

Consumers attitude toward lack of food safety

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Abstract

Purpose – Food safety is an important characteristic of food, because it influences health. Perception of food hazards is a complex issue. Consumers have different perceptions regarding the probability of a hazard occurring in different food groups. If a hazard appears in the food, it has severe consequences. This is not only because of the negative impact on health and life but also because of the entire economy and image of producers.

Design/methodology/approach – A survey using the Computer-Assisted Web Interviewing method was conducted in January 2020 in Poland with 2,000 respondents to collect information about consumers' perception of food safety and lack of food safety.

Findings – It was shown that this perception depends mainly on gender and the decisiveness on food purchase. The similarity of the country from which the hazard comes as well as the scientists' knowledge about the hazard influences hazard perception by consumers. If a hazard appears in food, it has serious consequences for consumers, food chain actors, public finance and so on. The occurrence of food hazards causes consumers to stop buying this food product.

Originality/value – This study provides interesting information about consumers' perception of the lack of food safety. These results can be used by food producers and food safety authorities. The results also provide input information for further research on the perception of food safety in various types of food products.

Keywords Food safety, Food hazards, Consumer

Paper type Research paper

1. Introduction

This paper deals with the perception of the (lack) food safety by consumers. Perception of various characteristics of food is complex issue as it depends on many factors. The perception of the food safety results in consumer behavior and food purchase decisions. The paper shows that the perception of the lack of food safety varies on the food types. This perception is not in line with, i.e. the results of the reports on food safety (RASFF report) and the actual situation. Is mostly driven by the overall image of the type of the food product or some incidents from the past. The second part of the paper deals with the situation of hazard appearance in food – the consumers response and their concerns.

2. Theoretical background

Keeping food safe is a complex process that starts on the farm and ends with the consumer (FAO). Food safety can be described as the lack of food hazards. There are three main groups

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Ethical statement: The applied rules and regulations are in line with the Helsinki Declaration of Human Rights. The research tool was questionnaire. The survey was voluntary, adult volunteers participated in it, and they were informed and had full capacity to express consent to participate in the survey. They could refuse to participate in the survey at any time during the research, the survey was anonymous and no personal information was obtained.



of food hazards: biological, physical and chemical. [Codex Alimentarius Commission Procedural Manual \(2019\)](#) defines food hazard as “*a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect*”. Food safety is very important because the food we eat has an impact on our health. Food safety is a significant characteristic of food for consumers ([Badrie et al., 2006](#); [Grunert, 2005](#); [Rohr et al., 2005](#); [Bukachi et al., 2021](#); [New Food Magazine, 2021](#); [Bolek, 2020](#); [Franc-Dąbrowska et al., 2021](#); [Jenkins et al., 2021](#)). The high importance of food safety is caused by the fact that food is a product that satisfies one of the most important physiological needs of a human – the need to eat ([Maslov, 2009](#)). Moreover, for several decades the consumption of unsafe food has been an important source of human diseases ([Griffith, 2006](#)). The statistics of WHO show that diseases caused by the consumption of unsafe food are an important cause of human morbidity and mortality, as they can cause as many as 250 different diseases transmitted by bacteria, viruses, parasites and chemicals – ranging from diarrhea to cancers. According to WHO, each year there are approximately 600 million cases of disease (almost 1 in 10 people in the world) and 420.000 deaths caused by the consumption of unsafe food ([WHO, 2021](#); [Food safety, 2020](#); [WHO, 2020](#)). Consumers are becoming more aware of food choices and increasingly concerned with food quality and safety. They have a lot of food safety concerns. The occurrence of a hazard in food causes uncertainty among consumers and has consequences in purchasing decisions. The average consumer does not have as much knowledge of food safety as a specialist in this field, which is called the expert-lay discrepancy, and may therefore have a different perception of food safety hazards ([Blok et al., 2008](#); [Hansen et al., 2003](#)).

