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## The Impact of the Integrated Financial Risk Management on the Effectiveness of the Decisions of the Financial Leverage: An Empirical Study on the Insurance Companies in Kosovo

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*Among many decisions taken by business organizations, the most critical decision they take which affects the value of the company is that of the financial leverage. The designing of the decisions in a standard level of the financial leverage can be useful and at the same time harmful for the company. This study introduces a new approach called "Integrated financial risk management" which maximizes the effect of the organizational decisions. The management of the integrated financial risk aims at: improving the financial performance of the company, strengthening the stakeholders' communication and building a greater confidence in the market by providing real time data about the financial risks, decisions and the values of the organization, and finally approving and implementing a common framework about the risk inside the organization.*

*The process of the integrated financial risk management (IFRM) is designed and established by the company management and is implemented by the staff inside the organization. This is not a linear process; an IFRM may also have an effect on other risks and on control tools which are recognized as effective on the limitation of the risk. In short, this management of the financial risks effects on the efficiency of the financial leverages decisions.*

*This approach will have an impact on the increase of integration between strategic and operational standards inside and outside the country throughout the managerial hierarchy. In this study we will identify the relationship between the financial leverage and the performance of the*

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*insurance companies which are licensed by the Central Bank of Kosova. This is an econometric study for the period from 2010 until 2014.*

**Keywords:** *integrated financial risk management, financial leverage, financial reports, performance and insurance companies.*

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## Introduction

There are a lot issues that affect the decisions made about the integrated financial risk management in insurance companies such as: unstable markets, new rules and compliance requirements, which change rapidly based on the customer's needs and which affect the increase of scrutiny about these issues from different audits and investors. Furthermore, these issues are related to the decisions of the financial leverage by increasing their complexity and may affect the company capacity to reach its objectives ( KPMG, 2013).

Global development shows that all the economic sectors and especially the insurance sector is focusing on the management of the risk as they key for being successful in offering objectives. Risk is present in every human activity in the: society, economy, politics, education, science, health, law, tourism, infrastructure etc. Every risk has its own characteristics such as: size, density (high, average, low), impact, measures of loss (damage) etc. Risk in the system is determined by the nature of the processes, objects and the infrastructure. To manage the risk in the system, the management of the processes in objects and/or structures must be done.

According to Metric Stream (2014), due to the changing trends on the risk management in insurance companies, the executive designers and risk managers inside these institutions must face some core issues as in the following. In what scale is the insurance company, the banks or another financial institution prepared for the loss caused by the risk taken at a certain point (often during a certain shorter or longer periods of financial report)? Then, a relevant issue is that of finding the most strategic spots of financial risks which are related to the market development or the strategies used to increase the sale. Another important point is that of risks which affect the financial performance (even the survival) of the company such as

the brand degradation or the product value. This is a critical point where the managers are very uncertain about, (Herrington, 2012).

The integrated financial risk management is defined as the whole of processes which include: the identification, assessment and evaluation of the risks, the determination of the responsibility, the actions taken to decrease the risk and foresee them, as well as the monitoring and the review of the progress. Insurance companies consider the management of the integrated financial risk as a balance of a number of elements which interact with each other and when needed they must also be in equilibrium with each other. Risks can hardly be found as separate and isolated as they the management of a certain risk does have an effect on other risks, (HM Treasury, 2004). Some of the relevant elements on the management of the integrated financial risk are as in the following:

- This is an ongoing and systematic process to make the financial risk be understood, managed and communicated from a broader perspective.
- It deals with strategic decision taking which contribute to reach the overall objectives of the corporate.
- This process integrates the financial risk management to plan and decide the processes and all kinds of aggregates on the organization, and at the same time monitors and manages the risk on a general basis.
- This process is an inseparable part of a healthy management of the corporate which is integrated on the organizational governing.

Insurance companies as well as other business organizations must analyze the simplicity of addressing the financial risks which is crucial in an individual business change. As a result, by this analysis it is much easier to understand the complex relation of the strategic risks surrounding the company. By recognizing these risks, a huge improvement is made towards a successful business and thus the effective management of these strategic risks supports positive transformation of the business (Gollenia et al., 2015).

