



Article

# Factors Influencing Consumer Attitudes towards Organic Food Products in a Transition Economy—Insights from Kosovo

Iliriana Miftari <sup>1</sup>, Rainer Haas <sup>2</sup>, Oliver Meixner <sup>2</sup>, Drini Imami <sup>3,4</sup> and Ekrem Gjokaj <sup>5,\*</sup>

- Department of Agricultural Economics, Faculty of Agriculture and Veterinary, University of Prishtina, 10000 Prishtina, Kosovo; Iliriana.Miftari@uni-pr.edu
- Department of Economics and Social Sciences, Institute of Marketing and Innovation, University of Natural Resources and Life Sciences, 1180 Vienna, Austria; rainer.haas@boku.ac.at (R.H.); oliver.meixner@boku.ac.at (O.M.)
- Faculty of Economics and Agribusiness, Agricultural University of Tirana, 1025 Tirana, Albania; dimami@ubt.edu.al
- 4 CERGE-EI and Faculty of Tropical Agri Sciences, Czech University of Life Sciences, 16500 Prague, Czech Republic
- Department of Agribusiness, Faculty of Life and Environmental Science, University "UKSHIN HOTI", 20000 Prizren, Kosovo
- \* Correspondence: ekremgjokaj@gmail.com

Abstract: Globally, organic food production and consumption have significantly increased in the last two decades, driven largely by perceived positive impacts on consumer health, the environment, and sustainable development. The aim of this study was to investigate factors influencing consumers' attitudes towards organic food in the context of a transition/emerging economy. The study is based on a structured consumer survey targeting 300 urban consumers in Kosovo. Structural Equation Modeling (SEM) by Partial Least Squares was used to analyze factors influencing consumers' attitudes towards organic food products, measured with four items (health concerns, labeling of origin, certification, environmental concerns). The results indicate that the health concerns, certification, and environmental concerns significantly influence consumers' attitudes towards organic food products. The findings of this study are important for both producers and authorities responsible for ensuring the provision of healthy and reliable certified organic food products as well as environmentally friendly production systems that contribute to sustainable development.

Keywords: organic food; SEM; health; origin; certification; environmental values



Citation: Miftari, I.; Haas, R.; Meixner, O.; Imami, D.; Gjokaj, E. Factors Influencing Consumer Attitudes towards Organic Food Products in a Transition Economy—Insights from Kosovo. Sustainability 2022, 14, 5873. https://doi.org/10.3390/su14105873

Academic Editors: Marija Cerjak and Vlade Zarić

Received: 25 March 2022 Accepted: 9 May 2022 Published: 12 May 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

# 1. Introduction

There is evidence that the demand for organic food products has been increasing around the world during the last two decades, transforming a niche industry into a well-developed market [1,2]. The total organic agricultural land increased from 11 million hectares in 1999 to 72.3 million hectares in 2019 [3]. However, only 1.5% of global agricultural land is organic and even in the European Union (EU), the share of organic land is only 8%, with twelve countries having shares of over 10%. The EU countries with the largest shares of total organic agricultural land are Liechtenstein (41%), Austria (26%), Estonia (23%), and Sweden (20%) [3].

After the USA, the EU constitutes the second largest market for organic food, with a growth rate of 8% in 2020. From 2010 to 2019, the organic market in the EU doubled in size. On a global scale, EU countries have the largest share of organic food with respect to total food sales, with Denmark and Austria being the leading countries [3]. Even though organic food production and consumption are increasing, in less developed countries and regions in Europe, such as the Western Balkans, organic food is still in the early stages, despite both production and market potential. In developing and transition countries where the preference for organic food is lower, wealthy consumers are increasingly buying organic food products [4].

Sustainability **2022**, 14, 5873 2 of 14

Kosovo, which is situated in the Western Balkans, has suitable agroclimatic conditions for organic food production of a wide range of agrifood products, particularly in the horticultural sector. However, organic farming is still far below the regional and EU averages—organic agrifood production is dominated by medicinal and aromatic plants which are mainly destined for export to Western Europe.

The share of people consuming organic food has been found to be positively associated with increases in income [5]. On the other hand, higher prices are a significant barrier that reduces the likelihood of purchasing such products, along with inaccessibility and the limited options offered [6].

The literature shows that consumer preference for organic food is largely driven by environmental concerns, health awareness or concerns, and locality/origin [7,8]. The concept of organic food production is as a health- and environment-oriented production system aiming to preserve and improve ecological biodiversity by largely excluding synthetically compounded agricultural inputs.

Food safety represents a major concern for consumers in the Western Balkans, including Kosovo. Public agencies responsible for ensuring food safety enforcement still have limited capacities, conditioned by the weak institutional framework and corruption [9]. As a result, Kosovar consumers use food safety certificates and brands as important indicators to identify and guarantee food safety and quality [10]. In addition, consumers often use organic production certification as a safety and quality cue [11]. Studies by Haghiri et al. [12] and Thøgersen [13] have shown that organic labels are an important credence attribute frequently used as a way to ensure provide food safety, human health, and sustainable agricultural production.

Nowadays, growing demand for organic food is strongly influenced by consumers' concerns about food they consume—food safety and quality attributes need to be guaranteed by third-party certification. A study conducted by Hoxha and Musliu [14] shows that Kosovar consumers prefer organic products over conventional ones as they consider them to be fresher, safer, and better tasting. In addition, environmental concerns, heightened quality of life, interest in supporting local producers, and animal welfare are all issues that contribute to the value of organic foods [15].

Other factors that have a significant impact on consumer perceptions of and attitudes towards organic food products are the price/quality ratio, distribution barriers, and modern media as a promotion instrument [16]. In addition, consumer behavior related to organic food should be perceived through their awareness and knowledge of organic food products, which have direct and indirect impacts on their attitudes toward and readiness to pay for such products [17].

The aim of this study is to assess the effects of four factors (health concerns, the use of labeling of origin, certification, and environmental concerns) on attitudes towards organic food products.

The paper consists of a literature review, followed by the materials and methods, results and discussion, and conclusions of the present study.

# 2. Literature Review

The literature shows that consumer preference for organic food is largely driven by environmental concerns, health awareness or concerns, and locality/origin [7]. Thus, the underlying theoretical model of this study assumes that health concerns, the country of origin of organic food, and environmental concerns influence the attitudes of consumers towards organic food. Furthermore, considering the lack of trust in the institutional framework/system, which is more pronounced in developing or transition/emerging economies, including Kosovo (as highlighted in the introduction), we also assume that the trustworthiness of certification of organic food is an important factor influencing consumer attitudes towards organic goods. These aspects are discussed in more detail below.

*Health concerns*. About 75% of newly emerging infectious diseases are zoonoses evolving as a result of genetic, ecological, socioeconomic, and climatic problems [18].

