

AGRICULTURAL UNIVERSITY PLOVDIV
FACULTY OF ECONOMICS

MARIA MILOS LUKIC

RISK MANAGEMENT IN LIVESTOCK SERBIA

Author's summery

of dissertation for awarding the educational and scientific degree "doctor" in the
scientific field

"Organization and Management"

Plovdiv, 2020

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Tutor: Prof. Dr. Stella Todorova

reviewers:

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PhD thesis consists of 167 pages. It uses 19 figures, 32 tables. In the thesis they cited 92 literary sources.

The dissertation work is discussed and aimed to protect the extended meeting of the department "Management and Marketing" at the Economic Faculty of Agricultural University c. Plovdiv

I. General characteristics of the thesis

1. Relevance and reasons for choosing the topic

Insurance livestock farming in recent years is increasingly becoming an important factor for achieving sustainable management of this business. Farming is a business which impact on many factors. Some of these factors (called force majeure) is not subject to control by the farmer. These factors are a source of risk for the activities of farms and they are: production risk, natural and climatic risk, human factors, market risk. All these factors (sources) risk require the owner to manage the risk associated with the process cost and effort to ensure business success. Natural and climatic factor is one of the factors that can not be controlled and its very existence requires crop and farm animals can be insured.

Livestock insurance belongs to the group of agricultural insurance. Insurance companies dealing with life insurance companies provide this type of insurance services. In Serbia, the market for insurance of livestock is not well developed. Overall, a very small number of farms decide to sklyuvat insurance contracts during the marketing year. Many are the factors that determine this decision as: nedostatchen working capital; low confidence in insurance services; undemanding awareness of market trends in insurance and others.

All these circumstances determine the relevance of the topic of dissertation research.

2. Conceptual thesis dissertation

In this dissertation study argues that insurance companies in Serbia, through diversification of their services can motivate farmers to insure their livestock business.

3. Subject and object of study

Subject to investigate insurance service is intended for livestock.

The research is holdings which are registered in the Republic of Serbia.

4. Purpose and research tasks

The main aim of the dissertation research is to analyze the factors that determine sluggish demand for insurance services in the livestock sector and to propose guidelines to improve this service.

In order to achieve the main goal solve the following research objectives:

- Clarifies nature of the insurance services sector;
- Worked out a methodology for analyzing and assessing the impact of the determinants of demand for insurance services in the sector;
- The factors determining the demand for insurance services in the sector;
- Analyze customer satisfaction and offer guidelines for improving the insurance services sector.

5. research hypotheses

In the thesis tested these hypotheses by which seek proof (or rejection) of the main these:

(H-1): insurance service provides financial protection against different hazards peculiar to animal husbandry.

(H-2) demand for insurance service necessary to harmonize national provisions on the protection of animals selskosotpanskite with the regulations of the European Union.

(H-3): The state should provide financial assistance when it comes to insurance of farm animals through various subsidies and tax breaks for farmers.

(H-4): Farmers need to know that they can benefit greatly in insurance of livestock expressed in reducing the harm caused by any form of loss.

(H-5): With the entry of foreign insurers, the level of quality of insurance services offered in the sector is increasing and creating conditions for further market liberalization.

(H-6): diversification of insurance services to insurance companies contribute positive impact on the further development of the insurance market in Serbia and contribute to its accelerated harmonization with the European Union market.

6. Approaches to the study

In this study, deductive approach is seen as essential in the analysis and evaluation of the determinants of demand for insurance services in the sector.

To demonstrate the conceptual theory during the study using the following methods: a systematic analysis; comparative analysis; graphical analysis; statistical methods - Descriptive statistics and linear regression method.

When processing empirical information is used specialized software and SPSS statistical package of MS Excel.

7. Basic literature and information sources

PhD thesis has been developed using: 93 number of scientific publications and writings of authors; laws and regulations of the Republic of Serbia, newsletters organizations insurers and domestic prices of the Committee on Financial Control of the Republic of Serbia and the Ministry of Finance of the Republic of Serbia.

Empirical data for the study was provided by sample surveys and in-depth interviews conducted at farm level in drawn by the author questionnaires.

8. Volume and structure of the thesis

PhD thesis is exposed in the introduction, three chapters and a conclusion, located at 174 pages, references and applications. The study is illustrated in Figures 19 and 32 tables.

6. Contents of the thesis

In the introductory part of the thesis is razesnyava essence of insurance of farm animals and define some basic terms and definition for this type of service. In this part of the thesis presents the methodology of the study hypotheses, the main variables of the study and justification of the study.

The "Down" chapter of the thesis address the specificities of agricultural insurance as a whole, attention is drawn to the definition of insurance in the agricultural sector, insurance types, the types of risks and market situation of agricultural insurance in the Republic of Serbia.

In the "second" chapter of the thesis analyzed the factors determining the specifics of the insurance of farm animals, as well as all issues related to security, the subject of insurance, insurance, duration, state policies, risks and problems of insurance of farm animals, the additional security and preventive measures.

The "third" chapter of the thesis analyzed the determinants of demand for insurance services in the livestock sector of the Republic of Serbia and in the world. Analyze the current market, as well as search through the application of statistical methods confirmation of submitted research hypotheses.

Chapter One. Insurance services in the livestock sector

Insurance is a product of the market economy, which means that the main prerequisite for its occurrence is the development of a market economy. The development of the insurance market would not be possible in terms of a monopolistic economy where there is no competition that encourages and stimulates its improvement and modernization. Competition is the main incentive that allows maximum satisfaction of customer needs of companies in the field of insurance. All this means that the existence of competition, allowing the development of insurance business and stimulate the emergence of new insurance products and services, which is formed and develops comprehensive insurance system and insurance market.

In considering the model of the insurance market in the country is necessary first to clarify the terms "market" and "insurance market". According Pride and Ferrell, the market can be defined as "an assembly of people as individuals and organizations have needs product in a particular product class and who have ability, desire and power to buy this product."

The insurance market itself is a set of persons as individuals and organizations have the need for insurance, have the ability and the ability, the desire and the right to buy this product.

However, in order for a community to be considered as a market, it must meet some basic conditions, ie possess certain characteristics. These are:

-availability of **need** from a certain insurance service. This need may arise in the case of ownership of vehicles, housing, equipment, company, etc., A risk for the holder and stimulate his desire to take out insurance of ownership of it.

-**wish** Which in practice is making the need for insurance consciously feeling that motivates a person to take one or other action to acquire certain insurance.

-**ability**- it is interpreted as the ability of a person to acquire certain insurance and this ability is determined by the purchasing power of the person.

-It is also the presence of **personality** the person must have a legal right to insurance.

The insurance market can be seen as an economic field, which are key drivers supply and demand for insurance protection. It is this insurance protection is seen as a good that is obtained at a given price. The cost of insurance protection premium to the consumer of insurance protection is willing to pay to acquire certain rights. In this sense, we must determine that insurance relations are part of economic relations, which means that the principles under which builds and operates insurance market are concretization of the general principles of the insurance market.

By its nature, the insurance market can be divided into the following types:

-*international insurance market*

-*regional insurance markets;*

-*national insurance markets.*

Conditions of employment of the regional insurance market differ significantly from the conditions of employment of national insurance markets. We can look at the insurance market in the following sequence depending on its scope: the first level is *insurance exchange*; follows *national insurance market*; third level *The regional insurance market*, then *international insurance market*. Within the last form local insurance markets - African, Asian, European, Loydov insurance market and others.

The insurance market is characterized by several features:

- 1 / Firstly, each insurance company is responsible for their decisions and actions;
- 2 / Second, it must be said that any insurance company only decide what insurance protection to offer and which customers to serve;
- 3 / Thirdly, the subjects of the insurance market have the freedom to decide whether to insure and how to insure.