## Literature Review

The integrated financial risk management includes the use of financial instruments to effectively respond towards the natural disasters or unstable political situations that are related to them. The broad definition of the

integrated financial risk management includes three core competences which are as in the following:

- The financial risk management - is the accuracy to assess the market, liquidity, credit measures and the proposed actions against the risk. Apart from this, this process also includes the designing of the expenditure models towards the budget in order to make the adequate corrections against threats caused to the budgetary discipline of the insurance companies.
- The management of the operational risk- this component does constantly assess the efficiency of the internal controls and it also measures and identifies the weak spots in order to minimize the risk and failure of these controls. It also includes the careful use of the operative data to identify the risks and show the potential possibilities of improving the system.
- The management of the strategic risk of business- is a process which includes the assessment of the risks which are related to the planning and management processes and the assessment of the effect of the external and internal variables such as the market dynamics and so on.

These competences create a strong basement towards the integrated management of the risks and make it possible for the insurance companies to treat different kinds of risks and thus prevent and reduce the effect of these risks in these organizations from a strategic perspective (Miccolis & Schneier 1998).

It is a financial decision of every company to find the funds to invest on the desired projects. Companies can raise funds through two relevant sources: through the debts and the firm's capital. The debt is a cheaper financial source compared to capital, because the cost of debt (interest) is excluded from the tax, in other words, firms do not pay taxes on the debt. The cost of capital on the other is the distribution of the company's profits or net income to shareholders after tax payment, in this way the firm pays the taxes on capital firm. Even though the debt as a financial source is cheaper than the capital, it is considered to have a higher risk when compared to its capital. Debt is more dangerous, because it includes the mandatory payment of fixed installments unlike equity, where companies can distribute profits among the shareholders based on the request of funds

for investments in new projects. As a result, there is a "tradeoff" between the costs and benefits of both financial resources.

Financial leverage is given time to use the fixed costs in the company's capital structure, or on the extent to which the company is using the loaned money. The decision on the structure of the capital reflects on the judgment and estimation of a very unsafe level in the future management of risk antipathy and may affect the company's financial policy. Thus, the change in the capital structure that is caused by an increase or decrease in the debt to equity ratio is referred to as a financial leverage (Ojo, 2012). According to researchers who dealt with the financial leverage as an integrated risk management technique, it affects the insurance company performance. Any increase in profits before interest and taxes has had an impact on the profit growth of share (Haim & Marshall, 1988). According to these researchers, the debt (bonds) are financial instruments with a low safety risk and the cost of these securities (interest) is exempt from tax, and therefore the cost of the use of debt in the capital structure is significantly lower than the cost of capital. This is based on the fact that the demand of bonds in the firm is limited to a specific interest, unlike the claims of shareholders in companies that require a certain percentage of the profits of the company. Although financial leverage is beneficial for the company, it is at the same time dangerous as it involves the payment of fixed costs which are mandatory for the company. The increased scale on the use of financial leverage in the capital structure of the company could possibly lead to its bankruptcy because it puts pressure on the payment of the fixed installments which are mandatory for the company (Horne, 2002). As much debt there is on the insurance companies (as a percentage of assets), as higher is the scale of the financial leverage. Debt acts as a leverage since by using it in a higher scale, both the profits and the loss in the company can be increased. For this reason, financial leverage increases the potential reward to shareholders, but it also increases the potential for the financial failure of the insurance companies (Ross, Westerfield and Jordan 1998).

**The integrated financial risk management on insurance companies** consists of eight components combined among each other. They stem from the way the management directs them and how these elements are integrated in the management process. These elements are: control environment, objectives setting, financial risk identification, risk

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assessment, response / reaction to risks, control activities, information, communication and monitoring.

Control environment- describes the culture of the financial risk on the insurance companies by showing how the risk is addressed and reviewed in these companies. It includes the risk management philosophy, integrity and ethical values and also the environment of its activity.

Objectives setting- without defining the objectives it is impossible to identify the events that may affect the achievement of objectives. The integrated management of the financial risk ensures that there is a built process for setting the objectives (in line with the mission and in accordance with the level of financial risk).

