

THE MEANING OF PERCEIVED RISK IN PURCHASING DECISIONS OF THE POLISH CUSTOMERS

Grzegorz MACIEJEWSKI
Faculty of Economics
University of Economics in Katowice
Katowice-Poland
greg@ue.katowice.pl

Abstract

In the article, by means of qualitative and quantitative research methods, the following questions have been answered: What is risk for Polish consumer? Is the consumer aware of a risk of failed purchase? And if so, what types of risks do they perceive? Then finally, which risks are the most important for them? The achieved results show that a poor purchase risk, which accompanies consumers, if perceived, it constitutes an important determinant of the purchasing decision making. Polish consumers are aware of the failed purchase risk connected with their purchasing decisions and they perceive it both as a possibility of loss and as a chance for achieving a better result than expected. From among the researched groups of goods and services, consumers most often perceive the risk of a poor purchase in the situation of buying household appliances and tourist services – the situations of cautious and unusual decision making. Polish consumers perceive various types of risk, the importance of which changes depending on the kind of a purchased product.

Keywords: consumer behaviour, perceived risk, purchasing decisions, Poland

JEL classification: D12

1. INTRODUCTION

Risk is inscribed in people's life and it results from the fact of making decisions concerning future. Science and technology development not only cannot exclude the risk but on contrary - it implies its rise. The contemporary consumer in all of his or her decisions must take into consideration risk factor, and include it in their plans and strategies of their actions. In the subject literature one may come across a statement that risk, if only perceived, becomes the main determinant of their purchasing decisions. Cox reckons that getting to know the nature and range of the risk perceived by consumer enables a better understanding of some of the aspects of consumer behaviour (Cox, 1967, 15). It is especially important when it comes to understanding and predicting how and why the consumer adopts, conveys and processes information when solving their decision making problems. Therefore, defining the role which risk plays in consumer purchasing decisions is of great importance for science in the field of consumer behaviour and particularly in the research on rationality of such behaviour. Knowledge of the sources and character of the risk perceived by consumers is also

of great importance for companies. Getting to know the sources and character of the risk perceived by consumers enables companies to apply more efficient means of affecting consumers (e.g. by reducing the perceived risk) and, as a result, achieve competing advantage by the company.

The aim of this article is to find an answer to the following questions:

- What is risk for Polish consumers (risking a loss or perhaps a chance for achieving a better result than expected)?
- Are Polish consumers aware of a risk of failed purchase?
- What kind of risk is perceived by Polish consumers when making decision about purchase?
- What types of risk are most important for Polish consumers in making purchasing decision?

Looking for solutions to the problems constitutes the aim of this article, a search query of reference books has been done, and direct research tools (quality and quantity) were designed and conducted in the years 2007 – 2009. As consumer purchasing decisions are made differently, depending on the product purchased, risk perception and identification of its particular types have been examined in terms of purchasing decisions of three basic groups of products, classified in terms of criterion of materiality and means of product consumption:

- food (non durable products),
- household appliances (durable goods),
- trips and package holidays (experiential goods).

The research, which results have been presented in this article, has been conducted within the grant of the Polish Minister of Science and Higher Education entitled „Risk in purchasing decisions of consumer – conditions, regularities”, the author of which is a manager. This is the first project of this type realised in Poland.

2. PERCEIVED RISK – DEFINITIONS AND TYPES

2.1 Definitions [1]

Risk issues were first introduced into the consumer behaviour research field by Bauer. By identifying risk perceived by consumer in the market, he tried to explain the purchaser's actions, such as: searching for information about product and place of purchase, brand loyalty or importance of leaders and groups of reference when buying particular goods and services (Bauer, 1964, 389-398). Bauer's concept focuses around the claim that consumer behaviour entails risk in the way that any action undertaken evokes consequences impossible to predict, at least some of which may appear undesirable. Consumer risk is then the probability of negative consequences resulting from the decision taken and is important at the level perceived by the consumer. The range and type of reaction depends on the risk level perceived by the consumer and his or her own level of tolerance for the taken risk (Schiffman and Kanuk, 1994, 562; Kahneman and Tversky, 2003, 17-43).

Risk determines consumer purchasing behaviour. However, this is a specific determinant. In the situation when consumers do not perceive risk in the process of purchase of particular goods or services, the fact of objectively existent risk has no influence on purchasing behaviour. One may say that risk influences consumer purchasing decisions on the condition that it is perceived by them. Risk perception constitutes the condition necessary to consider risk in the category of purchasing decision determinant. On the other

hand, consumers attempts of reducing the risk perceived by themselves have been observed, although the risk, objectively, did not exist (Brehmer, 1994, 79 and next). It happens because an average consumer has incomplete information, limited number of attempts before making the choice and fallible memory. In many cases consumers face new purchase that have never made before (so called new, authentic decisions).

Kogan and Wallach (Mitchell, 1998, 167) see perceived risk differently, suggesting that the consumer risk issue may have two aspects:

- chance aspect, where the stress is put on probability,
- danger aspect, where negative consequences and their importance are at the centre of attention.

Cunningham, who adopted Bauer's definition for his research, made a comment which indicates uncertainty and consequences may entail known or unknown probability. He suggests that for his concept it does not make much difference whether the customer knows that there is 80% chance of a poor purchase, or that he only thinks that he or she "may" make a poor purchase. He describe perceived risk by amount of rate to be lost, if the consequences of what he or she has done are unfavourable and subjective feeling of an individual that the consequences will be negative (Mitchell, 1998, 166).

Alternatively, other authors working on the issue of perceived risk define the dimension of unfavourable consequences with the terms: importance of loss or instrumental importance (Taylor, 1974, 54-60; Bettman, 1975, 184-190; Bloch and Richins, 1983, 69-81).

Not all researchers agree with the two-dimension concept of consumer risk. Among others, Sjöberg (1980, 261) expresses doubts about the concept, arguing that risk is rarely well-demonstrated by the result of probability and consequence, and achieved measurements may often be misleading. He suggests that consumer risk is a more complicated category, which shall be presented as multidimensional composition.

Tyszkiewicz and Zaleskiewicz (2001, 55-57), based on Knight's risk theory, notice that consumer choice under conditions of risk may be characterised by the fact that actions they must choose between may lead to various consequences. Moreover, the person who makes the decision does not now for sure but is able to estimate the probability of these consequences occurring. In situations where the consumer is not able to estimate the probability that different consequences of the actions taken may occur the authors call the choice under conditions of uncertainty.

Garbarski's views (1998, 49) on the subject are partly similar to the above presented opinion. According to this author, risk in purchasing decisions is a type of uncertainty, which consumers encounter when they cannot predict many crucial consequences of the purchasing decisions taken. Rudnicki (2000, 104) expresses the risk, after Markin Jr., as a function of uncertainty and possible consequences of purchase, noting it in the following form:

$$R = f (U, C)$$

where: R – perceived risk, f – analytic form of equation, U – uncertainty, C – consequences of purchase.

Both authors agree with the afore mentioned attitude of Bauer, admitting that consumer risk occurs only when he or she perceives the danger of making a wrong decision and is afraid that its consequences may be important for them (loss of money, prestige, time, mak-

ing oneself ridiculous etc.). The risk evokes particular state of tension which consumers try to eliminate or at least reduce by means of various means and actions.

Considering consumer risk it is worth pausing at the remark made by Cox (1967, 36-38), who stressed that while conducting research it is often necessary to deduce from consumer behaviour about the existence of the perceived risk. This is because consumer may be unable or may be reluctant to admit that situation they face is risky for them. Therefore, the author assumed when doing the research to identify and analyse such situations, that risk is perceived by the respondents when they behave as if they attempted to cope with risk (e.g. reducing it).

On the basis of the conducted research work, **consumer risk** may be defined as the possibility of the occurrence of deviation from the expected state, which he or she may more or less precisely estimate. The deviation from the expected state may be of negative (possibility of loss, failure) as well as of positive character (possibility of achieving a better result than expected).

2.2. Types of perceived risk

The researchers of consumer behaviour identified and described several types of the risk connected with purchasing, perceived by consumers. They may occur in any combination and on different level in case of particular item or service purchase. Following Kaplan and Jacob five types of risk shall be noticed, namely: physical risk, performance risk, financial risk, social risk and psychological risk (Bateson, 1989, 89).

Physical risk shall be considered as the most primary. It may occur when something goes wrong and unpleasant consequences shall have an impact on consumer's health or life. It concerns safety of product usage. More and more areas of physical risk are directly connected with a threat of consumer's health. In this aspect, safety issues concern also such goods as food (e.g. genetically modified food), cosmetics (frequent allergic reactions), medicines and quasi-medicines (especially these, which are not adorned with certification procedures) or types of services such as: extreme expeditions (e.g. body injuries), exotic travels (risking tropical diseases, kidnapping, terrorism).

