosti hrane, upravljanje rizicima, opća pravila brzog upozoravanja i dr. (European Union, 2017).

Za prehrambene proizvode, neka istraživanja (npr. Caswell i Padberg, 1992; Magnier et al. 2016) ističu da dizajn ambalaže igra važnu ulogu putem utjecaja na komunikaciju te kreiranje povjerenja potrošača u kvalitetu hrane. Stoga je razumljivo da proizvođači hrane istražuju bolje načine kako dosegnuti potrošače putem oznaka na dizajnu ambalaže. "Clear label" je jedan od suvremenih trendova u marketingu hrane koji se može objasniti kao komunikacijski koncept integriran u dizajn ambalaže prehrambenih proizvoda (označavanje hrane) temeljen na povećanoj potrazi potrošača za transparentnošću u sastojcima hrane (što se zaista nalazi unutra?) i transparentnosti u komunikaciji sastojaka na prednjoj strani ambalaže (prvi put opisano od strane Innova Market Insights, 2015). To se također može objasniti kao nadogradnja „clean label“ proizvoda (proizvodi koji nemaju sastojke koji se mogu percipirati kao umjetni ili nezdravi) s općenitom transparentnošću u prezentaciji sastojaka (Bonciu, 2018) i njihovog podrijetla (Pearson i Bailey, 2016). Trend se nastavlja i razvija kao što je najavljeno, prema potpunoj transparentnosti u komunikaciji s potrošačima, pružajući im informacije koje su lako dostupne i čitljive (Labelnet, 2018; Kalsec, 2019; Kalsec 2019b). Primjerice McLeod et al. (2022, str. 20), ističu da bi i potrošači trebali imati koristi od tzv. „Clear label-a“ s obzirom da bi pomoću njega mogli donositi bolje informirane odluke o kupnji. U proteklih nekoliko godina potrošači također traže više informacija o utjecaju prehrambenih proizvoda na okoliš, razvoj tzv. zelenih ili „eco-friendy“ tvrdnji je novih smjer kojim se promatrani trend nastavlja (Southey, 2022; Innova Market Insights, 2023).

Jedna od osnova ovog istraživanja svakako je i teorija lojalnosti markama. Aaker ističe da lojalna baza kupaca predstavlja prepreku ulasku konkurencije, temelj za premium cijene, vrijeme za reagiranje na inovacije konkurenata i zaštitu od štetnog cjenovnog natjecanja (Aaker, 1996, str. 106). Postoji mnogo definicija lojalnosti markama, ali istraživači se slažu da ona nije jednodimenzionalna. Uključuje iskustvo, stavove i osjećaje potrošača prema marki, kao i namjere i ponovljenu kupnju - kompleksnu mješavinu stavova i ponašanja (Jacoby i Kyner, 1973; Oliver, 1999; Chaudhuri i Holbrook, 2001; Keller, 2003; Erdem i Swait, 2004; Rundle-Thiele, 2005b; Punniyamoorthy i Raj, 2007; Kataria i sur., 2019).

Veza između marki i kvalitete proizvoda općenito proizlazi iz osnovne definicije marki. Neke definicije kažu da su marke, u njihovom pojednostavljenom značenju, percipirane kao jamstvo stalne kvalitete prepoznatljive na tržištu (Vranešević, 2007, str. 3; Manning, 2007). Kapferer (2008, str. 44) čak tvrdi da, u nekim industrijama, poput prehrambene industrije, marke koegzistiraju s drugim znakovima kvalitete (pečati, certifikati itd.). Umjesto da se proučava kvaliteta proizvoda u funkcionalnom ili objektivnom smislu, prepoznaje se da potrošači oblikuju subjektivne dojmove o kvaliteti proizvoda na temelju psiholoških procesa

koji su pod utjecajem razine prethodnog znanja i kognitivnih sposobnosti potrošača (Bredahl, 2003) - ukratko, percipirana kvaliteta proizvoda (Manning, 2007; Espejel i sur., 2009).

Erdem i Swait (2004, str. 192) objašnjavaju da je kredibilitet marke, kao signala pozicioniranja proizvoda, najvažnija karakteristika marke. Definiraju konstrukt kao vjerodostojnost informacija o proizvodu koje se nalaze u marki, što zahtijeva da potrošači percipiraju da marka ima sposobnost i volju da kontinuirano isporučuje ono što je obećano (Erdem i Swait, 2004, str. 192; Kemp i Bui, 2011). Marke s kredibilitetom smanjit će rizik i povećati povjerenje potrošača (Delgado-Ballester i Munuera-Aleman, 2001; Kemp i Bui, 2011).

Ciljevi i hipoteze

Cilj ovog rada je istražiti kako konstrukti poput percipirane kvalitete proizvoda, kredibiliteta marki i lojalnosti prema prehrambenim markama međusobno utječu jedni na druge. Također, istražuje se kako jedan od suvremenih trendova, opisan kao "Clear label", utječe na odnose između navedenih konstrukta.

Specifični ciljevi ovog istraživanja su:

- Istražiti teorijsku pozadinu kako bi se identificirali učinci lojalnosti prehrambenim markama te odredila veza između percipirane kvalitete proizvoda, kredibiliteta marki i lojalnosti prehrambenim markama.
- Identificirati i opisati kako "Clear label" utječe na odnose između navedenih konstrukata.
- Predložiti konceptualni model koji opisuje odnose navedenih konstrukata.
- Empirijski testirati predloženi model.

Na temelju pregleda literature i definiranih ciljeva ovog istraživanja, predložene se sljedeće hipoteze:

H1: Razina percipirane kvalitete proizvoda pozitivno utječe na lojalnost prema prehrambenoj marki.

Mnogi istraživači (npr. Bredahl, 2004; Manning, 2007; Kepferer, 2008) slažu se da razina percipirane kvalitete proizvoda hrane ima veze s tim kako potrošači percipiraju prehrambene marke, kako formiraju stavove prema njima i koliko su im lojalni. Lojalnosti prema markama promatrano je kao višedimenzionalni konstrukt, temeljeno na istraživanju Rundle-Thiele (2005) kroz

četiri razine lojalnosti potrošača: stavovi o lojalnost, ponašanje u izražavanju prigovora, sklonost lojalnosti i otpornost na konkurentske ponude (temeljeno na Rundle-Thiele, 2005). Stoga je H1 podijeljena u više detalja kako slijedi:
H1a: Razina percipirane kvalitete proizvoda pozitivno utječe na stavove potrošača o lojalnosti.
H1b: Razina percipirane kvalitete proizvoda pozitivno utječe na ponašanje u izražavanju prigovora.
H1c: Razina percipirane kvalitete proizvoda pozitivno utječe na sklonost lojalnosti.
H1d: Razina percipirane kvalitete proizvoda pozitivno utječe na otpornost na konkurentske ponude.

H2: Kredibilitet marki pozitivno utječe na lojalnost prema prehrambenim markama.

Temeljeno na istraživanju Erdem i Swait (2004) o kredibilitetu marki koji se definira kao vjerodostojnost informacija o proizvodu, što zahtijeva da potrošači percipiraju da maka ima sposobnost (npr. stručnost) i volju (npr. pouzdanost) da kontinuirano isporučuje ono što je obećano (Erdem i Swait, 2004, str. 192). Višedimenzionalnost lojalnosti za ovu hipotezu također znači da ju je potrebno raščlaniti kako slijedi:
H2a: Razina kredibiliteta marke pozitivno utječe na stavove potrošača o lojalnosti.
H2b: Razina kredibiliteta marke pozitivno utječe na ponašanje u izražavanju prigovora.
H2c: Razina kredibiliteta marke pozitivno utječe na sklonost lojalnosti.
H2d: Razina kredibiliteta marke pozitivno utječe na otpornost na konkurentske ponude.

Zbog prethodno spomenutih zaključaka da je bit "Clear label-a" zapravo u transparentnoj komunikaciji na ambalaži proizvoda prema potrošačima (Bonciu, 2018), može se pretpostaviti da ako marke koriste elemente "Clear label" komunikacije, veza između percipirane kvalitete proizvoda i lojalnosti prehrambenim markama bit će jača. Drugim riječima, pretpostavlja se da "Clear label" ima moderirajući učinak između percipirane kvalitete proizvoda / kredibiliteta marki i lojalnosti prehrambenim markama.