The identification of events: by identifying the external and internal influence on the realization of the objectives it is possible to define the opportunities and threats. Opportunities then transform to strategies and objectives set by management.

Risk assessment- risks are analyzed by considering the probability and impact, as a basis to decide how they will be managed in the future. Risks are assessed on current and remaining basis.

Response/reaction to risks- when risks occur, there are a set of options to respond. The financial risk can be avoided, reduced, or accepted and transferred / passed on the responsibility of another owner's risk.

The identification, assessment and management of financial risks are closely related to the achievement of objectives of the insurance companies. Risk is present in every human activity as a permanent companion by serving as a barrier and obstacle because it implies loss, damage, risks etc.

The identification of risk: risk facilities, processes, factors, etc., are instruments that help to reduce the risk. Insurance companies use continuous risk identification which is required to identify any new risks which have not appeared before, changes in existing risks or risks whose existence is no longer suitable for the insurance industry. The identification of financial risk refers to the past as well as to the future experience. Past reference is focused on the annual reports, shortcomings and failures of the past and internal reports. On the other side, the focus to the future is associated with the political and economic, social and technological developments. Some types of risks are assessed according to a numerical diagnosis - particularly financial risk. For the other risks - for example

reputational risk - it most likely is a general subjective view. The assessment is made on the evidence independently and impartially, considering the perspectives of all the participants to influence the degree of financial risk and avoid the confusion of objective assessment of the risk by the judgments about risk acceptability. After identifying the risks, they are involved in the risk register which identifies the risk holder and the steps to be taken to mitigate the impact of this risk. The assessment of the integrated financial risk is a difficult process influenced by many factors. The factors are reviewed on many levels, including the subject or the people (behavior), divisions, geography, products or services, accounting processes and operations, controls or computerized systems. (Sigleton & Aron, 2010).

When the management of the integrated financial risks or other possibilities is effective, it often goes unnoticed. When this process fails, the consequences for customers and staff can be very significant. Considering the best practices on the management of the integrated financial, it helps to ensure that the risk department in the insurance company has taken the right decisions on maximizing the profits of the company and minimizing the negative effects of the organizational objectives (DCSI, 2013).

Pioneer researchers in the field of adequate combination between the debt and equity in the capital structure of a company to secure (Miller & Modigliani, 1958), have found that in a perfect market, the firm's capital structure is irrelevant. For this reason they evaluate the performance of the firm more. According to these researchers, the only factor that will increase the value of the insurance company is the selection of the investment project. In reality, however, the choice of capital structure in insurance companies is affected due to decrease of the tax of interest on debt and the theory of cost of the agency (Jensen & Meckling 1976). According to these researchers, the use of more debt in the capital structure of insurance company (a higher level of the financial leverage), improves the performance of the company and its value. According to the researchers of this field, indeed it happens because the higher the financial leverage, the lower will be the expenditures of the agency.

The opponent of these findings, (Myers, 1977), proposed that the use of a high scale financial leverage may have a negative effect on the performance of the insurance company and as a result of this it causes a decrease of the company's value. According to Myers, the high scale use of the financial leverage requires that a part of the company's profit should be

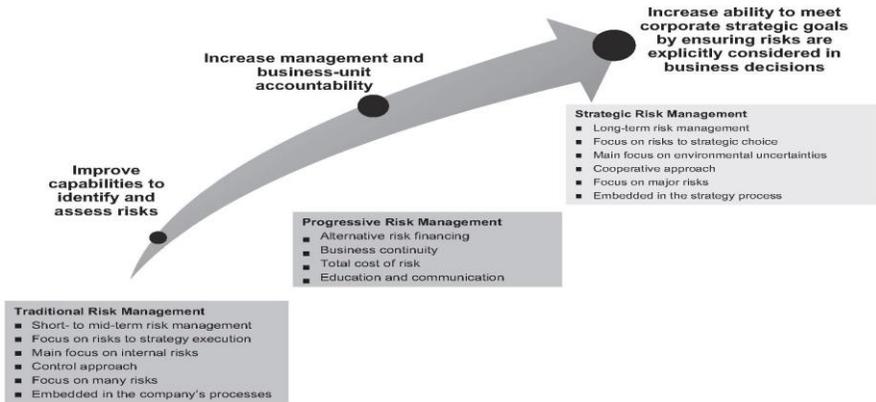
distributed to the holders of the debt, because the available investment opportunities may be rejected by a firm that is financed through debt. This is attributed to the fact that the firm (insurance company) will always try to avoid the possibility of financial risk (the risk of not paying the interest on the debt). This can lead to a drop of performance of the insurance company and its value in the insurance industry. Also, (Titman, 1984) and (Maksimovic, 1991), proposed that a firm (insurance company) with a higher levels of the financial leverage creates the possibility for its own liquidation, furthermore, these authors say that debt holders are prone to place more restrictions in the firm, while the clients can perceive the quality of the product or servicing of a high leverage company which is endangering its performance and financial sustainability. These researchers claim that the financial leverage has a negative impact on the value of the firm. Other relevant concepts about the management of the integrated financial risk within the insurance companies are the obstacles that these companies increasingly face on the implementation of this process in the business strategy of the company. In the table below we can some core obstacles which the insurance companies face on the implementation of such an integrated management of the financial risk.