Consumer behavior, perception and attitudes are very complex issues. Many factors both external and internal influence them. There is a large number of definitions and interpretations of the term attitude ([Fabrigar et al., 2014](#)); however, common aspects of these definitions can be identified such as: (1) Attitude is a predisposition to react to an object, not an actual behavior toward that object; (2) Attitude is permanent over time and it takes time and pressure to change it; (3) Attitude is a dormant variable that has behavioral consequences; (4) Attitude has the primacy of orientation, so it is associated with a preference for evaluations or feelings toward an object ([Churchill, 2002](#)). Attitudes have number of important functions including guiding choices and actions, giving people a sense of identity and belonging. Attitudes may vary due to the extent to which they come from affect, cognition and behavior ([Brinol et al., 2019](#)). On the basis of the literature review it can be concluded that overall consumer attitudes toward food safety in general differ according to demographic and socio-economic factors such as gender, age, educational level and economic status ([Wilcock et al., 2004](#)).

It can be said that perception is a key component to understand human behavior ([Proctor and Proctor, 2006](#)). [Mishra \(2008\)](#) recalls the following definitions of the perception: “perception is the process through which the information from outside environment is selected, received, organized and interpreter to make it meaningful to us. This input of meaningful information results in decisions and actions. It is a result of a complex interaction of various senses and comparing with known aspects of life”. [Robbins \(2004\)](#) defines the perception as “a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment”. Perception is the individual process and depends on the characteristics of a person.

The appearance of food hazard has a serious health (i.e. foodborne diseases), economic (i.e. costs spent on healthcare, costs of the food actors (food withdraw, utilization, cost of consumers due to the purchase of the unsafe food) and social consequences (decrease or loss of consumers’ trust in food producers, lower image of the brand and food institutions, changes of the food consumption patterns). According to the information given by [Hussain \(2013\)](#) a single incident of a foodborne disease outbreak can bring unimaginable economic

losses. The estimated cost of food safety incidents for the economy of the United States is around \$7 billion per year. This cost is consisted of removing food from shelves and paying damages as a result of lawsuits. Most other countries similarly have economic losses. Much of these losses represent lost markets, loss of consumer demand, litigation and company closures.

Hence, the purpose of this paper is to present consumers assessment on the probability of hazard in various types of food product as well as their response to hazard in food.

3. Methodology

- (1) The research process consisted of the following stages: developing research methodology, consultation of the research tool, sample selection, implementation of the measuring phase of the survey, survey, preparation of a statistical report, elaboration a final report.

The survey was carried out using the CAWI (Computer-Assisted Web Interviewing) technique based on conducting a computer-supervised Internet survey in Poland in 2020. It was made by a professional company operating in research market. The questionnaire was built of 23 mainly closed-typed questions about food safety and quality, perception of food quality and food hazards, consumer behavior. The sample consisted of 2,000 consumers selected taking into account the place of residence (region), gender and age. The share of respondents in terms of age, gender and region of residence reflects the share of these characteristics in the society in Poland. Respondents were also characterized in terms of education and material status. The exact distribution of the sample taking into account gender, age and place of residence is presented below.

Numeric variables were characterized using basic descriptive statistics: cardinality (N), arithmetic mean (mean), standard deviation (SD), median, lower and upper quartile (IQR), minimum and maximum values (range). Group comparisons were made using Chi-square test. Chi-square test is used to determine whether or not there is a significant association between two variables. The value of significance (p) was set at 0.05. Calculations were made in the R program (ver. 3.5).