Sustainability **2022**, 14, 5873 3 of 14

The presence of diseases in livestock, such as mad cow disease, bird flu, swine flu, and contamination with toxins such as melamine have increased consumers' uncertainty and risk perception about food safety [19–21]. Recently, Covid-19 has increased consumer consciousness about health and eating healthily [22]. Knowing that developing countries are still facing problems associated with food safety, health concerns might be the main driver of organic food demand [23].

General conclusions about the health effects of organic food cannot be drawn [24–27], which means that there is no real scientific evidence that organic food is always healthier than conventional food. Nevertheless, in general, consumers tend to associate organic food with a healthier diet, probably because there is evidence that, for example, the concentration levels of pesticide residues, synthetic fertilizers, and heavy metals are lower in organic food products and that amounts of omega-3 fatty acids are greater in organic milk and probably meat [24,28]. Since the use of pesticides and artificial fertilizers is not allowed in organic farming, consumer perceptions of organic food are directly associated with health and safety issues. Consumers' life equilibrium mediates the effect of health consciousness on the evaluation of food quality attributes [29]. Consumers' attitudes towards organic foods are strongly associated with perceived benefits for human health [15]. In addition, a meta-analysis covering 343 peer-reviewed publications has shown that the most important composite differences between organic and non-organic crops/crop-based foods refer to concentration levels of a range of antioxidants such as polyphenolics, which are substantially higher in organic foods [30].

Several studies have argued that the main factor motivating consumers to buy organic food products is health concerns [31–36]. Consumption of organic food is moderated by individuals' health concerns, with a stronger influence for the more health-concerned consumers [31]. Purchasing decisions regarding organic food are complex and the importance of motives and barriers varies among the products. However, for most consumers, organic food is associated with a healthy diet [33,34]. Human health is positively correlated with a high relative frequency of choosing eco-labeled alternatives [36]. The role of health as a major motive for consuming organic food has also been identified in studies undertaken in emerging or developing countries [37,38]. In the case of Albania (a neighboring country of Kosovo with which it shares many similarities), a previous study has shown that most consumers consider the health factor to be the most important dimension of organic products, while the impact of organic food production on the environment does not appear to be important at all [38]. A study on the segmentation of the Hungarian organic market showed that one of the main factors influencing organic food purchases is consumer health consciousness [39]. The main reason is related to changes in consumer perceptions of food [40]. In general, the aim of consuming food is no longer just to satisfy hunger, but also encompasses a wide set of different motives and expectations in terms of subjective quality, often referring to process attributes such as organic production [41,42].

Labeling of origin. Consumers often use the origin of a food product (local, domestic, foreign, or EU) as a quality cue [43,44]. Origin (e.g., a domestic, regional, or local origin) has been shown to significantly and positively influence the purchase of organic food products [45–48]. Origin is considered to be an important attribute, especially for quality-seeking consumers [38]. Another aspect is the place or outlet of purchase. Studies conducted by Hamzaoui and Zahaf [2] and Zepeda and David [49] showed that consumers have doubts about organic products if they are purchased in places other than specialized stores or directly from organic farms. Another study with Croatian consumers revealed that domestic origin was an important food quality cue associated with the absence of risk to personal health, better taste, and reliable producers [50]. A previous study in Kosovo found a strong consumer patriotism—overall, consumer segments preferred local food. Kosovar consumers attributed higher quality and higher food safety to domestic dairy and milk products, which underlines the necessity of trustworthy signaling of the country of origin [10]. A later study in Kosovo also confirmed that consumers have a greater preference for domestic (versus imported) dairy products [51]. Knowing that Kosovar consumers

Sustainability **2022**, 14, 5873 4 of 14

have a positive bias towards domestic food products, labeling of origin can be considered to be an important factor influencing consumers' attitudes towards organic food products.

Organic certification. Organic food production is a credence attribute because consumers cannot directly observe its related quality and safety [52]. Certification is one of the ways of incorporating the credence attribute of organic quality as a guarantee of sustainable agriculture and healthy living [53]. Liang [54] observed that factors such as certification, nutritional values, and environmental protection have a positive impact on the purchase intention of organic food products. Ambiguous labels and failure of organic labels to distinguish organic food from eco-labeled or healthy food may negatively impact consumers' decisions about organic food purchases [55,56]. Consumers' trust in organic food is built upon the expectation that all organic supply chain actors act according to the provided guidelines and that there is a well-functioning control system in place. In developing/emerging economies with a weak control system and corruption, organic producers may fail to gain consumers' trust, as producers or traders may try to cheat to generate higher income [34]. Institutional trust and the behavior of people are largely directed by the efficacy of the rules and principles in place [57]. Consumers may not be willing to pay a premium for organic food products when they distrust organic certification [58–60]. Consumers' confidence in the safety and quality of organic food is dependent on a specific certification. Food certificates may be considered untrustworthy due to a lack of trust in formal institutions [42]. However, consumer trust in organic food and organic certification differs between countries. For instance, a previous study revealed that consumer trust in organic food differed significantly between the four studied countries, whereby consumers from Italy and Poland reported higher overall trust and preferred EU certification; by contrast, German and UK consumers showed lower trust and preferred their national certification [61].

Environmental concerns. More than 30% of greenhouse gas emissions are produced from the food and drinks supply chains [62]. In addition, the proportion of wasted food is still large and is causing vast environmental, economic, and social problems, which is a consequence of weak management of the value chain and unsustainable development trends [63]. As a result, environmental issues have become a priority for sustainable development [64,65]. The environmental dimension in consumer demand has an important impact on the efforts of businesses to become more environmentally friendly when manufacturing their products [66]. For agricultural businesses, the revised EU Common Agricultural Policy gives more attention to sustainable practices such as precision agriculture, organic farming, agro-ecology, and stricter animal welfare standards. Within the EU's agricultural policy, enhancement of sustainability-oriented labeling is further reflected via the Green Deal and the Farm to Fork Strategy. The factor "environmental concerns" is important as it motivates consumers, amongst others, to purchase organic food products [67,68]. Environmental concerns are also a significant determinant of consumers' purchase intentions in the case of green personal care products [69]. Most consumers in wealthy countries perceive organic agriculture to be superior with respect to animal welfare, climate protection, and the environment as a whole [70]. However, occasional organic consumers place significantly less importance on environmental protection and animal welfare compared to regular organic food consumers [71]. Performance of environmentally friendly behavior, such as refraining from car driving, is a good predictor of organic purchase frequency. To assess whether this is true for a transition/emerging country as well, we included environmental concerns in our research model.

Other factors associated with this issue could be a lack of consciousness or awareness of food among consumers [72]. In emerging economies with a poorly developed organic sector/market, consumers often lack understanding of the definition of organic food and specifically organic certification, which, along with distrust (highlighted above), can influence their behavior towards organic food [23]. Therefore, we also included certification in the empirical analysis.

