SELECTED APPROACHES TO EVALUATION OF THE BEST NON-LIFE INSURANCE COMPANY IN THE POLISH INSURANCE MARKET

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Abstract: This article deals with the identification of the best non-life Polish insurance company according to selected approaches. Four indicators were selected for evaluation such as growth of brutto written premium, asset leverage, reserve ratio and investments to technical provisions. The results of financial analysis were evaluated by Method of distance from imaginary object. This ranking of insurance companies was next compared with two approaches.

Key words: non-life insurance companies, polish insurance market, Method of distance from imaginary object, written premium, net financial result.

Introduction

Every economic entity operating on the market has to continually analyse its activity and the results which it has achieved. Every decision-making process in a company should be aimed not at losing its position on the market but at improving it and remaining competitive. The financial analysis elaborated in a company evaluates essential economic indicators and draws conclusions for the company.

Its financial situation is one of the key factors influencing a company's position on the market. In a free economy it has the biggest influence on creating the corporate image connected with the external and internal environment of the company. The role of financial analysis is to define which factors have been involved in creating the corporate financial situation and to what extent. That requires creating systemization and identifying the performance of these factors (Kotulič and Pavelková, 2014).

Consumers in the financial market compensate the lack of information by selecting the most attractive offers in terms of high interest rates or investment returns. (Armeanu et al., 2014) So we find very important to analyse various approaches to evaluate the best insurance company.

Insurance companies have achieved a special place among financial institutions as mentioned by various authors, such as Kafková and Pukala (2012), Liberko et al. (2012) and Pukala (2012). The main aim of insurance companies is their business activities in the area of insurance, as well as in the area of financial investments with temporary free financial resources (Šírá, 2014). Insurance companies are not exceptions to this rule; ultimately, if they are not careful, the insurance safety of their clients can come under severe threat.

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Financial Analysis of Insurance Company

The basic directory used for financial analysis of a company can also be applied for financial analysis of insurance companies. Certain modification is needed, however, due to the unique character of insurance activities (Širá, 2012b). This results from the fact that most firms outside the insurance industry can estimate their costs almost exactly before pricing their products. Insurance companies, however, must fix prices without knowing the exact costs included in the offered services. The second difference is that an insurance company must manage its portfolio and investment performance (Širá, 2012a). This is the only way to achieve its goals and fulfil the requirements of controller e.g. insurance supervision.

Both mentioned portfolios are exposed to risk. The risk is present in many activities (Ennouri, 2013). Risk is a set of measurable future results of a particular activity (Sitek, 2013). Portfolio performance is influenced by the risk of loss occurrence, something which cannot be predicted. The investment portfolio depends on capital market fluctuation and on personal mistakes in investment decision – making. The third aspect lies in the differences in accounting systems of insurance companies and other companies. The basic information sources for financial analysis of insurance companies are the following accounting reports:

− The balance sheet of insurance companies,
− The profit and loss statement of insurance companies,
− Cash flow survey (Širá and Radvanská, 2010).

The assessment of financial soundness of insurance company differs depending on the type of institution or rating agency providing this assessment. The most frequent methods are that applied by the rating agency Moody's Investors Service and Standard & Poor's (Karchová, 2005). We choose some indicators used by Standard & Poor's agency.

Aims and methodology

The main aim of this paper is to identify, which insurance company was in the year 2012 the best on Polish insurance market in non-life section according to selected insurance indicators. The partial goals are:

− to calculate the chosen indicators,
− to calculate the concentration ratio,
− to compare the concentration ratio with the number of insurance companies,
− to determine the positions of insurance companies according to results of the method of distance from imaginary object,
− to compare selected approaches to evaluation of the best insurance company,
− to verify the stated thesis.

For financial analysis we choose these indicators:

− growth of brutto written premium:

$$\frac{\left(written\ premium\,Y_{2012} - written\ premium\,Y_{2011}\right)}{written\ premium\,Y_{2011}} \times 100$$

− asset leverage $= \dfrac{average\ investments}{net\ earned\ premium} \times 100$

− reserve ratio $= \dfrac{average\ technical\ provisions}{net\ earned\ premium} \times 100$

− investments to technical provisions $= \dfrac{investments}{technical\ provisions} \times 100$

We have selected these indicators, because we have found out very important to analyze the written premiums, technical provisions and investments in insurance. Their amount became the key indicator to determination of financial stability of insurance companies. These indicators can be used in various countries so we can say they have an international character, because of universal significance in insurance companies in many countries.