Performance risk is connected with the consumer's concern for whether the purchased goods or service will serve the purpose it was purchased for. In other words, whether the product shall properly fulfil the functions the customer expects from the purchased products. Each product fulfils particular functions: basic and additional. Basic functions are connected with functionality and efficiency of the product. Additional functions concern convenience of usage, product design and aesthetics. On contemporary, competing markets many products fulfil almost the same basic functions. In this case, the additional functions gain importance and they often become an important selection criterion taken into consideration by consumers.

Psychological risk refers to the influence that the purchase has on an individual's self-esteem, dignity or the way of thinking about themselves (perception of one's own image). It results also from the concern whether particular product shall equal his or her ego (Schiffman and Kanuk 1994, 562).

Social risk suggests that there may be an incurred loss of personal social status connected with purchasing particular product or service. The risk refers directly to attitudes (and reactions) of family, friends and members of social groups which particular customer belongs to or which he or she aspires to (so called reference groups). This type of risk is

connected with the choice of products and brands which have particular attributes of acceptance for the above-mentioned groups. It means that in the purchasing process consumers are acting according to the opinions created by the society they live and function in.

In the financial risk the possibility of financial loss is taken into consideration, if the purchase turns out to be a failure. From the consumer's point of view, financial risk resolves to the price he or she must pay for a particular product or service. Doubts appear whether the product is worth paying the price and whether there is any option to buy the same product at a lower price etc. Moreover, in situations, where durable goods are the object of consumer decision, financial risk refers also to predicted cost of use and/or maintenance of the product. Concerns referring to how particular purchase shall influence the possibility of purchasing other products are also connected with financial risk (Hoffman and Bateson 1997, 84).

The following types of risk were also identified: risk of consumer's time loss in the situation of failure (Peter and Ryan 1976, 184-188; Roselius, 1971, 56-61) and opportunity cost (Zikmund and Scott, 1973, 406-416).

Risk of time loss occurs when it is necessary to devote much time in the process of purchase or product use. The time connected with purchase is mainly time of searching for product searching and product selection. The time lost in the situation of product usage is the time referring to exchanging or returning of the product in the situations when the product turns out to be defective (time of repair) or is not fulfilling the requirements set (time of product exchange).

Lost opportunity risk occurs when consumer made the choice purchasing the product or service and does not have any more funds to satisfy the same need in a different way.

The same type of risk occurs in the situation where consumers, purchasing a particular product are forced to „forget” for some time about other goods.

The mentioned risks, together with different types of consumer doubts and concerns which accompany them and which occur in the process of selection and purchase of goods and services are presented by e.g. Garbarski (Table no. 1).

The types of described risk in most situations of decision appear together, creating a multi-component structure of consumer risk (Simcock, Sudbury, Wright 2006, 370-371) [2]. Consumers, while making decision about purchasing a particular product or service must estimate how safe the product shall be, whether it meets his or her expectations, whether the suggested price corresponds with its value, and whether it is accepted by the people whose opinion is important for him or her. Overall risk perceived by consumer constitutes a unit of the above-mentioned elements. It may be written as follows:

$$R_K = R_{ph} + R_p + R_f + R_s + R_{ps} + R_t + R_{oc}$$

where:

R_K – overall risk perceived by consumer; R_{ph} – physical risk; R_p – performance risk; R_f – financial risk; R_s – social risk; R_{ps} – psychological risk; R_t – time loss risk; R_{oc} – lost opportunity risk.

Table no. 1 Types of risk versus consumer's doubts concerning purchased goods and services

Types of risk	Consumer doubts
Physical risk	<ul style="list-style-type: none"> - Is the product safe? - Does it pose a threat? - Is it dangerous for the environment?
Performance risk	<ul style="list-style-type: none"> - Does the product fulfil the functions it is expected to fulfil? - How long does it work effectively? - Does it work better or worse when compared to competitors' products?
Social risk	<ul style="list-style-type: none"> - Do my family and friends support my decision of the product purchase? - Do those whose opinion I care about like the product? - Do the people I identify with use similar products?
Psychological risk	<ul style="list-style-type: none"> - Does the product I own impress others? - Do I enjoy using the product?
Financial risk	<ul style="list-style-type: none"> - Is the product worth the required price? - Is the purchase connected with the best use of financial resources?
Time risk	<ul style="list-style-type: none"> - How much time does it take to search and select particular product? - Is there a time loss risk connected with the return or exchange of the product? - Do I get a replacement product for the time of repair?
Lost opportunity risk	<ul style="list-style-type: none"> - Will this product satisfy my need best? - Shall I restrain from purchase and look for a better offer? - Shall I not regret spending my last money on his product?

Source: [Garbarski, 1998, 52]

In the literature, one may come across different classifications of the risk perceived by the consumer. One of the most interesting classifications is the one done by Horton, who presents consumer risk as a collection of potential losses for the consumer (Table no. 2). A consumer, in the author's opinion, making a decision about the selection and purchase of the product must face the risk of loss of his financial resources, but also be aware that what he or she buys may not work in the way they expect it to do. He or she must be also prepared for the situation in which he or she ceases to like the purchased product or the people whose opinions are important for the consumer may not accept it. Finally, a consumer facing the variability, breadth and depth of the offered assortment must cope with a "richness of selection" which means a probability of making a mistake when evaluating those product's attributes, we care about most.

Table no. 2 The structure of perceived risk by R.L. Horton

Type of risk	Characteristics
Definitions of Potential Financial Loss	In case of a poor purchase, the consumer may lose his or her financial resources which he or she assigned for the purchase of a given product. The loss consists of the possibility that the product may be repaired, replaced/ exchanged or the purchase price refunded. The consumer may be without the service of the product for some time. And to the extent that his or her time is valuable, the extra time and effort required to correct the mistake represents a financial loss.
Definitions of Potential Performance Loss	Selected and purchased product does not meet customer's expectations, does not perform as expected.

Type of risk	Characteristics
Definitions of Potential Psychological Loss	As social loss: purchased product may not be appreciated within the group of people who constitute consumer's reference group, may expose him to ridicule or loss of the possessed social status, prestige etc. As risk of decreasing one's own ego value: the purchased product may not express consumer's personality in a way they expect, may not like the product anymore after some time, may not enjoy it etc.
Definitions of Variance of Important Product Attributes	Within certain product classes, brands vary greatly in attributes which are important to consumer while within other product classes brands vary little on important attributes (for instance: shampoos versus disposable shavers).
Definitions of Difficulty of Judging Important Product Attributes)	Within certain product classes it is relatively easy for consumers to judge brands according to the product attributes, while within other categories such individual judging is much more difficult (e.g. fresh versus tinned vegetables, car wipers versus motor oils).

Source: [Horton, 1976, 696]

Considering different classifications, which try to describe types of consumer risk, it is worth paying attention to the division proposed by Bettman (1973, 184-190). He divided risk into inherent and handled risk. The first type of risk concerns the consumer's general feelings towards a given category of products (e.g. shampoo), the other type regards the level of concerns the consumer faces when choosing a brand from a product class (e.g. L'Oreal or Vichy shampoo?), and which is the effect of processes resulting from coping with risk and may be quite precisely articulated by the consumer. Handled risk represents the final results of the process of acquiring information and reducing risk made in reference to inherent risk. For instance, the consumer may think that a given category of products such as shampoo involves great risk, but still they buy their favourite brand with confidence. Dowling and Staelin (Mitchell 1998, 167), referring to Bettman's division, called those risks: a product category risk and product – specific risk. This division seems to be more distinguishable and easier to comprehend. Peter and Ryan (1976, 184-188) suggested that importance of the expected loss differs depending on the market segment and product category. However, it is not a complete explanation, especially in the situation of defining the importance of loss probability on the level of particular brand. As Bettman depicts it, the importance of loss works on the level of inherent risk, while probability of losses is applicable on the level of handled risk.

For instance, expected (prospective) financial loss at 100 pounds per year due to poor condition of fuel economy shall be of the same importance for the consumer whatever car he or she will decide to purchase. However, it may be expected that probability of loss will differ depending on the brand and class of the car (Bettman 1973, 184-190).

3. METHODOLOGY

In order to find an answer to the question set forth at the beginning of the article, two-stage research of both qualitative and quantitative character have been conducted.

