

CHALLENGES IN INSURANCE INDUSTRY

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Abstract:

How is possible to manage many numerous risks, in order to achieve human as well as environmental wellbeing, and to form modern insurance industry? This issue is very modern and it requires rational answers. Also, this is field of scientific research. Research results are commonly used by law regulative as row model for the profession and practice. Is mentioned line we can identify challenges in insurance sector. What are the characteristics of these challenges in developed and developing countries? What is the behavior of countries that are liders and those that are not? What are financial components, and what are social and personal effects of the modern insurance industry development?

Insurance sector always has its own clear mission: to achieve as high as possible level of spiritual and material safety of the person insured. The vision should be achieving as high as possible level of spiritual and material safety of the person insured in real environment. Mission and vision of the insurance continuously transformed industry from everyday human activity to modern industry. This trend can not be stopped, because we are able to identify more and more risks every day and their identification, processing and management is more challenging. Two components are very important: financial and social.

Developed countries formed the insurance industry as powerful and respectful sector that is important part of financial market. Its users are hundreds of millions of citizens and companies. Financial effects of life insurance are much higher that those of non-life. Developing countries has no alternative than to follow, as quickly as they can, the developed countries path. That should make easier building own insurance industry. Globalization, controlled liberalization and all migration movements are additional and unavoidable factors that support insurance challenges. What is the suggestion for small, not enough developed countries as Bosnia and Herzegovina or all countries of ex-Yugoslavia?

Basic scientific truths in this field are continuous: probability theory and great numbers law, actuarial calculus based on relevant empiric research.

Insurance challenges start with actuarial calculus and data needed. That follows portfolio formulation and investment of temporarily available funds. That means participation of insurance companies at financial markets as financial intermediates. How these challenges are present and how is possible to manage them in insurance sector of developed and developing countries as Bosnia and Herzegovina?

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1. INTRODUCTION

The Insurance, in unlimited number of contents and shapes, is a part of every physical and legal entity and all other alive on the planet Earth. It is in human nature to seek continuously different contents and forms of risk management and that is the purpose of insurance. Therefore, men have permanent need for ordinary and professional challenge to maximize managing of the risk within and around him. Because of that, the completely new modern industry is built. That industry has a permanent growth and developing rate. The challenges are both the reasons and the consequences of series of direct and indirect facts. That is a field of scientific and research work, legal and other regulative, professional and practical achievements. Those challenges has their own common, special and unique characteristics, depending on time, geographic area, social and economic development level, entities, observations objects, goals and motives, social and economic outputs.

Modern insurance industry is a scientific product that is theoretically upgraded all the times, which offers different forms of practical usage in present and near future. Modern practice directly helps scientific research through its empiricism, problems and questions, put upon by everyday life. Based on mentioned, we have a need for a legal regulation of insurance portfolio like one of the main challenges in insurance industry. Legal regulations should be stimulating, not aggravating factor in development and growth of insurance industry. Quality level of legal regulation directly contributes to problem solving and permanent challenges in insurance industry and this so called cost-benefit analysis.

2. KEY CHALLENGES IN INSURANCE INDUSTRY – TEORETICAL AND PRACTICAL APPROACH

Insurance industry has a numerous challenges. Its basic activity, mission and vision, and its business environment generate need for efficiency. Challenges create a numerous questions, which need exact answers. What are inputs and outputs in insurance industry and what are the challenges they impose?

In general, we can say, if there were no risk, there would not be an insurance or insurance industry. So, first thing to do is define a risk, then define relating characteristics and after that create an insurance product and thus fulfill multiple synergetic positive effects for both individuals and legal entities as well as for local community and state. This is a complex and responsible task, full of challenges and therefore requires maximum attention. Beside identification and risk management in a way of insurance industry, what else we can consider as key challenges in insurance industry? Answer to this question follows in text bellow.

a) Database relevance as an input in modern insurance industry

The science has found methods of forming, updating and application of relative database, needed in modern insurance industry (both life and non-life insurance), starting from appropriate a posteriori probability, statistical methods and models of database creation, to evaluation level usage. This puts many questions, the following being of special significance:

- a) Representative quality of the sample applied in empirical research,
- b) Way of statistical processing for applied representative sample,
- c) Arranged database application

Representative quality of a sample in empirical research is a basic challenge in insurance industry. In a current trend of globalization, liberalization and migration of people as well as objects, making a representative sample for research is very complicated and responsible task. Theoretical and practical definition and sample characteristics related with a posteriori probability theory is presented in a starting model:

$$P(D) = \frac{m}{n}$$

and

$$f(D) = \frac{m}{n}$$

$$P(D) = \lim_{n \rightarrow \infty} \frac{m}{n}$$

where $P(D)=0$ does not necessarily mean that $m=0$, and also $P(D)=1$ does not necessarily mean that $m=n$. Obviously this is necessary but not enough for representative quality of a model. The way of statistical processing for applied representative sample has important elements from which final database validity depends but also for a final insurance industry outputs. In all of this, actuarial part of processing deserve attention particularly in determination of discount rate level which is a key element for starting and all other calculus analysis regarding an insurance products and with all this competitive and business success of insurance industry and full mission accomplishment in community. Actuarial processing in general and in determination of discount rate level can be considered a key clip in the chain of processing applied representative sample.