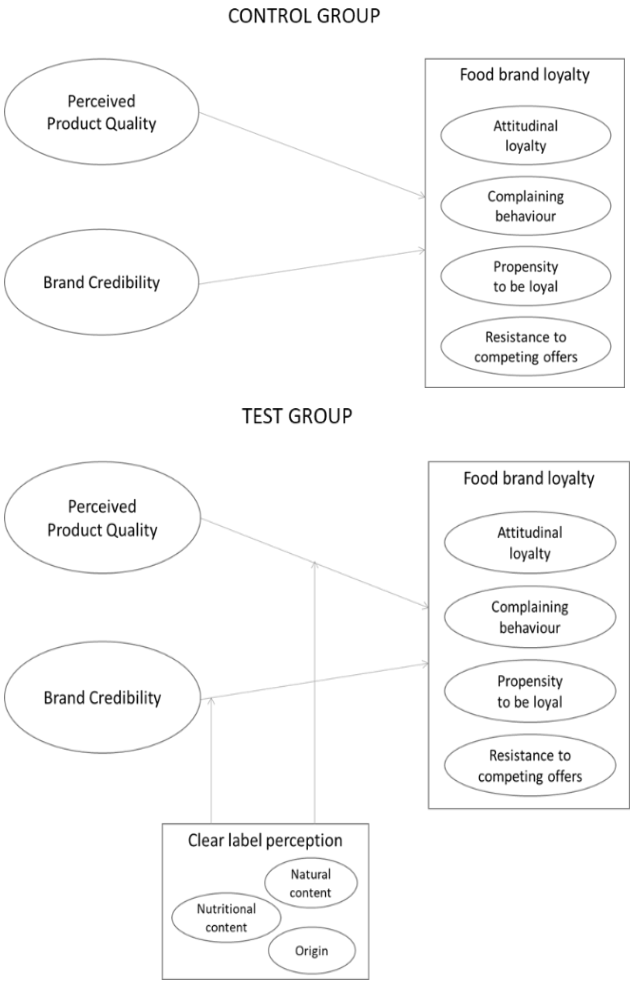
H3: Uvođenje "Clear label" elemenata u dizajn ambalaže prehrambenih proizvoda ima moderirajući učinak na odnos između percipirane kvalitete proizvoda i elemenata lojalnosti prehrambenih marki.

H4: Uvođenje "Clear label" elemenata u dizajn ambalaže prehrambenih proizvoda ima moderirajući učinak na odnos između kredibiliteta marki i elemenata lojalnosti prehrambenih marki

Metodologija istraživanja

Metodologija istraživanja uključuje standardne znanstvene pristupe i metode u prikupljanju, analiziranju i prezentiranju rezultata. Korištene su različite metode kao što su induktivna i deduktivna metoda, metoda analize i sinteze, deskriptivna metoda, komparativna metoda, klasifikacijska metoda, metoda kompiliranja itd. Na temelju pregleda literature predložen je novi konceptualni model (slika 1), koji uključuje sljedeće konstrukte: percipirana kvaliteta proizvoda, kredibilitet marki, lojalnost prehrambenim markama i percepciju "Clear label-a".

Slika 1: Predloženi konceptualni model i njegova razrada za potrebe testiranja



Izvor: pripremila autorica

Za mjerenje konstrukata unutar modela, odabrane skale iz prethodnih istraživanja (na temelju ideja Churchilla (1979)) raspravljane su s nekoliko marketinških stručnjaka (s akademskom i s profesionalnim pozadinom u području marketinga hrane). Na temelju tih intervjua, sve su skale izjednačene na sedmo-stupanjsku Likertovu ljestvicu i prilagođene kontekstu prehrambenih marki.

Za mjerenje percipiranje kvalitete prehrambenih proizvoda (PPQ) odabrana je skala definirana je od strane Magniera i suradnika (2016) jer ta skala uzima u obzir komunikacijske elemente u dizajnu ambalaže proizvoda. Skala za mjerenje kredibiliteta marki preuzeta je od Erdem i Swait (2004). Skala lojalnosti prehrambenim markama prilagođena je na bazi istraživanja Rundle-Thiele (2005), što je u skladu s promatranjem lojalnosti markama kao višedimenzionalnog konstrukta.

"Clear label" skala je trebala poseban pristup u razvijanju jer je ovo trend koji je tek nedavno postao popularan u prehrambenoj industriji i do sad je sa znanstvenog aspekta skromno istražen. Prema temeljnim idejama (Kalsec, 2019; Pearson i Bailey, 2016) „Clear label“ se sastoji od elementa koji obuhvaćaju prirodnost i hranjivost sastojaka za čije mjerenje je prilagođena skala bazirana na istraživanju Lee i Yun (2015) te porijeklu sastojaka za čije mjerenje je prilagođena skala bazirana na zaključcima Van Ittersum i suradnika (2000).

Prije glavnog istraživanja provedeno je i pilot istraživanje kako bi se testirale novo-dizajnirane skale i provela njihova validacija. Nakon provođenja pilot istraživanja te rasprave dobivenih rezultata na fokus grupi s marketinškim stručnjacima napravljena je izmjena u odabiru proizvoda i marki za glavno istraživanje kako bi se osigurao što veći fokus na elemente „Clear label-a“ kao jedinog razlikovnog elementa u dizajnu ambalaže. Konačno odabrani proizvodi i marke za glavno istraživanje prikazani su na slici 2.

Slika 2: Proizvodi uključeni u istraživanje s promjenama u dizajnu

Izvor: ilustracije iz upitnika za glavno istraživanje

Istraživanje je dizajnirano na način da se provodi na dvije grupe ispitanika: testna i kontrolna grupa. Razlika u upitnicima testne grupe u odnosu na kontrolnu je ta da su ispitanici u testnoj grupi odgovarali na dodatni set pitanja vezan uz dodatne elemente dizajna ambalaže proizvoda uključenih u istraživanje, a koji simboliziraju „Clear label“.

Rezultati istraživanja

Podaci u glavnom istraživanju uključuju odgovore 306 ispitanika iz kontrolne i 319 ispitanika iz testne grupe. Izračunati minimum ispitanika po grupi prema Hair i suradnicima (2006) je 255 ispitanika pa se veličina uzorka smatra više nego zadovoljavajućim, što je važno za donošenje zaključaka iz istraživanja.

Statistička obrada podataka uključuje deskriptivnu statistiku (tabela 1) kako bi se opisao svaki pojedini konstrukt. Provedena su ispitivanja validnosti i pouzdanosti svih skala.

Tabela 1: Deskriptivna statistika za sve skale

Skale	Broj tvrdnji	Cronbach α	N	Min	Max	M	SD	Sk	Ku
Perceived product quality (PPQ)	3	0.91	612	3.33	7.00	5.89	0.90	-0.65	-0.29
Brand credibility (BRC)	5	0.82	615	2.60	7.00	5.84	0.99	-0.84	0.23

Attitudinal loyalty (ATL)	4	0.91	620	2.38	7.00	5.76	1.03	-0.75	-0.08
Complaining behaviour (COB)	4	0.68	618	1.00	6.25	2.31	1.24	0.93	0.19
Propensity to be loyal (PTBL)	3	0.73	625	1.00	7.00	3.27	1.54	0.27	-0.70
Resistance to competing offers (RTCO)	4	0.79	625	1.00	7.00	4.22	1.38	-0.17	-0.54
Nutritional and natural content (NANC)	7	0.92	319	1.00	7.00	4.39	1.33	-0.33	-0.17
Origin (ORI)	5	0.92	319	1.00	7.00	5.20	1.51	-1.10	0.89

Izvor: rezultati istraživanja

Za ispitivanje faktorske strukture svakog konstrukta provedena je eksplorativna faktorska analiza. Također, korištena je multivarijantna regresijska analiza kako bi se testirali odnosi između varijabli. Na kraju statističke analize izračunata je ukupna korelacija među svim skalama (tabela 2).