All that separates one of the main characteristics of zastrahovaneto- principle of voluntariness at the conclusion of insurance transactions. Of course there are some exceptions that are typical in certain insurances. Such insurance in Bulgaria is "civil liability" for drivers. Indispensability of this type of insurance comes from the fact that it is used to safeguard the interests of third parties, but the insured is free to choose the insurance company, which will enter into an insurance contract, and possibly the conditions stipulated in the contract.

The principle of freedom of insurance companies and their customers create favorable conditions for the best adaptation of the insurance service to their economic interests. Market every subject, whether it comes to an insurance company or a client, defend positions that meet the objectives it has set.

Here we can say that the insurance market meet the personal interests of insurers and insurance customers. These interests are characterized by opposite, because on the one hand, policyholders seek such insurance service to meet best their individual needs in relation to security and insurers seek to obtain insurance service possible at a lower price. Insured persons, ie as customers seek appropriate conditions under which insurance contracts and the cost of insured services. All this forms two different sides of the insurance market has become a prerequisite for the emergence of competition between the participants in this market. It sets a maximum limit competition on price,

Very important in the insurance market has insured to comply with the rule that "his demand for insurance protection is greater than the price paid for the insurance service."The role of competition here is very large, since it precludes the application of infinitely reduce the insurance premium.

At the same time, the market of insurance services is very important and the role of insurance companies, because without them there would be no and insurance. Insurance companies also offer insurance services with a certain amount and price, protecting their own interests. The goal here is to offer an insurance service so that insurers also receive certain benefits from this offering. On the insurance market there is competition between insurers. The end result of this competition is expressed in the formation of the lower limit of the price at which offers insurance service.

As a result of market competition, the standard of living of society and other factors form the price Mr insurance services. Usually it moves between minimum / lower / price limit formed competition between insurers and maximum / upper / price limit specified in the competition between the insured to obtain insurance services. The price determined in the market, which is placed insurance service applies to all insurance companies competing for a particular group of objects or entities, potential candidates for insurance. This market price is by no means equal to the actual price at which individual insurance companies offer and sell insurance services. Deviations of the individual price of the insurance service market entails the formation of a gain or loss in insurance companies. The explanation is that the insurance company builds its business based on an equivalent basis. It is talking about a purely theoretical principle that is applied in the calculation of the insurance premium. According to

this principle payments to all participants in the insurance set and the insurance company should be equal. When the market price of the insurance service is higher than the individual / determined by the equivalent principle / price, it means that the insurer placed its "commodity" of higher prices, ie equivalent equality is violated. It collects premiums higher than necessary. Implemented profit due to lower kalkulativna price of the insurance service compared to the market price. Reverse is the case when the market price is lower than kalkulativnata price set by the insurance company. In this case, the equivalent equality is violated to the detriment of the insurance company. This is because it collects premiums is lower than required and hence the payment of insurance exceeded its revenues. The result: a loss to the insurance company. because it collects premiums is lower than required and hence the payment of insurance exceeded its revenues. The result: a loss to the insurance company. because it collects premiums is lower than required and hence the payment of insurance exceeded its revenues. The result: a loss to the insurance company.

The interests of the two countries in terms of insurance service are manifold. With the rising cost of insurance service expressed by the premium, the proponent is willing to diversify and increase the amount of services it offers. At the same time, the behavior of the insured is the opposite. Reducing the price of the service is instantly accompanied by an increase in demand for insurance services.

The best and most efficient option is one in which, insurers sell its service in such a way that revenues fail to achieve their goals. This rule is tantamount and insured. Ideally they should buy such insurance service at an appropriate price to meet their needs in order to implement the planned targets. When subjects are mutually satisfied, it can be argued that there is a balanced market.

Competition in the insurance market is not only among insurers or between insurers and insured, this market phenomenon is characteristic of relations between insurers with other market actors - these are manufacturers of tangible and intangible goods and services. These include various banking institutions, institutions in the field of social affairs and others.

Competitors in the market of insurance companies can be divided into the following groups:

-Credit institutions -Credit institutions are competitors of insurance companies in the event that the development of the concept of security the user prefers to save insurance premium, as hopes that when the risk can use bank credit. Customer preferences for credit institutions are formed when there is doubt about the solvency of the insurance company; when the price of the insurance service is high; when there are favorable insurance conditions; when it registered a lack of insurance service adequate to the needs of her and many others.

-savings institutions- they can also be regarded as competitors of insurers. This competition affects only those insurers who practice insurance containing a savings element. Savings institutions are competing insurers when, the interest that they approve of their clients, significantly higher than the interest accorded by insurance companies to policyholders. In this case funds are directed insurance companies to savings institutions. As a practical consequence, however insurance with a savings element become obsolete. The way insurers to deal with this situation is to move towards insurance with a distinct risk element (pure risk insurance or a combination of risk insurance and "Accident"). However, in most cases at very low prices and therefore preferred by insurance companies. The other way is the means insurers to invest so as to provide higher interest income. Thus the insurer

will be able to approve of the insured interest, differing little from interest savings institutions that would offer them. The conclusion from all this is that efficient management, providing good investment activities of the insurance company makes it competitive in the market. savings institutions that would offer them. The conclusion from all this is that efficient management, providing good investment activities of the insurance company makes it competitive in the market. savings institutions that would offer them. The conclusion from all this is that efficient management, providing good investment activities of the insurance company makes it competitive in the market.

-self-insurance- self-insurance can also be seen as a competition of insurance companies. The problem of "self-insurance or insurance" becomes important once came to the fore the issue of risk management in companies. The main idea of risk management is using a minimal cost to achieve such a degree of security in the company to ensure the implementation of the planned goals. That is why companies are forced to choose between insurance and self-insurance or combine both methods to influence the consequences of the occurrence of the risk so as to satisfy the basic requirement of risk management.

The preference for self-insurance can be sought in its main advantage, to provide savings insurance premium. At the same time insuring against a relatively low fee warrants for possible large losses when an insurance risk. All this allows to say that self-insurance compete insurance:

-when losses are small and can be compensated without problems at the expense of own funds, working capital or savings; insurance service is expensive;

-in the case of an opportunity to use inexpensive bank loan;

-in the absence of adequacy between offer insurance services and needs it.

All this allows in many cases self-insurance to grow at the expense of insurance precisely because insurers are unable to meet all the requirements of its customers. In this case, customers are not only forced themselves to cover possible losses, but also to seek the distribution of these losses on other subjects. That is the reason for the creation of the so. Called. "Captive" which began to operate as competitors in the professional insurers. Captiva can be viewed as an insurance company that builds or buys from other non-insurance company. Are currently two recognized types of captive:

1. Insurance company dealing with the risks of the company that owns it;

2. Captive who takes risks that have nothing with the parent company.

In addition, it seeks to meet the needs of companies in the insurance captive aims to keep the premium that would be ceded to the insurer at the conclusion of the traditional insurance contracts, thus proved a strong influence on the behavior of professional insurers .

-Manufacturers of industrial goods- this group can also be seen as a competitor to the insurers as customers money distributed between the needs of security, quality and cost of insurance, the financial possibilities of customers. This defines the strong dependence of demand and nature of insurance policies on living standards and purchasing power of people. In low income will be lower demand for insurance services, and high income that demand will increase.

Insurance products and services

Central to the insurance relationship takes **the insurance product**. It is a special kind of service that differs significantly from other traditional goods and services on the market. The main difference here comes from the fact that insurance product is consumed

only in the manifestation of certain risk which previously insured person has paid insurance premium. The main features of the insurance product that distinguish it from other products on the market are:

- insurance service no substance
- insurance service will form whatsoever
- insurance service no sign of quality.

All these features distinguish the insurance product from other material and physical products. It could not be determined by physical characteristics, which is inherent in the goods. Manufactured goods of different activities are usually characterized by the so-called industrial signs. Offered by the insurer insurance can not perform similarly.

