INSURANCE SERVICE PURCHASE DECISION-MAKING RATIONALE: EXPERT-BASED EVIDENCE FROM LITHUANIA

Aurelija Ulbinaitė*, Marija Kučinskienė
Vilnius University, Lithuania

Abstract. *This paper deals with the examination of the rationale for insurance service purchase decision making with a focus on Lithuania and its possible implications for both Lithuania and other developing insurance markets. This work proposes a model that reflects the several stages of the insurance service purchase decision making process, including the time dimension. This model is constructed on the basis of three hypotheses; these hypotheses are tested based on data collected by means of an insurance expert survey. The results confirm the existence of two stages of insurance service purchase decision making, where one's intellect and income determine the inclination towards insurance and where the price and quality of an insurance service determine its purchase decision. The research reveals a relatively equivalent impact of both consumers' intellect and income on their inclination towards insurance in general; however, it strongly indicates the consumers' strong focus on the price of the service as opposed to its quality when deciding to purchase an insurance service. The research also discloses the higher complexity of the decision making process when purchasing life insurance services as compared to non-life insurance services.*

Key words: *insurance consumer behaviour rationale, insurance service purchase inclination and decision stages, intellect vs. income, price vs. quality, complicated vs. trivial process*

Introduction

The problem investigated in this study is the non-consumption or relatively low consumption of insurance services in Lithuania as compared to that in developed markets. The same type of problem has been observed on a worldwide basis in most of developing countries, where the majority of individuals are either not involved or involved merely episodically in insurance service consumption (Swiss Re, 2012; Ulbinaitė, 2013). In particular, the authors of this paper are interested in applying the theoretical model for researching insurance service purchase decision making process, to explain and empirically justify the process' stages and the determinants of consumers' involvement in the insurance service consumption in Lithuania. In other words, the research object is the

* *Corresponding author*.
Doctor of Management and Administration, Lecturer at the Faculty of Economics, Vilnius University, Saulėtekio Ave. 9, LT-10222 Vilnius, Lithuania;
e-mail: aurelija.ulbinaite@ef.vu.lt

insurance consumer behaviour in relation to the insurance purchase decision making of the existing and potential insurance consumers in Lithuania. In order to investigate this problem, the authors of this paper have formulated the following research objectives:

1. To create a model for explaining the rationale for insurance service purchase decision-making.
2. To justify the research hypotheses, which are formulated on the basis of the theoretical model about insurance consumer behaviour related to the insurance purchase decision-making in Lithuania. However, the authors believe that these hypotheses apply also in a wider context, i.e. new and developing insurance markets.
   H1: The inclination of insurance service consumers is formed, in equal proportions, by a combination of their intellect and income.
   H2: If consumers are already inclined to purchase insurance services (as stated in H1), the price and quality of insurance services have an equally decisive impact on the final decision making.
   H3: For more than half of all consumers, the purchase decision of voluntary insurance services is the result of long-lasting consumer personal considerations, consultations as well as insurance service provider evaluations.
3. To justify consumer attitude and motivation when taking insurance service purchase decisions.

To investigate and solve the given research problem, the whole of the research methods are used, i.e. a review of related works, a survey for collecting the opinion of insurance experts, a systematic, comparative and logic analysis and evaluation of the data resulting from the conducted survey; content (opinion) analysis; analysis of statistical data (application of descriptive measures).

1. Theoretical view on the justification of insurance purchase decision

1.1. Related work

Regarding "one's endeavour or refusal to consume insurance services", Ulbinaitė, Kučinskienė, and Le Moullec (2011a) point to the fact that insurance decision-making is not a trivial process. In fact, Huber and Schlager (2011) highlight that real world decision making under risk and uncertainty presents one of the most challenging areas of research nowadays. The complexity of the purchasing process of a comprehensive insurance package is highlighted by Showers and Shotick (1994) who strongly believe that such issues as evaluating financial needs and choosing a total insurance package create a perplexing process for consumers. Kunreuther and Pauly (2005) state that individuals for whom insurance may be a financially attractive investment may be reluctant or unable to collect and/or process the information they need to make decisions due to the

time, effort and costs associated with the process. According to Schwarcz (2010), decisions about insurance are among the most difficult ones that consumers face since they require individualised predictions about the likelihood and magnitude of highly unlikely and largely unfamiliar future events. Ulbinaitė (2011) states that insurance services are both difficult to sell for their providers and also difficult to purchase for consumers, in the sense that consumers are faced with difficulties in understanding risks, in properly evaluating their extent, frequency and probabilities, in correctly interpreting them, in choosing and evaluating insurance service price, quality, and benefits, in comparing different insurance services provided in the markets, etc.

Ulbinaitė and Le Moullec (2010) distinguish the need and the affordability for insurance as the two decisive factor-groups that in equal proportions determine one's insurance service purchase decision. The authors perceive the need for insurance as a manifold element composed of relational factors such as consumers' understanding and knowledge of financial products, insurance culture, global network of interactions, consumers' perception of need for security, and family nest status. When explaining the affordability for insurance the authors point to one's purchasing power, namely the balance between consumers' income and expenditures. Moreover, in their opinion, the continuous insurance, purchase (2nd and subsequent ones) is, additionally, dependent on the quality of the insurance services provided to the consumers and the consumers' opinion about the feeling of usefulness of the purchased insurance services. The authors state that the improved quality of the received service and the more positive opinion of a consumer about its benefits make the engagement of that consumer in the insurance service consumption stronger.