The first stage was exploring quality character. Its main aim was to define detailed research scopes for the future quantity research, including information helpful in constructing a questionnaire for personal interview research (PAPI). Focus group interview (FGI) was used in the research, supported with the projection techniques (mental map, unfinished sentences test). A scenario of an interview was the basic research tool and the course of the

interview was observed and recorded explicitly by means of a dictating machine. The first stage of the research was conducted in September 2007 in Katowice and Tychy among two groups of consumers (12 persons each), whose age and gender were chosen intentionally (Maciejewski, 2007, 30-49).

In May 2009 the second stage of the research was conducted. Personal interview research (PAPI) was conducted in Poland on a quota sample of 1000 people, representative in terms of gender, age and place of living.

The interview questionnaire consisted of 25 questions, including 8 personal data questions, where respondents of different gender were asked for their gender, age, profession, professional activity, income, financial status evaluation, size of households and place of living.

Particular questions or groups of basic questions corresponded with other aims and hypotheses posed in the study. In the tool, scale questions have mostly been used. Because of the character of the examined variables, these were mostly seven-grade ordinal scales and nominal scales - which are non-metric, quality scales.

Before conducting the principal research, a pilot study of the research tool was conducted on a group of 90 consumers from the Silesia Province. The aim of the pilot study was to reveal and describe the respondents' reactions to particular questionnaire questions, revealing the means of understanding the questions and the terms found there, and also feelings and emotions of the respondents. As a result of the pilot research, some modifications of the questionnaire layout were made, some more difficult terms have been replaced with easier ones and some questions removed. Based on the observations and collected remarks, instructions for interviewers were prepared, which included detailed guidelines pertaining to conducting the research.

To evaluate the reliability of the final version of the research tool for the scales measuring the influence of particular types of risk on purchasing decisions of consumers, the Cronbach's Coefficient Alphas has been calculated. If coefficient $\alpha > 0.7$ is adopted as an accepted level then all scales which were taken into consideration achieved values over this level.

As the conducted research was not exhaustive, it was necessary to match a sample. In this case a procedure of aim – quota- sample has been applied. The method is based on the hypothesis that a sample is representative for the whole population, if the structure of the sample in terms of important features is the same as the structure of the researched community (Schaeffer, Kerster, Janardan 1980, 157-163). The adopted features in the research were: gender, age and place of living. On the basis of a known structure of the studied population, in reference to these features, units' features have been matched. The framework of the sample was matched to be identical with the frameworks of the researched community in Poland. The survey was conducted by a trained group of coordinators and interviewers on the sample of 1000 consumers in May 2009 in 30 cities of different regions in Poland [3].

The sample, in accordance with the adopted research assumptions, included adults who make decisions on the food, household appliances and tourist services markets - Table no. 3.

Table no. 3 Basic characteristics of consumers taking part in PAPI

Specification	Overall sample N = 1000	Size of the city (number of residents)		
		up to 50 th. n = 390	51 – 200 th. n = 270	over 200 th. n = 340
Gender (in %)				
Female	52.5	51.8	52.2	53,5
Male	47.5	48.2	47.8	46,5
Age (in %)				
18-29	24.7	24.4	25.6	24.4
30-44	25.5	27.4	22.2	25.9
45-59	27.5	28.5	27.4	26.5
over 60 years	22.3	19.7	24.8	23.2
Average age of the respondent (years)				
	44.5	43.6	45.1	45.1
Education (in %)				
Basic	7.1	7.4	8.5	5.6
Vocational	16.2	17.4	20.4	11.5
Secondary	47.1	49.0	42.6	48.5
Higher	29.6	26.2	28.5	34.4
Professional activity (in %)				
Employed	57.0	59.2	48.1	61.5
Unemployed	43.0	40.8	51.9	38.5
Number of persons in a household (in %)				
1 person	14.7	9.7	14.4	20.6
2 persons	28.2	28.5	28.1	27.9
3 persons	26.0	24.6	28.1	25.9
4 persons	21.7	25.9	20.4	17.9
5 persons and more	9.4	11.0	8.9	7.7
Average number of persons in a household				
	2.8	3.0	2.8	2.6
Subjective evaluation of financial status (in %)				
Unsatisfactory	14.3	13.8	14.4	14.7
Average	36.1	38.7	34.8	34.1
Satisfactory	49.6	47.4	50.7	51.2

Distribution of the respondents according to gender, age and place of living agreed with the division of general population in Poland. Therefore, in the sample, women only slightly outnumbered men, the most numerous age group constituted people at 45-59 years, and when it comes to a place of living – the residents were of the cities with up to 50 thousand inhabitants. The average age of the respondent was 44.5 years old.

Almost half of those interviewed acknowledged having a general education, three out of ten a higher education and nearly every fourth respondent acknowledged elementary or vocational education. Together with the increase of cities' growth, the percentage of the respondents with higher education rose. In the cities with up to 50 thousand residents, every fourth had higher education and in the cities of over 200 thousand – every third.

Almost 60% of the respondents were professionally active. Every other resident from the cities of 51- 200 thousand people was unemployed, in the rest of the cities four out of ten were not employed.

The majority of the households consisted of 2 or 3 persons. Almost half of the respondents evaluated their household financial status as satisfactory (49.6 %), 36.1 % as average and 14.3 % as unsatisfactory.

The data collected in the second stage of the research included information about a great amount of units. Such a large data collection constituted disordered, raw material, which needed to be systematised, so that it could be used to accomplish aims of the research. It was first grouped and counted, then collected data was initially described. The application of SPSS 14.0 PL software with AMOS packet allowed the reception information about the subject of the research quickly.

Afterwards, quality and quantity analyses were conducted. In order to do it, selected descriptive statistics have been applied, which allowed for a synthetic description of the structure of the researched community. The study of particular attributes and properties which characterise the researched population and the researched phenomenon are usually not sufficient for finding answers to all questions which intrigue the researcher. In order to learn the directions and strength of relations which occur between dependent and independent variables, Spearman and τ – Kendall correlation coefficient have been applied. Then again, to verify the probability of quality variables similarity, a Pearson correlation coefficient measure for quantity features has been applied.

In the analysis of the obtained information exploratory factor analyses (EFA) and confirmatory factor analyses (CFA) have been used in order to distinguish homogenous components of consumer risk on the following markets: food, household appliances and tourist services, confirmed by the SEPATH models class. For the conducted confirmation factor analyses (CFA) the following assumptions have been adopted:

- correlation between factors is acceptable;
- main components achieved as a result of exploratory factor analysis (EFA) are confirmatory factor analyses (CFA) unobserved variables;
- for each group of risk a three-factor model (3F) has been developed according to the selected constructs specified in the exploratory factor analysis (EFA); three-factor model has its justification in the easiness of interpretation of the respondents' feelings, with reference to classified risks. It constitutes a specific mental abbreviation of the respondents' feelings;
- the model does not constitute unequivocal solution to the problem. A different, more proper model structure is always possible; Yet, at this stage of the analyses and collection of variables it is not known;
- model's parameters shall be estimated with the maximum likelihood estimator (MLE).

The application of other methods of analysis was limited because of the type of scales used in the interview questionnaire. The information achieved as a result of the conducted research and subsequent analyses enabled conclusions about the role of risk in purchasing decisions of Polish consumers. It signifies that the results presented in this work are so precise that they may be generalized to apply on the whole population.

4. RESULTS

4.1. Risk perception of Polish consumers

Pejorative meaning of the "risk" concept, predominant in the subject literature, does not seem to prevail among Polish consumers. As results show from the research conducted,

over half of the respondents (52.5%) perceive risk both as a possibility of loss and as a chance to achieve benefits, and only one out of ten perceive risk exclusively as a possibility of loss (10.2%) – Figure 2.