Usage of arranged databases is not only a matter of routine technique but also of continuous insight of current issues in present and future time. Dogmatic

approach to database it is not scientific approach. Therefore, it is necessary to question content and the way of usage of database.

b) Insurance portfolio structuring (undertaking and transfer of covered risks)

Stability and success of insurance industry business directly depends upon portfolio structuring when risks are assumed and are transferred further. There are scientific, legal and practical criterions of portfolio structuring and risk dispersion. All mentioned activities should be accomplished in defined filed, what is real professional challenge in insurance industry. Whole set of questions is permanently posed in accordance with defined legal and business frame of each insurer. The questions need actual responses and they are related to inputs (what needs to be insured and how, which techniques to use, is there a need for reinsurance and coinsurance) and outputs (which financial functions will be present with desired level of liquidity and profitability). Answers to these questions must not be without valid arguments, which should be based at scientific and practical permanent analysis (both ex ante and ex post). Insurance industry long life and success could not be based upon shortly short run pragmatism, upon potential short-term profitability and liquidity. Each good proficient of the modern insurance industry praxis knows its regulations and rules.

Level of country development, level of working and living standards and common habits, level of institutional and other specific individuals' and companies' motivations, directly influence extent and aspects of insurer portfolio structuring. Countries like Bosnia and Herzegovina and most of other countries (at similar stage of development) established after ex SFR Yugoslavia dissolution, have portfolio structure that is primarily based at short-term pragmatism. It means, with lower extent of insurance contracts and with second-rate portfolio structure, which is not in accordance with modern insurance industry actual situation.

Agency for insurance in Bosnia and Herzegovina official data for 2007 show that in total gross written premium, life insurance premium participates with 13,55%, and non-life insurance with 86,45%. Third part liability insurance share was 52,12%. In addition we can add that motor hull insurance participates with 11,98% and classic property insurance share is 11,27% (fire insurance, storm insurance, ...). It implies that all other insurance contracts are 11,08% of total premium what is not enough for modern insurance industry existing criterions. Data presented significantly show the level of professional challenges in Bosnia and Herzegovina insurance industry. In mentioned consideration we did not analytically observed the characteristics of numerous products in mentioned insurance businesses. It is fact that number of products in classes of insurance in Bosnia and Herzegovina is small, and it underlines the assumption related to insurance industry huge needs and high challenges.

Dispersions' important categories are in classes of coinsurance and reinsurance. There are scientific and legal definitions how and to what extent to coinsure and reinsure. But, it is not the end of the whole spectrum of risks dispersion creations. It should use as well, the creation in strategic management of the insurance companies, what is challenge, not just for the relevant insurer, but for the insurance industry in a whole, as well. It is important issue whether to use coinsurance and reinsurance forms in concrete business scenarios. Without appropriate cost – benefit analysis and other relevant prerequisites for arbitrage and final decision, insurer should not make important decisions.

c) Premiums (levels and structure)

Premium is multilayer category with numerous synthesized characteristics and outputs. That is why its appropriate specification is important. Premium calculation is a challenge for insurance industry because it is main part of financial function and financial and monetary flow.

Correct calculation of net premium, loss prevention and risk premium is a challenge for each actuary. Expense loading, and gross premium level is also important not only for an actuary, but also for other personnel responsible for insurer financial function. Level of insurance products gross premium and aggregate premium is important issue not only for participants in obligation but also for other relevant subjects of state and community. The level of gross premium is not the only important issue. Its structure is important, as well. Insurer competitiveness is measured by level of gross premium and by its structure. Premium level management and management of each part of its total structure is extremely complicated professional job. This job should be based at unquestionable facts that are relevant for defined country and period.

The insurer strength lies in level of written premium. It is base without we cannot consider insurer strength.

In 2007, world gross written premium is 4.152.210.000.000 USD (or 4.152,21 billion USD). Individual countries' shares are: USA 29,64%, Western Europe 40,43%, Great Britain 12,99%, Japan 10,23%, ... Bosnia and Herzegovina 0,007%. Total world gross written premium in 2007 is 7,64% of world GDP. In Bosnia and Herzegovina it is 1,85%. Average premium per capita was 621 USD, in developed countries it was 2.219 USD, in developing countries, it was 74 USD and in Bosnia and Herzegovina, it was 65 USD. Considering this, what is a goal and what is a challenge? Both goal and challenge is increasing the premium level. Increasing the premium has synergetic effects and wellbeing for all subjects relevant for insurance industry.

d) Structuring of temporarily available amounts of money investment portfolio – appropriate cost – benefit analysis

It is scientific truth that insurance companies should irrevocably invest temporarily available funds, which are collected through insurance premiums.