Ulbinaitė (2013) highlights that the lack or loss of perception of the need for insurance and the lack or loss of perception of affordability for insurance mislead consumers' attitude towards insurance as well as towards insurance service consumption. According to Kunreuther and Pauly (2005), when making insurance decisions individuals may wrongly process information, i.e. misperceive the risks, use simplified decision rules or be reluctant to consider new alternatives, as well as they may face budget constraints and other restrictions that influence their actions.

Showers and Shotick (1994) analyze the effects of household characteristics on demand for total insurance and examine the change in the probability of purchasing insurance. The research of these authors indicates that income and the number of earners are positively related to the demand for insurance. The authors provide two findings: first, the marginal effect from an increase in income is greater for single-earner households than for multi-earner households; second, the increase of either family size or age leads to a diminished marginal increase in insurance expenditure.

Lee, Kwon and Chung (2010) provide evidence that in all previous studies income was found to be positively related to the demand for insurance. They state that this is valid for both savings- and protection-type insurance.

Considerable evidence suggests that many individuals for whom insurance is a worthwhile purchase do not have coverage (Kunreuther, Pauly, 2005). Bundorf and Pauly (2002) state that, although the lack of affordability is an important barrier, it is not the only or even the major barrier to obtaining coverage for all or even most of the uninsured. The existing research on consumers' insurance literacy suggests that the lack of consumers' knowledge and decision skills is also an obstruction (Tennyson, 2011).

Most research-based explanations for the non-consumption of insurance services concentrate on the financial constraints (Ulbinaitė, 2013). The monetary dimension is the most significant one, and the other ones (such as social, psychological and emotional) play a less critical role in the formation of the insurance consumer decision (Ulbinaitė, Kučinskienė, Le Moullec, 2013). Individuals make a rough a priori estimate of the impact of purchasing insurance on their wellbeing (Kunreuther, Pauly, 2005). This means that an insurance service purchase decision is based on the pre-conducted cost–benefit analysis, where the analysis objects such as premium, probability of loss, the amount of loss and the size of compensation are taken into consideration. The evaluation of the well-specified quantitative factors indicates that consumers (tend to) make a purely monetary decision (Hsee and Kunreuther, 2000) which is to a high degree based on utilitarian decision criteria related to objective, economic, rational, concrete and functional purchase dimensions (Gough, Nurullah, 2009).

Purely monetary decision making means that insurance consumers expect to obtain some financial return which is a stronger stimulus than the overall goal of protection. Consumers (tend to) expect a "dividend stream" from insurance (Krantz, Kunreuther, 2007). From these consumers' point of view, they waste insurance premiums if they do not collect coverage on their policies for a certain period. Such behaviour indicates that consumers feel the need for justifying their actions to both themselves and others (Kunreuther, Pauly, 2005). Moreover, this suggests that they do not realise that "the best return on an insurance policy is no return at all" (Krantz, Kunreuther, 2007). Liedtke (2007) claims that insurance is not an unnecessary expense, as is often considered by potential buyers; on the contrary, it is a form of investment in the protection of assets, whereas being uninsured is in the long-term the most costly option for an individual, the economy, and society.

The overview of the research works on the justification of insurance purchase decision reveals the main following focus points: consumers' perception and awareness of the need for insurance, consumers' estimation and judgment of insurance attractiveness from a financial point of view, as well as consumers' self-involvement in the pre-quantitative and qualitative analysis of an insurance service.

1.2. Proposed model of rationale for insurance service purchase decision making

The authors of this paper propose a model for explaining the rationale for insurance service purchase decision making (Fig. 1). The model explains the insurance consumer behaviour related to the insurance purchase decision making through the three hypotheses introduced above.

The authors of this paper decompose the insurance service purchase decision making process into two sequential stages: a) the evaluation of the needs and affordability for insurance in general, and b) the evaluation of an insurance service in itself. The respective outputs of these stages are: a) the inclination towards insurance in general, and b) the decision to purchase insurance services. This means that the formation of consumers' attitude towards insurance in general is followed by their efforts to evaluate a specific insurance service (Fig. 1).

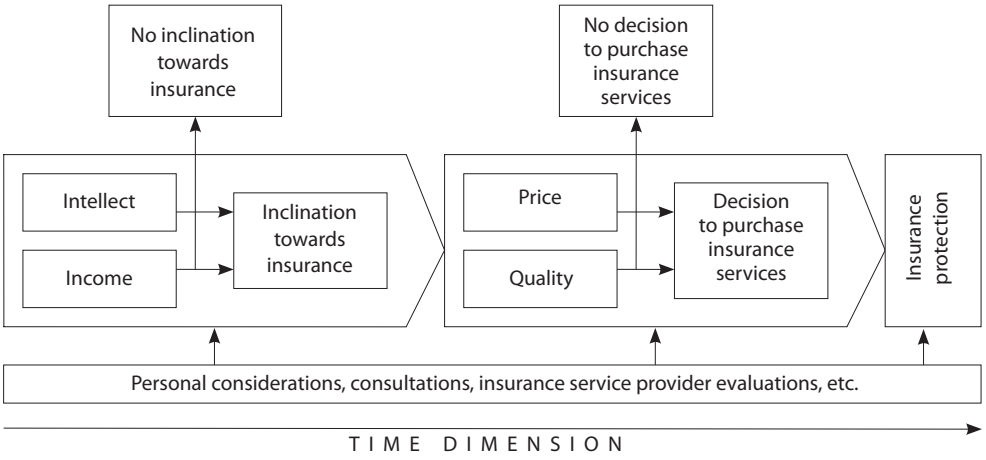

FIG. 1**. Proposed model of rationale for insurance service purchase decision making**

Source: authors' survey, 2012.