Tabela 2: Pearson-ovi koeficijenti korelacije (r) među ljestvicama

	PPQ	BRC	ATL	COB	PTBL	RTCO	NANC	ORI
PPQ	1							
BRC	0.632**	1						
ATL	0.622**	0.604**	1					
COB	-0.147**	-0.071	-0.080*	1				
PTBL	0.024	0.053	0.062	0.115**	1			
RTCO	0.355**	0.379**	0.541**	-0.047	0.215**	1		
NANC	0.574**	0.591**	0.507**	-0.011	0.121*	0.543**	1	
ORI	0.417**	0.478**	0.450**	0.077	0.072	0.507**	0.644**	1

Izvor: rezultati istraživanja

Pearson-ovi koeficijenti korelacije pokazuju da percepcija kvalitete proizvoda (PPQ) ima pozitivnu korelaciju s kredibilitetom marki (BRC), stavovima potrošača o lojalnosti (ATL), otpornošću na konkurentske ponude (RTCO), nutritivnim i prirodnim sadržajem (NANC) i podrijetlom (ORI), te negativnu

korelaciju s ponašanjem u izražavanju prigovora (COB). Međutim, nema statistički značajne korelacije sa sklonošću lojalnosti (PTLB).

Za skalu koja testira kredibilitet marki (BRC) također postoji pozitivna korelacija s ATL, RTCO, NANC i ORI. Ponovno, nema statistički značajne korelacije s COB i PTLB. Skala ATL ima dodatno nisku negativnu korelaciju s COB i pozitivnu korelaciju s RTCO, NANC i ORI. Skala COB ima samo jednu pozitivnu korelaciju, a to je sa skalom PTLB. Skala PTLB također ima pozitivnu korelaciju s RTCO i NANC.

Skale NANC i ORI, koje predstavljaju percepciju "Clear label-a", imaju snažnu pozitivnu korelaciju sa svim skalama osim COB i PTLB. To je dobar pokazatelj da je "Clear label" pozitivno povezan ne samo s nekim slojevima lojalnosti prema prehrambenim markama, već i s percepcijom kvalitete proizvoda i kredibilitetom marki.

Da bi se testirale hipoteze o odnosu između konstrukta provedene su hijerarhijske regresijske analize, odnosno analize umjerenih višestrukih regresija.

U prvom koraku (Model 1), konstrukt PPQ / BRC je uključen kao prediktor u svakoj analizi. U drugom koraku (Model 2), dodana je „dummy“ varijabla elemenata percepcije "Clear label" (CLE), koja označava je li proizvod sadržavao elemente "Clear label" (0 - nema elemenata "Clear label" / kontrolna grupa, 1 - elementi "Clear label" / testna grupa). U trećem koraku (Model 3), dodana je varijabla koja predstavlja interakciju između PPQ / BRC i CLE (umnožak varijabli PPQ i CLE). Na temelju značajnosti interakcije varijabli PPQ /BRC i CLE (PPQ x CLE), zaključuje se o moderacijskom efektu CLE na odnos između prediktora i kriterija. Rezultati su prikazani u tabelama 3 do 10.

Tabela 3: Rezultati hijerarhijske regresijske analize prediktora PPQ na kriterij ATL

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
PPQ	0.71	0.04	0.62**	0.71	0.04	0.62**	0.65	0.05	0.57**
CLE				-0.15	0.06	-0.07*	-0.15	0.06	-0.07*
PPQ x CLE							0.12	0.07	0.08
ΔR^2	0.387**			0.006*			0.003		

ΔF	382.96	5.51	2.95
Df	1.607	1.606	1.605

Finalni model: R^2=0.40**, F=131.84, df=3.605

*p<0.05, **p<0.01

Izvor: rezultati istraživanja

Rezultati u tabeli 3 pokazuju da je PPQ statistički značajan prediktor ATL (R2=0,39, F=382,96, df=1,607, p<0,01; β=0,62), objašnjavajući 38,7% varijance u ATL. Stoga Model 1 *potvrđuje hipotezu H1a*.

Tabela 4: Rezultati hijerarhijske regresijske analize prediktora PPQ na kriterij COB

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
PPQ	-0.20	0.06	-0.15**	-0.20	0.06	-0.15**	-0.20	0.08	-0.14*
CLE				0.06	0.10	0.02	0.06	0.10	0.02
PPQ x CLE							-0.01	0.11	-0.01
ΔR^2	0.022**			0.001		0.000			
ΔF	13.31			0.31		0.02			
Df	1.603			1.602			1.601		

Finalni model: R^2=0.02**, F=4.53, df=3.601

*p<0.05, **p<0.01

Izvor: rezultati istraživanja

Rezultati u tabeli 4 pokazuju da je PPQ statistički značajan negativan prediktor COB (R2=0,02**, F=13,31, df=1,603; β=-0,15). Stoga Model 1 *potvrđuje hipotezu H1b.*

Tabela 5: Rezultati hijerarhijske regresijske analize prediktora PPQ na kriterij PTLB

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
PPQ	0.04	0.07	0.02	0.04	0.07	0.02	-0.03	0.10	-0.02
CLE				-0.09	0.13	-0.03	-0.09	0.13	-0.03
PPQ x CLE							0.15	0.14	0.06
ΔR^2	0.001			0.001			0.002		
ΔF	0.34			0.49			1.15		
Df	1.610			1.609			1.608		
Finalni model: R^2=0.003, F=0.66, df=3.608									

Izvor: rezultati istraživanja

Rezultati hijerarhijske regresijske analize za PTLB (tabela 5) pokazuju da PPQ nije statistički značajan prediktor PTLB (R2=0,001, F=0,34, df=1,610, p>0,05; β=0,02). Stoga model 1 ukazuje na zaključak o *neprihvaćanju hipoteze H1c*.

Tabela 6: Rezultati hijerarhijske regresijske analize prediktora PPQ na kriterij RTCO

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	B	B	SE B	β	B	SE B	β
PPQ	0.54	0.06	0.36**	0.54	0.06	0.36**	0.48	0.08	0.31**
CLE				-0.02	0.10	-0.01	-0.02	0.10	-0.01
PPQ x CLE							0.13	0.12	0.06
ΔR^2	0.126**			0.000			0.002		
ΔF	88.05			0.04			1.25		
Df	1.610			1.609			1.608		
Finalni model: R^2=0.13**, F=29.75, df=3.608									

**p<0.01

Izvor: rezultati istraživanja

Rezultati hijerarhijske regresijske analize za varijablu RTCO (tabela 6) pokazuju da je PPQ statistički značajan prediktor RTCO (R2=0,13, F=88,05, df=1,610, p<0,01; β=0,36), objašnjavajući 12,6% varijance RTCO-a. Stoga Model 1 *potvrđuje hipotezu H1d.*

Promatrajući umnoške varijabli PPQ i CLE (model 3) u tabelama 3 do 6, vidljivo je da rezultati ne pokazuju statistički značajno povećanje varijance niti za jedan od kriterija (ATL, COB, PTLB, RTCO). Rezultati ukazuju na zaključak da CLE, odnosno „Clear label" nema moderatorski utjecaj na vezu između percepcije kvalitete proizvoda i lojalnosti prehrambenim markama, odnosno *da je hipotezu H3 potrebno odbaciti.*

Tabela 7: Rezultati hijerarhijske regresijske analize prediktora BRC na kriterij ATL

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
BRC	0.64	0.03	0.60**	0.64	0.03	0.60**	0.67	0.05	0.64**
CLE				-0.04	0.07	-0.02	-0.03	0.07	-0.02
BRC x CLE							-0.07	0.07	-0.05
ΔR^2	0.365**			0.000			0.001		
ΔF	350.54			0.27			0.95		
Df	1.609			1.608			1.607		
Finalni model: R^2=0.37**, F=117.11, df=3.607									

*p<0.05, **p<0.01

Izvor: rezultati istraživanja

Rezultati Modela 1 (tabela 7) pokazuju da je kredibilitet marki (BRC) značajan prediktor ATL (R2 = 0,37, F=350,54, df=1,609, p<0,01, β=0,60) i objašnjava 36,5% varijance ATL-a. Stoga Model 1 *potvrđuje hipotezu H2a*.