Thus we determine the thesis. We assume that the best insurance company according to results of the method of distance from imaginary object is this with the best financial results in the year 2012 in the non-life section.

To meet the objective we used the method of financial analysis of insurance companies selected through the above indicators, then the method of distance from imaginary object to determine the final ranking of insurance companies. For our assessment there were selected commercial insurance companies operating on the Polish insurance market in non-life section. In 2012, there were thirty one insurance companies.

For evaluation of the best insurance companies, we firstly calculated indicators for the year 2012. When calculating, we were taking into account the values of written premium, net earned premium, investments and technical provisions of the year 2011.

The second step was to calculate standardized norm according to Method of distance from imaginary object in these analyzed insurance companies. At the end, according to results of this Method, we determined the final ranking of insurance companies. Thus, for all the 31 insurance companies, there were calculated and compared examined indicators.

Finally, based on data from the year 2012, we have processed the final order of the insurance companies using the method of distance from the imaginary object, i.e. the order of the most successful insurance companies based on the best indicators from the analysis.

Data required for calculation were drown from the annual report CEA - Insurance in figures, the annual report of the PIU association (Polish Insurance Association)

and the annual reports of selected Polish non-life insurance companies. We used data from the years 2009 - 2012.

Finally, we compared the final ranking of Method of distance from imaginary object from the first three places with the ranking according to written insurance premiums and net financial results, and we investigated the differences between the results.

At the beginning of this paper, we describe the situation on the Polish insurance market in non-life section calculating the concentration ratio CR4. For the period 2009-2012, we compared CR4 and the development of the number of insurance companies on the market.

The concentration ratio is the percentage of market share held by the largest firms (m) in an industry.

$$CR_m = \sum_{i=1}^{m} s_j \qquad (1)$$

Therefore it can be expressed as: $CR_m = s_1 + s_2 + ... + s_m$

Where s_i is the market share and m defines the number of measured firms (Šírá, 2013).

Discussion

The transformation of the economy from the centrally planned economy into the market economy is accompanied by the decrease of the GDP and industrial production in practically all the countries of the Central and Eastern Europe (Adamišin and Kotulič, 2013), (Kotulič et al., 2010). The process of the Polish insurance market has been harmonized with the standards of highly developed European countries since 1990. Currently, commercial insurance companies are given licenses to either life or non-life insurance (Pukala, 2012).

Table 1. Number of insurance companies

|	2009	2010	2011	2012
Non-life section	36	35	33	31

As we can see from the Table 1, the number of commercial insurance companies in non-life insurance is decreasing. Over the past four years their number dropped by 5.

The standard tools of market competition measurements are the Herfindahl index (HHI) and the concentration ratios (CRn). These two are known as the traditional structural measures of market concentration (based on market shares). The concentration of firms in an industry is of interest to economists, business strategists and government agencies (Kramaric and Kitic, 2013).

Table 2. Concentration ratio CR4

	2009	2010	2011	2012
Section of non-life insurance	63.8	60.9	63.6	62.7

Results of concentratio ratio are stable. Its height in different years was slightly different, but overall we can say that it is stable. The share of 4 largest non-life insurance companies is more than 60%, so this market is medium concentrated. It is important to note that despite the decreasing number of insurance companies in a given period, the amount of concentratio ratio was stable. Therefore, this fact proves a stable share of 4 largest non-life insurance companies.
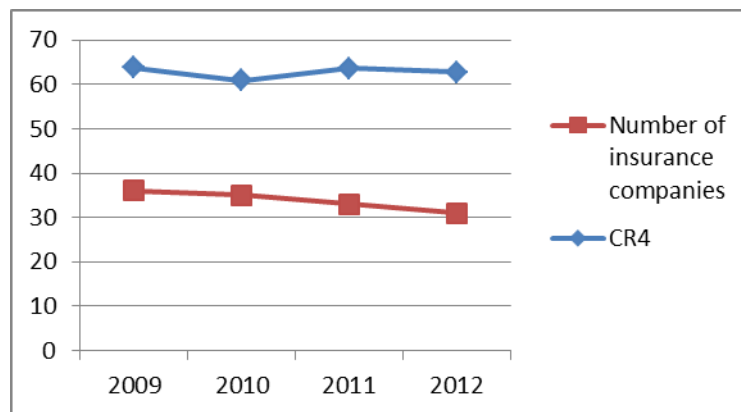
Figure 1. The development of insurance companies and CR4 indicator

The Method of Distance from the imaginary object

Table 3 shows the total data from financial analysis assessed by Method of distance from imaginary object of the year 2012 of thirty one analysed Polish insurance companies belonging to Section II (non-life insurance).