Sustainability **2022**, 14, 5873 5 of 14

According to these findings from the literature, the following research hypotheses were tested:

**Hypothesis 1 (H1).** Consumers' health concerns positively influence attitudes towards organic food products.

**Hypothesis 2 (H2).** Consumers' environmental concerns positively influence attitudes towards organic food products.

**Hypothesis 3 (H3).** The label of origin positively influences consumer attitudes towards organic food products.

**Hypothesis 4 (H4).** *Certification as a credence attribute has a positive impact on consumer attitudes towards organic food products.* 

## 3. Materials and Methods

#### 3.1. Data Collection

The study is based on a structured face-to-face consumer survey of 300 Kosovars, analyzing consumers' attitudes towards organic food products. Attitudes and perceptions were measured with four items using a five-point Likert scale running from 1, meaning "strongly disagree", to 5, meaning "strongly agree". In addition to different questions related to attitudes and perceptions, the questionnaire contained sociodemographic questions, as well. The questionnaire design was based on the literature review, focus groups, and in-depth interviews conducted with consumers and experts.

Surveyed consumers were chosen randomly in different public spaces, including shopping malls. The response rate was over 95%. Traditional paper-and-pencil mode was used for data collection. The questionnaire was administered through face-to-face interviews as this mode of data collection makes smaller auditory demands and is considered to be less burdensome for respondents. The data were collected in three major cities in Kosovo (Prishtina, Prizren, and Gjilan). The majority (50%) of respondents were from Prishtina city, followed by Prizren (30%) and Gjilan (20%). These three cities are the biggest ones in Kosovo and represent the most attractive markets for the food industry. The largest economic, administrative, educational, and cultural centers are located in these three cities, where consumer purchasing power is highest.

The sample results revealed that the average age of the respondents was 38.5 years and the gender structure of the sample was almost balanced (55% female and 45% male). Most respondents had high school (about 48%) or higher education (about 42%). The average household size was about six family members and the typical household income range was €501–800 per month, corresponding to about 43% of the sample (Table 1). The sample characteristics are not completely compatible with the overall Kosovar population. The sample consumers appear to be somewhat younger and much more highly educated and to have an above-average income. While official statistics are reported for the whole population (a largely rural society), the survey targeted urban areas, namely, the largest cities, such as Pristina, the capital, which hosts all major academic and public institutions and therefore has a stronger presence of more highly educated people. However, since the study did not aim to obtain an accurate representation of consumer segments, this is not very important.

Sustainability **2022**, 14, 5873 6 of 14

<b>Table 1.</b> Demographic frequency distributio	n of sample.
---	--------------

Indicat	or	Sample %	Kosovo % 1
	19–30	37.9	28.1
	31–40	25.5	23.7
Age (years)	41–50	15.8	18.8
	51–60	15.4	13.6
	>61	5.4	15.8
	Female	55.0	49.7
Gender	Male	45.0	50.3
	Basic/middle	9.7	66.5
Education	High school	48.5	20.6
	University	41.8	12.9
	Up to 4 persons	14.0	24.1
NI	5–6 persons	51.0	66.6 <sup>2</sup>
Number of household members	7–8 persons	23.7	
	9 persons or more	11.3	
	150–250	4.3	
	251–500	24.7	
	501-800	43.0	
In some (FLID)	801–1200	20.3	
Income (EUR)	1201-1500	6.3	
	1501–2000	1.0	
	>2000	0.3	
	Mean (approx.) per capita		370

Note: <sup>1</sup> Kosovo Agency of Statistics (http://askdata.rks-gov.net, accessed on 5 November 2021); <sup>2</sup> Household size of five or more persons.

### 3.2. Model Testing

The conceptual model for consumer attitudes towards organic products is based on the measures of the constructs associated with health concerns, labels of origin, certification, and environmental concerns. All items of the constructs were measured on a five-point Likert scale running from 1, meaning "strongly disagree", to 5, meaning "strongly agree."

Descriptive statistics were calculated to provide an overview of the central tendency and standard deviation of the constructs comprising the estimated model. When performing Structural Equation Modeling (SEM), a small sample size is usually an issue, although there are studies showing that simple SEM models can be tested with small sample sizes of n = 100 to 150 [73,74]. The sample size of this study is n = 300, and therefore there should not be an issue with the model testing arising from a small sample size, particularly as we applied Partial Least Squares Structural Equation Modeling (PLS-SEM). The application of PLS-SEM has been increasing in recent years and its use is becoming popular in the fields of market research and consumer behavior [75,76]. In addition, PLS-SEM is the only model that enables simultaneous processing of reflective and formative indicators [77,78]. Numerous studies have proven that PLS-SEM results are robust if the data are highly skewed and also when formative measures and a one-item measure are used [79]. Moreover, PLS-SEM uses different resampling programs for testing the significance of the path coefficient, such as the "bootstrapping" method [77]. In this study, we used the bootstrapping method to test the estimation and path coefficients of the model with 5000 draws.

The internal consistency and reliability of the items included in the constructs were tested using Cronbach's alpha coefficient—items in each construct have a high degree of reliability and are positively related to each other if the Cronbach's alpha is at least 0.7 [80]. PLS-SEM with SmartPLS 3 was used to estimate the validity of the proposed model. Initially, Confirmatory Factor Analysis (CFA) was performed in order to evaluate the convergent and discriminant validity, while the convergent validity was examined using the Composite Reliability (CR) and Average Variance Extracted (AVE); these values should be greater than the thresholds CFA > 0.7, CR > 0.7, and AVE > 0.5 [81].

Sustainability **2022**, 14, 5873 7 of 14

In the second stage, we assessed the research model by calculating the sum of variance of consumer attitudes towards organic products explained by the factors "health concerns", "labels of origin", "certification", and "environmental concerns." The model fit was evaluated with the Standardized Root Mean Square Residual (SRMR), whereby values below 0.10 are acceptable for model validation [82].

#### 4. Results

Except for environmental concerns (EC), all other constructs included in the model had Cronbach's alpha values greater than the minimum threshold of 0.7, which can be considered reliable [80]. Nevertheless, we included EC in the research model as the composite reliability value of this construct was 0.792 and, according to Nunally and Bernstein [83], values above 0.60 to 0.70 are acceptable in exploratory research and values between 0.70 and 0.90 are considered to be satisfactory in more advanced models. The construct of health concerns had the highest value of Cronbach's alpha, followed by consumer attitudes towards organic food products (see Table 2).