Insurance refers to a group of business and personal services. Its main features are:

- indivisibility - there are physical characteristics that define physical nature of insurance;
- nonmaterialness- maintained constant contact between insurer and insured;
- heterogeneity- there are many variants to provide an insurance service. There is variability and inconsistency in providing such a service;
- transience - this feature differs radically from the transience of other services. Insurance is a form of storage insurance service until the manifestation of risk;
- unevenness in time - down to seasonality and changes in demand and supply of insurance services.

Insurance can be defined as an insurance product designed to meet the different needs of insurance. Service in insurance results in the redistribution of risk between multiple actors in the insurance population.

Here it should be noted that insurance service is a unique product for a specific purpose, price and quality. The implementation of this service is related to the specific activities carried out by the insurer of the insured.

The specific Services Insurance designate one of its most important features - its consumption precedes the conversion. In addition, payment for that service does not necessarily mean that in return the user will receive a certain benefit. This is due to the fact that the insurance service has the quality of probability, ie its manifestation is aleatoric. When consumed in the insurance services previously paid insurance premium, which actually buy insurance products.

Against payment of a certain amount of insured to ensure t. Pomegranate. Insurance protection that is being carried forward in time. This means that the implementation of the insurance service is possible only after the conclusion of insurance contracts. All this means that the insurance terms can not be regarded as a single act, because there is some time between the time of payment of the insurance premium and the receipt of payment by the insurer in the realization of the risk.

Insurance is characterized by duration in time. This kind of service is implemented for a period much longer than any other service. This is due to the fact that consumption and implementation of insurance protection pass successively through three main stages:

1. concluding an insurance contract;
2. maintenance of the insurance contract;
3. liquidation of damages.

The emergence of insurance relationship became after signing the insurance contract, which is a kind of consideration contract and thereby regulate insurance relations and safeguarding the interests of the parties in it. Meanwhile, in terms of consumer perception insurance service represents a complex product. Its complexity stems from the intangible nature, which explains the difficulties in assessing the quality of its customers. Evaluation of alternatives and choosing the best option requires the provision of specialized information and competent awareness activities in various forms.

The conclusion of the insurance contract is a kind of promise of payment by the insurer in the event of insurance conditions. The contract is the guarantee of an insurer that will meet its obligations to policyholders under the terms of the insurance contract.

Insurance, like most services has some physical characteristics. **material side** the insurance service is expressed in a set of documents:

- pre contract information;
- contract for general and special conditions of the insurance contract;
- agreement on the procedure for concluding and maintaining insurance;
- Contract for liquidation of damages.

It is necessary to distinguish between the terms "subject" and "object" the insurance contract. *Subject of the insurance contract* the compensation of the insured by the insurer in the form of insurance amount or compensation. The conclusion of an insurance contract does not prevent the insured event. It only offset losses in the event of an insurance case. Subject to specific insurance needs to be specific and clearly distinguished from insured property or person. The insurance contract presupposes the existence of something that will be affected by the event and on the occasion of which may be signed this contract. This means that *object of the insurance contract* can be property or people, debt and responsibility borne by the insured.

Insurance should be seen as **financial service**. In her it comes to payment of monetary compensation in the manifestation of certain conditions, pre-specified in the contract of insurance. The choice of specific insurance and appropriate insurance company a major difficulty for the user who is difficult to assess exactly what insurance would need and who is the biggest risk for him. The basis of the conclusion of the insurance contract stands **insurance interest**. Lucid insurable interest exists when potential customers have a *real attitude* insurance and real *motivation* consuming for insurance protection. Insurable interest underlying consumer demand in the voluntary insurance, which is why it is an important prerequisite for the consumption of the insurance service.

Insurance is transformed into an insurance product. The insurance product is the output, which markets one insurer - these are all species and subspecies insurance and combinations of insurance. The insurance product has its own characteristics. He holds a "price", which is expressed in tariff rates of insurance companies. As insurance product and insurance service has no substance, form, shape and quality mark. Various insurance products are characterized by different market demand due to their characteristics and needs of each of them. The basis of supply and demand of insurance products on the market stand the risk and harm that is caused in its implementation. The reason that customers of an insurance company seeking its services is precisely the risk of manifestation of a particular injury. Therefore, the risk can be defined as the main factor influencing the supply and demand of insurance products.

Essence of Insurance Organizations

According to the theory and the world practice one of the main conditions for the functioning of the insurance market is free competition between workers it insurance companies. Thus the supply of insurance services not only in terms of their structure, but also in terms of the various conditions for their implementation occurs at the active participation of the insured. But such an approach compels insurers to significantly individualize the terms of applicable insurance to adapt them to the individual interests of the insured arising from their actual interests. In this competition brings significant and favorable changes in insurance if over ka vremetotsentarat the burden of work is transferred from the value of the insurance service to its quality. So the insurance market is one of the few markets that operate on the basis of competition quality. Only the construction of the national insurance market allows the establishment of the principle of competitiveness.

Basic unit of the national insurance market is the insurance company which may be considered as a distinct structure that conclude insurance contracts and their service.

The insurance company from a financial standpoint appears as an organizational form for the formation of insurance funds and reserves. It is the concentration of money in the hands of insurers can be viewed as a source of long-term lending in commerce and industry.

The insurance company is a major investor and as such the order for implementing the investment policy of the companies in the field of insurance is indicated by national legislation. Depending on their different characteristics, insurance companies can be classified into different groups:

1 / According to belong are:

- private insurance companies;
- joint-stock insurance companies;
- mutual insurance companies;
- state insurance companies;
- composite insurance companies.

2 / According to the operations carried out:

- specialized insurance companies (personal and property insurance) and universal insurance companies;
- reinsurance and private insurance companies.

3 / Depending on the service area, they are:

- Local insurance companies;
- international insurance companies.

Here we can say that the totality of insurance companies on the market of a Member forms t. Pomegranate. Insurance system, which could be a monopoly or insurance market. Regardless of its nature, however, each system has a vertical and horizontal integration. Horizontal integration is reflected in the focus of an increasing volume of insurance premiums and services in the hands of a growing volume of insurers. Vertical integration is characterized by the penetration of insurance companies in other industries.

One of the main conditions for the functioning of the national insurance market is functioning competition between him insurance companies. In this sense, it must be said that competition is leading unit and constant companion of developments and modern insurance

market. Market competition brings significant and favorable changes in insurance because over time the center of gravity in this service is shifting from price to quality.^[20]

Insurance companies operating in the insurance market are also facing the problem of inflation and its impact on different types of insurance branches. Inflation has a negative impact on the insurance market.

The main consequence of inflation for insurers is that losses are offset by compensation received or amounts received by zhivotozasrahovkite have significantly lower real value. Even if insurers offer indexing insurance amounts and benefits in accordance with the inflation rate, the insured will always remain with the impression that they are "played" and are not fully compensated.

This situation affects the demand for insurance services. Especially strong this search feels in life. But this also applies to other insurance. Policyholders who have taken out insurance for their property or to transport motor vehicles are also not protected from inflation. This is because the inflation index is inaccurate or calculate long overdue. And secondly, the payments occurred in an insurance case is not always carried out immediately. They become a time delay for objective or subjective reasons and a "galloping" inflation situation is further aggravated.

National insurance market functioning at various insurance companies. These include joint stock companies, mutual companies, captive, pension funds, insurance pools and other reinsurers.

Joint-stock insurance companies

This is the-common legal form in the field of insurance. Through this form unite scattered small cash in a large enough financial capital, which began working in the insurance and designed to deliver effective insurance services.

The joint-stock insurance companies have a high percentage of non-productive administrative costs. As main advantages of this type of insurance companies can include:

- a higher percentage of flexibility;
- lower costs due to the interest of the shareholders;
- collection of solid premium;
- availability and fixed capital as a guarantee for insurers;
- better distribution of risk.

Of course this form of organization of insurance companies has its drawbacks and is expressed mainly in:

- a high percentage of costs;
- worse services to policyholders;
- higher tariff rates and more.

mutual companies

This is a unique form of organization of a company to insure the risk. It is a voluntary association of individuals who are insured on the basis of reciprocity. To become an individual member of this company, it must insure it and make entering and share installment.