The framework for the agent-based modelling of consumer behaviour in the insurance sector, proposed by Ulbinaitė and Le Moullec (2010), reveals the perception of the need for insurance and the perception of affordability as the key-determinants for insurance product purchase decision. The proposed framework initiates the following first hypothesis:

H1: The inclination of insurance service consumers is formed, in equal proportions, by a combination of their intellect and income.

In this work, the authors consider that the consumers' intellect is formed by a combination of their knowledge and aptitude towards insurance in general. More specifically,

knowledge is defined as a combination of the consumers' own and/or others' insurance-related experience and the consumers' general educational level, whereas aptitude reflects the consumers' risk awareness and sensitivity also linked with their abilities to process and to manage the knowledge of financial products.

The price–quality ratio of an insurance service, including the decoy effect, has been extensively analysed by Ulbinaitė, Kučinskienė and Le Moullec (2011a, 2011b). The authors of the current paper model the parameters of the insurance service price and quality as the second insurance purchase decision-making stage and accordingly raise the following second hypothesis:

H2: If consumers are already inclined to purchase insurance services (as stated in H1), the price and quality of insurance services have an equally decisive impact on the final decision making.

Kunreuther and Pauly (2005) focus their research on the complexity of insurance decision making, which comes to a puzzle when consumers' thoughts, beliefs, attitudes, internal and external environment and forces are brought together. This initiates the following hypothesis:

H3: For more than half of all consumers, the purchase decision of voluntary insurance services is the result of long-lasting consumer personal considerations, consultations and evaluations of the insurance service provider.

2. Research methodology

For explaining the insurance service purchase decision making rationale, a questionnaire-based survey of the insurance experts as a method for research data collection was selected.

The *research population* involves insurance experts who work in Lithuanian insurance service provider companies as well as in insurance-activity-related associations and institutions. They can be grouped as follows:

1. Experts who work in life and non-life insurance companies, subsidiaries of insurance companies of other European Union members that implement life and non-life insurance activity, and insurance broker companies.
2. Experts who work in insurance supervision institutions, institutions to the insurance service provider interests, and insurance education institutions: the Bank of Lithuania (previously the Insurance Supervisory Commission of the Republic of Lithuania), associations which unify life insurers, non-life insurers and insurance broker companies, and the Institute of Insurance Risk and Management.

Research sample. The selection of the insurance experts is carried out using a non-random judgmental sampling, i.e. when sample units are chosen based on the knowledge

of the researcher and when an occupation-based decision is made. The research sample involves executives of all insurance companies and insurance-related institutions in Lithuania. They are as follows:

1. Executives of all Lithuanian life and non-life insurance companies (5 and 6 insurance experts, respectively).
2. Executives of subsidiaries of insurance companies of other European Union members that implement life and non-life insurance activity (5 and 9 insurance experts, respectively).
3. Executives of insurance broker companies which belong to the National Agency of Insurance Broker Companies of Lithuania and an additional insurance broker company (28 and 1 insurance experts, respectively).
4. Executives of insurance-activity-related departments, i.e. Life Insurance Department, Non-Life Insurance Department, Department of Insurance Intermediaries, and Department of Information Analysis of the previous Insurance Supervisory Commission of the Republic of Lithuania (since 1st January 2012 its functions have been overtaken by the Bank of Lithuania) (4 insurance experts).
5. Presidents of the associations of the Lithuanian Life Insurance Companies, of the Lithuanian insurers, and of the Lithuanian Insurance Brokers (3 insurance experts).
6. President of the Insurance Risk and Management Institute (1 insurance expert).
7. Representatives of insurance-related academic work (3 insurance experts).

A total of 65 insurance experts were selected for taking part in the survey. The experts that are mentioned in the 1st and 2nd points were allowed to choose and invite several competent authorities from their insurance companies to participate in the survey.

The insurance experts were surveyed by directly approaching them via e-mail (a nominal e-mail was sent to them; if the contact e-mail address of an expert was not known, the contact e-mail address of the company, provided on the www.dpk.lt website, was used instead) providing them a link to the questionnaire-based survey, accessible on the www.apklausa.lt platform.

Characteristics of the insurance experts. In total, 33 insurance experts participated in the survey. When filling the questionnaire, insurance experts could identify themselves by providing their name, surname, position, and the name of the company or institution where they worked. The insurance experts could stay anonymous if they wished so. The names of the insurance experts are anonymised, i.e. their names have been replaced by numerical identifiers. The list of anonymised insurance experts, their position, the type of activity of the company or institution where they work, and their insurance experience are provided in Table 1. It is worth noting that the majority of the insurance experts have been engaged in the insurance domain for many years: 19 experts had 10–20 years and 6 experts 5–10 years of insurance experience.