The sample was representative for the whole country. 1,049 women and 951 men were interviewed which reflects the gender structure of Poles (52% of women and 48% of men). Among the respondents, 42.4% were the sole decision-makers in the purchase of food products. About 49.7% of respondents said they make the majority of purchasing decisions for the household. The smallest group (7.9%) were people for whom someone else makes the majority of purchasing decisions. In the survey, respondents also specified their education, size of place of residence and net income per family member. Most respondents had secondary education (32.2%) and basic vocational education (30.7%). Persons with higher education constituted 26.9%, and the remaining 10.3% of respondents had primary/lower secondary education. Persons with a net income not exceeding PLN 1200 (about 300 €) per person constituted about 19.1% of the total number of respondents. One-fifth of survey participants (20.0%) indicated an income of PLN 1201 to 1,600 (301–400 €), and respondents declaring income per person within PLN 1601–2000 (401–500 €) net constituted 20.7% of all respondents. Income in the amount of 2001–2,400 (501–600 €) was indicated by 19.5% of respondents and 20.9% of respondents had income per one person exceeding PLN 2400 (+600 €) net. People living in the village accounted for 19.9% of the total, while about 23.0% of the respondents were city dwellers up to 50,000 inhabitants. Approximately 29.0% of respondents were residents of cities with 50–250 thousand inhabitants, and 14.7% lived in cities with 250–500 thousand inhabitants. The least 13.5% of respondents lived in cities with over 500,000 inhabitants (Table 1).

Region	Woman (age)					Man (age)					Total		
	18-29	30-39	40-49	50-59	60-69	+70	18-29	30-39	40-49	50-59		60-69	+70
Dolnośląskie	12	16	13	11	15	13	12	16	13	11	13	8	153
Kujawsko-pomorskie	10	10	9	9	10	9	10	11	9	8	8	5	108
Lubelskie	10	10	9	9	10	10	10	11	9	8	8	6	110
Lubuskie	4	5	5	4	5	4	5	5	5	4	4	2	52
Łódzkie	11	12	11	10	13	13	11	12	11	9	10	7	130
Małopolskie	16	18	15	13	14	15	16	18	15	13	12	9	174
Mazowieckie	23	29	25	20	25	25	23	28	25	19	20	14	276
Opolskie	4	5	5	4	5	5	4	5	5	4	4	3	53
Podkarpackie	10	11	9	9	9	9	11	11	10	9	8	5	111
Podlaskie	6	6	5	5	5	6	6	6	5	5	4	3	62
Pomorskie	11	12	10	9	10	9	11	12	11	9	9	6	119
Śląskie	19	23	21	20	22	21	20	23	21	19	19	13	241
Świętokrzyskie	6	6	5	5	6	6	6	6	6	5	5	4	66
Warmińsko-mazurskie	7	7	6	6	7	6	7	8	6	6	6	3	75
Wielkopolskie	16	18	16	14	16	14	16	19	16	13	13	8	179
Zachodniopomorskie	7	9	8	7	9	7	8	9	8	7	8	4	91
Total	172	197	172	155	181	172	176	200	175	149	151	100	2,000
Source(s): Own elaboration													

Table 1.
Description of
respondents

4. Results

On the basis of the literature review and own research experience the following hypothesis was formulated:

- H1. The assessment of the probability of hazards in the food categories depends on the socio-demographic characteristic of consumers.
- H2. The assessment of the probability of hazards in the food categories/groups depends on the overall image of these products.
- H3. If the scientists knowledge about the hazard is greater the consumers are less afraid of that hazard.
- H4. The cultural similarity of the country which the food hazard comes from results in greater concerns about this hazard.
- H5. The appearance of a hazard in a food product results mainly in the cessation of buying this product among consumers.

4.1 Hazard in food

Consumers were asked to assess the probability of food hazards in seven groups of food products: meat and meat products, dairy, fish and fish products, vegetables, fruits, sweets, beverages. They assessed the probability on a five-point scale, also the answer “no opinion” could be chosen: unlikely, very little likely, moderate, very likely, no opinion. Most of the consumers perceive meat and meat product (50.5% of answers “very likely”, 28.0% of answers “moderate”) and beverages (43.5% of answers very likely, 27.7% of answers moderate) as well as fish and fish products (35.5% of answers very likely, 33.2% of answers moderate) as groups of food products that are at high risk of food hazards while vegetables and fruits were assessed of little probability of food hazards (Figure 1).

On the basis of Chi² analysis the significant differences of answers were observed of the following socio-economic characteristics: gender, age and decisiveness in the households (Table 2).