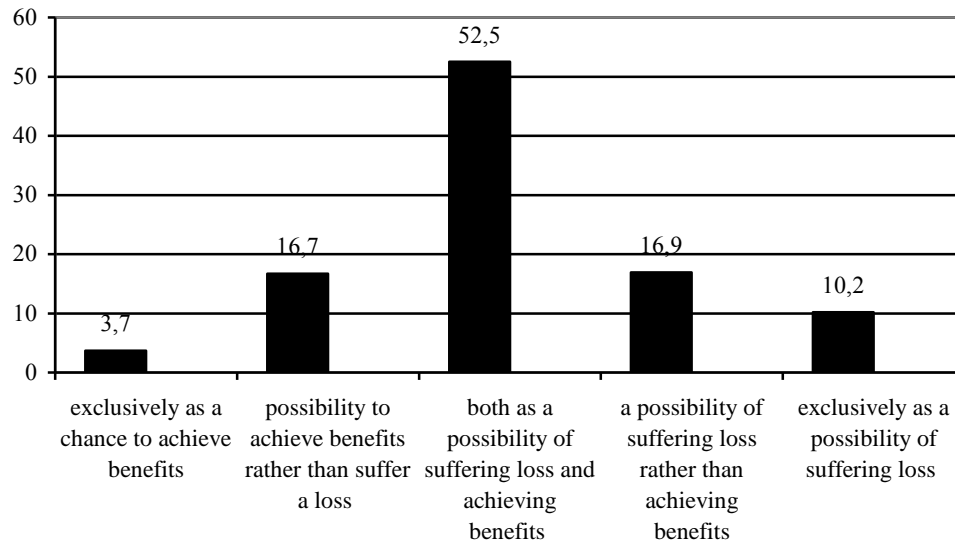


Figure no. 2 Risk in Polish consumers perception (N=1000, in %)

Conducted research showed that the variables such as age, financial status, and consumer's attitude to novelty may influence consumer risk perception. As it has been noticed, together with age, the percentage of consumers who perceive risk as a threat of loss suffering is growing (there is a relation confirmed by statistically important correlation coefficients $r_s = -0.151$ and $\tau_b = -0.130$; $p = 0.01$). On the other hand, the better the consumer evaluates his or her financial status and attitude to novelty the more often he or she perceives risk as a chance to achieve benefits, and not as a threat of loss (in case of financial situation the correlation coefficients $r_s = 0.125$ a $\tau_b = 0.105$, $p = 0.01$; in case of attitude to novelty $r_s = -0.174$ a $\tau_b = -0.153$, $p = 0.01$).

4.2. Awareness of a risk of failed purchase

A decision making process on the purchase of particular goods or services, and actually the process of thinking of the purchase, begins when the consumer realizes the existence of a particular need or when other entities make him or her realise the need. Many factors and conditions have influence on the course of the process, among which a poor decision risk and in consequence poor purchase risk plays an important role. Conducted direct research supports the statement that Polish consumers are aware of the risk of failed purchase. The risk, however, is not perceived by each consumer and not in relation to each group of products. From among the respondents only every third admitted that he or she perceives risk when buying food as well household appliances and audio/video devices or

tourist services (trips, package holidays, etc.) – Figure 3. It shall be mentioned that women, slightly more than other respondents, perceive risk in the purchase of the analysed groups of products. It concerns also people at the age of 30-44, residents of the cities up to 50 thousand people and people who like shopping. However, when analysing the respondents in terms of their attitude to novelty, the group of consumers who most rarely realise the risk of failed purchase is the group of consumers most open for novelty (pioneers).

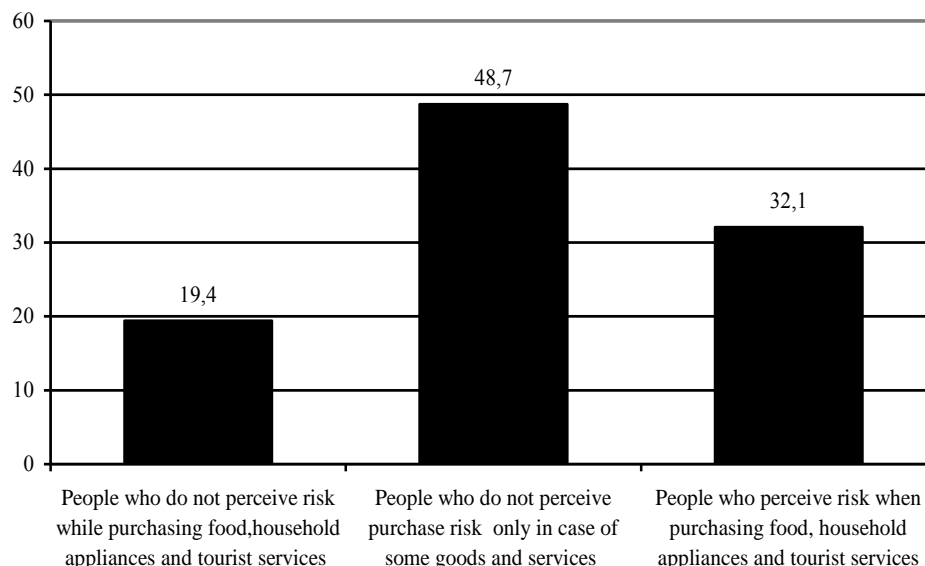


Figure no. 3 Consumer awareness of the risk of failed purchase (N=1000, in %)

Consumers most often perceive a poor purchase risk while purchasing household appliances (62.9 %). Little less awareness accompanies customers when purchasing tourist services (58.9 %) as decisions about the purchasing of these products are cautious decisions, not routine ones. The achieved outcome shall not be surprising but shall prove a considerable level of rationality of the decisions made by consumers in the household appliance and tourist services markets. The same is true about the lowest level of poor purchase risk awareness among the compared groups of products, declared in the case of purchasing food (49.2 %). This type of purchase is usually accompanied by routine and habits. On the other hand, in situations of media-presented threats such as avian flu or BSE, in the times of convenient, genetically modified artificial food a relatively low level of awareness may intrigue.

4.3. Consumer perceived risk in the process of purchasing the selected goods and services - types, importance

In the later part of the research respondents were asked about the type of perceived risk when making decision about purchase and which from among these risks are the most important for them. As type of perceived risk depends on the subject of purchasing decision,

the respondents' answers refer separately to food, household appliances and tourist services purchased.

To find an answer to the questions asked above, the respondents who perceive risk when purchasing food have been presented with a list of 14 risks, generated on the basis of subject literature and during focus group interviews (FGI) conducted in the first stage. Respondents were asked to indicate on a seven-level scale to what degree they feel each risk while choosing and purchasing food products. The achieved results have been presented in Table no. 4.

Table no. 4 Risk perceived by consumer when buying food - types, importance (N = 492)

Types of perceived risk	Symbol	Mean ^a	Standard deviation
1. Product will turn out to be not fresh or bad	rf 5	4.33	1.927
2. Product will turn out not to be worth its price	rf 13	4.26	1.706
3. I will not like the taste of the product	rf 3	4.09	1.847
4. My family will not like the taste of the product	rf 4	4.04	1.858
5. Producer / seller will not like to accept a claim	rf 6	3.98	2.042
6. I will spend money unnecessarily	rf 11	3.98	1.906
7. O will overpay (somewhere else it will turn out to be cheaper)	rf 8	3.97	1.901
8. Product will not be as efficient as producer / seller assured	rf 7	3.82	1.681
9. There is a risk of alimentary intoxication (e.g. because of a large content of preservatives)	rf 1	3.77	1.840
10. I will make a poor choice (I will buy something which will not fulfil my expectations, and I will not be able to afford buying another product)	rf 2	3.63	1.753
11. I will lose time on another shopping	rf 10	3.21	1.933
12. The product will evoke allergy, rash	rf 12	3.15	2.080
13. Family and friend will criticise my choice	rf 9	2.93	1.851
14. I will put on weight after consuming the product	rf 14	2.71	2.015

^a Arithmetic mean calculated on the basis of the respondents answers, who had an opportunity to determine degree, at which they feel particular type of risk when choosing and purchasing food in scale from 1 to 7, where 1 signifies – never or at very low degree/level and 7 – at a very high degree.

The respondents are mostly concerned if the food they buy turns out to be not fresh or rotten (evaluated mean 4.33), and the product itself – not worth its price (mean 4.26). For consumers it is also important that the purchased food is tasty both for themselves and for their families (mean: 4.09 and 4.04 respectively). In contrast, the respondents are least concerned about the possibility of consequences such as family and friends' criticism of the purchase they made (mean 2.93) or possibility of putting on weight after consuming the purchased product (mean 2.71) – Table no. 4. Therefore, based on Kaplan and Jacoby's classification one can notice that for consumers who are making purchasing decisions in the food market, physical, financial and performance are the most important risks. Social and psychological risks seem to be of the least importance.

The evaluation of the importance of particular types of risk is clearly differentiated by the gender of the respondents. It has been observed that average evaluations of women are higher than average evaluations of men – in cases of all evaluated types of risk. The biggest differences have been observed at evaluations of risk concerning the possibility of putting on weight too much (average evaluation of women: 3.08 – men: 2.25), doubts if the product turns out to be worth its price (4.57 – 3.88) and concerns that a product may cause allergy or rash (3.34 – 2.91). Evaluations of particular risks being felt when choosing and purchasing food are differentiated by the respondents' attitude to novelty. Average evaluations done by consumers who claim not to be interested in novelties almost in each case were higher than average evaluations done by consumers who buy new releases whenever they enter the market [4]. The evaluation of the following risks may be an exception: the product will not be tasty to my family, family and friends will criticise my choice and I will put on too much weight after consuming the product. Those exceptions, though, seem to be understandable. Consumers, who buy novelties more often risk purchasing an unverified product, which is not always accepted by member of their families.