Tabela 8: Rezultati hijerarhijske regresijske analize prediktora BRC na kriterij COB

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
BRC	-0.09	0.05	-0.07	-0.09	0.05	-0.07	-0.05	0.07	-0.04
CLE				0.07	0.10	0.03	0.07	0.10	0.03
BRC x CLE							-0.06	0.10	-0.04

ΔR^2	0.005	0.001	0.001
ΔF	3.09	0.43	0.38
Df	1.606	1.605	1.604
Finalni model: R^2=0.006, F=1.30, df=3.604			

Izvor: rezultati istraživanja

Rezultati hijerarhijske regresijske analize (tabela 8) za kriterij COB pokazuju da BRC nije statistički značajan prediktor COB (R2=0,005, F=3,09, df=1,606, p>0,05; β=-0,07). Stoga hipoteza *H2b nije prihvaćena*.

Tabela 9: Rezultati hijerarhijske regresijske analize prediktora BRC na kriterij PTLB

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	B	B	SE B	β
BRC	0.08	0.06	0.05	0.08	0.06	0.05	0.07	0.09	0.05
CLE				-0.06	0.12	-0.02	-0.07	0.12	-0.02
BRC x CLE							0.02	0.13	0.01
ΔR^2	0.003			0.000			0.000		
ΔF	1.70			0.27			0.01		
Df	1.613			1.612			1.611		
Finalni model: R^2=0.003, F=0.66, df=3.611									

Izvor: rezultati istraživanja

Rezultati hijerarhijske regresijske analize iz tabele 9 za kriterij PTLB pokazuju da BRC nije statistički značajan prediktor PTLB (R2 = 0,003, F=1,70, df=1,613, p>0,05, β=0,38). Stoga hipoteza *H2c nije prihvaćena*.

Tabela 10: Rezultati hijerarhijske regresijske analize prediktora BRC na kriterij RTCO

	Model 1			Model 2			Model 3		
Prediktor	B	SE B	β	B	SE B	β	B	SE B	β
BRC	0.53	0.05	0.38**	0.53	0.05	0.38**	0.55	0.08	0.39**
CLE				0.09	0.10	0.03	0.09	0.10	0.03
BRC x CLE							-0.02	0.11	-0.01
ΔR^2	0.144**			0.001			0.000		
ΔF	103.14			0.76			0.04		
Df	1,613			1,612			1,611		
Finalni model: R^2=0.15**, F=34.58, df=3.611									

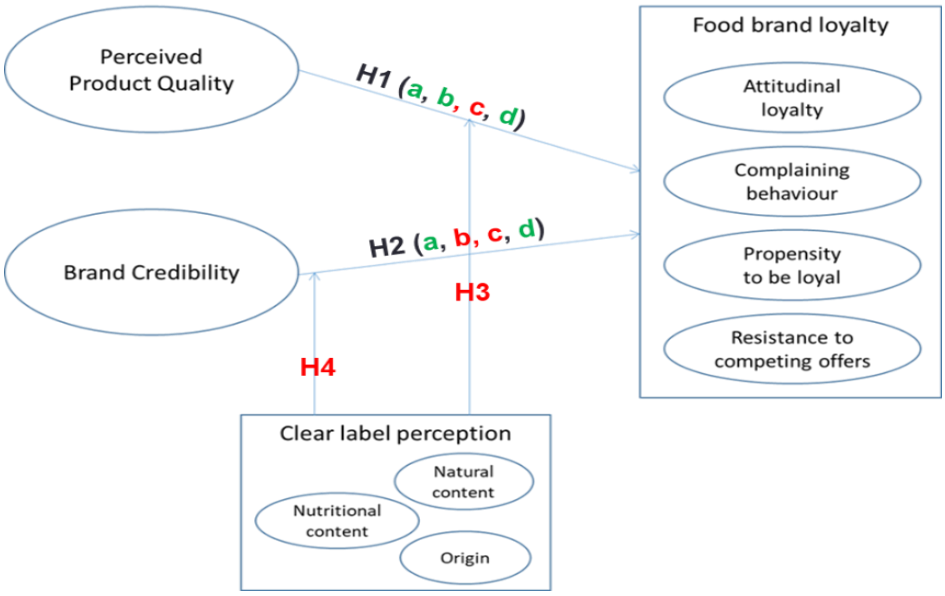
**p<0.01

Izvor: rezultati istraživanja

Rezultati iz tabele 10 pokazuju da je BRC statistički značajan prediktor RTCO (R2=0,15, F=103,14, df=1,613, p<0,01, β=0,38) te objašnjava 14,4% varijance RTCO-a. Stoga Model 1 *potvrđuje hipotezu H2d*.

Promatrajući umnoške varijabli BRC i CLE (model 3) u tabelama 7 do 10, vidljivo je da rezultati ne pokazuju statistički značajno povećanje varijance niti za jedan od kriterija (ATL, COB, PTLB, RTCO). Rezultati ukazuju na zaključak da CLE, odnosno „Clear label“ nema moderatorski utjecaj na vezu između percepcije kredibiliteta marki (BRC) i lojalnosti prehrambenim markama, odnosno *da je hipotezu H4 potrebno odbaciti.*

Slika 3: Rezultati testiranja hipoteza



Izvor: pripremila autorica

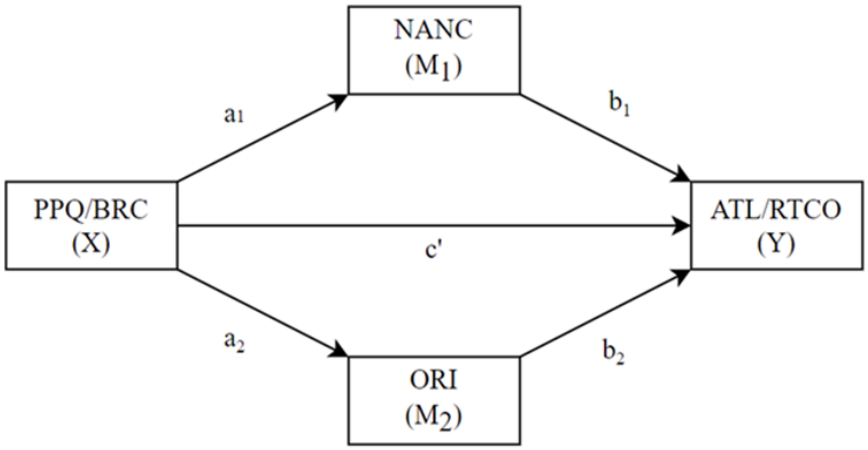
Skica na slici 2 sumira pregled svih hipoteza, gdje zeleno označeni H1 (a, b i d) te H2 (a i d) simboliziraju hipoteze koje su potvrđene, a crveno označeni H1c, H2 (bi c), H3 i H4 simboliziraju hipoteze koje su odbačene.

Dodatne analize

S obzirom da je utvrđeno da „Clear label“ nema očekivani moderatorski efekt provedene su dodatne analize kako bi ispitalo moguće razloge za izostanak moderatorskog efekte te utvrdilo moguće drugačije efekte, primjerice efekt medijacije.

Da bi se ispitao medijacijski efekt percepcije "Clear label" u odnosu između PPQ / BRC i lojalnosti prehrambenim markama, provedene su multiple regresijske analize s paralelnim medijatorima (NANC i ORI) za pojedinačne kombinacije prediktora (BRC / PPQ) i kriterija (lojalnost prehrambenim markama). Kao predstavnici lojalnosti prehrambenim markama uzeti su samo konstrukti koji predstavljaju stavove potrošača o lojalnosti (ATL) te otpornost na konkurentske ponude (RTCO) s obzirom da su rezultati korelacija u odnosu na te konstrukte imali značajnije rezultate (tabela 2).

Slika 4: Prikaz modela sa dva paralelna medijatora



Izvor: pripremila autorica

Tabele 11 do 14 prikazuju rezultate testiranja modela predstavljenih na slici 4. Modeli utvrđuju povezanost između PPQ-a / BRC-a i ATL-a / RTCO-a, uz posredovanje NANC-a i ORI-a (koji predstavljaju „Clear label“). Testiranje je provedeno samo na podacima testne grupe, odnosno grupe u kojoj su uključene skale za konstrukt „Clear label“ u upitniku.