A significant difference in response to gender has been observed in the case of sweets as well as fish and fish products. Men more often than women assessed the probability of

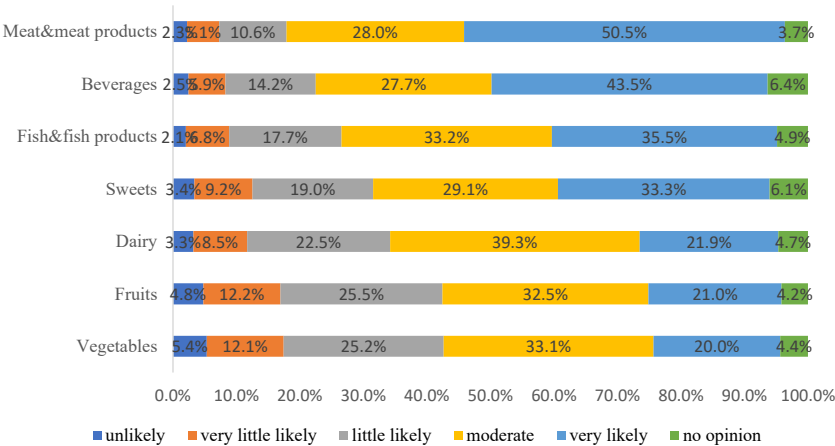


Figure 1.
Perceived probability
of hazard in various
food groups

Source(s): Own elaboration

Type of products	Socio-economic characteristics	Pearson's χ^2 -squared test
Meat and meat products	Gender	0.008776**
Dairy		0.145092
Vegetables		0.034181*
Fruits		0.052713
Sweets		0.000138***
Fish and fish products	Age	0.000181***
Beverages		0.364736
Meat and meat products		0.003599**
Dairy		0.017006*
Vegetables		0.089459
Fruits	Decisiveness	0.054722
Sweets		0.000478***
Fish and fish products		0.142971
Beverages		0.0002***
Meat and meat products		0.207958
Dairy	Decisiveness	0.05259
Vegetables		0.000022***
Fruits		0.000146***
Sweets		0.013797*
Fish and fish products		0.121176
Beverages		0.401120

Note(s): The number of * shows the strength of the relationship between answers and the socio-demographic characteristics

Source(s): Own elaboration

Table 2.
Chi² analysis of the
significant differences
of answers

occurrence of hazards in sweets as lower (answers very little likely, little likely, moderate). On the other hand, women more often indicated the probability as very likely. For fish and fish products, the indications were similar, i.e. men more often than women assessed the probability of the risk as very little likely or little likely.

A significant difference in response to decisiveness has been observed in the case of vegetables and fruits. Consumers who are not involved in the food purchase decisions less often assessed the probability of hazard in vegetables as higher (moderate or very likely). They also more often indicated a lack of opinion. Whereas, consumers who are the only one persons who make purchase decisions or usually make up these purchase decisions more often assessed this probability higher (moderate or very likely).

In the case of fruits the indications were similar to these made for vegetables.

4.2 Knowledge of scientists and cultural similarity

The great knowledge of scientists about a given risk in food was a cause of greater concern for 38.2% of respondents. About 31.2% admitted that the greater knowledge of scientists about a given risk makes them less afraid of this risk, and for 19.1% of them the level of knowledge of scientists was of no importance. The information discussed is presented below (Figure 2). No significant differences in answers were observed due to socio-economic characteristics of consumers.

Information about the hazard in a food product from a culturally similar country increases the fear of 38.3% of the respondents, and 18.3% of the respondents admitted that they would be less afraid of this hazard. Such information would not, however, affect the approach to the hazard for 29.5% of the respondents (Figure 3).

No significant differences in answers were observed due to socio-economic characteristics of consumers.

4.3 Consequence of the food hazards in food products

The respondents were also asked how the information about the occurrence of the hazard would affect their subsequent purchasing decisions. About 61.6% of them admitted that they would not buy this product anymore, and 31.9% would stop buying other products of the same brand/manufacturer. For 6.5% of the respondents, the information about the occurrence of the hazard would not matter and they would continue to buy the food (Figure 4). No significant differences in answers were observed due to socio-economic characteristics of consumers.