TABLE 1. **The occupation and insurance-related experience data of the insurance experts who participated in the survey**

Insurance experts	Corporate title	Type of activity of a company or an institution where insurance experts work	Years of experience in the insurance domain
Expert 1	Chairman of the Board, PhD	Work in both life and non-life insurance branches	10–20
	Chief Executive Officer		
Expert 2	Chief Communications Officer		2–5
Expert 3	Chief Executive Officer	Life insurance companies of the Republic of Lithuania	10–20
Expert 4	Chief Sales Officer		5–10
Expert 5	Chief Actuary		5–10
Expert 6	Family Insurance Expert		<2
Expert 7	Chief Region Expansion Officer	Non-life insurance companies of the Republic of Lithuania	10–20
Expert 8	Chief Marketing Officer		2–5
Expert 9	Insurance Consultant		10–20
Expert 10	Chief Operations Officer		10–20
Expert 11	Insurance Intermediary		10–20
Expert 12	Chief Product Officer, PhD	Subsidiaries of insurance companies of other European Union members that implement life insurance activity	5–10
Expert 13	Chief Executive Officer		2–5
Expert 14	Chief Sales Expansion Officer		10–20
Expert 15	Chief Business Officer	Subsidiaries of insurance companies of other European Union members that implement non-life insurance activity	>20
Expert 16	Chief Executive Officer		10–20
Expert 17	Chief Risk Officer		10–20
Expert 18	Chief Executive Officer		10–20
Expert 19	Chief Product Officer		10–20
Expert 20	Chief Exclusive Client Decision Coordination Officer		2–5
Expert 21	Insurance Broker Manager		5–10
Expert 22	Chief Sales Officer		10–20
Expert 23	Not provided		10–20
Expert 24	Vice director		>20
Expert 25	Not provided		10–20
Expert 26	President	Association that unifies the Lithuanian insurance broker companies	10–20
	Chief Executive Officer	Insurance broker companies of the Republic of Lithuania	
Expert 27	Chief Executive Officer		10–20
Expert 28	Chief Project Officer		5–10
Expert 29	Insurance Broker		<2
Expert 30	Supervision Politics Officer (until 2011-12-31 Chief Information Officer)	The Bank of Lithuania which since 2012-01-01 executes the functions of the previous insurance supervision authority of the Republic of Lithuania	10–20
Expert 31	President	Association that unifies the Lithuanian life insurers	10–20
Expert 32	President	Insurance and risk management institute	10–20
	Lecturer in several insurance topics	Not provided	
Expert 33	Assoc. Prof., PhD	Vilnius University (Lithuania), Faculty of Mathematics and Informatics	5–10
	ex Life Insurance Consultant	Not provided	

Source: authors' survey, 2012.

Questionnaire. All the survey questions were compiled by the authors of this paper. The questions reflected the process-based nature of the suggested theoretical model and the contents of its elements. Notably, many questions were formulated in a way such that the insurance experts could provide their answers in both quantitative and qualitative terms.

Surveying period: 18th February – 17th March 2012.

Methods used for the analysis. The obtained data were analysed using the following methods:

1. Opinion content analysis conducted in order to objectively and systematically identify the specific characteristics reflecting the analysed phenomenon (process).
2. Descriptive statistical analysis of the data obtained by the opinion content analysis was conducted using the following methods: the calculation of frequencies of the answers chosen by the respondents and their distribution in percentage, as well as average estimation and comparison.

3. Testing the research hypotheses

The results of research hypotheses' testing are presented according to the following procedure: a single hypothesis that reflects an appropriate stage or a certain sequence of the elements of the suggested theoretical model of insurance service purchase decision making is presented, then the systematisation, analysis and evaluation of the opinions (on the background of which the hypothesis is tested) are provided, next the position of the authors is expressed, and finally the summing-up of the contents of the opinions and a conclusive statement about the confirmation or rejection of the hypothesis is formulated.

3.1. First hypothesis

For explaining the extent of the impact of the main factors on the consumers' inclination towards insurance services, the following hypothesis was checked: *the inclination of insurance service consumers in Lithuania is formed, in equal proportions, by a combination of their intellect and income*.

When asking the insurance experts to evaluate how much the intellect and income factors determine consumers' inclination to purchase insurance services, 28 experts out of 33 answered by providing the relative impact weight of these factors in a scale of 100 per cent. In figures, the evaluations of the insurance experts varied from 25 to 80 per cent for intellect and from 20 to 75 per cent for income. When evaluating the statement, three insurance expert opinion groups which gave a relative importance to different factors (i.e. consumers' intellect, consumers' income, or the combination thereof) had been formed (see Table 2).

TABLE 2. **Relative impact weights (indicated by the insurance experts) of consumers' intellect and income as the two factors forming consumers' inclination towards insurance services (in percent)**

Number of insurance experts (and their numerical identifiers)	Relative impact weights of factors (in per cent)	
	Consumers' intellect	Consumers' income
1 (*Expert 9)*	80	20
5 (*Experts 4, 8, 13, 16, 22)*	70	30
2 (*Experts 14, 17)*	65	35
4 (*Experts 10, 11, 15, 18)*	60	40
1 (*Expert 33)*	57	43
6 (*Experts 6, 7, 20, 27, 30, 31)*	50	50
5 (*Experts 21, 24, 25, 28, 32)*	40	60
2 (*Experts 19, 29)*	35	65
1 (*Expert 2)*	30	70
1 (*Expert 12)*	25	75
Average of evaluations	**52,9**	**47,1**

Note: the factors to which the insurance experts give a relatively higher importance are marked in grey.
Source: authors' survey, 2012.