Among the advantages of this type of companies are:

- small commissions for agents;
- profits are distributed between policyholders;

- careful selection;
- part of safety measures;
- lower taxes and more.

Mutual companies have their flaws, and they refer to:

- a small number of members;
- inability selection in compulsory membership of a particular social circle;
- losses are borne by the insured themselves;
- there is an obligation for payment of additional premiums and others.

Captiva

In recent years as a popular form of insurance company established itself captive. The concept comes from the English language and its economic importance "in the composition of company from other industry."

The insurance market Captiva appear as competitors in the professional insurers. In this sense, the threat of continuous increase in self-financing professional forcing insurers to constantly reduce the cost of the insurance service.

The main reasons for the creation of a captive may be looking at reducing costs for the security of the parent company. By kapitiva aims to keep all or part of the maximum premium that should be paid to the professional insurer. So captive bear depending on the interests of the parent company liability for any loss or only some of them. Another reason for the creation of a captive is the desire of the company to a tax benefit.

Captiva can be divided into three types, depending on the objectives to be pursued. These are:

- a company which is wholly owned by mayka- observed entirely self losses;
- combination of self losses and insurance-are created just to cover the risks of the parent, but do not engage in insurance business;
- a company which is wholly owned by the parent company, but servicing and companies in a otrasal- here is self-financing level sector.

Captiva also can operate as insurers and reinsurers, but in most cases they act as reinsurers and organized by multinationals.

insurance pools

Insurance pools are a variety of insurance companies. They are divided into two main types:

- Companies in the pool share at the end of the year operating profit, according to agreement;
- The distribution of profit is dependent on participation in insurance.

Despite the differences between the two categories pools, they both carry on a contractual basis "community of interests". When the union in a pool is between insurers operating in the same type of insurance is a insurance pool. An insurance pool can be regarded as associations of insurers, reinsurance or insurance and reinsurance. As such unification pool aims to take on the responsibilities of catastrophic risks and anomalies, objects that create a small insurance totality, thus creating the risk alignment farm more insurers and others.

Theoretical approach to the research problem

Domestic insurance animal is a separate type of insurance that is still classified by insurance companies, agricultural insurance.

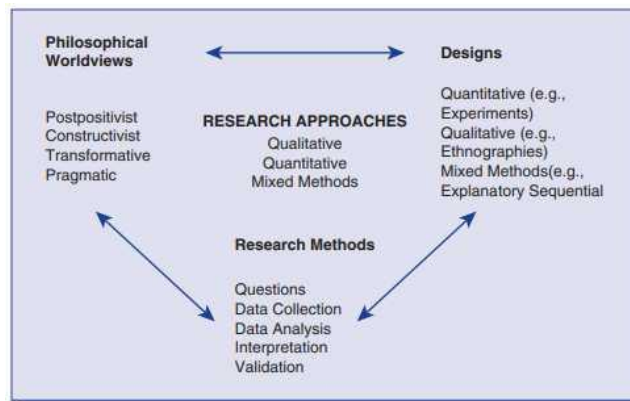
Not enough attention on pet insurance in the literature, mostly domestic, which means that this area of insurance is not developed enough in Serbia. In the scientific literature, the domestic insurance animal most often explained conceptually, then there are explanations regarding the subject matter of insurance and livestock insurance policies. On the other hand, there are only a few articles and research reports on the topic of insurance for animals.

Therefore, domestic animal insurance is to first be processed in theory, the State must be noted, a problem that still lead to insufficient interest to pet owners in terms of insurance. Studies should be conducted to address the problem from different aspects.

Metodicheki approach dissertation research

The study was conducted by the method of theoretical analysis and empirical putative research method. Empirical studies are implemented in three stages:

1. Collecting data from respondents through technique the written survey;
2. Orrganizirane and data collection
3. Data processing.



Graph 1: Methodological framework of dissertation research,

Source: Adapted model Slife, BD, Williams, RN: What's behind the survey? Discovering the hidden assumptions in behavioral sciences. Thousand Oaks, CA: Sage Publications, 1995

Questionnaire with pre-prepared questions used to collect data. The survey is anonymous and the results are presented in tables and graphs.

Also, using statistics on livestock insured in the Republic of Serbia, taken from the website of the Bureau of Statistics and the website of the National Bank of Serbia.

Chapter Two. Analysis of agricultural insurance in Serbia

Agriculture in the Republic of Serbia is a sector of the economy, which is vital for the overall socio-economic development of the country. The position of the agricultural sector in Serbia is specific because, along with economic importance, has a special social and environmental significance, and agriculture contributes to national wealth with a significant share in GDP (estimated at 9.6% for 2010 .) in the overall employment rate (about 20%).

Data for Serbia vary depending on whether the census data from 2002 was used as the basis for a number of farms, when the total number of farms in the amount of 778 891 or data on the number of farms registered 2011 in the register of farms, or 452.606 holdings if the actual number of farms is actually higher. If you use data from 2002, the amount of premium farm is 15.19 euros, only 1.67% of the holdings was secured. In the case of 2011 data, the amount of the premium for holding is 26.14 euros, only 2.88 percent of the farms

was insured. The above comparative data explicitly stated that agricultural insurance is important in developed countries

The development of the insurance sector in Serbia followed by economic development. Although existed in the period before World War II, insurance has been gaining importance since 1990 as a result of the adoption of the basics of life and non-life insurance system that enables the creation and operation of insurance companies based on market principles.

A turning point in the development of the insurance market in Serbia was the adoption of the Insurance Act 2004 and the award of supervisory powers of the National Bank of Serbia. Changes in regulation and supervision of the insurance business introduced to the insurance market, as evidenced by the decline in the number of insurance companies to 38 in June 2004 and at the end of 2006. This law, as well as liberalization and market potential contribute to the entry of foreign investors. Today, most insurance companies in Serbia and in the countries of former Yugoslavia are majority foreign-owned.

Insurance market sector - agriculture in Serbia traditionally offers products of a compensatory nature, which are used in the form of crops and fruits insurance and insurance of animals. The dominant type of insurance structure of insurance premiums crops and fruit is insurance. The characteristics of the insurance of crops and fruits, as well as providing the animals are almost identical in all insurance companies in Serbia. Also, the credibility of the insurance institution is heavily restored, as indicated by the continued growth of the agricultural insurance premiums.

From last time, insurance companies have offers insurance against the risk of drought crop and crop insurance by excessive rainfall. Despite the fact that these types of agricultural insurance is still new and their development is expected in the coming period, it can be concluded that the offer of insurance companies in the agricultural insurance continuously improving the Serbian market.

In the observed ten-year period of development of agricultural insurance from 2004 to 2014, the insurance premium for crops and fruit shows a trend of continuous growth until 2008, when there was a significant decline in 2009, due to the impact of the global economic crisis that began in the last quarter of 2008 in 2010. there was a small but positive growth. Also, the end of the period under review was characterized by continued growth of premiums. The whole observed period in crops and fruits insurance ended with a significantly higher premium compared to 2004 trend in total agricultural insurance premiums fully coincides with trends in insurance premiums for crops and fruit type of insurance

Obviously, agricultural insurance, which is collective and fruit crops insurance and insurance of animals is almost insignificant part of the total premium of insurance companies in Serbia. The share of agricultural insurance in the total premium of insurance companies in Serbia at the beginning of the period under review was 3.70% and 2.95% at the end, and the low level of participation was reached in 2010, when participation is only 1.48 %. Such indicators suggest the conclusion that there is little demand for insurance, especially if these data are analyzed in combination with a number of insurance data. These data should also be taken into account in the context of injury or damage to agricultural insurance in the total amount of damages from insurance companies. Therefore, data It differs significantly in terms of premium data. Namely, the share of agricultural insurance claims in total receivables of insurance companies in Serbia at the beginning of the period under review amounted to 7.57% and 4.66% at the end, although it is below 5% throughout the period just

five years. Thus, it is clear that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance, but also an inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability. The share of insurance claims farming in the total receivables of insurance companies in Serbia at the beginning of the period under review amounted to 7.57% and 4.66% at the end, although it is below 5% throughout the period for five years, so it is clear that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance, but also an inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability. The share of agricultural insurance claims in total receivables of insurance companies in Serbia at the beginning of the period under review amounted to 7.57% and 4.66% at the end although it is below 5% throughout the period for five years. Thus, it is clear that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance, but also an inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability. it is obvious that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance but inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability. it is obvious that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance, but also an inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability. it is obvious that during the period, the participation of agricultural insurance in the general insurance claims is disproportionately high. The above points to a conclusion on insufficient demand for insurance, but also an inevitable consequence of insufficient interest of insurance companies to develop insurance services to this segment of its business due to reduced profitability.