Most of the respondents did not find themselves in a situation where the food product they purchased was withdrawn from the market (79.0%). However, this happened with one-fifth of the study participants (21.0%).

Figure 2.
Consumers concerns vs
scientists knowledge

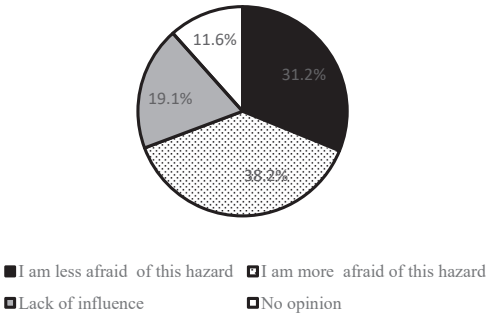


Figure 3.
Consumers concerns vs
cultural similarity

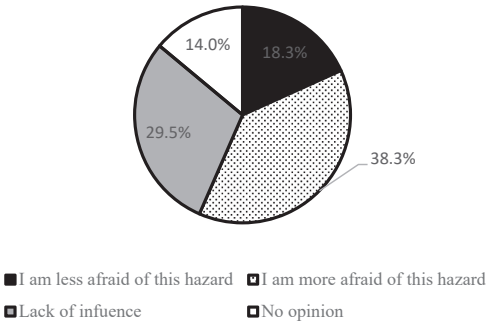
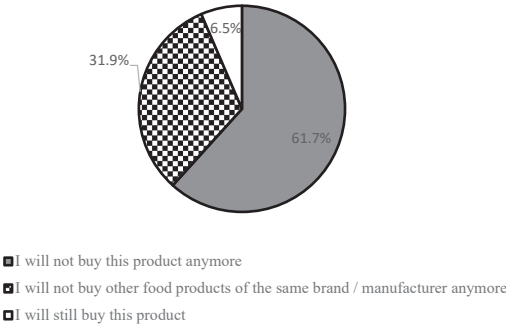


Figure 4.
Consequences of the
occurrence of food
hazard on purchase
declarations



5. Discussion and conclusions

Many factors influence the perception of the probability/risk of hazard in various groups of products. It is not just about socio-demographic factors. It can also be a general image of a given food group, e.g. vegetables and fruits are generally seen as healthy, low in calories, recommended in various diets, bringing health benefits, the same is the case with dairy products. In many research it was shown that the health concerns and the perceived benefits from healthy eating determine the high intake of fruits and vegetable in a diet (Appleton *et al.*, 2016). The conducted research showed that consumers the least often gave a high probability of a hazard to three groups of food products: fruit, vegetables and dairy products. It can be said that the overall image of a group of products influences the perception of the probability of hazards; however, consumers are still afraid of, i.e. the residues of pesticides in fruits and vegetables. In the same research consumers were asked to evaluate the influence on health of the following factors mainly such as: residues of antibiotics in meat, pesticides in fruits, trans-fats, colorings. On the basis of their answers it can be said that consumers rate pesticide residues in food as harmful and very harmful (78.2% responses). It shows the importance of the general image of a food product on consumers judgments. If a food product are perceived to be healthy, consumers seldom connect these product with the probability of harmfulness (containing food hazards) (Larson *et al.*, 2008). Another interesting factor that helps to explain this perception is the amount of information about food scares refers to fruits and vegetables. The food scares of the last decades mainly have referred to the animal-origin food – mad cow disease, dioxins, horse meat scandal (Knowles *et al.*, 2007) and every now and then information about *Salmonella* in poultry. It is also worth taking a look at the Rapid Alert System for Food and Feed Report 2020 (RASFF) which shows a completely different situation. It shows that the most notified category is in 2020 “fruits and vegetables”. Consumers opinions do not reflect the facts about the hazards in fruits and vegetables.