In the opinion of *Expert 18*, both factors directly impact the extent of one's usage of insurance services: the more income and/or intellect, the more insurance is used. *Expert 31* agrees with this opinion relating the intellect with the concept of educational background; the expert highlights the importance of one's knowledge and experience in the investment domain when choosing investment life insurance services. The significance of both factors is underlined by *Expert 3*: if individuals have no income, their needs for safety cannot be satisfied, whereas the relatively low level of one's intellect does not lead to the formation of the needs for safety.

Persons who have a higher income and higher intellectual capacities at their disposition, according to *Expert 3*, purchase protection, whereas those with lower ones buy a product, mostly taking its price into account. *Expert 26* and *Expert 7* mention the existing correlation between consumers' intellect and their income. *Expert 7* notes that only in the previously existing SSRS, as well as in the other Marxism-Leninism ideology-based countries (as well as in the present ones, e.g., in North Korea), the meaning of person's knowledge, mind, intelligence and individuality was or have been reasonlessly deemphasised (to be precise by exalting the labour class for political reasons). Ascribing Lithuania to the "normal" states, *Expert 7* would evaluate the significance of consumers' income and intellect for their inclination towards insurance services with the ratio 50:50.

According to *Expert 32*, regarding the types of compulsory (by law) insurance (e.g., motor third party liability insurance), due to their obligatory nature it is not possible to evaluate the ratio between income and intellect in per cent, whereas consumers' inclination for life insurance depends on the consumers' sophistication and the insurance ser-

vice provider's competences. In the opinion of the authors of this paper, the consumers' inclination towards voluntary insurance services (namely during the inclination formation stage) depends not on the insurance service provider's competences, but first of all on the consumers themselves. Only when a positive inclination is formed, the insurance service providers can make an impact on the consumers' final decision to purchase insurance services.

Based on the evaluations made by the authors of this paper, both the average of insurance experts' evaluation (where the relatively stronger significance of consumers' intellect, 52.9, per cent, is stressed) and the multi-directivity and contents of the insurance experts' opinions confirm the first hypothesis of the work. None of the two factors – neither consumers' intellect nor consumers' income as the factors that form the consumers' inclination towards insurance services – is excluded or deemphasised. Thus, the impacts of these factors on insurance consumer inclination, despite the relatively higher weight of intellect, are equivalent.

3.2. Second hypothesis

For explaining the extent of the impact of the main factors on the consumers' final decision towards insurance services, the following statement is provided for evaluation by the insurance experts: *if consumers are already inclined to purchase insurance services (as stated in H1), the price and quality of insurance services have an equally decisive impact on the final decision making.*

When asking the insurance experts to evaluate how much the price and quality factors of insurance services determine consumers' final decision to purchase insurance services, 29 experts out of 33 answered by providing the relative impact weight of these factors in a scale of 100 per cent. In figures, the evaluations of the insurance experts varied from 20 to 100 per cent for the price of insurance services and from 0 to 80 per cent for the quality of insurance services. The majority of the experts gave a relatively higher significance to the price factor of insurance services (see Table 3).

Expert 7 states that, when choosing an insurance service, there is a need for making a distinction between the compulsory and the voluntary insurance: compulsory, where the price can impact about 90 per cent of consumers' decision, and voluntary, where the proper ratio between the price and the quality is more significant (suppose a 50:50 ratio) and where the consumers' psychological trust in the insurer (its representative) is a constituent element of the ultimate perceived quality when one chooses an insurance service. In the opinion of *Expert 21*, this ratio "should be" 50:50; however, when analysing the factual insurance consumer behaviour in Lithuania, it appears that this ratio turns to one where the price of insurance services is the decisive factor (70:30).

TABLE 3. **Relative impact weights, provided by the insurance experts, of the price and quality of insurance services as the two factors forming consumers' final decision to purchase insurance services (in percent)**

Number of insurance experts (and their numerical identifiers)	Relative impact weights of factors (in percent)	
	Price of insurance services	Quality of insurance services
1 (*Expert 33)*	100	0
1 (*Expert 28)*	90	10
1 (*Expert 1)*	85	15
4 (*Experts 2, 12, 16, 20)*	80	20
8 (*Experts 10, 17, 18, 21, 22, 23, 31, 32)*	70	30
1 (*Expert 29)*	65	35
6 (*Experts 6, 11, 13, 14, 24, 26)*	60	40
3 (*Experts 3, 7, 9)*	50	50
3 (*Experts 5, 19, 25)*	40	60
1 (*Expert 4)*	20	80
Average of evaluations	**64.5**	**35.5**

Note: the factors to which the insurance experts give a relatively higher importance are marked in grey.
Source: authors' survey, 2012.

Expert 8 asserts that the weight ratio of the price and quality depends on the insurance product: in case of life insurance it would be 30:70, in case of casco insurance 50:50, and in case of motor third party liability insurance 80:20. *Expert 30* agrees that when purchasing third party liability insurance products the price is significant, whereas when insuring a property or when making long-term life insurance agreements the quality and the insurer's reliability are of main importance. Meanwhile, *Expert 33* gives zero per cent to quality, stating that almost 100 per cent of the insurance service consumers do not perceive the *real* qualities of these services, especially in the case of life insurance. In the opinion of *Expert 15*, the ratio between price and quality as one of the impact factors on the insurance decision making depends on the consumer segment: the more sophisticated the consumers, the more powerful impact of the quality on their decision.