Tabela 11: Rezultati medijacijskog efekta medijatora NANC i ORI na vezu između PPQ i ATL

		M_1 (NANC)				M_2 (ORI)				Y (ATL)		
Prediktor		B	SE B	p		B	SE B	P		B	SE B	p
X (PPQ)	a_1	0.835	0.075	<0.001	a_2	0.676	0.095	<0.001	c'	0.628	0.068	<0.001
M_1 (NANC)		-	-	-		-	-	-	b_1	0.063	0.055	0.246
M_2 (ORI)		-	-	-		-	-	-	b_2	0.140	0.051	<0.01
Konstanta	i_{M1}	-0.487	0.445	0.275	i_{M2}	1.257	0.586	<0.05	i_y	0.979	0.367	<0.01
		R^2=0.320 F(1.307)=124.786, p<0.001				R^2=0.165 F(1.307)=51.013, p<0.001				R^2=0.460 F(3.305)=67.288, p<0.001		

a_1b_1=0.053, SE=0.044, 95% IP [-0.028, 0.145]
a_2b_2=0.095, SE=0.036, 95% IP [0.027, 0.169]

Izvor: rezultati istraživanja

PPQ objašnjava 32% varijance NANC-a i 16,5% varijance ORI-a. PPQ, NANC i ORI zajedno objašnjavaju 46% varijance ATL-a. Rezultati analize pokazuju da PPQ ima dvostruki učinak na ATL (postignuta je djelomična medijacija): izravan učinak (c'= 0,628, SE = 0,068, 95% IP [0,495, 0,761]) i neizravan učinak postignut preko ORI-a (a_2b_2 = 0,095, SE = 0,036, 95% interval pouzdanosti [0,027, 0,169]). Neizravni učinak PPQ-a na ATL putem NANC-a nije značajan (a_1b_1 = 0,053, SE = 0,044, 95% IP [-0,028, 0,145]). *ORI ima značajnu ulogu medijatora u odnosu između PPQ-a i ATL-a.*

Tabela 12: Rezultati medijacijskog efekta medijatora NANC i ORI na vezu između PPQ i RTCO

		M_1 (NANC)				M_2 (ORI)				Y (RTCO)		
Prediktor		B	SE B	p		B	SE B	p		B	SE B	P
X (PPQ)	a_1	0.850	0.069	<0.001	a_2	0.711	0.088	<.001	c'	0.174	0.089	0.051
M_1 (NANC)		-	-	-		-	-	-	b_1	0.306	0.072	<0.001
M_2 (ORI)		-	-	-		-	-	-	b_2	0.244	0.056	<0.001
Konstanta	i_{M1}	-0.588	0.410	0.153	i_{M2}	1.019	0.525	0.053	i_y	0.579	0.441	0.190
		R^2=0.330				R^2=0.174				R^2=0.333		
		F(1.310)=152.672, p<0.001				F(1.310)=65.071, p<0.001				F(3.308)=51.230, p<0.001		

a_1b_1=0.260, SE=0.073, 95% IP [0.124, 0.407]
a_2b_2=0.174, SE=0.048, 95% IP [0.084, 0.271]

Izvor: rezultati istraživanja

PPQ objašnjava 33% varijance NANC-a i 17,4% varijance ORI-a. PPQ, NANC i ORI zajedno objašnjavaju 33,3% varijance RTCO-a. Rezultati analize pokazuju značajan izravan učinak PPQ-a na RTCO (c '= 0,174, SE = 0,086, 95% IP [0,004, 0,343]), značajan neizravan učinak PPQ-a na RTCO putem NANC-a (a_1b_1 = 0,260, SE = 0,073, 95% IP [0,124, 0,407]) te značajan neizravan učinak PPQ-a na RTCO putem ORI-a (a_2b_2 = 0,174, SE = 0,048, 95% IP [0,084, 0,271]). *Postignuta je djelomična medijacija*. *NANC i ORI su značajni medijatori u odnosu između PPQ-a i RTCO-a.*

Tabela 13: Rezultati medijacijskog efekta medijatora NANC i ORI na vezu između BRC i ATL

		M_1 (NANC)				M_2 (ORI)				Y (ATL)		
Prediktor		B	SE B	p		B	SE B	p		B	SE B	p
X (BRC)	a_1	0.739	0.066	<0.001	a_2	0.656	0.084	<0.001	c'	0.422	0.064	<0.001
M_1 (NANC)		-	-	-		-	-	-	b_1	0.146	0.056	<0.05
M_2 (ORI)		-	-	-		-	-	-	b_2	0.118	0.054	<0.05
Konstanta	i_{M1}	0.161	0.390	0.681	i_{M2}	1.467	0.513	<0.01	i_y	1.992	0.298	<0.001
		R^2=0.328				R^2=0.216				R^2=0.391		
		F(1.307)=125.557, p<0.001				F(1.307)=61.260, p<0.001				F(3.305)=64.203, p<0.001		

a_1b_1=0.108, SE=0.042, 95% IP [0.029, 0.194]
a_2b_2=0.077, SE=0.036, 95% IP [0.010, 0.151]

Izvor: rezultati istraživanja

BRC objašnjava 32,8% varijance NANC-a i 21,6% varijance ORI-a. BRC, NANC i ORI zajedno objašnjavaju 39,1% varijance ATL-a. Rezultati analize pokazuju značajan izravan učinak BRC-a na ATL (c'= 0,422, SE = 0,064, 95% IP [0,297, 0,547]), značajan neizravan učinak BRC-a na ATL putem NANC-a (a_1b_1 = 0,108, SE = 0,042, 95% IP [0,029, 0,194]) te značajan neizravan učinak BRC-a na ATL putem ORI-a (a_2b_2 = 0,077, SE = 0,036, 95% IP [0,010, 0,151]). *Postignuta je djelomična medijacija*. *NANC i ORI imaju značajnu medijacijsku ulogu u odnosu između BRC-a i ATL-a.*

Tabela 14: Rezultati medijacijskog efekta medijatora NANC i ORI na vezu između BRC i RTCO

		M_1 (NANC)				M_2 (ORI)				Y (RTCO)		
Prediktor		B	SE B	p		B	SE B	P		B	SE B	p
X (BRC)	a_1	0.761	0.059	<0.001	a_2	0.685	0.071	<0.001	c'	0.097	0.078	0.213
M_1 (NANC)		-	-	-		-	-	-	b_1	0.336	0.069	<0.001
M_2 (ORI)		-	-	-		-	-	-	b_2	0.253	0.057	<0.001
Konstanta	i_{M1}	0.019	0.345	0.957	i_{M2}	1.274	0.418	<.01	i_y	0.868	0.369	<0.05
		R^2=0.349				R^2=0.228				R^2=0.342		
		F(1.311)=166.551, p<0.001				F(1.311)=91.890, p<0.001				F(3.309)=53.577, p<0.001		

a_1b_1=0.256, SE=0.065, 95% IP [0.135, 0.390]
a_2b_2=0.173, SE=0.048, 95% IP [0.082, 0.271]

Izvor: rezultati istraživanja

BRC objašnjava 34,9% varijance NANC-a i 22,8% varijance ORI-a. BRC, NANC i ORI zajedno objašnjavaju 34,2% varijance RTCO-a. Rezultati analize pokazuju da izravan učinak BRC-a na RTCO nije značajan (c'= 0,097, SE = 0,082, 95% IP [-0,065, 0,258]) i da je postignuta potpuna medijacija, odnosno učinak BRC-a na RTCO postiže se putem medijatora. Postoji značajan neizravan učinak BRC-a na RTCO putem NANC-a (a_1b_1 = 0,256, SE = 0,065, 95% IP [0,135, 0,390]), kao i neizravan učinak BRC-a na RTCO putem ORI-a (a_2b_2 = 0,173, SE = 0,048, 95% IP [0,082, 0,271]). *Rezultati pokazuju da NANC i ORI igraju značajnu ulogu medijatora u odnosu između BRC-a i RTCO-a*.