Finally, the ratio of damage or technical results, as one of the most important indicators of profitability in the insurance highlights the fact that, on average, agricultural insurance unprofitable for insurance companies from Serbia. The ratio of the damage is the ratio of the damage and the applicable premium SIR. SIR effective premium is the premium realized in the current year increased by the amount of total outstanding SIR benefits calculated at the end of the previous year and decreased by the amount of unearned premium of SIR at the end of the current year.

The proportion of disability in the insurance of crops and fruits in this period, except for 2010 and 2013 shows that insurance companies in Serbia have had positive results in terms of this type of insurance, ie they discarded some surplus premiums in connection with the damage.

*Table 1: Agricultural insurance in the Republic of Serbia in the period from 2004 to 2014 *.*

			2004	2005	2006
Premija	Osiguraње useva and fruit	exports premije	578 262	611 733	611 691
		Godišnji Rast	1	5.79%	-0.01%
		Broj osiguraња	10.396	9418	9351
	Osiguraње	exports premije	259 748	328 554	409 737

	zhivotiња	Godishњи Rast	1	26.49%	24.71%
		Broj osiguraња	2299	2396	2278
	Ucheshће osiguraња useva in osiguraњи рољорprivrede		69.00%	65.06%	59.89%
	Ukupna premija osiguraња		22,636,133	34,689,787	38,328,614
	Ucheshће osiguraња рољорprivrede in ukupnoj premiji		3.70%	2.71%	2.66%
Premija	Osiguraње useva and fruit	exports premije	411 888	349 786	542 323
		Godishњи Rast	1	-15.08%	55.04%
		Broj osiguraња	2198	2449	2429
	Osiguraње zhivotiња	exports premije	253 970	285 655	376 068
		Godishњи Rast	1	12.48%	31.65%
		Broj osiguraња	6387	6886	8691
	Ucheshће osiguraња useva in osiguraњи рољорprivree		61.86%	55.05%	59.05%
Ukupna premija osiguraња		8794061	11,724,710	15,423,471	
Ucheshће osiguraња рољорprivrede in ukupnoj premiji		7.57%	5.42%	5.95%	
Ratsio shteta	Ratsio shteta in osiguraњи useva and fruit		71.23%	57.18%	88.66%
	Ratsio shteta in osiguraњи zhivotiња		97.78%	86.94%	91.78%
	Ratsio shteta in osiguraњи рољорprivrede		79.46%	67.58%	89.91%

Being the ratio of the damage is the extent to which premium covered damage incurred during a certain (observed) period. It is desirable that the figure is as low as possible, and if greater than 100%, that means that the insurance company has to pay more to compensate for the damage than is charged on insurance premiums.

*Table 2: Agricultural insurance in the Republic of Serbia in the period 2004-2014 **

2007	2008	2009	2010	2011	2012	2013	2014
751 461	1105208	746 736	796 873	968 926	1126363	1503919	1603900
22.85%	147.07%	67.57%	6.71%	21.59%	116.25%	133.52%	106.65%
10.305	15.186	10.165	11.172	11,548	14.871	18.658	19.768
516 619	511 247	377 500	283 180	269 200	438 397	405 255	440 739
26.09%	98.96%	73.84%	-24.99%	-4.94%	162.85%	92.44%	108.76%
2582	2250	1807	1212	1487	5259	4167	5466
59.26%	66.42%	68.37%	73.78%	78.26%	71.98%	78.77%	78.44%
44,780,018	53,534,646	52,186,631	56,520,932	57,313,998	61,463,708	64,041,509	

2.83%	2.10%	3.10%	1.48%	2.16%	2.55%	2.98%	2.95%
702 677	569 745	536 290	917 801	673 401	416 273	1506422	1062003
29.57%	81.08%	94.13%	71.14%	-26.63%	61.82%	361.88%	70.50%
3575	2358	3228	4904	3032	2519	6019	6278
470 998	451 801	336 123	260 117	167 143	302 231	294 275	228 993
25.24%	95.92%	74.40%	-22.61%	-35.74%	180.82%	97.37%	77.82%
10,573	9407	6022	4352	2640	5539	5261	4044
59.87%	61.47%	55.77%	77.92%	80.11%	57.94%	83.66%	81.26%
17,675,8 31	22,436,0 02	20,936,8 26	23,180,3 09	23,847,0 88	25,104,5 23	26,436,2 26	27,707,5 52
6.64%	3.89%	4.88%	5.08%	3.52%	2.86%	6.81%	4.66%
93.51%	71.82%	51.55%	115.18%	69.50%	36.96%	100.17%	66.21%
91.17%	89.04%	88.37%	91.86%	62.09%	68.94%	72.61%	51.96%
92.56%	77.60%	63.20%	109.06%	67.89%	45.92%	94.32%	63.14%

* Note: Financial data are RSD 000.

Source: Marovic, B., Njegomir, C., Bikicki, T.: Farm insurance in terms of Solvency II and climate change, 28th Meeting of insurers and re-insurers Sarajevo Sarajevo, 2017, p.105.

Given the fact that in addition to the damage suffered, insurance companies also have business costs which are particularly high in the area of agricultural insurance and the fact that the average value of damage claims in Europe varies from 60% to 70% the insurance premium, it is clear that bad damage expense was realized in four years and the rest of the period the level of the European average. The best result was achieved in 2012.

The situation is considerably worse in the insurance animal, although during the entire period the proportion of damage indicated positive results for the activities of insurance companies in Serbia. Broadly speaking, the ratio of insurance claims in the agricultural insurance to insurance companies in Serbia was also inadequate, especially in 2010.

It can be concluded that in order to promote agricultural insurance in Serbia, a new platform needed to help motivate farmers, but above all to understand the true meaning of agricultural insurance and benefits. It is necessary to create long-term solutions, which include the following: (Prostran, 2016, № 6, page 55)

- Stable portfolio (with the risk diversification)
- Adequate system of subsidy (to an acceptable level for all countries)
- A development of preventive drugs (such as measures to reduce risk)
- Products tailored to the needs of the insured person (with appropriate levels of coverage) and
- Programs that will raise awareness about the risks in agriculture and development of the availability of this type of insurance.

Decision, which is considered a productive model, subject to receipt of government subsidies in agriculture will be the introduction of pre-negotiation of the insurance coverage.

The multiple effect can be achieved in this way because, on the one hand, the income of farmers will be predictable and, on the other hand, the state will protect the funds invested in the form of subsidies in agriculture, while also providing state budget additional unforeseen costs.

It will also have a positive effect on the entire insurance market in Serbia and the development of preventive measures and raising awareness about the risks of agricultural production and measures to overcome them. (Zarkovich, 2016, p. 90).

Therefore, joint investments are needed, as well as engaging the public and insurance companies to achieve certain visible changes and move the situation in a positive direction.

Insurance companies must offer comprehensive product (greater risk coverage) where insurance terms and rates available to all farmers, regardless of size, will be clearly defined. In addition, the state would, on the other hand, with the help of subsidies, and in partnership with public and private in adopting the regulations.