**Table 2.** Reliability analysis of the constructs.

Constructs	Abbreviations	Items	Cronbach's α
	HC1	The refrigerator temperature in a store where yoghurts, cheese, fresh meat, etc., are kept	
Health concerns	HC2	Presence of artificial additives	0.06
(HC) HC3		Presence of vitamins, minerals, fiber, etc.	0.86
	HC4	Energy values	
	HC5	The list of ingredients	
Label of origin	LO1	Country in which a foodstuff has been produced	
Label of origin (LO)	LO2	Region within Kosovo in which the foodstuff has been produced (for domestic products)	0.75
	LO3	Whether a foodstuff is organic	
Certification CERT1 (CERT) CERT2		An organic product must be certified by an independent institution based in Kosovo	0.75
		An organic product must be certified by an international independent institution	
Environmental EC1		I consider the potential environmental impact of my actions when making many of my decisions	0.62
concerns (EC)	EC2	My purchase habits are affected by my concern for our environment	0.62
EC3	EC3	I am willing to be inconvenienced in order to take actions that are more environmentally friendly	
Attitudes towards	AOFP1	In my opinion, organic products taste different to regular food products	
organic food	AOFP2	A product produced in a mountainous area is organic	0.78
products (AOFP)	AOFP3	Products sold directly at a farm are organic	
•	AOFP4	I trust that a product is really organic if it is produced locally	

In order to analyze the influence of four constructs (HC, LO, CERT, and EC) on consumers' attitudes towards organic food products (AOFP), the respondents were asked: "How often do you check or look for information about, for example, the country in which a foodstuff has been produced, the region within Kosovo in which the foodstuff has been produced (for domestic products), or whether a foodstuff is organic?" Items of the LO and HC constructs were measured with a five-point Likert scale adapted from Jevšnik et al. [84] with possible responses of: (1) never; (2) occasionally (about one to two times per week); (3) frequently (about half of the time or three to four times per week); (4) usually (about five times per week); (5) always (daily). Items of the EC construct were adapted from Haws et al. [85] measured with a five-point Likert scale with 1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree (that is, I have good reasons to both agree and disagree);

Sustainability **2022**, 14, 5873 8 of 14

4 = agree; 5 = strongly agree. Similar scales were used for the items of CERT constructs developed and validated according to Hoxha and Musliu [14]. The items of the AOFP constricts were adapted from Haas et al. [86].

Table 3 shows that for three out of five constructs, the mean of the constructs can be found near the scale mid-point, scattered around values of 3–4. However, the respondents' answers are quite diverse (despite EC), resulting in standard deviations (SD) between 0.8 and 1.

Table 3. Mean of constructs.

Constructs			95% Confidence Interval	
	Mean	SD	Lower	Upper
HC	2.85	1.02	2.74	2.97
LO	2.97	0.88	2.88	3.07
CERT	3.85	0.82	3.75	3.94
EC	3.92	0.58	3.85	3.98
AOFP	3.32	0.82	3.23	3.41

In the confirmatory factor analysis, the indicator loadings show good indicator reliability, as most of the loadings are greater than the threshold of 0.7 [81]. CR for each construct is higher than 0.7 (Table 4), as suggested by [81], and the AVE values are above 0.5 [87]. The discriminant validity of the model was proved with the Heterotrait–Monotrait Ratio (HTMT), which in our study was evidenced to be valid as all values in the HTMT matrix were below the suggested threshold of 0.90 (Table 5).

Table 4. Convergent validity.

Indicator	Composite Reliability	(AVE)
HC	0.892	0.626
LO	0.846	0.647
EC	0.792	0.560
AOFP	0.855	0.596
CERT	0.874	0.777

**Table 5.** Heterotrait–Monotrait (HTMT) matrix of the estimated model.

	LO	EC	AOP	CERT
HC	0.564	0.391	0.357	0.126
LO		0.257	0.288	0.210
EC			0.503	0.421
AOFP				0.666

With regard to collinearity statistics, the Variance Inflation Factor (VIF) was analyzed. VIF lay between 1.137 and 2.700 (outer VIF values for variables) and between 1.105 and 1.323 (inner VIF for constructs towards AOFP), which shows that multicollinearity is not an issue. The fit index SRMR for both the saturated and the estimated model amounts to 0.09, which does not exceed the recommended threshold of  $\leq$  0.1, suggesting a good model fit [88].

Testing the model for factors influencing consumer attitudes towards organic products produced the following results: The construct HC has a significant positive impact on the attitudinal construct AOFP ( $\beta_{HC\to AOFP}=0.215$ ; t = 4.68; p<0.001), so Hypothesis 1 can be accepted. Our findings show that health concerns are the second most important determinant of consumers' attitudes towards organic food products. Consumer environmental consciousness, EC, is associated with a positive impact on AOFP ( $\beta_{EC\to AOFP}=0.173$ ; t = 3.52; p<0.001), so Hypothesis 2 can be accepted. LO was not proven to significantly impact AOFP ( $\beta_{LO\to AOFP}=0.064$ ; t = 1.21; p=0.226), so Hypothesis 3 has to be rejected. Certification of organic products by an independent international institution, CERT, has

Sustainability **2022**, 14, 5873 9 of 14

the strongest positive and significant impact on AOFP ( $\beta_{\text{CERT} \to \text{AOFP}} = 0.435$ ; t = 7.49; p < 0.001), so Hypothesis 4 can be accepted. These results show that certification bodies play a crucial role in the organic value chain through guaranteeing proper operations management monitoring and implementing effective quality assurance systems.

Based on the estimated model in Figure 1, the constructs HC, LO, CERT, and EC explain 37.5% ( $R^2_{adjusted} = 0.367$ ) of the variance of the attitudinal construct AOFP.

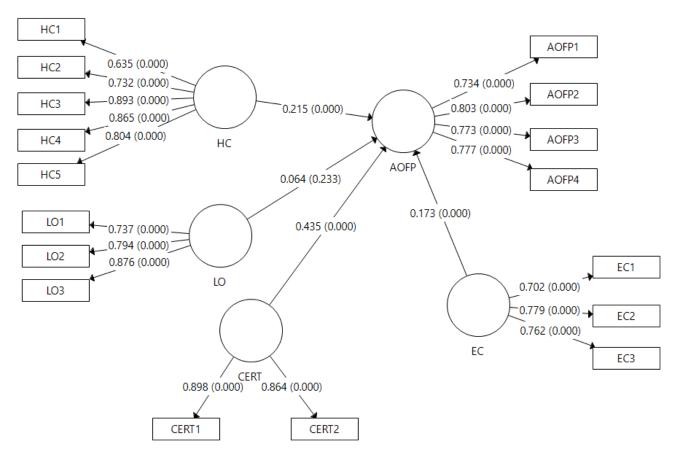


Figure 1. Exploratory model of factors influencing consumer attitudes towards organic products.