Expert 32 states that defining the impact weights of price and quality on the consumers' decision making should account for the distinction between juridical and physical persons: the price–quality ratio for juridical persons would be 30:70, whereas the one for physical persons would be 70:30. According to the expert, the sale of life insurance products depends not on its price or quality, but on the final goal of the consumers, e.g., when the consumers are forced to insure their lives because they want to obtain a credit from a bank, or when they want to save a certain amount for the studies of their children or when they acquire a 3rd pillar pension insurance.

Expert 14 thinks that not only the price and the quality determine the final consumers' insurance decision: besides the price and the quality factors, the expert would also add

the seller's ability to sell an insurance service; in this case, the ratio of these three factors would be 30:20:50. The authors of this paper support the opinion of the expert about the involvement of the seller's ability to sell an insurance service as the third factor to the whole of the factors that determine the final consumers' insurance decision. The authors believe that the relative impact weight of this factor (together with the others) on the final consumers' insurance decision should be defined by conducting a supplementary insurance expert opinion and evaluation survey and a supplementary insurance consumer behaviour survey.

Expert 28 states that if the insurance service price in one insurance company is twice as high as in another one, even the high quality of the service will not induce the consumers to pay twice more. According to the expert, 90 per cent of an insurance decision is determined by the price; the majority of the citizens do not have money or, if they have, they do not think they should pay twice as much for a slightly better quality of insurance services.

The systemised opinions and remarks expressed by the insurance experts allow summing up that the ratio between the price and quality of insurance services is determined by the following factors:

1. The obligatory nature of insurance services: in the case of compulsory insurance, the insurance service price dominates, whereas in voluntary insurance, the ratio between the price and the quality is more or less equal.
2. The insurance product type or the insurance object: in the case of life insurance, the insurance service quality dominates; in property insurance, the ratio between the price and the quality is more or less equal or the insurance service quality weights more, and in third party liability insurance, the dominance is taken by the insurance service price.
3. The time period of the insurance agreement: the quality dominates in the case of long-term insurance agreements, whereas the price does in the short-term ones.
4. The juridical status of the insurance consumer: the price is more significant for physical persons, whereas the quality is for juridical ones.

Taking into account the evaluations provided by the majority of the insurance experts and the average of the insurance experts' evaluations of the impact of the price and the quality, which puts more weight (64.5 per cent) on the insurance service price, the authors of this article conclude that the statement provided by themselves is incorrect, thus the second hypothesis has been rejected. The conducted insurance experts' opinion survey justifies that within the price–quality ratio, the price is the decisive factor for the Lithuanian consumers when they take an insurance service purchase decision at the stage of choosing the service and its provider.

3.3. Third hypothesis

For explaining the extent of the complexity of the insurance service purchase decision making in Lithuania, the following statement is provided for evaluation by the insurance experts: *for more than half of all consumers, the purchase decision of voluntary insurance services is the result of long-lasting consumer personal considerations, consultations as well as insurance service provider evaluations.*

The insurance experts were asked to classify the consumers into three groups according to the degree of complexity of the insurance service purchase decision making process. Thirty-two experts completed the task. As can be seen in Table 4, the opinions of the experts about the complexity of the process of consumers' insurance service purchase decision making are rather contrasted: according to their evaluations, the group of consumers to whom the insurance purchase decision is complex makes 10–60 per cent of all consumers; the second group of consumers to whom the process is of average complexity makes 25–60 per cent, and the third group to which the process is relatively simple makes 0–60 per cent.

Nine insurance experts have stated that for at least half of all consumers the decision making of the insurance service purchase is a rather complex process (see Table 4). The evaluations provided by these experts seemingly would confirm the third hypothesis; however, evaluations by the majority of the other experts do not allow stating that. According to *Expert 16* and *Expert 25*, the process of consumers' decision to purchase insurance services is of average complexity for 60 per cent of the consumers, whereas, in the opinion of *Expert 16*, it is for 55 per cent of consumers. *Expert 19* was the only one to state that the insurance service purchase process is simple for more than half of all consumers; in the opinion of the expert, about 60 per cent of all consumers do not confront difficulties.

Upon summing up the evaluations of all experts, the average-based consumers' groups classified according to the degree of the complexity of insurance service purchase decision making process have been formed (see Table 4):

1. The group of consumers for whom the decision to purchase insurance services is a rather *complicated* time- and effort-requiring process (involving consumers' considerations, consultations and intensive search on the questions of interest), on the average makes 35.8 per cent of all consumers.
2. The group of consumers for whom the decision to purchase insurance services is a process of *average complexity* (when a relatively cheap or a relatively good quality insurance product is chosen) makes 40.9 per cent of all consumers.
3. The group of consumers for whom the decision to purchase insurance services is a rather uncomplicated process (when the first insurance offer or the insurance broker's offer is chosen, etc.) makes 23.3 per cent of all consumers.