In the future, the establishment of quality cooperation between the insurance industry and the public sector to improve the current situation in the Republic of Serbia will be crucial for the use of the development opportunities that undoubtedly exist in this extremely important area. (www.minpolj.gov.rs On March 15, 2018)

Despite the commitment of the state and its incentives, demand and interest from farmers is still very low.

SWOT analysis Livestock of the Republic of Serbia

Table 3: SWOT analysis of the industry

benefits	Disadvantages	potential	risks
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Availability of raw materials from local production	Quality and quantity of the feed	Reduce production costs by introducing a diet typical of the area of cultivation and in accordance with the purpose of breeding and variety of species	The time required for the process of learning and change in the awareness of farmers
Quality and quantity of the feed	Relatively low environmental pollution	Connecting the system - participant in the food chain	Mostly old people in rural areas
Relatively low environmental pollution	Protection of traditional knowledge and technologies	Use the available EU funds in order to accurately determine the position and products originating in Serbia	No adequate legal protection sector as well as legal protection and national standards for traditional products
Protection of traditional knowledge and technologies	Potential development of all types of tourism linked to rural areas	Use of available EU funds, as this is the real potential of Serbia	
Potential development of all types of tourism linked to rural areas	A large number of scientific and educational institutions (transfer of knowledge, new technologies)	Measures of agrarian policy will stimulate consumer protection and adaptation to EU regulations	
A large number of scientific and educational institutions (transfer of knowledge, new technologies)	Development of the competitiveness of local products in foreign markets	Improving the quality and safety of raw materials	
Development of the competitiveness of local products in foreign markets	Serbia is a leader in the region in the number of cows, producing an excess of exports of milk and milk products	Strategic market regulation for the purchase of raw materials for the production of livestock and increasing the responsibility of primary producers	
Serbia is a leader in the region in the number of cows, producing an excess of exports of milk and milk products	Outdated technology for rearing animals		
	Insufficient link between regulations on animal welfare and husbandry		

	<p>Mostly old people in rural areas</p> <p>Insufficient level of awareness by farmers, medium and medium farmers in the production</p> <p>Relatively low productivity in the livestock sector</p> <p>Unfavorable economic structure and specialty livestock</p> <p>Not the competitiveness of small production units</p> <p>Lack of working capital / funding model not animals either for export production</p> <p>Insufficient effective system of quality control, raw materials and the quality of finished products</p>	<p>Restructuring of the sector in order to improve competitiveness and</p> <p>Regional recognition of traditional products</p> <p>Possible increase revenue by reducing production costs</p> <p>Premiums and subsidies Quality</p>	
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Source: Chamber of Commerce of the Republic of Serbia (2017) 2017 Bulletin of the Association of livestock and animal husbandry, Belgrade, p. 5.

The favorable geographical position of the Republic of Serbia is complemented by the fact that it is located within a group of European countries with large areas of farmland, albeit at a lower rate of use. The specifics of the Republic of Serbia is reflected in the wealth of small farms, and thus it is associated with a predominantly rural population works in agriculture.

Observed as a whole, rich flora has enabled the development of wildlife. Assets of water are especially valuable because of the diverse world of ecosystems and river fishing is

strongly represented. Cattle, sheep and goats are grown mainly in Central and South Serbia, and pigs and animals are grown mainly in the region of Vojvodina. Beekeeping is showing signs of growth both in terms of number of households involved in this production and the number of hives they own.

An important feature of Serbian farming is overwhelming "self-sufficiency" of farms. The diversity of land in Serbia is beneficial in the way of diversity of traditional products of animal origin that provide sustainable quality development based on their promotion and protection of local resources.

The dangers faced by livestock

The risks that may endanger agricultural animals can be divided into two groups:

1. diseases, and
2. accidents.

The consequences of the hazards to which the animals are exposed are:

- death
- injuries
- compulsory slaughter
- destruction of animals
- large healthcare costs for treating sick animals.

Animal Farm Insurance covers the following risks:

- of death
- by a forced slaughtering due to illness or accident
- Healthcare costs for treatment and
- other line risks according to the insurance conditions.

Diseases that are exposed to farm animals

Animals are exposed to various infectious and other diseases covered by insurance, but there are some exceptions that insurance does not cover, such as:

- infectious diseases that threaten the whole country, and that must be suppressed in accordance with the Law on protection of animal health, such as foot and mouth disease, tuberculosis, swine, horses and fowl fever;
- diseases arising from overbreeding animals;
- diseases caused by inadequate, irregular and of poor quality food products that do not comply with the statutory requirements for production and marketing of feed, and if this is the result of a mistake the insurer;
- consequences of the delay or incorrect processing of health or
- consequences arising from failure to comply with instructions of a veterinarian;
- condition that existed before the conclusion of the insurance contract, if the signs of the disease are not visible.

Chapter Three. Analysis of the insurance market in the livestock sector

The insurance market of livestock in the Republic of Serbia

The conditions for livestock development in the Republic of Serbia are extremely favorable, however, this agricultural branch is in great crisis. Over the past twenty years, the number of cattle in our country has fallen from three to four percent a year in which production period meat decreased from 650,000 to about 440,000 tons, and meat consumption is also reduced. The reason for this development is primarily the unresolved issue of financing of agriculture, reduced export market, the lack of an appropriate strategy for the development of livestock and increased imports. (Gulan, 2016, p. 122)

Opportunities for development of insurance of animals in the Republic of Serbia are much higher than the current level of development. Development of insurance of animals in the Republic of Serbia is very low at the moment, regardless of state support and the introduction of subsidies for insurance premiums. It also states that subsidies are not sufficient to achieve greater expansion of insurance to animals in the Serbian market. (Manic, 2012, p. 32)

Insurance is first necessary for the development of agriculture as a whole, but also for rural areas of the country, but mostly to ensure food safety. This is particularly important at home, mostly due to the fact that rural areas account for at least 85% of the total area of Serbia, the proportion of agriculture in GDP is large, and in terms of exports and overall employment rate .

Objectively speaking, the need for insurance of animals there is a very marked given the fact that plant and animal production in Serbia is exposed to multiple risks that are increasing from year to year, especially when it comes to climate change .

Subjective need for agricultural insurance in the home is not developed enough, and low income, which is economic backwardness of farms and the low level of awareness about the importance of insurance. Backlog of agricultural insurance at the micro level determines its backwardness macro level, resulting in underdevelopment of agriculture as an economic activity of national importance. (Kočović al., 2016, p. 123)

The potential for insurance of animals that is keeping animals in the Republic of Serbia is presented in the table below.

Table 4: The number of cattle in the Republic of Serbia species (000)

Domestic species	2014	2015	2016	2017
cattle	920	916	893	899
pigs	3236	3224	3021	2911
sheep	1748	1789	1665	1704
caprine	219	203	200	183
horses	16	15	15	17
Domestic birds	17167	17,450	16242	16,338
Bee hives	677	792	792	849

Source: Statistical Office of the Republic of Serbia: Statistical Yearbook of the Republic of Serbia in 2018, Belgrade, 2018, p. 215.

We have the following information based on statistics: over the past five years, the number of cattle in Serbia has been significantly reduced. For comparison, from 2008 to

2013, the number of heads of cattle decreased by 14 per cent, cows by 22 percent, dairy cows by 21 percent, and the number of pigs decreased by 13%.

Table 5: Production value of the production cost of the current year in the Republic of Serbia species in RSD million

Domestic species	2014	2015	2016	2017
cattle	32114	31,703	30353	31,040
pigs	65765	57,098	54,272	66,199
Sheep and goats	10108	8971	5998	8416
horses	151	77	367	383
Domestic birds	14995	13 162	13,291	14,440

source: Statistical Office of the Republic of Serbia: Statistical Yearbook of the Republic of Serbia in 2018, Belgrade, 2018, p. 206.

There was an increase in the number of sheep by 0.7% during the observed period, and an increase of 36% in the number of animals. Looking at this data, we come to the conclusion that insurance livestock potential in Serbia decreased in recent years, particularly given when the insurance of cattle and pigs.