#### 5. Discussion

Certification is the most important significant factor influencing consumer attitudes toward organic food in our study, followed by health concerns and environmental concerns. Labeling of origin was not found to be significant. These findings are in accordance with those of Liang [54]. In his study, certification, nutritional values, and environmental protection were found to have a positive impact on purchase intention. Intentions are influenced by attitudes, making the results of our study and the one of Liang [54] comparable.

Recognition of organic certification among consumers is vital to evoke trust and consumption of organic food products, since many of the food attributes that consumers are seeking and for which they are ready to pay a price premium are not visible. Identification and validation of such food products is possible only by decreasing information asymmetry between producers and consumers, and this can be achieved through the provision of certification by a certifying authority. In this context, organic certification is perceived as a guarantee of consuming safe and healthy food. In our study, certification of organic products by an independent international institution has the strongest positive and significant impact on consumer attitudes towards organic food products, which is a clear indication that Kosovar consumers have a lack of trust towards national audit institutions. Institutional trust and the behavior of people are largely related to the efficacy of the rules and principles in place [57]. Different levels of trust towards national or EU labels

were also found in a study by Murphy et al. [61] of Italian, Polish, German, and British consumers. This finding has two practical implications: (1) companies selling organic food products in Kosovo should use organic food certificates issued by (reputable) international organizations; (2) for medium- and long-term development, policymakers should put in place measures to fight corruption and establish trustworthy national food agencies.

Several studies have observed that health concerns are the main driving factor for consumers to buy organic food products in advanced countries [31–36]. There is empirical evidence that this is valid in emerging countries, as well [23]. However, even if health seems to be important factor in emerging countries too, it can be less important than food safety [89], which is directly linked to the health factor [23]. We identified health concerns as the second most important factor, which makes sense in the context of an emerging country such as Kosovo. Our results indicate that the main concern of Kosovar consumers is food safety, which is reflected in the importance of certification in our study. The lack of trust of Kosovar consumers in certification bodies outweighs the health concerns. Certification and food safety seem to be important preconditions for Kosovar consumers to be able to identify healthy organic food.

Environmental concerns represent another major driver behind consumer preference for organic agriculture and/or food in both advanced and emerging economies [67,68,90]. Our research findings also confirm that the factor "environmental concerns" has a positive impact on consumer attitudes towards organic products.

Only the labeling of the origin of organic food products had no significant influence in our study, even though numerous other studies have identified its impact on the purchase of organic food products [45–48]. While, generally, previous research has shown that Kosovar consumers prefer local goods, in the case of organically certified products, the lack of trust in the national food production system may be the reason for the limited importance of the origin. This would lead to the following conclusion: From the consumer's point of view, domestic food production might have important food safety and quality issues that should be addressed in the near future.

# 6. Conclusions and Limitations of the Study

In emerging economies, consumers often lack trust in institutions which are responsible for ensuring food safety and quality. The major contribution of this study is to emphasize the need for trustworthy audit organizations and reliable institutional procedures for the certification of organ food products. Focus should be placed on a greater involvement of the industry, government agencies, and third-party institutions in promoting and enhancing consumers' trust in food and the actors in the food system. We consider that our study presents interesting results and incentives to increase research activities that will enable a better understanding of certification bodies' activities supplemented with instruments that improve their role in guaranteeing the quality and security of organic food products. This is also apparent in the results of the study, as certification was the most influential factor in consumers' attitudes towards organic food products. In addition, actors involved in the organic food system should make an effort to better communicate the health, environmental, and social benefits associated with the consumption of organic food products to consumers, given that health and environmental issues significantly influence consumers' attitudes towards organic food products. A joint effort should be made to increase awareness and knowledge of the provision of other positive externalities of organic farming, including other sustainability aspects related to animal welfare, rural development, local origin, and respect for human rights. This indicates that there is potential for growth of the organic market considering that most consumers have concerns about food safety, health, and the environment.

The study has several limitations. First the results are related to one specific country, and, more specifically, three major cities in Kosovo, where consumer attitudes toward organic food may differ from those in other areas—rural households, which make up almost half of the Kosovar population, may differ in their perceptions and attitudes. However,

the findings can also be considered indicative for the rest of the country. While the results reflect the case of Kosovo, they are relevant to other similar countries which face weak food safety and quality control systems and low trust in local institutions. Considering that origin is an important attribute, different empirical assessment strategies (specification of that variable) could provide more insight into the interplay between organic certification and origin. Last but not least, studies of consumer preferences and attitudes toward organic food are more informative for the industry if willingness to pay is calculated, and this could be a subject of future research.

**Author Contributions:** Conceptualization: I.M., R.H., O.M., D.I. and E.G.; methodology: I.M., O.M., D.I. and R.H.; software: I.M.; validation: I.M. and O.M.; formal analysis: I.M. and O.M.; investigation: I.M., R.H., O.M., D.I. and E.G.; resources: I.M., R.H., O.M., D.I. and E.G.; data curation: D.I. and I.M.; writing—original draft preparation: I.M., R.H., O.M., D.I. and E.G.; writing—review and editing: I.M., R.H., O.M., and D.I.; visualization: I.M. and O.M.; supervision: R.H., O.M. and D.I.; project administration: D.I.; funding acquisition: D.I. and I.M. All authors have read and agreed to the published version of the manuscript.

Funding: The study was supported by financed funds of the Food and Agriculture Organization (FAO).

**Institutional Review Board Statement:** Ethical review and approval were waived for this study due to the full anonymity of interviewees and the fact that no sensitive data were collected. Personal data (e.g., age) were collected in public spaces and cannot be traced back to individuals.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available for privacy reasons.

Acknowledgments: We would like to thank the respondents who participated in our survey.

Conflicts of Interest: The authors declare that they have no conflict of interest.