TABLE 4. **The size of consumers' groups according to the degree of complexity of the insurance service purchase decision making process (in percent), based on the evaluations of insurance experts**

Number of insurance experts (and their numerical identifiers)	The size of consumers' groups according to the degree of complexity of the insurance service purchase decision making process (in percent)		
	Complicated	Intermediate	Uncomplicated
3 (*Experts 4, 15, 26)*	60	30	10
1 (*Expert 32)*	60	25	15
1 (*Expert 9)*	50	50	0
1 (*Expert 33)*	50	40	10
3 (*Experts 5, 21, 24)*	50	30	20
1 (*Expert 14)*	40	55	5
1 (*Expert 12)*	40	50	10
2 (*Experts 2, 8)*	40	40	20
1 (*Expert 29)*	40	35	25
1 (*Expert 30)*	33.(3)	33.(3)	33.(3)
1 (*Expert 3)*	33	33	34
4 (*Experts 1, 6, 28, 31)*	30	50	20
1 (*Expert 18)*	30	40	30
2 (*Experts 10, 13)*	30	30	40
1 (*Expert 22)*	29.41	47.06	23.53
1 (*Expert 16)*	25	60	15
1 (*Expert 25)*	20	60	20
2 (*Experts 7, 17)*	20	50	30
2 (*Experts 20, 23)*	20	40	40
1 (*Experts 11)*	15	50	35
1 (*Expert 19)*	10	30	60
Average of evaluations	**35.8**	**40.9**	**23.3**

Note: the evaluations of the insurance experts who think that more than 50 per cent of all consumers compose a single group (one of the three ones) when measuring the degree of complexity of the insurance service purchase are marked in grey.

Source: authors' survey, 2012.

Expert 32 and *Expert 33* classify insurance service consumers into the groups depending on the insurance branch to which the services that are purchased belong. The experts highlight a relatively higher complexity of the consumers' decision making in the case of life insurance (see Table 5). The opinions expressed by the insurance experts indicate that the relative size of the consumer groups, classified according to the degree of complexity of insurance service purchase decision making, depends on whether it is life or non-life insurance services that are purchased. The consumers' decision making process when purchasing life insurance services, according to the experts, is more complicated as compared to the purchase of non-life insurance services. Therefore, as far as purchasing life insurance services are concerned, a relatively larger part of the consumers belong to the group of the complex decision making process.

The authors of the article agree with the opinion of the insurance experts about the relatively more complex life insurance purchase decision making process. The authors would tend to classify the Lithuanian consumers into the following groups:

- from the viewpoint of life insurance, into the relative size groups of 60, 40 and 0 per cent, starting from the consumers who go through a complex decision making process, and finishing with the ones who go through a simple decision making process; and
- from the viewpoint of non-life insurance, into the relative size groups of 50, 40 and 10 per cent, respectively.

TABLE 5. **The size of consumers' groups according to the degree of complexity of the insurance service purchase decision making process, based on the evaluations of insurance experts (in percent)**

Insurance services	Numerical identifiers of insurance experts	The size of consumers' groups according to the degree of complexity of the insurance service purchase decision making process (in percent)		
		Complicated	Intermediate	Uncomplicated
Life insurance	*Expert 33*	60	–	–
	Expert 32	70	20	10
Non-life insurance	*Expert 33*	50	–	–
	Expert 32	50	30	20

Source: authors' survey, 2012.

This reflects the opinion of the authors of this paper that the process of voluntary insurance service purchase, in fact, is not a trivial process for the Lithuanian consumers, especially in the case of life insurance when the consumers have to go though an extensive process of personal considerations, consultations, and insurance service provider evaluations. This specific opinion of the authors is reflected in the formulation of the third hypothesis.

Taking into account the results of surveying the insurance experts' opinions and evaluations, when the process of insurance service purchase decision making for the majority of consumers is of average complexity or is a complex one, the conclusion about the partial confirmation of the statement formulated by the authors of this paper can be made; so, the third hypothesis is partly accepted. The partial acceptance is possible since:

- the consumers' group for which the process of insurance service purchase decision making is complicated, according to the experts' evaluations, does not make 50 per cent or more, but 35.8 per cent of all insurance service consumers; and,
- according to the provided evaluations, the consumers' group for which the process of insurance service purchase decision making is uncomplicated makes a relatively small part of all consumers, i.e. 23.3 per cent.

Conclusions

1. The empirical research results have unfolded the fact that in Lithuania consumers' intentions (inclination) to purchase insurance services are formed in equal proportions by a combination of their intellect (encompassing consumer education, knowledge, and capabilities) and income. A relatively low level of consumer intellect does not induce the need for insurance services, while a relatively low income does not allow satisfying the need for insurance. The need for insurance services is not formed in two cases: of a relatively high level of consumer intellect when income is insufficient, and of the disposal of sufficient income when consumers' intellect does not call for the need of insurance.
2. The expert opinion evaluation research has indicated that when consumers are already inclined to purchase insurance services, the impact of the price and the quality of insurance services on the final decision making are unequal: consumers give a relatively higher importance to the insurance service product price. The systematisation of experts' opinions enabled to distinguish the main factors that determine the relative weights of insurance service price and quality when consumers take the final decision concerning insurance service purchase; these factors are as follows: insurance form (voluntary or obligatory service), insurance product (or insurance object), the period of insurance agreement, and the juridical status of a person.
3. On the grounds of the expert statements, the purchase decision of voluntary insurance services has been assessed to be the result of the long-lasting consumer' internal considerations, consultations, and evaluations of the insurance service provider for slightly more than one third of all Lithuanian citizens. The expert survey has shown that the decision making of life insurance service purchase is more complicated for a larger part of consumers as compared to the decision making of non-life insurance services.