Table 6: Insured risk of agricultural production in the insurance market in Serbia

Factory production risks		livestock production risks	
general terms	Special conditions	general terms	Special conditions
hail	spring frosts	death due to illness	loss of breeding ability of heifers and cows
fire	flood	accidental death	loss of calf or foal on delivery
lightning strikes	storms	compulsory slaughter	loss of breeding abilities of males
	drought		insurance of animals for slaughter
	excessive precipitation		Insurance animals in stores
	loss of income		insurance of exhibition animals
	winter cold		insurance of animals in quarantine
	production in greenhouses		animal insurance against castration and ovariectomy
	loss of seed quality		insurance milk production drop
	insurance after harvest		insurance against death and forced slaughter in

			delivery
	loss of quantity and quality		insurance merinized sheep
	insurance yields		
	insurance of young plantations		

Source: Statistical Office of the Republic of Serbia: Statistical Yearbook of the Republic of Serbia in 2018, Belgrade, 2015.

The four largest insurance companies in Serbia, which together cover the entire market of agricultural insurance in the Republic of Serbia shall provide for basic and special conditions for crops and fruits insurance and insurance of animals.

As for the special conditions of the insurance of crops and fertilizers, it pays to look at the insurance of seed corn from loss of seed quality due to fall frost insurance of table grapes from the loss of quantity and quality insurance of fruit trees and young plants, as well as in yield and rapeseed oil of winter cold. (Markovic 2007, p. 36)

Based on this analysis of agricultural insurance in our market, we can conclude that the most significant risks of plant and animal products covered by agricultural insurance offered by insurance companies operating in the Republic of Serbia.

However, the type of coverage is lacking is insurance against drought and loss of income due to drought, which is only offered by an insurance company in the Republic of Serbia. (Kočović al., 2016, p. 123)

Insurance premiums for animals

The following table shows comparative review of trends in insurance premiums for the production of plant and animal insurance in the Republic of Serbia in the period 2006-2015. Based on the analysis of the data, it can be concluded that premiums for factory producing the observed period recorded significant growth. (Radovic, 2016, p. 83)

Table 7: Agricultural insurance premiums in Serbia

year	Crop insurance premiums (in RSD 000)	insurance premiums for animals (In RSD 000)
2006	611 691	409 737
2007	751 461	516 619
2008	1105208	511 247
2009	746 736	377 500
2010	793 873	283 180
2011	968 926	269 200
2012	1126363	438 397
2013	1503919	405 255
2014	1603900	440 739
2015	1627794	522 067

Source: National Bank of the Republic of Serbia, available at <https://www.nbs.rs> (December 4, 2018).

It is therefore clear that premiums for plant production in 2006 was 611.7 million dinars, while in 2015 it amounted to 1.672800000 dinars. However, despite this growth, it is considered to be insufficient, that is, farmers, despite the low price of insurance, insure their produce insufficient. (RSI, 2015, p. 77)

Given the data presented in the table can be concluded that insurance premiums animals had large variations in the observed period and that its value increased slightly with 27% in 2015 compared to the first year there 2006 (Radovic, 2016, p. 83)

conclusion

In the Republic of Serbia, insurance, agriculture is underdeveloped service. The prospect of the development of the service requires a much more active role for the state than it was before.

The main purpose of insurance of livestock is the economic protection of the owners of these animals that grow them, while ensuring that all conditions for breeding of animals and the use of their products.

Although livestock are provided with certain risks, this does not relieve the insured from using the good care as provided in the Law on Obligations.

Thanks to the presence of many risks and species insurance animal manifests itself in various forms: basic insurance, a number of additional special insurance policies trial insurance for certain species that have been secured for the first time, or the dangers of which the insured is covered for the first time.

Insurance animal belongs to a group of short-term insurance, which lasts one year or less and is usually associated with one production cycle. Object of insurance is the animal in its entirety. Insurance coverage only covers animals from certain age groups that are healthy, in good condition and kept in acceptable conditions.

The importance of agricultural insurance is also reflected in the provision of economic protection of farmers against adverse effects resulting from risks related to security. Therefore, the provision of agriculture is an important factor for the protection and improvement of livestock production.

The entire activity of the holding is taken into account in the formation of livestock insurance, ie all related sectors or activities.

One of the best solutions that could accelerate the market is a model in which the state subsidizes the cost of risk management in the livestock sector ie to cover the insurance costs of farmers.

This solution would have many secondary effects, such as better management of the income of livestock producers better manage production risk, on the other hand, the state will protect investments in the sector through grants privileges in the sector.

Therefore, the conclusion is that the only interconnected and synchronized actions of the public sector and the insurance sector can achieve visible positive developments in this type of market.

Following the example of the developed world markets, state by appropriate subsidy schemes, or models of public-private partnership to take appropriate legal and regulatory provisions in this area.

In the future, the establishment of quality cooperation between the insurance industry and the public sector to improve the current situation in the Republic of Serbia will be critical

to the operation of the development opportunities that certainly exist in this part of the market.

The role of the state also can be klyuchava the introduction of partially compulsory insurance in agriculture, as well as to provide funds from the state budget for higher subsidies in the amount equal to the insurance premiums. At the same time, insurance companies must play a key role in the insurance market through the development of supply as well as informing and educating the holdings of the importance of economic protect their business.

The proposed model of partial mandatory agricultural insurance is based on public-private partnership and its implementation will enable the development of agricultural insurance, but also provide the necessary funding for the current business.

Opportunities for insurance development in Serbia are much higher than the current level of development. Development of insurance of animals in the Republic of Serbia is currently very low, regardless of state support and the introduction of subsidies for insurance premiums.

The insurance is not just necessary for the development of agriculture as a whole, but also for rural areas of the country, but mostly to ensure food safety. This is particularly important condition, mainly due to the fact that rural areas account for at least 85% of the total area of the country, the proportion of agriculture in GDP is large and its value of exports and imports and total employment of the population.

Objectively speaking, the need for insurance selskosotpanskite animals there is a very clear problem, given the fact that plant and animal production in Serbia is exposed to multiple risks that are increasing from year to year, especially when it comes to climate change.

Subjective need for agricultural insurance shows that the market is not developed enough due to low purchasing power and the economic backwardness of the holdings, and the low level of awareness among farmers about the importance of insurance in risk management. Lagging market agricultural insurance at the micro level determines its backwardness macro level, thus causing underdevelopment of agriculture as an economic activity of national importance.

By analyzing the four largest insurance companies in Serbia, which together cover the entire market of agricultural insurance in the Republic of Serbia, it is apparent that besides basic insurance there are special conditions for individual crops and animal breeds.

As for the special conditions in the insurance of crops and fertilizers worth review insurance seed corn against loss of seed quality due to the fall frost insurance of fruit against loss of quantity and quality insurance of fruit trees and vineyards - young crops and yields, and rapeseed oil by winter conditions.

Based on this analysis of agricultural insurance in the Serbian market, we can conclude that the most significant risks of plant and animal products covered by the terms of agricultural insurance from insurance companies operating in the Republic of Serbia.

What these companies do not offer insurance is insurance against drought and loss of income due to drought, which is only offered by an insurance company in the Republic of Serbia.

Based on definitions, scientifically based methodology doctoral dissertation, using the methods of research and analysis of data collected following research that are proven:

Basic Hypothesis Confirmed (H-1): Insurance companies in Serbia have, through various insurance policies to motivate farmers to insure their livestock and to insure against possible damages.

By compensating for damages from the insurance company compensate farmers for damage to the financial aid, which confirms the next hypothesis (H-2) insurance of farm animals provides financial protection against various risks specific to livestock.

A turning point in the development of the insurance market in Serbia was the adoption of the Insurance Act 2004 and the award of supervisory powers of the National Bank of Serbia. Changes in regulation and supervision of insurance activities introduced to the insurance market in the Republic of Serbia. All this suggests that the hypothesis (H-3) was confirmed: It is necessary to harmonize national provisions on the protection of animals selskosotpanskite with EU regulations.