Multitude and variety of risks affecting the decisions of customers purchasing food encourage an attempt to exchange them with new, synthetic major risks. In order to do it, an exploratory factor analysis has been conducted (EFA). Factors extraction method: Principal components. Rotation method: Quartimax with Kaiser's normalisation), then the achieved results have been verified by the usage of confirmatory factor analysis (CFA) (Szttemberg, 2008, 92 and next).

Finally, 14 risks (Table no. 4) created four coherent groups of components which constitute **four synthetic risks of purchasing food**:

1. *The first, called **resources loss risk**, is described mostly by financial risks: purchase of product whose price, somewhere else might have been lower, unnecessarily spent money and the product will turn out not to be worth its price. Resources loss risk is also described by lost opportunities risk. As it appears, this situation arises when a particular product does not meet consumer's expectations and he or she does not have more money to buy another one consumers connect with financial loss. On the other hand, possibility that the producer/seller will not want to accept a claim is identified by consumers as loss of another resource: time. The first of presented synthetic risks is created by the concern that purchased product will turn out to be not as efficient as producer/seller assured. Although the risk concerns particular expected function of the product, it is perceived by consumers as resources loss risk. Since the product turned out to be less efficient it is necessary to go and buy more of it, devote more time and money for doing this.*
2. *The second synthetic food loss is characterised by variables which emphasise the importance of particular functions of a product to consumer – in this case it is about the taste of food. Consumers are concerned if the purchased product will not be tasty both for them as well as for their families. This risk has been called **risk of inadequate product taste**.*
3. *The third distinguished synthetic food risk is described by two variables: the product will cause allergy or rash and I will too much on weight too much after consuming the product. This type of risk has been called **risk of negative side effects of the product**. It comprises of elements of physical and psychological risks.*
4. *The concern that consuming a product may lead to alimentary intoxication for instant because of a large content of preservatives describes the last distinguished food risk. It*

has been called a health impairment risk. Out of the four distinguished risks it has the least importance.

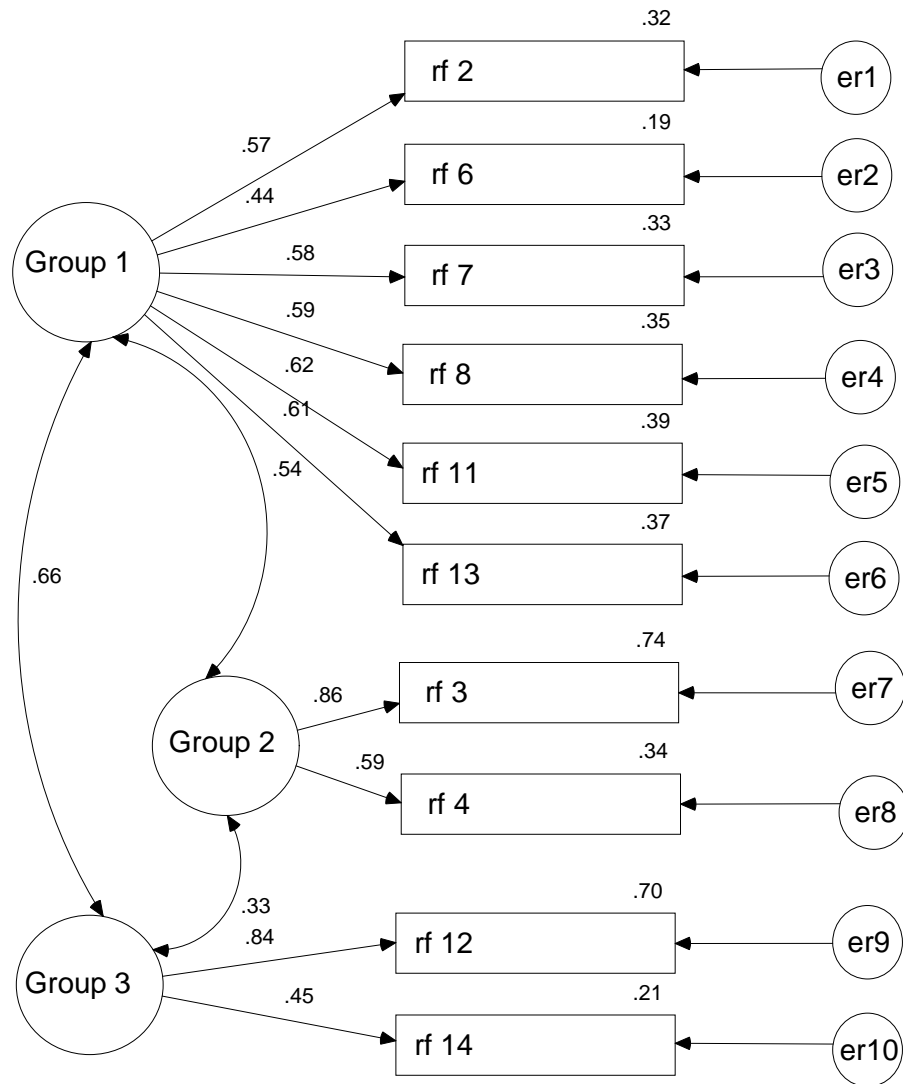
A question arises though, whether the suggested model assuming the existence of four synthetic risks of buying food truly represents actual dependencies among the observed and unobserved variables. To find an answer to this question the achieved results have undergone a detailed analysis with the usage of confirmatory factor analysis (CFA) – Figure 4. The conducted confirmatory factor analysis confirmed correctness of the researched model of consumer selection and food purchasing risk. As this model may be accepted in terms of presented adjustment measures (except test χ^2), although it cannot be acknowledged as well suited. All coefficients used in analysis turned out to be considerably connected with the constructs they measured. It may be concluded that consumers purchasing decisions on the food market are determined by resources loss risk, risk of inadequate product taste and risk of negative side effects of the product. It shall be stressed that in the process of food selection and purchase, as exploratory factor analysis showed, resources loss is of particular importance. It results from the fact that possible financial loss or time loss are the most measurable and noticeable to consumers.

Facing household appliances purchase, a consumer is in a different purchasing situation than when purchasing food. The course of decision process is not that easy. The purchase requires devoting much more time, searching for a greater amount of information and deep thought. These decisions are charged with a greater risk of the possibility of poor purchase.

Looking for the answer to the question of what type of risk is perceived by Polish consumers when purchasing household appliances, consumers, who are aware of the risk which accompanies household appliances purchase, were presented a list of 16 risks generated during focus interviews (FGI) conducted in the first stage. Then they were asked to indicate, on a seven-degree ordinal scale, at what degree they feel each of the risks when selecting and purchasing household appliances. The achieved results have been presented in Table no. 5.

The respondents are afraid that the equipment purchased will turn out to be of poor quality and it will not be worth its price (evaluated mean 4.56 and 4.60 respectively). It is also important for them that there shall not occur any hidden defects (average evaluation 4.46). Relatively, the least concerns were evoked among the respondents by the possibility of occurrence with such consequences as destruction/damage of the product in transportation (mean 3.06) and criticism of the purchase by family and friends (average 2.68) – Table no. 5. Employing terminology proposed by Kaplan and Jacoby one may say that for consumers, making purchasing decisions in the market of household appliances, performance and financial risks are the most important ones. Physical and social risks seem to be the least important.

Different evaluations of the importance of particular household appliances selection and purchase risk are most evident in the age bracket of the respondents. Except for one case (risk that a product will turn out to be not worth its price), the mean evaluations of people from the oldest age group (60 and more) were higher than evaluations of consumers from the youngest group (18-29 years). Especially evident, differences can be seen in the evaluations of such risks as: product will turn out to be too difficult to handle (mean evaluations: 4.14 – 2.81 respectively; correlation coefficient $r_s = 0.270$ and $\tau_b = 0.202$, $p = 0.01$), and product will turn out to be too expensive in maintenance (4.65 – 3.71; correlation coefficient $r_s = 0.174$ and $\tau_b = 0.139$, $p = 0.01$), product will turn out to be dangerous for life or health (3.85 – 2.92; correlation coefficient $r_s = 0.145$ and $\tau_b = 0.115$, $p = 0.01$).



rf n – food purchase risk n (see: Table no. 4)
 $\chi^2 = 122.316$; degrees of freedom $df = 32$; $p = 0.000$; $\chi^2/df = 3.82$;
 RMSEA = 0.053; NFI = 0.885; CFI = 0.910; RFI = 0.802; IFI = 0.912; TLI = 0.846;
 Hoelter 0.05 = 378, Hoelter 0.01 = 437.