Based on the collected data, we have put the insurance companies in order, from the best to the worst. We have used the method of distance from imaginary object. The basis of this method is comparison of the observed insurance companies to an imaginary object. It presents an abstract model achieving the best values in all indicators. It is considered to be the most exact of all the methods of the methods for inter-business comparison because it expresses the distance of the business from the fictive model (Zalai et al., 2007).

Based on the results of the method of distance from an imaginary object, the Partner S.A. was the first because compared to other analysed insurance companies it achieved the best results. The second was Cuprum T.U.W and the third was Kuke S.A.

PZU S.A, which was the first according to amount of written premium and net financial result, was in our approach on the 4th place, Warta S.A. was the 8th and Ergo Hestia S.A was even on the 23th place.

Table 3. Ranking of non-life insurance companies according to method of distance from imaginary object

Non-life insurance companies - part I.	Distance from imaginary object:	Rank:	Non-life insurance companies - part II.	Distance from imaginary object:	Rank:
Allianz Polska	6.1718	17	INTERRISK S.A.	6.1575	16
Aviva - OGÓLNE S.A.	6.1381	15	KUKE S.A.	4.8832	3
AXA S.A.	6.4234	26	LINK4 S.A.	6.1984	20
BENEFIA S.A.	6.1861	18	MEDICA S.A.	7.4608	31
BRE UBEZPIECZENIA S.A.	6.0325	12	MTU S.A.	6.2005	21
BZWBK-Aviva TUO S.A.	6.3439	25	PARTNER S.A.	1.5817	1
COMPENSA S.A.	6.0174	11	POCZTOWE T.U.W.	6.6057	28
CONCORDIA POLSKA T.U.W.	6.4296	27	PTR S.A.	6,0018	10
CUPRUM T.U.W.	3.8921	2	PZU S.A.	5.1267	4
D.A.S. S.A.	5.4917	5	SIGNAL IDUNA POLSKA S.A.	6.0853	14
ERGO HESTIA S.A.	6.2692	23	SKOK T.U.W.	5.7941	7
EULER HERMES S.A.	7.3032	30	TUW T.U.W.	6.2157	22
EUROPA S.A.	5.4971	6	TUZ T.U.W.	6.7977	29
GENERALI S.A.	5.9060	9	UNIQA S.A.	6.0486	13
GOTHAER S.A.	6.3210	24	WARTA S.A.	5.8898	8
INTER POLSKA S.A.	6.1893	19			

Table 4. Comparison of the best insurance companies in the non-life section

Ranking	According to Method of Distance from imaginary object	According to amount of written premium	According to net financial result
1.	Partner S.A.	PZU S.A.	PZU S.A.
2.	Cuprum T.U.W	Warta S.A.	Warta S.A.
3.	Kuke S.A.	Ergo Hestia S.A.	Ergo Hestia S.A.

According to amount of written premium and net financial result, the first was PZU S.A., which is the biggest non-life insurance company in Poland. In both cases,

there were the same insurance companies on first three places. This is due to the fact that these insurance companies have the largest market share and hence the biggest profits. According to results of our financial analysis processed by Method of distance from imaginary object, there was Partner S.A. the best insurance company.

Conclusions

During the selected period of 2009-2012, the number of insurance companies was descended, but the amount of concentratio ratio of 4 biggest insurance companies CR4 was stable. We have found out the different results from the best insurance companies in Polish non-life insurance market according to selected indicators. Our results from financial analysis proved that the best was Partner S.A. insurance company. According to amount of written premium and net financial results, the PZU S.A was the best.

We established the thesis, that we assume that the best insurance company according to results of the method of distance from imaginary object is this with the best financial results in the year 2012 in the non-life section. But our results were different, as we can see in Table 4. So it is questionable, what is the best approach for evaluating the best insurance company. We think that financial analysis according to 4 indicators typical for insurance market is the best.

This research has also emerged other areas suitable for further investigation not only those we have focused on, e. g. comparing the results of financial analysis of insurance companies from more countries (it is possible because of universal significance of the used indicators).

The next question for future research may be what other indicators can be included in evaluation of the best insurance company.

Another way, how to expand current findings is to make the financial analysis for the sector of life insurance.

References

Adamišin P., Kotulič R., 2013, *Evaluation of the agrarian businesses results according to their legal form*, "Agricultural Economics", 59(9).

Armeanu et al., 2014, *Analysis of the Romanian insurance market based on ensuring and exercising consumer's right to claim*, „Amfiteatru Economic Journal", XVI(36).