Analiza je otkrila sljedeće:

- ORI ima značajnu medijacijsku ulogu u odnosu između PPQ i ATL.
- NANC i ORI su značajni medijatori u odnosu između PPQ i RTCO.
- NANC i ORI su značajni medijatori u odnosu između BRC i ATL.
- NANC i ORI su značajni medijatori u odnosu između BRC i RTCO.

Osim testiranja medijacije, provedena je i dodatna fokus grupa s marketinškim stručnjacima kako bi se utvrdili potencijalni razlozi za izostanak moderatorskog efekta te potvrdile teorijske postavke korištene u dizajnu istraživanja.

Fokus grupa ukazuje na sljedeće:

1. Predložena definicija konstrukta „Clear label“ je u skladu s onim kako stručnjaci iz fokus grupe percipiraju opisani pojam
2. Konceptualni model predložen u istraživanju je logičan i iz perspektive teorijskih postavki, ali i iz perspektive prakse na tržištu
3. Mogući razlozi za izostanak potvrde konceptualnog modela uključuju:
    a. Proizvodi / marke uključeni u istraživanje imaju vrlo visoku razinu povjerenja i lojalnosti. Komunikacija dodatnih benefita nije potrebna za povećanje razine lojalnosti, već za utvrđivanje već visoke razine lojalnosti.
    b. Na tržištu postoje određene kategorije proizvoda koje su primjerenije „Clear label“ konceptu; poput meda, organskih proizvoda, proizvoda tipa „smootie“, posebnih vrsta kava itd. Ako bi model bio testiran na takvim proizvodima moguće da bi rezultati bili drugačiji.
    c. Kad bi se uključilo proizvode / marke koji nisu poznati potrošačima, koji ne nose percepciju iz prošlosti i koji bi mogli biti prezentirani kao potpuno nova priča, možda bi rezultati bili drugačiji.
    d. Postoje i neprehrambeni proizvodi (kozmetika i odjeća) koji su prikladni za integraciju „Clear label“ komunikacije (pitanja održivosti

i porijekla sirovine, načina prerade) i koje bi se također moglo uzeti u obzir za testiranje modela.

Diskusija i zaključak

Svrha ovog istraživanja je bila proučiti kako konstrukti percipirane kvalitete proizvoda, kredibiliteta marke i lojalnosti marki međusobno utječu jedni na druge. Dodatno je analizirano kako jedan od suvremenih trendova, takozvani *clear label* utječe na veze između navedenih konstrukata. Kroz istraživanje je potvrđena pozitivna povezanost navedenih konstrukata. Poveznica s tim zaključcima je uočljiva i u istraživanjima koja povezuju atribute kvalitete s lojalnosti markama (Vranešević i Stančec 2003; Alhaddad 2015; Kapferer 2008; Espejel et al. 2009). Također poveznica je vidljiva i s Kemp i Bui (2011) koji povezuju kredibilitet i stavove o lojalnosti markama te s Kaur i Soch (2018) ili Haq et al. (2022) koji povezuju kredibilitet marki s lojalnim ponašanjem.

Istraživanje je također pokazalo da *clear label* ima pozitivni učinak na dimenzije lojalnosti markama kao i na percepciju kvalitete te kredibilitet marki, što se poklapa i s nalazima Magnier et al. (2016) o utjecaju dizajna pakiranja na percipiranu kvalitetu, kao i s nalazima Krystallis i Chrysochou (2011) o utjecaju komunikacijskih elemenata u dizajnu ambalaže na lojalnost.

U konačnici dokazan je i medijacijski efekt *clear labela* na veze između percipirane kvalitete proizvoda i kredibiliteta marke s jedne strane te lojalnosti markama (kroz elemente stavova potrošača o lojalnosti i otpornosti na konkurentske ponude) s druge strane. Slične zaključke nalazimo u istraživanju Veloutsou (2015) gdje je sugerirano da odnos s markom ima medijatorski učinak na veze između povjerenja u marke, zadovoljstva i lojalnosti. Također Dimitru et. al. (2021) pojašnjava da potreba potrošača za povećanom sigurnosti hrane obuhvaća više aspekata, poput porijekla proizvoda, nutritivnog sastava (što je dio *clear label* konstrukta u ovom istraživanju), garancije i sl. te da svi ti aspekti, ako se uspješno integriraju u dizajn pakiranja, mogu imati medijacijski efekt između potrošača i marki. Sve ovo ukazuje na zaključak da izostanak očekivanog moderatorskog efekta, iako je očekivanje bazirano na prethodnim istraživanjima (Espejel 2009; Veloutsou 2015; Riva et al. 2022), ne bi trebalo biti iznenađenje.

Sveukupan zaključak istraživanja i svih provedenih analiza jest da konstrukti NANC i ORI, koji zajedno čine konstrukt "Clear label" percepcije, pokazuju da "Clear label" pozitivno korelira ne samo s nekim razinama lojalnosti prehrambenim markama, već i s percepcijom kvalitete proizvoda (PPQ) i kredibilitetom marke (BRC).

Unatoč pokazateljima snažne pozitivne korelacije, moderatorski efekt nije potvrđen - hipoteze H3 i H4 nisu prihvaćene. To znači i da predloženi konceptualni model koji je osmišljen za ovo istraživanje nije potvrđen, iako su hipoteze H1 i H2 djelomično potvrđene.

U dodatnoj analizi ispitana je i medijacija, temeljena na zaključcima o korelacijama. U tu svrhu postavljen je dodatni model s paralelnim medijatorima NANC i ORI. Rezultati pokazuju da NANC i ORI igraju ulogu medijatora između percepcije kvalitete proizvoda (PPQ) / kredibiliteta marki (BRC) i lojalnosti prehrambenim markama. Dodatna analiza je pokazala da je ovaj odnos dvostruki kada se uzme u obzir percepcija kvalitete proizvoda (PPQ) i lojalnost prehrambenim markama (konstrukti ATL i RTCO), postižući djelomično posredovanje između promatranih konstrukata.

S druge strane, kada se uzme u obzir kredibilitet marki (BRC) i lojalnost prehrambenim markama (konstrukti ATL i RTCO), odnos je također značajan kako izravno tako i neizravno, pri čemu se postiže djelomična medijacija između konstrukata BRC i ATL, no "Clear label" također igra značajnu posredničku ulogu u odnosu između BRC i RTCO, gdje je postignuta potpuna medijacija, tj. učinak kredibiliteta marki (BRC) na otpornost na konkurentske ponude (RTCO) ostvaruje se indirektno, putem medijatora.

Očekuje se da će disertacija doprinijeti teorijskom, metodološkom i upravljačkom aspektu.

Očekivani teorijski doprinos vidi se u sistematizaciji prethodnih istraživanja iz područja marketinga hrane povezanih s dizajnom pakiranja proizvoda, trendova, lojalnosti markama, percepciji kvalitete i kredibiliteta marki. Razvoj marketinškog razmišljanja u specifičnom području marketinga hrane i istraživanju kako elementi marke, poput percepcija kvalitete proizvoda i kredibilitet marki, utječu na lojalnost prehrambenim markama (doprinos popunjavanju praznina s teorijskog aspekta).

Također, dan je prijedlog konceptualnog modela za istraživanje odnosa između percepcije kvalitete proizvoda, kredibiliteta marki te lojalnosti prehrambenim markama pod utjecajem percepcije *clear label* oznaka. Kako je *clear label* prisutan na tržištu u novije vrijeme, još uvijek nema puno znanstvenih radova s ovom temom pa je opis pojma te definiranje karakteristika što čini neki proizvod *clear label-om* također doprinos. Disertacija ima za cilj pružiti dublje razumijevanje teme kritičkim analiziranjem relevantne literature i sažimanjem najvažnijih saznanja. Na taj način pomoći će proširenju teorijskih temelja i doprinijeti akademskoj raspravi u navedenom području.