Suggestions

The verification of the second research hypothesis, besides the factors of insurance service price and quality that form the final insurance decision making of consumers, allowed to define the existence of a third factor which is the selling capability (or competence) of an insurance service provider. This allows formulating a new hypothesis for future research: if consumers are already inclined to purchase insurance services, the decisive impact on the final decision making is made by the insurance service price, its quality, and the selling skills of the insurance service provider. When verifying this hypothesis, one must define the relative weight of each impact factor. Taking into account the results of the already verified second research hypothesis, the relative weight of the

mentioned factors would be 40, 30 and 30 per cent, respectively, if one wants to prove that the impact of the factors, except the relative price overweight, are more or less equal. The alternative distribution of the relative weight would be 30, 20 and 50 per cent, respectively, if a newly introduced factor is awarded with a half of the total weight and the rest is divided between the weight of the price and the quality impact factors where the price factor receives more importance.

Future work

Finally, a complementary aspect that could be investigated as a future work is the influence of online search, buying behaviour, and post-purchase behaviour with respect to insurance services in Lithuania; this research could build upon, e.g., the works of Wang and Lu (2012) and Holland and Mandry (2013).

REFERENCES

Bundorf, M.K., Pauly, M.V. (2002). Is health insurance affordable for the uninsured? National Bureau of Economic Research, Working Paper 9281 – Cambridge, 45 p.

Gough, O., Nurullah, M. (2009). Understanding what drives the purchase decision in pension and investment products. Journal of Financial Services Marketing, Vol. 14, issue 2, p. 152–172.

Holland, C.P., Mandry, G.D. (2013). Online search and buyer behaviour in consumer markets. 2013 46th Hawaii International Conference on System Sciences. Conference Publications – Hawaii, IEEE, p. 2918–2927.

Hsee, C.K., Kunreuther, H.C. (2000). The affection effect in insurance decisions. Journal of Risk and Uncertainty, Vol. 20, issue 2, p. 141–159.

Huber, C., Schlager, T. (2011). To buy or not to buy insurance? The antecedents in the decision-making process and the influence of consumer attitudes and perceptions. Working Papers on Risk Management and Insurance, Vol. 90, p. 136–175.

Krantz, D.H., Kunreuther, H.C. (2007). Goals and plans in decision making. Judgement and Decision Making, Vol. 2, issue 3, p. 137–168.

Kunreuther, H.C., Pauly, M. (2005). Insurance decision-making and market behaviour. Foundations and Trends in Microeconomics, Vol. 1, issue 2, p. 63–127.

Lee, S.-J., Kwon, S.I., Chung, S.Y. (2010). Determinants of household demand for insurance: the case of Korea. The Geneva Papers, Vol. 35, p. S82–S91.

Liedtke, P.M. (2007). What's insurance to a modern economy? The Geneva Papers, Vol. 32, p. 211–221.

Schwarcz, D. (2010). Regulating consumer demand in insurance markets. Erasmus Law Review, Vol. 3, issue 1, p. 23–45.

Showers, V.E., Shotick, J.A. (1994). The effects of household characteristics on demand for insurance: a Tobit analysis. The Journal of Risk and Insurance, Vol. 61, issue 3, p. 492–502.

Swiss Re (2012). World insurance in 2011. Sigma 3 – Zurich, Swiss Reinsurance Company Economic Research & Consulting, 44 p.

Tennyson, S. (2011). Consumers' insurance literacy. Networks Financial Institute, 2011-PB-06, 19 p.

Ulbinaitė, A. (2011). Vartotojų elgsenos ypatumų draudimo paslaugų vartojimo atžvilgiu teoriniai aspektai. International Conference on Business Management and Education 2010. Conference Proceedings. – CD. Vilnius, Technika, 11 p.

Ulbinaitė, A. (2013). Non-consumption of insurance services due to the availability of alternatives: empirical evidence from Lithuania. Practice and Research in Private and Public Sector – 2013. Conference Proceedings – Vilnius, Mykolas Romeris University, p. 300–311.

Ulbinaitė, A., Kučinskienė, M., Le Moullec, Y. (2011). Conceptualising and simulating insurance consumer behaviour: an agent-based-model approach. International Journal of Modelling and Optimisation, Vol. 1, issue 3, p. 250–257.

Ulbinaitė, A., Kučinskienė, M., Le Moullec, Y. (2011). Integration of the decoy effect in an agent-based-model simulation of insurance consumer behaviour. 2011 International Conference on Software and Computer Applications IPCSIT. Conference Proceedings. Vol. 9 – Singapore, IACSIT Press, p. 152–157.

Ulbinaitė, A., Kučinskienė, M., Le Moullec, Y. (2013). Determinants of Insurance Purchase Decision Making in Lithuania. Engineering Economics, Vol. 24, issue 2, p. 144–159.

Ulbinaitė, A., Le Moullec, Y. (2010). Towards an ABM-based framework for investigating consumer behaviour in the insurance industry. Economics: Research Papers, Vol. 89, issue 2, p. 95–110.

Wang, W.T., Lu, C.C. (2012). 2012 IEEE International Conference on Management of Innovation and Technology. Conference Publications – Bali, IEEE, p. 343–347.