#### References

- 1. Aygen, F.G. Attitudes and behavior of Turkish consumers with respect to organic foods. Int. J. Bus. Soc. Sci. 2012, 3, 262–273.
- Essoussi, L.H.; Zahaf, M. Exploring the decision-making process of Canadian organic food consumers: Motivations and trust issues. Qualit. Mark. Res. Int. J. 2009, 12, 443–459. [CrossRef]
- 3. Willer, H.; Travnicek, J.; Meier, C.; Schlatter, B. *The World of Organic Agriculture: Statistics & Emerging Trends* 2021; Research Institute of Organic Agriculture FiBL IFOAM—Organics International: Bonn, Germany, 2021. Available online: http://www.organic-world.net/yearbook/yearbook-2021.html (accessed on 6 May 2022).
- 4. Probst, L.; Houedjofonon, E.; Ayerakwa, H.M.; Haas, R. Will they buy it? The potential for marketing organic vegetables in the food vending sector to strengthen vegetable safety: A choice experiment study in three West African cities. *Food Policy* **2012**, *37*, 296–308. [CrossRef]
- 5. Torjusen, H.; Lieblein, G.; Wandel, M.; Francis, C.A. Food system orientation and quality perception among consumers and producers of organic food in Hedmark County, Norway. *Food Qual. Prefer.* **2001**, 12, 207–216. [CrossRef]
- 6. Melović, B.; Dabić, M.; Rogić, S.; Đurišić, V.; Prorok, V. Food for thought: Identifying the influential factors that affect consumption of organic produce in today's youth. *Br. Food J.* **2020**, *122*, 1130–1155. [CrossRef]
- 7. Katt, F.; Meixner, O. A systematic review of drivers influencing consumer willingness to pay for organic food. *Trends Food Sci. Technol.* **2020**, *100*, 374–388. [CrossRef]
- 8. Stolz, H.; Stolze, M.; Hamm, U.; Janssen, M.; Ruto, E. Consumer attitudes towards organic versus conventional food with specific quality attributes. *NJAS—Wageningen J. Life Sci.* **2011**, *58*, 67–72. [CrossRef]
- 9. Imami, D.; Valentinov, V.; Skreli, E. Food safety and value chain coordination in the context of a transition economy: The role of agricultural cooperatives. *Int. J. Commons* **2021**, *15*, 21–34. [CrossRef]
- 10. Haas, R.; Canavari, M.; Imami, D.; Gjonbalaj, M.; Gjokaj, E.; Zvyagintsev, D. Attitudes and preferences of Kosovar consumer segments toward quality attributes of milk and dairy products. *J. Int. Food Agribus. Mark.* **2016**, 28, 407–426. [CrossRef]
- 11. Haas, R.; Imami, D.; Miftari, I.; Ymeri, P.; Grunert, K.; Meixner, O. Consumer perception of food quality and safety in western Balkan countries: Evidence from Albania and Kosovo. *Foods* **2021**, *10*, 160. [CrossRef]
- 12. Haghiri, M.; Hobbs, J.E.; McNamara, M.L. Assessing consumer preferences for organically grown fresh fruit and vegetables in eastern New Brunswick. *Int. Food Agribus. Manag. Rev.* **2009**, *12*, 81–100.
- 13. Thøgersen, J. Consumer decision-making with regard to organic food products. In *Traditional Food Production and Rural Sustainable Development: A European Challenge*; Vaz, T., Nijkamp, P., Rastoin, J.-L., Eds.; Ashgate: Farnham, UK, 2009; pp. 173–192.
- 14. Hoxha, L.; Musliu, A. Organic agriculture and organic food consumption in Kosovo. Int. J. Food Agric. Econ. 2021, 9, 43–57.

15. Magnusson, M.K.; Arvola, A.; Hursti, U.-K.K.; Aberg, L.; Sjoden, P.O. Attitudes towards organic foods among Swedish consumers. *Br. Food J.* **2001**, *103*, 209–227. [CrossRef]

- 16. Melovic, B.; Cirovic, D.; Dudic, B.; Vulic, T.B.; Gregus, M. The analysis of marketing factors influencing consumers' preferences and acceptance of organic food products-recommendations for the optimization of the offer in a developing market. *Foods* **2020**, *9*, 259. [CrossRef] [PubMed]
- 17. Grzybowska-Brzezińska, M.; Grzywińska-Rapca, M.; Żuchowski, I.; Bórawski, P. Organic food attributes determining consumer choices. *Eur. Res. Stud. J.* 2017, 20, 164–176. [CrossRef]
- 18. Gebreyes, W.A.; Dupouy-Camet, J.; Newport, M.J.; Oliveira, C.J.; Schlesinger, L.S.; Saif, Y.M.; King, L.J. The global one health paradigm: Challenges and opportunities for tackling infectious diseases at the human, animal, and environment interface in low-resource settings. *PLoS Negl. Trop. Dis.* **2014**, *8*, 11. [CrossRef]
- 19. Mitchell, V.W.; Bakewell, C.; Jackson, P.; Heslin, C. How message framing affects consumer attitudes in food crises. *Br. Food J.* **2015**, *117*, 2200–2211. [CrossRef]
- 20. Richards, C.; Lawrence, G.; Burch, D. Supermarkets and agro-industrial foods: The strategic manufacturing of consumer trust. *Food Cult. Soc.* **2011**, *14*, 29–47. [CrossRef]
- 21. Steffen, A.; Doppler, S. Building consumer trust and satisfaction through sustainable business practices with organic supermarkets: The case of Alnatura. In *Case Studies in Food Retailing and Distribution*; Byrom, J., Medway, D., Eds.; Woodhead Publishing Series in Food Science, Technology and Nutrition; Woodhead Publishing: Sawston, UK, 2019; pp. 205–228. [CrossRef]
- 22. Borsellino, V.; Kaliji, S.A.; Schimmenti, E. COVID-19 drives consumer behaviour and agro-food markets towards healthier and more sustainable patterns. *Sustainability* **2020**, *12*, 8366. [CrossRef]
- 23. Imami, D.; Skreli, E.; Zhllima, E.; Chanb, C. Consumer attitudes towards organic food in the Western Balkans—the case of Albania. *Econ. Agro-Aliment.* **2017**, *19*, 245–260. [CrossRef]
- 24. Science and Technology Options Assessment Panel (STOA). *Human Health Implications of Organic Food and Organic Agriculture*; European Parliament: Brussels, Belgium, 2016.
- 25. Meemken, E.M.; Qaim, M. Organic agriculture, food security, and the environment. *Annu. Rev. Resour. Econ.* **2018**, 10, 39–63. [CrossRef]
- Bradman, A.; Quirós-Alcalá, L.; Castorina, R.; Schall, R.A.; Camacho, J.; Holland, N.T.; Barr, D.B.; Eskenazi, B. Effect of organic diet intervention on pesticide exposures in young children living in low-income urban and agricultural communities. *Environ. Health Perspect.* 2015, 123, 1086–1093. [CrossRef] [PubMed]
- 27. Oates, L.; Cohen, M.; Braun, L. The health and wellness effects of organic diets. In Proceedings of the 4th ISOFAR Scientific Conference, 'Building Organic Bridges', at the Organic World Congress, Istanbul, Turkey, 13–15 October 2014.
- 28. Brantsæter, A.L.; Ydersbond, T.A.; Hoppin, J.A.; Haugen, M.; Meltzer, H.M. Organic food in the diet: Exposure and health implication. *Annu. Rev. Public Health* **2017**, *38*, 295–313. [CrossRef] [PubMed]
- 29. Husic-Mehmedovic, M.; Arslanagic-Kalajdzic, M.; Kadic-Maglajlic, S.; Vajnberger, Z. Live, eat, love: Life equilibrium as a driver of organic food purchase. *Br. Food J.* **2017**, *19*, 1410–1422. [CrossRef]
- 30. Barański, M.; Srednicka-Tober, D.; Volakakis, N.; Seal, C.; Sanderson, R.; Stewart, G.B.; Benbrook, C.; Biavati, B.; Markellou, E.; Giotis, C.; et al. Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: A systematic literature review and meta-analyses. *Br. J. Nutr.* **2014**, *112*, 794–811. [CrossRef] [PubMed]
- 31. Apaolaza, V.; Hartmann, P.; D'Souza, C.; López, C. Eat organic—Feel good? The relationship between organic food consumption, health concern and subjective wellbeing. *Food Qual. Prefer.* **2018**, *63*, 51–62. [CrossRef]
- 32. Haas, R.; Sterns, J.; Meixner, O.; Nyob, D.; Traar, V. Do US consumers perceive local and organic food differently? An analysis based on means-end chain analysis and word association. *Int. J. Food Syst. Dyn.* **2013**, *4*, 214–226. [CrossRef]
- 33. Padel, S.; Foster, C. Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *Brit. Food J.* **2005**, *107*, 606–625. [CrossRef]
- 34. Zanoli, R.; Naspetti, S. Consumer motivations in the purchase of organic food: A means-end approach. *Brit. Food J.* **2002**, 104, 643–653. [CrossRef]
- 35. Lockie, S.; Lyons, K.; Lawrence, G.; Mummery, K. Eating "green": Motivations behind organic food consumption in Australia. *Sociol. Rural.* **2002**, 42, 23–40. [CrossRef]
- 36. Grankvist, G.; Biel, A. The importance of beliefs and purchase criteria in the choice of eco-labeled food products. *J. Environ. Psychol.* **2001**, *21*, 405–410. [CrossRef]
- 37. Dangi, N.; Narula, S.A.; Gupta, S.K. Influences on purchase intentions of organic food consumers in an emerging economy. *J. Asia Bus. Stud.* **2020**, *14*, 599–620. [CrossRef]
- 38. Skreli, E.; Imami, D.; Chan, C.; Canavari, M.; Zhllima, E.; Pire, E. Assessing consumer preferences and willingness to pay for organic tomatoes in Albania: A conjoint choice experiment study. *Span. J. Agric. Res.* **2017**, *15*, 0114. [CrossRef]
- 39. Nagy-Pércsi, K.; Fogarassy, C. Important influencing and decision factors in organic food purchasing in Hungary. *Sustainability* **2019**, *11*, 6075. [CrossRef]
- 40. Annunziata, A.; Pascale, P. Consumers' behaviors and attitudes toward healthy food products: The case of organic and functional foods. In Proceedings of the 113th EAAE Seminar "A Resilient European Food Industry and Food Chain in a Challenging World", Chania, Greece, 3–6 September 2009.