Those funds are invested in financial markets and goods market. This is much demanded activity with personal knowledge and law regulations limits. The basic question is how to invest funds and how to increase the level of invested funds with minimum risk and high efficiency, without endangering necessary level of liquidity and solvency. Structuring of this portfolio is one of the most sensitive financial activity. Markets dynamics and numerous other factors, which influence those investments, require expert knowledge, limited by law regulations; need to produce the fund's portfolio structure that will gratify insurers portfolio needs. Trying to avoid all inconsistencies, law regulations in all organized countries usually define the possibilities (quantitative and qualitative) of those funds investments. In Federation of Bosnia and Herzegovina (and the same situation is in other B&H entity – Republic of Srpska) Insurance Supervisory Agency of Federation of Bosnia and Herzegovina defined in 2006 the Bylaw for investments' levels and instruments. The Bylaw defined in which instrument and to what extent it is possible to invest temporarily available funds. This could be seen in further table:

Table 1. Insurance companies funds investments

Investments in:	Type of funds (investment in %)		
	Technical reserves	Mathematical reserves	Guarantee fund
Securities issued by B&H, entities, district Brčko, Central bank of B&H or by country that is state member of EU or their central bank	50	50	-
Bonds and other this type of securities which are traded in organized stock exchanges in B&H and EU countries	35 but up to 5% from one issuer	35 but up to 5% from one issuer	up to 5% from one issuer
Bonds and other this type of securities which are traded in organized stock exchanges in B&H and EU countries, if they are issued by legal entity based in B&H or EU country	5 but up to 1% from one issuer	-	up to 1% from one issuer
Shares which are traded in organized stock exchanges in B&H or in EU country	30 but up to 5% from one issuer	25 but up to 5% from one issuer	up to 10% from one issuer
Shares which are traded in organized stock exchanges if they are issued by legal entity based in B&H or EU country and if they are issued as securities	5 but up to 1% from one issuer	-	up to 5% from one issuer
Shares of legal entities which are based in B&H and which businesses are profitable	5 but up to 1% from one issuer	-	-
Loans secured with hypothecs, if loan is not higher that 40% of the immovable estate valued by authorized estimator	10 but up to 2% from one owner	-	-

Loans secured by securities (which are issued by B&H, bonds and shares which are traded in organized stocks)	20	-	-
Loans secured by banks guarantees (banks based in B&H or in EU country)	20	20	-
Loans not higher than surrender value of insurance based on life insurance (from mathematical reserves)	20	30	-
Immovable estates and other immovable estates' rights	20	30 but up to 10% in one estate	20
Deposits and loans for banks in B&H or EU country	30 but up to 10% in one bank	30 but up to 10% in one bank	up to 20% in one bank
Funds at company accounts	no limits	no limits	no limits

Source: authors made the table from the Bylaw Insurance Supervisory Agency of Federation of Bosnia and Herzegovina defined in 2006 the Bylaw for investments' levels and instruments (Službene novine Federacije BiH - Federation of BiH Official Gazette Number 80/06)

Based on the review, it is obvious what are the challenges for the insurance industry in Bosnia and Herzegovina. This approbates all lately mentioned facts regarding the sophistication and expert treatment of these insurers' business operations.

e) Financial function sui generis and integral insurer financial management
 Insurance companies' financial function has its own characteristics particularly regarding the insurance industry distinctions. That is why we can consider it as: financial function sui generis. Integral financial management implies management with all parts and with commonality of the funds flow of the insurer. What is the content, and what could be the content of the insurers' funds incomes and outcomes? What are the revenues and what are the expenditures; which are the factors relevant for flows that are financial function. What are the sources of financing basic and additional businesses of the insurers? How financial funds are used in insurance companies; how are they increasing, distributing and finalizing the obligations between persons insured and insurers? How these processes are realized in one insurance company? How are they realized in-group of the companies? How are they realized in insurance industry as a whole? Those are tremendous challenges, interdisciplinary ones.

One thing is important: not to jeopardize necessary level of liquidity and to realize maximum of profitability in defined obligations periods.

3. INSTEAD OF CONCLUSION: insurance industry institutions

When you try to define what is an insurance industry and what challenges are related with we come to necessity conclusions: main institution in insurance industry is company for insurance (preliminary: insurance company) likewise “insurance factory”. What kinds of challenges are related with it, is explained in this paper. The fact is that insurance company has its own products that they offer and sell on the market. That is how they fulfill their basic mission. However, beside the insurance company, other institutions are part of insurance industry that also have “their challenges” and they are complement with insurance companies. These institutions help to create “safety production” as better as possible. These are state institutions based on laws, professional institutions that are established by insurance companies and chambers of commerce. In this perspective of Bosnia and Herzegovina is very interesting. Regarding the complex state structure, which is also implicated on economic sector, insurance industry in Bosnia and Herzegovina is consisted of 26 insurance companies, 1 reinsurance company, 10 different institutions in this industry (1 State level agency, 2 agencies and 2 protection funds at entity level (Federation of B&H and Republic of Srpska), Green card bureau, Actuarial association, Insurers association at Foreign trade Chamber of Bosnia and Herzegovina and entity insurers associations). All these institutions “have their own challenges”. Definitely, it is a big challenge how to downsize this number of institutions and how to rationalize and adapt to modern trends of European and World insurance industry, as well?

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