Najvažniji metodološki doprinos očituje se u dizajniranju potpuno novih skala za mjerenje *clear label* konstrukata (hranjivost i prirodnost sastojaka (NANC) i porijeklo (ORI)). Razvoj skala je baziran na kombinaciji skala iz istraživanja Lee i Yun (2015) za hranjivost i prirodnost sastojaka te na dijelu skale za porijeklo proizvoda iz istraživanja Van Ittersum, Candel and Torelli's (2000). Navedene skale su odabrane radi njihove definicije konstrukata koje se poklapaju sa identificiranim karakteristikama proizvoda koji su *clear label*. Nove skale su testirane dva puta, najprije kroz pilot, a kasnije i kroz glavno istraživanje te su se pokazale pouzdanima.

Metodološki doprinos je također vidljiv i u prilagodbi ostalih korištenih skala potrebama predloženog konceptualnog modela.

Osim toga, disertacija ima za cilj pružiti vrijedne upravljačke uvide i praktične implikacije. Nastoji premostiti jaz između teorije i prakse pružajući konkretne preporuke i smjernice za praktičare, donositelje politika i stručnjake u industriji.

Koristeći *clear label* pristup u razvoju pakiranja prehrambenih proizvoda (jednostavna vizualizacija i dodavanje transparente komunikacije sastojaka na prednjici pakiranja), kompanije mogu ostvariti određene benefite. Zaključci istraživanja se mogu koristiti za kreiranje smjernica za komunikaciju s potrošačima, ali i sa regulatornim tijelima (primjerice izrada smjernica obaveznih elementa na pakiranju).

Clear label je odgovor na bojazan potrošača o sigurnosti hrane i daje im transparentnost koju očekuju. U vrijeme koje karakterizira povećana svijest o zdravlju, prehrani, etičkim pitanjima itd. potrošači s više pažnje pristupaju proizvodima koje konzumiraju. Takva povećana transparentnost o sastojcima proizvoda može potrošačima pomoći donositi odluke na bazi bolje informiranosti, poboljšati iskustvo kupovine te povećati povjerenje u marke.

Kao i svako drugo istraživanje, ovo također ima svojih ograničenja, ali također daje i uvide u moguća buduća istraživanja. Na temelju pregleda literature jasno je da se proučavanju lojalnosti marki može pristupiti iz različitih kutova i perspektiva. Prethodna istraživanja (Chaudhuri i Holbrook, 2001; Keller, 2003; Rundle-Thiele, 2005b; Punniyamoorthy i Raj, 2007 ili Hollebeek, 2011) navode da je konstrukt lojalnosti kompleksan i višedimenzionalan. Ta višedimenzionalnost omogućava brojne mogućnosti identificiranja koja dimenzija je bitna za razvoj novih hipoteza i dizajniranja novih istraživanja. U ovom istraživanju je to također došlo do izražaja kad je utvrđeno da izostaje očekivani moderatorski efekt i kada su dobiveni rezultati ponovno analizirani iz drugog kuta te se došlo do novih zaključaka.

Za mjerenje lojalnosti prehrambenih marki odabrane su skale bazirane na istraživanju Rundle-Thiele (2005; 2005b). Iako je za sve skale potvrđena njihova pouzdanost dvije skale (skala za mjerenje ponašanja u izražavanju prigovora te skala za sklonost lojalnosti) su imale niske aritmetičke sredine te nisu pokazale statističke relevantne korelacije sa drugim skala. Razlozi za to mogu biti višestruki. Primjerice, originalne skale su razvijene za druge kategorije roba široke potrošnje te za potrebe istraživanja u Australiji (moguće da potrošači u Hrvatskoj imaju neke specifičnosti u navikama ili ponašanjima, primjerice da nisu toliko skloni davati direktne prigovore ili slično). Stoga, za buduća istraživanja potrebno ponovno razmotriti ove skale, odnosno isključenje konstrukata koje mjere iz promatranih dimenzija lojalnosti.

Prikupljanje podataka u okviru glavnog istraživanja provedeno je u kolovozu 2020., odnosno usred COVID-19 krize. Istraživanja provedena vezano uz ponašanje potrošača ukazuju na promjene (Topolko Herceg 2021; Timotius i Octavius 2021), uglavnom u smjeru povećanja kupovine putem interneta, uključujući i namirnice. Moguće je da su te promjene u ponašanju potrošača imale utjecaja i na samo prikupljanje podataka za ovo istraživanje.

Provedena fokus grupa s marketinškim stručnjacima u svojim zaključcima ukazuje na moguće smjerove budućih istraživanja, uključujući istraživanje marki izazivača n tržištu ili novih marki (umjesto marki s liderskim pozicijama), zatim istraživanja unutar specifičnih kategorija proizvoda koje su možda pogodnije za integraciju *clear labela* (proizvodi na biljnoj bazi, prirodni sokovi, organski proizvodi ili sl.), kao i istraživanje integraciju *clear labela* u kategorijama neprehrambenih proizvoda poput kozmetičkih proizvoda ili odjeće. Ovakav pristup u definiranju budućih istraživanja ima potencijal za daljnje produbljenje znanja o *clear labelu*, njegovim potencijalima na tržištu, razvoju novih marketinških strategija i šire prihvaćenosti u različitim kategorijama proizvoda.

LITERATURA

1. Aaker, D. A. 1996, 'Measuring Brand Equity Across Products and Markets', *California managemet review*, vol. 38, no. 3, pp. 102-120.
2. Alhaddad, A. 2015, 'Perceived quality, brand image and brand trust as determinants of brand loyalty', *Journal of Research in Business and Management*, vol. 3, no. 4, pp. 1-8.
3. Bonciu, E. 2018, 'Food processing, a necessity for the modern world in the context of food safety: A review', *Annals of the University of Craiova-Agriculture, Montanology, Cadastre Series*, vol. 47, no. 1, pp. 391-398.
4. Bredahl, L. 2004, 'Cue utilisation and quality perception with regard to branded beef', *Food quality and preference*, vol. 15, no. 1, pp. 65-75.
5. Caswell, J.A. i Padberg, D.I. 1992, 'Toward a more comprehensive theory of food labels', *American Journal of Agricultural Economics*, vol. 74, no. 2, pp. 460-468.
6. Chaudhuri, A. i Holbrook, M. B. 2001, 'The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty', *Journal of Marketing*, vol. 65, no. 2, pp 81-93.
7. Churchill Jr, G. A. 1979, 'A paradigm for developing better measures of marketing constructs', *Journal of marketing research*, vol. 16, no. 1, pp. 64-73.
8. Delgado-Ballester, E. i Munuera-Alemán, J.L. 2001, 'Brand trust in the context of consumer loyalty', *European Journal of Marketing*, vol. 25, no 11/12, pp. 1238-1258.
9. Erdem, T. i Swait, J., 2004, 'Brand credibility, brand consideration, and choice', *Journal of consumer research*, vol. 31, no. 1, pp. 191-198.
10. Espejel, J., Fandos, C. i Flavián, C. 2009, 'The influence of consumer involvement on quality signals perception', *British food journal*, vol. 111, no. 11, pp. 1212-1236.
11. European Union, 2017, *Ensuring food is safe - The veterinary and phytosanitary system of the European Union explained*, Publication Office of the European Union, Luxembourg, viewed 22nd March 2019 <https://publications.europa.eu/en/publication-detail/-/publication/b70d1b20-499a-11e7-aea8-01aa75ed71a1/language-en/format-PDF/source-76151396>
12. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R., 2006. *Multivariate data analysis*. Uppersaddle River.
13. Haq, M. I. U., Khaliq Alvi, A., Somroo, M. A., Akhtar, N., and Ahmed, A. (2022). Relationship of brand credibility and brand loyalty: the mediating effects of attitude toward brand. *Journal of Economic and Administrative Sciences*