41. Renner, B.; Sproesser, G.; Strohbach, S.; Schupp, H.T. Why we eat what we eat. The Eating Motivation Survey (TEMS). *Appetite* **2012**, *59*, 117–128. [CrossRef] [PubMed]

- 42. Grunert, K.G. Food quality and safety: Consumer perception and demand. Eur. Rev. Agric. Econ. 2005, 32, 369–391. [CrossRef]
- 43. Ahmed, Z.U.; Johnson, J.P.; Yang, X.; Fatt, C.K.; Teng, H.S.; Boon, L.C. Does country of origin matter for low-involvement products? *Int. Mark. Rev.* **2004**, 21, 102–120. [CrossRef]
- 44. Verbeke, W.; Ward, R. Consumer interest in information cues denoting quality, traceability and origin: An application of ordered probit models to beef labels. *Food Qual. Prefer.* **2006**, *17*, 453–467. [CrossRef]
- 45. Ham, M.; Jeger, M. Attitudes toward green food purchase among students: Evidence from Eastern Croatia. In Proceedings of the 3rd International Scientific Symposium Economy of Eastern Croatia—Vision and Growth, Osijek, Croatia, 22–24 May 2014.
- 46. Irianto, H. Consumers' attitude and intention towards organic food purchase: An extension of theory of planned behavior in gender perspective. *Int. J. Manag. Econ. Soc. Sci.* **2015**, *4*, 17–31.
- 47. Ueasangkomsate, P.; Santiteerakul, S. A study of consumers' attitudes and intention to buy organic foods for sustainability. *Procedia Environ. Sci.* **2016**, *34*, 423–430. [CrossRef]
- 48. Sangkumchaliang, P.; Huang, W.C. Consumers' perceptions and attitudes of organic food products in Northern Thailand. *Int. Food Agric. Manag. Rev.* **2012**, *15*, 87–102.
- 49. Zepeda, L.; David, D. Organic and local food consumer behaviour: Alphabet Theory. *Int. J. Consum. Stud.* **2009**, *33*, 697–705. [CrossRef]
- 50. Cerjak, M.; Haas, R.; Brunner, F.; Tomič, M. What motivates consumers to buy traditional food products? Evidence from Croatia and Austria using word association and laddering interviews. *Br. Food J.* **2014**, *116*, 1726–1747. [CrossRef]
- 51. Miftari, I. Kosovo Consumer Buying Behavior Preferences and Demand for Milk and Dairy Products. Masters' Thesis, Norwegian University of Life Sciences, Ås, Norway, 2009.
- 52. Unnevehr, L.; Eales, J.; Jensen, H.; Lusk, J.; McCluskey, J.; Kinsey, J. Food and consumer economics. *Am. J. Agric. Econ.* **2010**, 92, 506–521. [CrossRef]
- 53. Stoleru, V.; Munteanu, N.; Istrate, A. Perception towards organic vs. conventional products in Romania. *Sustainability* **2019**, *11*, 2394. [CrossRef]
- 54. Liang, R.-D. Predicting intentions to purchase organic food: The moderating effects of organic food prices. *Br. Food J.* **2016**, *118*, 183–199. [CrossRef]
- 55. Roitner-Schobesberger, B.; Darnhofer, I.; Somsook, S.; Vogl, C.R. Consumer perceptions of organic foods in Bangkok, Thailand. *Food Policy* **2008**, *33*, 112–121. [CrossRef]
- 56. Żakowska-Biemans, S. Factors underlying consumption of organic food in the opinion of Polish consumers. *Agron. Res.* **2009**, 7, 768–774.
- 57. Lahno, B. On the emotional character of trust. Ethical Theory Moral Pract. 2001, 4, 171–189. [CrossRef]
- 58. Krystallis, A.; Chryssohoidis, G. Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *Br. Food J.* **2005**, 107, 320–343. [CrossRef]
- 59. Suh, B.W.; Eves, A.; Lumbers, M. Consumers' attitude and understanding of organic food: The case of South Korea. *J. Foodserv. Bus. Res.* **2012**, *15*, 49–63. [CrossRef]
- 60. Yin, S.; Wu, L.; Du, L.; Chen, M. Consumers' purchase intention of organic food in China. *J. Sci. Food Agric.* **2010**, *90*, 1361–1367. [CrossRef] [PubMed]
- 61. Murphy, B.; Martini, M.; Fedi, A.; Loera, B.L.; Elliott, C.; Dean, M. Consumer trust in organic food and organic certifications in four European countries. *Food Control* **2022**, *133*, 108484. [CrossRef]
- 62. Rojas, A.; Valley, W.; Mansfield, B.; Orrego, E.; Chapman, G.E.; Harlap, Y. Toward food system sustainability through school food system change: Think & eat green at school and the making of a community-university research alliance. *Sustainability* **2011**, *3*, 763–788. [CrossRef]
- 63. Papargyropoulou, E.; Lozano, R.; Steinberger, J.K.; Wright, N.; bin Ujang, Z. The food waste hierarchy as a framework for the management of food surplus and food waste. *J. Clean. Prod.* **2014**, *76*, 106115. [CrossRef]
- 64. Baker, W.E.; Sinkula, J.M. Market orientation and the new product paradox. J. Prod. Innov. Manag. 2005, 22, 483–502. [CrossRef]
- 65. Cronin, J.J.; Smith, J.S.; Gleim, M.R.; Ramirez, E.; Martinez, J.D. Green marketing strategies: An examination of stakeholders and the opportunities they present. *J. Acad. Mark. Sci.* **2011**, 39, 158–174. [CrossRef]
- 66. Laroche, M.; Toffoli, R.; Kim, C.; Mu, T.E. The influence of culture in pro-environment knowledge, attitude and behaviors: A Canadian perspective. *Adv. Consum. Res.* **1996**, 23, 196–202.
- 67. Çabuk, S.; Tanrikulu, C.; Gelibolu, L. Understanding organic food consumption: Attitude as a mediator. *Int. J. Consum. Stud.* **2014**, *38*, 337–345. [CrossRef]
- 68. Cachero-Martínez, S. Consumer behaviour towards organic products: The moderating role of environmental concern. *J. Risk Financ. Manag.* **2020**, *13*, 330. [CrossRef]
- 69. Ling, C.Y. Consumers' purchase intention of green products: An investigation of the drivers and moderating variable. *Elixir Mark. Manag.* **2013**, *1*, 14503–14509.
- 70. Seufert, V.; Ramankutty, N.; Mayerhofer, T. What is this thing called organic?—How organic farming is codified in regulations. *Food Policy* **2017**, *68*, 10–20. [CrossRef]