Source: [Author's own study by means of AMOS package]

Figure no. 4 The structure of CFA model relations for food purchase risk (standardised coefficients)

The evaluation of importance of particular types of risks is visibly differentiated by the gender of the respondents. It has been observed that similarly to the evaluations of food risks level, the mean evaluations of women are, in each case higher than the mean evaluations of men. The most distinct differences appeared in the evaluation of concern that the equipment will turn out to be too difficult to handle (mean evaluation of women: 3.75 – men: 2.95; correlation coefficient $r_s = -0.197$ and $\tau_b = -0.173$, $p = 0.01$), doubts whether product will not turn out to be too expensive in maintenance (4.44 – 3.83; correlation coefficient $r_s = -0.170$ and $\tau_b = -0.148$, $p = 0.01$) or concerns that the purchased product will be equipped with functions that the consumer will not make use of (3.91–3.38; correlation coefficient $r_s = -0.133$ and $\tau_b = -0.116$, $p = 0.01$). The differences seem understandable as they refer to typically technical aspects of household appliances, which women are less familiar with than men.

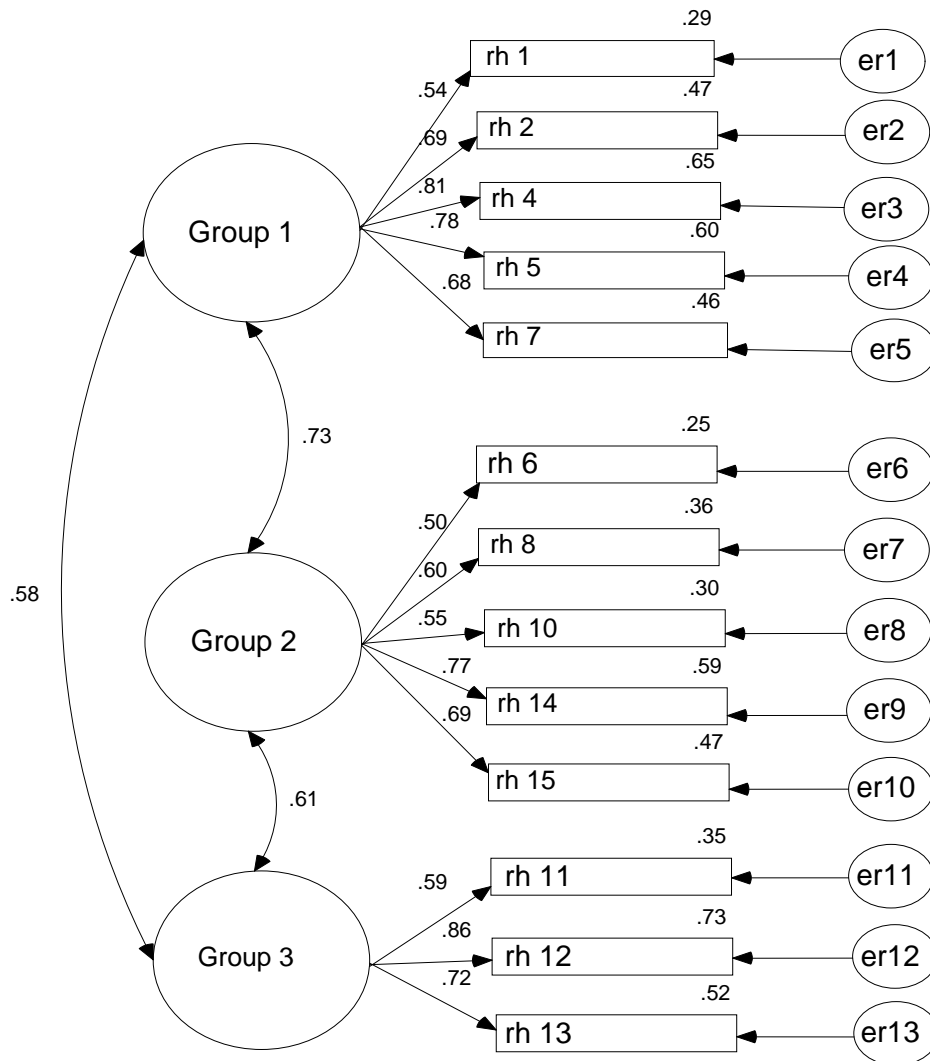
Table no. 5 Risk perceived by consumers when purchasing household appliances - types, importance (N = 629)

Types of perceived risk	Symbol	Mean ^a	Standard deviation
1. Product will turn out not to be worth its price	rh 5	4.60	1.626
2. Product will turn out to be of poor quality.	rh 7	4.56	1.770
3. Hidden defects will occur.	rh 16	4.46	1.868
4. It will turn out that post-warranty service will be very expensive (parts, cost of labour)	rh 13	4.37	1.892
5. I will make a poor choice (I will buy something which will not fulfil my expectations and I will not have more money to buy a new one)	rh 1	4.31	1.836
6. I will overpay (the same product may be offered at lower price in other shop)	rh 9	4.29	1.748
7. Producer / seller will not like to accept the claim	rh 2	4.17	1.976
8. A product maintenance will turn out to be expensive (considerable water, power and gas consumption)	rh 4	4.17	1.814
9. It will turn out that service is far away	rh 12	3.96	1.987
10. Product will be serviced for too long.	rh 11	3.93	1.861
11. I will spend money on extra functions of the product which I will not make use of later on	rh 15	3.67	1.954
12. Product may be a threat to life and health	rh 3	3.44	2.038
13. Product usage will turn out to be difficult	rh 6	3.40	1.953
14. The equipment will turn out to be useless	rh 14	3.32	1.938
15. The product will be damaged in transport	rh 8	3.06	1.869
16. Family and friends will criticise my choice	rh 10	2.68	1.708

^a Arithmetic mean calculated on the basis of the respondents answers, who had an opportunity to determine degree, at which they feel particular type of risk when choosing and purchasing household appliances in scale from 1 to 7, where 1 signifies – never or at very low degree/level and 7 – at a very high degree.

To replace the risks (presented in Table no. 5) which accompany the purchase of household appliances with synthetic principal risks an exploratory factor analysis (EFA) has been conducted. The achieved results have been verified by confirmatory factor analysis

(CFA) - Figure no. 5. Both analyses have been conducted in the same way as distinguishing synthetic food risks.



rh n – household appliances purchase risk n (see: Table no. 5)
 $\chi^2 = 1142.853$; degrees of freedom $df = 66$; $p = 0.000$; $\chi^2/df = 17.3$;
 RMSEA = 0.121; NFI = 0.515; CFI = 0.525; RFI = 0.331; IFI = 0.530; TLI = 0.354;
 Hoelter 0.05 = 76, Hoelter 0.01 = 84.

Source: [Author's own study by means of AMOS package]

Figure no. 5 The structure of CFA model relations for household appliances purchase risk (standardised coefficients)

As a result of conducting exploratory factor analysis (EFA) three consistent groups of components have been achieved creating **three synthetic household appliance and electronic devices purchase risks:**

1. First risk is described by financial risks: product will turn out to be too expensive in maintenance and product will turn out not to be worth its price and by risks which may also have financial consequences for the consumer. These are: poor purchase risk (I will buy something which will not fulfil my expectations and I will not have more money to buy a new one), producer/seller will not like to accept the claim and a product will turn out to be of poor quality. Therefore, the risk is called **risk of potential financial loss**.
2. The second distinguished principal risk is described by concerns connected with safe transport of the equipment home and its further usage. To this risk belong the following: product usage will turn out to be difficult, family and friends will criticise the choice, the equipment will turn out to be useless, the money will be spent on extra functions of the product which I will not make use of later on and the product will be damaged in transport. This risk is defined as **risk of not fulfilled expectations**.
3. The third distinguished household appliance and electronic devices risk is described by three variables. They concern doubts about proper warranty and post-warranty service offered by the producer/seller: products will be serviced for too long, it will turn out that service is far away, it will turn out that service will be very expensive (parts, cost of labour). This type of risk has been called **maintenance and repair service risk**. It consists of elements of time loss risk and financial risk.

In further proceedings, the model assuming the existence of achieved constructs has been verified by confirmatory factor analysis (CFA) to check if the achieved model is adjusted to the empirical data. The conducted confirmatory factor analysis has confirmed the correctness of the researched model of household appliance selection and purchase risk by consumers – Figure 5. This model may be accepted in terms of the presented adjustment measures, although it cannot be considered as a well adjusted model. All coefficients used in analysis turned out to be considerably connected with the measured constructs which they measured. One may say then, that the consumers purchasing decisions in the household appliances and electronic devices market are determined by the risk of potential financial losses, the risk of unfulfilled expectations and the risk of maintenance and repair service. As it was proved by exploratory factor analysis, the first one is particularly important. Such result seems to be understandable with regard to relatively high prices of household equipment.