During a detailed literature review no results on the perception of the probability/risk of groups of food product were found so it is hard to compare to other research. To my best knowledge this research question remains open. Adasme-Berios *et al.* (2019) concluded that if the risk associated with the production of fresh vegetables will be reduced, the consumer concerns decrease and the consumption increases. Rieger *et al.* (2016) showed in their research that short-term marginal adjustments in demand and propensity to buy affected products triggered by the negative impact of household media exposure were over-compensated by habit persistence. The question of how consumption patterns evolve over time in the presence of food scandals is expected to be of interest for both policymakers and the food industry (Rieger *et al.*, 2016).

Taking into consideration the above-mentioned results the hypothesis H1 (The assessment of the probability of hazards in the food categories depends on the socio-demographic characteristic of consumers) is confirmed. The assessment of the probability of food hazards in food products vary due to the gender and the role in the household. The rest of the socio-economic characteristics do not have a significant influence on consumers assessment.

The hypothesis H2 (The assessment of the probability of hazards in the food categories/groups depends on the overall image of these products) is confirmed. If the overall image of a food product is seen to be healthy, fresh it influences the lower ranks of the probability of hazards in food, although, consumers still have many concerns about the dangerous substances in fruits in vegetables. Also, the official food safety reports give information about, i.e. the exceeded levels of pesticides in fruits and vegetables.

The assessment of the probability is also influenced, according to the research by Carvalho *et al.* (2008), by the location of the country and cultural similarity. In a situation where it is highly likely that a food hazard will occur, consumers perceive the risk as high if the product comes from a culturally similar country. Then, consumers are more likely to take

action to protect themselves from the effects of the threat. According to the authors, when a food hazard occurs in the country that delivers the goods to the consumer's country, in order to better communicate the risk and increase consumer confidence about this product, it is necessary to point out the psychological similarities between the inhabitants of these countries. Very few studies were made on the relationship between risk perception and cultural similarity. In the presented research most consumers agreed that they would be more afraid of a food hazard if it came from a country of a similar culture. However, for every third consumer stated that it had no opinion.

Scientists knowledge also has the influence on the consumer assessment of the probability of hazards in food. A good example of this case is the GM food. Often mentioned reason for little acceptance of GM food among consumers is fear of this food. Consumers are afraid because the scientists do not have enough knowledge about the potential consequences of the consumption of this food (Finucane and Holup, 2005; Knox, 2000; Kaptan *et al.*, 2018; Hilbeck *et al.*, 2015). It shows the relationship between scientists knowledge and consumers concerns. The smaller the scientists knowledge is, the bigger the consumers concerns are. The need for interaction between scientists and society is also indicated by Llorente *et al.* (2019) in their research. If scientists know little about a certain threat, the public is more concerned about that threat, for example, in the case of COVID-19. This can be called as the example of the fear of unknown. Fear of the unknown (FOTU) can be defined as, "an individual's propensity to experience fear caused by the perceived absence of information at any level of consciousness or point of processing" (Carleton, 2016).

In the presented research consumers were asked to express their opinion about the relationship between a significant/great knowledge of scientists and consumers concerns. Consumers expressed the opinion that they are more afraid of a hazard if the scientist knowledge is great (the food hazard is known, checked, described etc.), so the relationship is seen as positive. This is in contrary to other research that shows a negative relationship – the greater the scientists knowledge is, the lower the level of consumers concerns is.

The hypothesis H3 (If the scientists knowledge about the hazard is greater the consumers are less afraid of that hazard) is verified negatively. Due to the results of the research it was shown that most consumers said if the scientists knowledge of a food hazard is great, they are more afraid of this hazard. However, still one-third of consumers expressed the opinion that their concerns are less.

When trying to explain the obtained consumer responses, it is worth considering the issue of trust. Trust can be defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer *et al.*, 1995). Scientists divide trust into four conceptual categories (McKnight and Chervany, 2001; Tsai *et al.*, 2010; Love *et al.*, 2013; Lam *et al.*, 2018; Bachmann and Inkpen, 2011; Benson *et al.*, 2019): (1) trust belief, (2) trust intention, (3) institutional based trust, (4) general trust. The survey which results are presented in this paper was conducted in Poland in January 2020. Poles as a nation are characterized by a rather low level of trust in the general sense. This translates into a lack of trust both in other people and in institutions. According to the national survey on trust (January 2020) it was shown that the level of trust is low. Only 22% of citizens of Poland expressed that they trusted other people (CEBOS Report, 2020). Regarding other research made when the COVID-19 pandemic started in Poland (from March 2020) it is shown that the trust toward scientists has increased (i.e. State of Science Report, 2021; Pew Research Centre, 2020). The general trend shows that the pandemic results in the increase in trust toward science and scientists. It is highly probable that if the research is repeated, the trust level of scientists would increase.