71. Chen, M.F. Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *Br. Food J.* **2009**, *111*, 165–178. [CrossRef]

- 72. Thogersen, J.; Pedersen, S.; Aschemann-Witzel, J. The impact of organic certification and country of origin on consumer food choice in developed and emerging economies. *Food Qual. Prefer.* **2019**, 72, 10–30. [CrossRef]
- 73. Tabachnick, B.G.; Fidell, L.S. Using Multivariate Statistics, 4th ed.; HarperCollins: New York, NY, USA, 2011.
- 74. Ding, L.; Velicer, W.F.; Harlow, L.L. Effects of estimation methods, number of indicators per factor, and improper solutions on structural equation modeling fit indices. *Struct. Equ. Model. Multidiscip. J.* **1995**, *2*, 119–143. [CrossRef]
- 75. Bontis, N.; Booker, L.D.; Serenko, A. The mediating effect of organizational reputation on customer loyalty and service recommendation in the banking industry. *Manag. Decis.* **2007**, *45*, 1426–1445. [CrossRef]
- 76. Hair, J.F.; Ringle, C.M.; Sarstedt, M. Partial least squares: The better approach to structural equation modeling? *Long Range Plan.* **2012**, *45*, 312–319. [CrossRef]
- 77. Chin, W.W. The partial least squares approach to structural equation modelling. Mod. Methods Bus. Res. 1998, 295, 295–336.
- 78. Chin, W.W.; Newsted, P.R. Structural equation modeling analysis with small samples using partial least squares. In *Statistical Strategies for Small Sample Research*; Hoyle, R.H., Ed.; Sage: Thousand Oaks, CA, USA, 1999; pp. 307–341.
- 79. Ringle, C.M.; Götz, O.; Wetzels, M.; Wilson, B. On the Use of Formative Measurement Specifications in Structural Equation Modeling: Monte Carlo Simulation Study to Compare Covariance-Based and Partial Least Squares Model Estimation Methodologies; METEOR Research Memoranda (RM/09/014); Maastricht Research School of Economics of Technology and Organization: Maastricht, The Netherlands, 2009.
- 80. Nunnally, J.C. *Psychometric Theory*, 2nd ed.; McGraw-Hill: New York, NY, USA, 1978.
- 81. Hair, J.F.; Hult, G.T.M.; Ringle, C.M. Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. *J. Acad. Mark. Sci.* **2017**, *45*, 616–632. [CrossRef]
- 82. Henseler, J.; Dijkstra, T.K.; Sarstedt, M.; Ringle, C.M.; Diamantopoulos, A.; Straub, D.W.; Calantone, R.J. Common beliefs and reality about PLS: Comments on Rönkkö and Evermann. *Organ. Res. Methods* **2014**, *17*, 182–209. [CrossRef]
- 83. Nunnally, J.C.; Bernstein, I.H. Psychometric Theory; McGraw-Hill: New York, NY, USA, 1994.
- 84. Jevšnik, M.; Hlebec, V.; Raspor, P. Consumers' awareness of food safety from shopping to eating. *Food Control* **2008**, *19*, 737–745. [CrossRef]
- 85. Haws, K.L.; Winterich, K.P.; Naylor, R.W. Seeing the World Through GREEN-Tinted Glasses: Green consumption values and responses to environmentally friendly products. *J. Consum. Psychol.* **2014**, *24*, 336–354. [CrossRef]
- 86. Haas, R.; Imami, D.; Miftari, I.; Ymeri, P.; Grunert, K. How do Kosovar and Albanian consumers perceive food quality and safety in the dairy sector? *Stud. Agric. Econ.* **2019**, *121*, 119–126. [CrossRef]
- 87. Fornell, C.; Larcker, D.F. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *J. Mark. Res.* **1981**, *18*, 382–388. [CrossRef]
- 88. Hair, J.F., Jr.; Sarstedt, M.; Hopkins, L.; Kuppelwieser, V.G. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *Eur. Bus. Rev.* **2014**, *26*, 106–121. [CrossRef]
- 89. Michaelidou, N.; Hassan, L.M. The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *Int. J. Consum. Stud.* **2008**, 32, 163–170. [CrossRef]
- 90. Prado, N.B.D.; Moraes, G.H.S.M. Environmental awareness, consumption of organic products and gender. *Rev. Gest.* **2020**, 27, 353–368. [CrossRef]