14. Innova market insights 2015, *Clean Label & the Consumer - What consumers are looking for*, Anuga 2015, Cologne
15. Innova Market Insights 2023, Clean Label Trends: Global Market Overview, viewed on May 2023 < https://www.innovamarketinsights.com/trends/clean-label-trends/>
16. Jacoby, J. and Kyner, D. B. 1973, Brand Loyalty Vs. Repeat Purchasing Behaviour, *Journal of Marketing Research*, Vol. 10, No. 1, pp 1-9
17. Kalsec, 2019, *Our Predictions for Food and Flavor Trends*, viewed May 2019 <https://www.kalsec.com/food-trends-2019/>
18. Kalsec, 2019b, *Clean to Clear: Clean Label Expectations*, viewed January 31st 2021 < https://info.kalsec.com/consumer-trends-clean-and-clear-labels?submissionGuid=19d7e0e1-f76b-445e-ba58-e5e40019427f>
19. Kapferer, J. N. 2008, *New strategic brand management : creating and sustaining brand equity long term* – 4th ed., Kogan page, London and Philadelphia
20. Kataria, S., Saini, V.K. i Sharma, A. 2019, 'Understanding Brand Loyalty in relation with Brand Affect and Brand Commitment: Evidence from Oral Care Segment', *International Journal of Recent Technology and Engineering*, vol. 8, no. 3S, pp. 450-460.
21. Kaur, H. and Soch, H. 2018, 'Satisfaction, trust and loyalty: investigating the mediating effects of commitment, switching costs and corporate image', *Journal of Asia Business Studies*, Vol. 12
22. Kemp, E. i Bui, M. 2011, 'Healthy brands: establishing brand credibility, commitment and connection among consumers', *Journal of Consumer Marketing,* vol. 28, no. 6, pp. 429–437.
23. Keller, K. L. 2003, 'Brand Synthesis: The Multidimensionality of Brand Knowledge', *Journal of Consumer Research*, vol. 29, no. 4, pp. 595-600.
24. Krystallis, A. and Chrysochou, P. 2011, 'Health claims as communication tools that enhance brand loyalty: The case of low-fat claims within the dairy food category', *Journal of Marketing Communication*, vol. 7, no. 3, pp. 213-228.
25. Labelnet, 2018, *Clean & Clear Labels To Dominate 2018*, viewed May 2019 <https://www.labelnet.co.uk/clean-clear-labels-dominate-2018/>
26. Lee, H. J., i Yun, Z. S. 2015, 'Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food', Food quality and preference, vol 39, pp. 259-267.
27. Leko-Šimić, M. 2002, *Marketing hrane,* Ekonomski fakultet, Osijek
28. Magnier, L., Schoormans, J. i Mugge, R. 2016, 'Judging a product by its cover: Packaging sustainability and perceptions of quality in food products'*, Food Quality and Preference*, vol. 53, pp. 132-142.

29. Manning, L. 2007, ‘Food safety and brand equity’*, British Food Journal*, vol. 109, no. 7, pp. 496-510.
30. McLeod, A., Yang, W., Fang, D., and Nayga, R. M. 2022, ‘Aligning values to labels: A best-worst analysis of food labels’, Agricultural and Resource Economics Review, pp. 1-25.
31. Oliver, R. L. 1999, ‘Whence Consumer Loyalty’, *Journal of Marketing*, vol. 63, Special Issue, pp. 33-44.
32. Ostroški, Lj. (ed.) 2018, *Statistički ljetopis Republike Hrvatske – Statistical Yearbook of the Republic of Croatia 2018*, Državni zavod za statistiku Republike Hrvatske, Zagreb
33. Pearson, D. and Bailey, A., 2012. Exploring the market potential of ‘local’in food systems. *Locale: The Australasian-Pacific Journal of Regional Food Studies*, Vol 2, No. 12, pp. 82-103.
34. Punniyamoorthy, M and Raj, P. M. 2007, ‘An empirical model for brand loyalty measurement’, *Journal of Targeting, Measurement and Analysis for Marketing*, vol. 15, pp. 222-233.
35. Riva, F., Magrizos, S., Rubel, M. R. B. and Rizomyliotis, I., 2022, ‘Green consumerism, green perceived value, and restaurant revisit intention: Millennials' sustainable consumption with moderating effect of green perceived quality’, *Business Strategy and the Environment*, vol. 31, no. 7, pp. 2807-2819.
36. Rundle-Thiele, S., 2005, ‘Elaborating customer loyalty: exploring loyalty to wine retailers’, *Journal of Retailing and Consumer Services*, vol. 12, no. 5, pp. 333-344.
37. Rundle-Thiele, S., 2005b, ‘Exploring loyal qualities: assessing survey-based loyalty measures’, *Journal of Services Marketing*, vol. 19, no. 7, pp. 492–500.
38. Southey, F. 2022, ‘How is clean label evolving? Mintel talks regulation, processing, and linking ‘clean with green’’, FoodNavigator, viewed on May 2023 < https://www.foodnavigator.com/Article/2022/08/04/How-is-the-clean-label-trend-evolving-Mintel>
39. Swinnen, F. M., 2010, ‘The Political Economy of Agricultural and Food Policies: Recent Contributions, New Insights, and Areas for Further Research’, *Applied Economic Perspectives and Policy,* vol. 32, no. 1, pp. 33–58.
40. Timotius, E., and Octavius, G. S. 2021, ‘Global changing of consumer behavior to retail distribution due to pandemic of COVID-19: a systematic review’, *Journal of Distribution Science*, vol. 19, no. 11, pp. 69-80.
41. Topolko Herceg, K. 2021, ‘Impact of COVID-19 pandemic on online consumer behavior in Croatia’, CroDiM: International Journal of Marketing Science, vol. 4, no. 1, pp. 131-140.

42. Van Ittersum, K., Candel, M.J.J.M. i Torelli, F. 2000, 'The market for PDO/PGI protected regional products: consumer attitudes and behaviour', *The Socio-Economics of origin labelled Products in Agri-Food Supply Chains: Spatial*, Institutional and Co-ordination Aspects, pp. 209-221.
43. Veloutsou, C. 2015, 'Brand evaluation, satisfaction and trust as predictors of brand loyalty: the mediator-moderator effect of brand relationships', *Journal of Consumer Marketing*, vol. 32, no. 6, pp. 405-421.
44. Vezelić, M. (n.d.) *Osnovne informacije o pravilnoj prehrani*, Hrvatski zavod za javno zdravstvo Dubrovačko-neretvanske županije, viewed Novemeber 3rd 2014 <http://www.zzjzdnz.hr/hr/zdravlje/hrana_i_zdravlje/300-ch-0?&l_over=1>
45. Vranešević, T. 2007, *Upravljanje markama (Brand management),* Accent, Zagreb
46. Wang, E. S. 2013, 'The influence of visual packaging design on perceived food product quality, value, and brand preference', *International journal of retail & distribution management*, vol. 41, no. 10, pp. 805-816
47. Wegener, G., 2014, 'Let food be thy medicine, and medicine be thy food': Hippocrates revisited. *Acta neuropsychiatrica,* vol. 26, no. 1, pp.1-3.
48. Zakon o hrani NN 81/13 i 14/14

IZJAVA

kojom ja, Martina Ferenčić, doktorandica Ekonomskog fakulteta Sveučilišta u Rijeci, kao autorica doktorskog rada s naslovom: EXPLORING FOOD BRAND LOYALTY: THE EFFECTS OF CLEAR LABEL CONCEPT ON PRODUCT QUALITY AND BRAND CREDIBILITY PERCEPTION:

1. Izjavljujem da sam doktorski rad izradila samostalno pod mentorstvom izv. prof. dr. sc. Jasmine Dlačić. U radu sam primijenila metodologiju znanstvenoistraživačkog rada i koristila literaturu koja je navedena na kraju rada. Tuđe spoznaje, stavove, zaključke, teorije i zakonitosti koje sam izravno ili parafrazirajući navela u radu citirala sam i povezala s korištenim bibliografskim jedinicama sukladno odredbama Pravilnika o izradi i opremanju doktorskih radova Sveučilišta u Rijeci, Ekonomskog fakulteta. Rad je pisan na engleskom jeziku.

2. Izjavljujem da kao student - autor doktorskog rada dozvoljavam Ekonomskom fakultetu Sveučilišta u Rijeci da ga trajno javno objavi i besplatno učini dostupnim javnosti u cjelovitom tekstu u mrežnom digitalnom repozitoriju Ekonomskog fakulteta Sveučilišta u Rijeci te u Nacionalnom repozitoriju disertacija i znanstvenih magistarskih radova sukladno obvezi iz odredbe članka 62. stavka 7. Zakona o visokom obrazovanju i znanstvenoj djelatnosti (NN 119/22).

Ime i prezime

Martina Ferenčić