Because of the multitude of forms and types of events offered in tourist services market, the research was focused on defining the role of risk in consumers' decisions concerning the purchase of trips and package holidays. To answer the question of what type of risk the Polish consumer feels when purchasing the above mentioned tourist services a collection of 16 risks was presented to consumers who are aware of the risk which accompanies such purchase. The risks were generated in the first stage of focus group interviews (FGI). Then the consumers were asked to indicate, similarly as in case of food and household equipment, to what degree they feel each risk when selecting and purchasing a tourist service (trip, holidays). The achieved results have been presented in Table 6.

Polish consumers are mostly concerned that the reality they will meet on the spot will be inconsistent with the offer of the travel office (evaluations mean 5.05). Moreover, to a great extent, they worry about being cheated by the organiser (evaluations mean 4.69), different kinds of inconveniences connected with the stay (evaluations mean 4.56) and

additional costs or extra payments (evaluations mean 4.54). Relatively, the least concerns are evoked by possible consequences such as wasted holidays (evaluations mean 3.20) or the feeling that they will not manage to rest and they will get back to work and daily activities tired (evaluations mean 3.11) – Table no. 6. Using terminology established in the subject literature one may say that for consumers making purchasing decisions in the tourist services market, performance and financial risks are the most important ones. Psychological risk and time loss risk seem to be the least important.

Table no. 6 Risk perceived by consumers when purchasing tourist service - types, importance (N = 589)

Types of perceived risk	Symbol	Mean ^a	Standard deviation
1. The reality will turn out to be inconsistent with the offer	rt 12	5.05	1.647
2. Tour operator/travel office will cheat me	rt 1	4.69	1.849
3. Various types of inconveniences may occur (uncomfortable room, or bed, bad food, etc.)	rt 4	4.56	1.628
4. There may occur additional, unexpected costs (e.g. connected with fluctuating exchange rates)	rt 16	4.54	1.717
5. Problems with obtaining help in case of sickness or if any accident occurs	rt 6	4.49	1.816
6. The weather will not be good	rt 7	4.30	1.959
7. I will overpay	rt 11	4.30	1.773
8. There may be delays or cancellations of the means of transport (e.g. I will spend my holidays at the airport instead of on the beach)	rt 5	4.27	1.754
9. I will make a poor choice (I will buy service which will not fulfil my expectations and I will not have enough money to buy another one nor time to use it)	rt 3	4.24	1.735
10. Tour operator/travel office will go bankrupt before the service is performed	rt 2	4.13	1.972
11. I will get infected with an unknown disease (e.g. tropical virus)	rt 15	3.68	2.050
12. Service will be unpleasant	rt 9	3.66	1.736
13. Accompanying people (e.g. husband, wife, children) will not be satisfied	rt 10	3.51	1.887
14. Loud neighbours will make it difficult to rest	rt 14	3.47	1.900
15. I will lose time (e.g. the only two weeks of holidays)	rt 13	3.20	1.869
16. I will not manage to rest and I will get back to work and daily activities tired	rt 8	3.11	1.874

^a Arithmetic mean calculated on the basis of the respondents answers, who had an opportunity to determine degree, at which they feel particular type of risk when choosing and purchasing tourist service in scale from 1 to 7, where 1 signifies – never or at very low degree/level and 7 – at a very high degree.

In the case of the risk of tourist service purchase it is more difficult to talk about noticeable diversity of evaluations in terms of the features of respondents, than it was in the

cases of previously described instances. The mean evaluations of women were higher than evaluations of men – but not always and not in such a range. Men, more than women, feel the social risk: accompanying people will not be satisfied with the stay and performance risk: the weather will not be good and the service will be unpleasant. The biggest difference of mean evaluations has been observed in the case of physical risk: during the stay I will get infected by an unknown disease. It cannot be considered as a very distinct difference as the evaluated mean in this case was 3.89 with women and 3.41 with men.

Multitude and variety of risks affecting the decisions of those purchasing tourist services (Table no. 6), inclines to make an attempt to replace them with new, synthetic principal risks. In order to do this, as in case of food and household appliances risks an exploratory (EFA) and confirmatory factor analysis (CFA) was conducted. Finally three consistent groups of components have been achieved, creating three synthetic risks of tourist services selection and purchase:

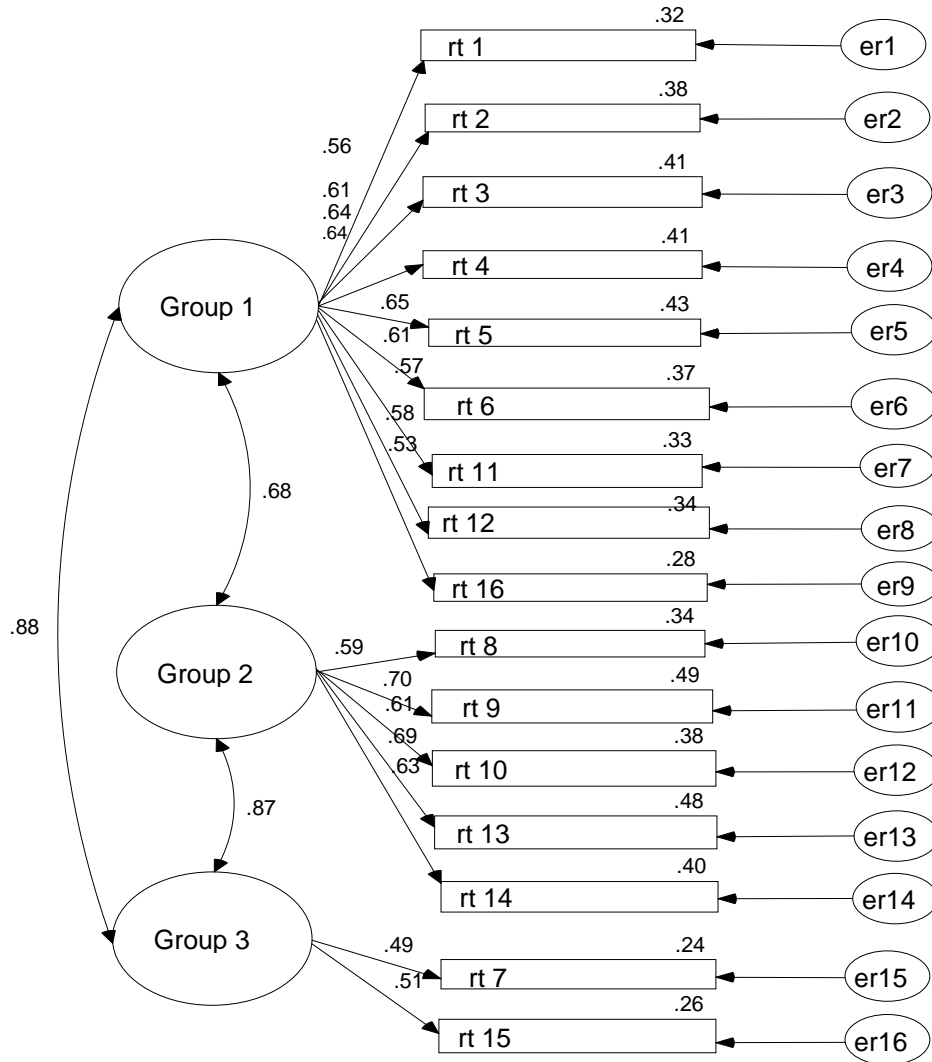
1. First risk is described by the number of concerns connected with getting to travel destination and a proper performance of the purchased service. These are the following: Travel office will cheat me, travel office will go bankrupt before the service is performed, I will make a poor choice, various types of inconveniences will occur, there will be delays or cancellations to means of transport, problems with getting help in case of sickness or accident may occur, I will overpay, the reality will turn out to be inconsistent with the offer, additional, unexpected costs will occur. Therefore, this risk has been called **risk of appropriate service performance level**.
2. Another distinguished principal risk is described by concerns connected with the stay and rest itself. The following components belong to it: I will not manage to rest and I will get back to work and daily activities tired, service will turn out to be unpleasant, accompanying people will not be satisfied, holidays will turn out to be a loss of time, loud neighbours will make it difficult to rest. This risk is defined as a **lack of service satisfaction risk**.
3. The last distinguished synthetic tourist service risk is described by two variables. They concern doubts about the results of the choice of particular place and time and not choosing the other: the weather will be bad, I will get infected with unknown disease (e.g. a tropical virus). This type of risk has been called **a risk of service choice effect**.