Agricultural insurance market of the Republic of Serbia also has to be translated in a market economy. Modern, market-oriented agriculture can not even imagine doing without a well-organized and developed insurance. The prospect of development of agricultural insurance depends on the pro-active role of the state than is the case now. It is important for insuring livestock to help the country to register farms for payment of insurance premiums for animals or reimbursement of insurance as a service. Based on the foregoing, we can conclude that a particular hypothesis (H-4) was confirmed: The state should provide help

The insurance livestock against dangers to which they are exposed is a financial activity which is reflected in the fact that the insurance company collects premiums from individuals or companies to pay compensation in the event of risk seen through a set of insurance contract. The purpose of insurance is to apply the principles of reciprocity and solidarity, as all those who are exposed to the same risks join, ie damage costs borne by the large number of insurers. Based on the foregoing, we can conclude that the next hypothesis (H-5) confirmed: Farmers must take into account that they can benefit greatly from the insurance of animals and reduce the damage caused by any form of loss.

The entry of foreign insurance companies in the Serbian market has led to its liberalization, thus has improved the quality of service. Insurance companies are in constant competition on the market in order to achieve better market position. Greater market competition leads to better quality of bids and better ways to reach users and their detention. All this affects the quality of services and supplies of agricultural insurance, so we can say that the next hypothesis is confirmed (H-6): With the entry of foreign insurers, the level of quality of insurance services is increasing and creating conditions for further market liberalization.

Based on all indicators, we can conclude that the insurance business in the Republic of Serbia lags behind the EU member states. This leads to the need to carry out activities that will improve the current situation of agricultural insurance in the Republic of Serbia as well as to improve predstvaneto agriculture as a whole, to reach the level of development and importance within a reasonable period of time, it is in countries that recently joined the EU.

In order to improve insurance service in agriculture is necessary to review the conceptual views that exist in Europe and worldwide, and to explore opportunities to implement some insurance models in Serbia. In our case it is necessary to use a comprehensive approach that will allow for the rapid growth of the insurance sector in agriculture, which will significantly contribute to better risk management in agriculture.

All this proves that the changes in the insurance sector are inevitable and therefore smyatama that hypothesis (H-7) was confirmed in the course of the study: Changes in the insurance sector can have a positive impact on the further development of the insurance market in the Republic of Serbia contribute to its accelerated transition to the requirements of the European Union.

III. Information for contribution moments in thesis

In the thesis can be distinguished contribution these moments with scientific and applied nature:

1. Clarify the essence of the insurance process in agriculture;
2. A method for analyzing and assessing the impact of the determinants of demand for insurance services in the sector;
3. The factors determining the demand for insurance services in the sector;
4. Proposed a model to improve insurance service in the livestock sector.

VI. Publications

Summury

Animal insurance in recent years has increasingly becoming a topic in regards to agricultural holdings and farms. Despite a careful and diligent breeding of domestic animals, farmers face a large number of unsolicited events. Animals are prone to injuries, illnesses, and often death. In 2014, the Republic of Serbia was struggling with floods (May 2014) and a large number of animals were killed by water torrents. This is a big loss for farmers, and it causes high costs.

Such circumstances can not be prevented, but domestic animals can be insured and therefore farmers can be recompensed for their losses. The subject matter of insurance can be all domestic animals, cattle, sheep, goats, pigs, equinae, and more often, house pets, or dogs and cats. That is, only healthy animals, able-bodied animals with a particular purpose and which are in good physical shape, animals that live in normal conditions and eat healthy food can be insured.

Livestock insurance belongs to agricultural insurance. Insurance companies that deal with non-life insurance carry out this type of insurance. In the Republic of Serbia, livestock insurance is underdeveloped. In general, a very small number of agricultural holdings decide to conclude livestock insurance contracts.

Cattle production is exposed to different dangers compared to plant production. An insurance contract is concluded on the basis of an oral or written offer, when the contractors sign the insurance policy. Animal insurance contracts are signed for a shorter period of up to one year or for a period longer than one year and are long-term animal insurance contracts. It often happens that contracts are signed for a shorter period of time, and then they are extended from year to year.

An insurance contract provides adequate coverage for the time that the insured animals are located at the place specified in the policy as the insurance area, or in their facilities, their habitat and feeding place. Animals are also insured during their stay at the agricultural holdings, at regular cattle fairs, as well as during relocation and transportation, but no more than 20 km from the place specified in the policy as the insurance area.

Agriculture in the Republic of Serbia is a sector of economy that is vital for the overall social and economic development of the country. The position of the agrarian sector in the Republic of Serbia is specific because, in addition to its great economic importance, it has a

special social and ecological significance, and agriculture contributes to the national wealth with a significant participation in the creation of the GDP. There are no restrictions when insurance of agriculture is concerned, that is, not only crops and fruits are insured, but also livestock, domestic animals, and not often the subject matter of insurance can be greenhouses, forestry and aquaculture farming. In EU countries, agricultural insurance (insurance of crops, fruits and animals) is regulated by the law, while in Serbia, producers still can make a decision whether to take the risk or insure agricultural goods and livestock. Animal insurance involves a large number of risks and becomes risk insurance. It can occur in several different forms: basic insurance, a large number of supplementary and special insurance coverage, sample insurance for certain types of animals that are being insured for the first time, or for the dangers for which the insured is covered for the first time. It belongs to the group of short-term insurance or insurance coverage for up to one year, and even shorter. The subject matter of insurance is the animal itself, not only parts of the animal's body or products that can be obtained from it. It can occur in several different forms: basic insurance, a large number of supplementary and special insurance coverage, sample insurance for certain types of animals that are being insured for the first time, or for the dangers for which the insured is covered for the first time. It belongs to the group of short-term insurance or insurance coverage for up to one year, and even shorter. The subject matter of insurance is the animal itself, not only parts of the animal's body or products that can be obtained from it. It can occur in several different forms: basic insurance, a large number of supplementary and special insurance coverage, sample insurance for certain types of animals that are being insured for the first time, or for the dangers for which the insured is covered for the first time. It belongs to the group of short-term insurance or insurance coverage for up to one year, and even shorter. The subject matter of insurance is the animal itself, not only parts of the animal's body or products that can be obtained from it. It belongs to the group of short-term insurance or insurance coverage for up to one year, and even shorter. The subject matter of insurance is the animal itself, not only parts of the animal's body or products that can be obtained from it. It belongs to the group of short-term insurance or insurance coverage for up to one year, and even shorter. The subject matter of insurance is the animal itself, not only parts of the animal's body or products that can be obtained from it.

Content of PhD thesis. The introductory part generally expounds on the insurance of domestic animals, as well as giving some basic concepts and definition of this type of insurance. Also presented is the work methodology with the subject matter, the issue of research, the goals and tasks of the paper, the methods and techniques used during the research, the hypotheses, the basic variables of the research and the justification of the research.

The first part deals with agricultural insurance in general, the definition of insurance in agriculture, the types of insurance, the risks, as well as the state of agricultural insurance in the Republic of Serbia.

The second part of the paper deals with the insurance of domestic animals, along with all issues related to insurance, the subject matter of insurance, insurance policies, the duration of policies, the risks and problems of animal insurance, supplementary insurance and preventive measures.

The third part deals with the situation in the insurance of domestic animals in the Republic of Serbia and in the world. The current state of affairs, the regulations, as well as the role of the state in the promotion of animal insurance are analyzed. Domestic animals in the countries of the region are also examined in this part of the paper. The following countries are mentioned: Croatia, Bosnia and Herzegovina and Montenegro. Finally, the research is given to animal welfare surveys and problems with animal insurance in Serbia.

The results of the survey are presented in tables and charts for better visibility, as well as the opinions on the obtained results.

The last part covers the conclusions reached during the research, that is, the confirmation of the presented hypotheses.