Ennouri W., 2013, *Risks management: new literature review*, "Polish Journal of Management Studies", 8.

Kafková E., Pukala R. 2012. *Poisťovníctvo (Insurance)*, Ružomberok, Verbum.

Karchová M., 2005, *Metodika hodnotenia finančnej sily poisťovne svetovými ratingovými agentúrami Moody's Investors Service a Standard & Poor's.* [in:] Zborník vedeckých prác z medzinárodnej vedeckej konferencie Mladá Veda 2005, Slovenská poľnohospodárska univerzita v Nitre.

Kotulič R., Pavelková J., 2014, *The application of the Cobb-Douglas production function in analyzing the effectiveness of productive resources in agricultural enterprises of primary production*, "Journal of Central European Agriculture", 15(3).

Kotulič R., Király P., Rajčániová M., 2010, *Finančná analýza podniku (Financial analysis of company)*, Bratislava, IURA EDITION.

Kramaric T. Pavic, Kitic M., 2013, *Comparative analysis of concentration in insurance markets in New EU member states*, [cited 2013-3-10; Available at: <http://www.waset.org/journals/waset/v66/v66-127.pdf>]

Liberko I., Bednárová L., Širá E., 2012, *Vybrané prístupy k vyhodnoteniu najlepšej komerčnej poisťovne na trhu v Slovenskej republike*, (*Selected approaches to evaluation of the best insurance company in Slovak republic*), "Nová ekonomika", 2(V).

Pukala R., 2012, *The Polish insurance market in the years 2004–2011*, "Acta Oeconomica Cassoviensia", Košice, University of Economics.

Sitek M., 2013, *Identification of risk factors as an element of the process of risk management in the real estate market,* „Polish Journal of Management Studies", 7.

Širá E., 2012a, *Vybrané oblasti poisťovníctva a konkurencieschopnosti komerčných poisťovní, (Selected areas of insurance and competitiveness of insurance companies)*, Prešov, Bookman s.r.o.

Širá E., 2012b, *Perception of competitiveness of insurance companies in the Slovak republic based on settlement and comparison of competitiveness indexes*, "Scientific Annals of the Alexandru Ioan Cuza University of Iasi - Economic sciences series", 59(2).

Širá E., 2013, *Evaluation of insurance markets concentration in Slovak republic and Hungary*, "Journal of Management and Business: research and practice", Prešovská univerzita v Prešove, Fakulta manažmentu, 5(1).

Širá E., 2014, *Konkurencieschopnosť krajiny v kontexte vývoja poistného trhu. (Competitiveness of country according to development of insurance market)*, "GRANT Journal", Hradec Králové: Magnanimitas Assn., 3(1).

Širá E., Radvanská K., 2010, *Competitiveness of Insurance Companies in Slovakia and in the EU Countries*, [In:] Zborník príspevkov z konferencie Finance a management v teorii a praxi, Ústí nad Labem, Fakulta sociálne ekonomická UJEP.

Zalai K. et al., 2007, *Finančno-ekonomická analýza podniku*, *(Financial analysis of company)*, Bratislava, Sprint vfra.

WYBRANE METODY OCENY NAJLEPSZEGO TOWARZYSTWA UBEZPIECZEŃ MAJĄTKOWYCH NA POLSKIM RYNKU UBEZPIECZEŃ

Streszczenie: Niniejszy artykuł dotyczy identyfikacji najlepszej polskiej firmy ubezpieczeń majątkowych według wybranych metod. Do oceny wybrane zostały cztery wskaźniki, takie jak wzrost składki przypisanej brutto, dźwignia finansowa aktywów, stopa rezerwy i inwestycje w rezerwy techniczne. Wyniki analizy finansowej oszacowano Metodą

odległości od wzorcowego obiektu. Niniejszy ranking firm ubezpieczeniowych był następne porównany z dwiema metodami.

Słowa kluczowe: towarzystwa ubezpieczeń majątkowych, polski rynek ubezpieczeniowy, Metoda odległości od wzorcowego obiektu, składka przypisana, wynik finansowy netto.

選定方法最好的非壽險公司評估在波蘭的保險市場

摘要：本文論述了最佳非壽險波蘭保險公司根據所選擇的方法鑑別。四項指標被選定為評估如生長估计書面溢價，資產槓桿率，存款準備金率和投資技術的規定。財務分析的結果通過距離的方法，從假想對象的評價。有兩種方法相比，保險公司的這個排名是下一個。

關鍵詞：非壽險公司，波蘭語保險市場，距離的假想對象，保費收入，淨財務結果的方法。