The hypothesis H4 (The cultural similarity of the country which the food hazard comes from results in greater concerns about this hazard) was verified positive. Consumers

admitted that they are more afraid of a hazard if it comes from a country of similar culture what is in line with other studies in this field. Humans in general trust people from similar cultures. Trust is embedded in cultures (Welter, 2005; Elgar, 2011).

Hazards in food have a very serious and severe sequels for consumers themselves as the danger to their health, for the food chain actors as, i.e. decrease of the image, decrease of profits, food waste, increase of costs to rebuild the trust and image, etc. and for the government, i.e. decrease of trust to food institutions, increase of the cost of healthcare, etc. It is better to prevent food hazard appearance, rather than deal with it. H5 (The appearance of a hazard in a food product results mainly in the cessation of buying this product among consumers). This hypothesis was verified positive. The main consequence of hazard in food is to stop buying this product. It is rather obvious. The hazard results in the loss of trust in food safety of this product but the consequence is not just so direct. One-third of consumers expressed the opinion not to buy product of the same brand/manufacturer what shows the scale and the cost increase of the appearance of hazard in food. Wilson *et al.* (2017) elaborated a strategy statements for (re)building consumer trust in the food supply before, during and after food incidents, these are: (1) be transparent, (2) have protocols and procedures in place, (3) be credible, (4) be proactive, (5) put consumers first, (6) collaborate with stakeholders, (7) be consistent, (8) educate stakeholders and consumers, (9) build your reputation, (10) keep your promises. These statements show the level of multi-faceted of rebuilding consumers trust in food safety what takes money and time.

The research reveals the complexity of the issue of consumer attitudes toward safety and its lack. They differently assess the probability of a hazard occurring in different groups of food products. This behavior is influenced in part by reports from the past regarding the occurrence of hazards in food, but also by the general perception of a given product group. The highest probability of food hazards was indicated for meat and meat products. We can connect it with past meat scares, i.e. mad-cow disease and dioxins but also with the general image of the meat and meat products as those which are not as healthy as, i.e. vegetables, and also the trend of the reduction of meat consumption. On the other hand, vegetables, fruits and dairy products were indicated as least probable of food hazards. It could be caused by the general positive image of their influence on health but in this case there is no justification in facts and other concerns of consumers. Fruits and vegetables often contain too high level of pesticides what, i.e. was shown in RASFF Report (2020). Moreover, as consumers admitted they are afraid of pesticides in food. However, these poor facts about lack of the safety of fruits and vegetables were balanced by the positive image of vegetables and fruits among consumers. In this way a very interesting research question has been open to check the influence of the general image/information about various food products and the perception of their safety.

The next factor affecting the perception of lack of food safety is the cultural similarity and scientists knowledge. In case of cultural similarity the result were in line with other studies, so the culture similarity reduces the concerns about food safety. In case of the relationship between scientists knowledge and consumers concerns the results were slightly different than in other studies. Respondents agreed to be more afraid of a hazard if the scientists knowledge is great. This situation might be caused by the low level of trust in scientist and general trust. Many researchers say that the COVID-19 pandemic will result in the increase in trust toward scientists. This survey was conducted before the pandemic starts in Poland. Probable if it would be done now, the results were different. For this reason it is planned to repeat dome part of this research to identify the differences of consumers opinion before and during the pandemic.

This research also shows the scale of the consequences of food hazard in food. Majority of the respondents declared to stop buying a product in which the hazard appears or to stop buying other products of the brand/manufacturer what will cause great image and financial loss and also the need to rebuild the trust.

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