In further course of dealings, the model assuming existence of the obtained constructs has undergone a confirmatory factor analysis (CFA) to verify the match of the received model to empirical data. The conducted confirmatory factor analysis confirmed the correctness of the researched model of tourist purchase selection and purchase risk by consumers – Figure 6.

Apart from the test χ^2 and RMSEA coefficient all other measures of adjusting the model to empirical data prove the proper adjustment. It is worth pointing out that the value of the measure is χ^2/df for well adjusted models is above the upper boundary. This constitutes a good result if one takes into consideration the applicability of the model. Hoelter's test value on the other hand, on each level of importance suggests that the number of sample, which has been used to create the conceptual model described, is highly sufficient.

Moreover, all coefficients taken into consideration turned out to be really closely connected with the measures constructs. One may say that consumers' purchasing decisions on the market of tourist services are determined by the risk of appropriate levels of service performance, risk of lack of satisfaction from the service and risk of consequences of service choice. It is worth mentioning that when purchasing tourist service, as it was proved by ex-

ploratory factor analysis, the first one is particularly important. The result s to be understandable with regard to a frequent failure to perform the provisions of agreement by tour operators which is confirmed by the reports of The Office of Competition and Consumer Protection in Warsaw (UOKiK) and the opinions of consumers themselves (Maciejewski 2010, 229).



rt n – tourist service purchase risk n (see: Table no. 6)
 $\chi^2 = 614.22$; degrees of freedom $df = 104$; $p = 0.000$; $\chi^2/df = 5.91$;
 RMSEA = 0.070; NFI = 0.817; CFI = 0.841; RFI = 0.760; IFI = 0.843; TLI = 0.792;
 Hoelter 0.05 = 210, Hoelter 0.01 = 229.

Source: [Author's own study by means of AMOS package]

Figure no. 6 The structure of CFA model relations for tourist service purchase risk (standardised coefficients)

5. CONCLUSIONS

The risk of failed purchase which accompanies consumers, if it is only perceived by them, constitutes an important determinant of making purchase decisions. Presented research results demonstrate that Polish consumers are aware of the risk of failed purchase connected with their purchasing decisions. This risk is not perceived by every consumer or it is perceived but not while purchasing all types of products. Out of the researched groups and services, consumers perceived the risk of failed purchase most often when buying household appliances and audio/video devices, then, on the second place, when purchasing trips and package holidays – in situations of making responsible, not habitual decisions. Most rarely, Polish consumers perceived the risk of failed purchase when buying food, which is in the situation of making routine decisions.

The research results proved that Polish consumers perceive risk both as a possibility of loss and as a chance of achieving a better result than expected.

The collected research results drew attention to the fact that consumers perceive different types of risk and their importance changes depending on the type of the purchased product. The most important risk for consumers purchasing household appliances and electronic devices is the risk of potential financial losses which may occur as a result of making a wrong decision. Whereas, when purchasing tourist service, consumers are mostly concerned about a proper standard of the purchased service performance. When purchasing food, it is not risk of health loss that is of greatest importance but the risk of resources loss (mainly risk of time loss).

In the context of the presented results it shall be emphasised that a situation in which the level of the risk perceived by consumer will not be accepted or tolerated by them may lead to delaying the purchase in time or even to total resignation from purchase. Producers and sellers who want to offer their services to almost 40 million consumers in the Polish market need to include the recognition of types of risk which accompany the purchasing of the goods and services they offer into the areas of their marketing research. The knowledge of the subject will enable them to apply in their marketing strategies some more efficient means of affecting consumers, and as a result, achieve competitive advantage.

References

- [1] Bauer, R.A., *Consumer Behaviour as Risk Taking, Dynamic Marketing for Changing World*, American Marketing Association Proceedings, 1964.
- [2] Bettman, J.R., Perceived Risk and Its Components: A Model and Empirical Test, *Journal of Marketing Research*, Vol.10, 1973.
- [3] Bateson, J.E.G., *Managing Services Marketing. Text and readings*, The Dryden Press, Chicago 1989.
- [4] Bloch, P.H., Richins, M.L., A Theoretical Model for The Study of Product Importance Perceptions, *Journal of Marketing*, No. 47, 1983.
- [5] Brehmer, B., Some Notes on Psychological Research Related to Risk, in Brehmer, B. and Salin, N-E, ed., *Future Risk and Risk Management*, Kluwer Academe Publishers, Dordrecht 1994.
- [6] Cox, D.F., "Introduction and Risk Handling in Consumer Behaviour - an Intensive Study of Two Cases, In: Cox, Donald F., ed., *Risk Taking and Information Handling in Consumer Behaviour*, Boston Graduate School of Business Administration, Harvard University, Boston 1967.
- [7] Damodaran, A., *Strategic Risk Taking: a Framework For Risk Management*, Pearson Education, Inc., New Jersey 2008.

- [8] Garbarski, L., *Zachowania nabywców*, PWE, Warsaw 1998.
- [9] Hoffman K.D., Bateson, J.E.G., *Essentials of Services Marketing*, The Dryden Press, Fort Worth, 1997.
- [10] Horton, R.L., The Structure of Perceived Risk: Some Further Progress, *Journal of the Academy of Marketing Science*, Vol.4, No. 4, 1976.
- [11] Kahneman, D., Tversky, A., Prospect Theory: An Analysis of Decision under Risk, In: Kahneman, D., Tversky, A., ed., *Choices, Values and Frames*, Cambridge University Press, Cambridge 2003.
- [12] Maciejewski, G., Ryzyko w decyzjach nabywczych gospodarstw domowych - postrzeganie, skłonność, strategie redukcji, *University of Economics in Katowice, Research paper*, Katowice 2007.
- [13] Maciejewski, G., *Ryzyko w decyzjach nabywczych konsumentów*, University of Economics in Katowice, Katowice 2010.
- [14] Mitchell, V.W., Consumer Perceived Risk: Conceptualisations and Models, *European Journal of Marketing*, Vol. 33, No. 1/2, 1998.
- [15] Peter, P., Ryan, M.J., An Investigation of Perceived Risk at Brand Level, *Journal Marketing Research*, No. 13, 1996.
- [16] Roselius, T., Consumer Ranking of Risk Reduction Methods, *Journal of Marketing*, No. 35, 1971.
- [17] Rudnicki, L., *Zachowanie konsumentów na rynku*, PWE, Warsaw 2000.
- [18] Schaeffer, D.J., Kerster, H.W., Janardan, K.G., Grab versus Composite Sampling: A Primer for Managers and Engineers, *Environmental Management*, No. 4, 1980.
- [19] Schiffman L.G., Kanuk L.L., *Consumer Behaviour*, Prentice Hall, New Jersey 1994.
- [20] Sztemberg, M., Konfirmacyjna analiza czynnikowa jako weryfikacja eksploracyjnej analizy czynnikowej, in: Walesiak, M., ed., *Pomiar w badaniach rynkowych i marketingowych*, University of Economics, Wrocław 2008.
- [21] Simcock P., Sudbury L., Wright G., Age, Perceived Risk and Satisfaction in Consumer Decision Making: A Review and Extension, *Journal of Marketing Management*, No. 22, 2006.
- [22] Sjoberg, L., The Risks of Risk Analysis, *Acta Psychologica*, Vol. 60, 1980.
- [23] Taylor, J.W., The Role of Risk in Consumer Behavior, *Journal of Marketing*, Vol. 38, 1974.
- [24] Tyszką, T., Zaleskiewicz, T., *Racjonalność decyzji. Pewność i ryzyko*, PWE, Warsaw 2001.
- [25] Zikmund, W.G., Scott, J.E., A Multivariate Analysis of Perceived Risk, Self-Confidence and Information Sources, *Advances in Consumer Research*, No. 1, 1973.

Notes

1. In this place, only a short synthesis of perceived risk concepts presented in literature has been outlined. For more: Mitchell, 1998, 163-187; Damodaran, 2008, 28-58; Maciejewski, 2010, 36-78.
2. All types of risk do not have to occur in all situations of purchase. The type of the purchased product as well as various situation conditions are of primary importance.
3. The selection of regions, where the interview were conducted resulted from the previous experience gained from the study on consumer behaviour realised by the Department of Market and Consumption at University of Economics in Katowice and by means of the funds at the author's disposal.
4. Important statistical interdependencies have been observed especially in case of financial risks: I will overpay (somewhere it will turn out to be cheaper) $r_s = 0.115$ a $\tau_b = 0.140$, ($p = 0.01$); product will turn out not to be worth its price $r_s = 0.108$ a $\tau_b = 0.130$, ($p = 0.01$) and evaluation of time loss: producer/seller will not want to accept a claim $r_s = 0.104$ a $\tau_b = 0.126$, ($p = 0.05$).