**Table 1:** Obstacles in implementing the management of the integrated financial risk in insurance companies

Obstacles on the implementation of MRFI	Percentage
Competition with other priorities	63%
A blockage of cost-effective means of the management of the integrated financial risk	49%
The Directors consider the financial risk management as a task for management of the line, not the board	35%
Poor awareness among staff impedes the implementation process	25%
The Board does not understand or appreciate the principles and benefits on the management of the integrated financial risk within company.	21%
Governing requirements (e.g Sarbanes-Oxley)	18%

Source: Economist Intelligence Unit, 2005

Financial institutions such as insurance companies must have adequate available mechanisms to communicate the risks on the entire organization and to report the development of the risk to the board of directors and the senior management of the (BGM, 2013). Also, the company must apply creativity method (method 4C) in all types of risk, such as strategic as well as operational risks with the same level of transparency and transformation process. In the following table there are presented some of the main points which should be practiced by all insurance companies, in such a way that the implementation of the management of the integrated financial risk to be successful.



**Figure 1:** The maturity of the management of the integrated financial risk

So, there must be an appliance of the improved skills to identify the approach towards the risk, its management, accountability of the business units and the increase of the skills to improve the strategic growth of the corporate based on business decisions. According to Metric Stream (2014), every year banks, companies of insurance and other financial institutions spend a significant portion of their time applying various methods to mitigate the financial risk, and in accordance with these techniques, regulatory and operational compliance requirements are increased. Precisely, the financial leverage implemented on the capital structure of the insurance company affects in a better financial performance and has an influence on the increase of efficiency in the management decisions.

## Scientific Research Methodology and Empirical Analysis of the Study

The research and the scientific methodology of this study consist of the secondary source annual reports from ten insurance companies in Kosovo which are licensed by the Central Bank of Kosovo. The listed companies from the empirical analysis are: Dardania insurance company, Illyria, Siguria JSC, Insig, Croatia Sigurimi, JSC Sigkos, Kosova e Re, Sigal Uniqa Group Austria and Elsig insurance company JSC. The study period includes an econometric period of five years from 2010 to 2014. The study includes a five year period, from 2010 to 2014. For this five year term, the data were collected and processed by the annual financial statements and reports, published on the official website of the Central Bank. These empirical data are taken from the statements of income and expenses and also from the statements of the financial position for the period of 2010-2014. The provided quantitative data will be treated in the Stata program, 12th version, applying some statistical tests (descriptive statistics, correlation analysis and regression analysis), which will serve for the purpose of testing our hypotheses set in this study. Kosovo is a developing country; many previous researchers who have studied the effect of financial leverage in the company's performance in the developing countries have found conflicting results. The study of Shehia et al, 2012, through his studies in this area found a positive relationship between the financial leverage and the company's performance, meanwhile Rehman in 2013 and Ojo in 2012 found conflicting results about the impact of the financial leverage on the performance of the company. This study will provide empirical evidence on the impact of the financial leverage on the insurance companies in Kosovo. The research question of this study is as in the following: How much did the management of the integrated financial risk affect the efficiency of decisions of the financial leverage in insurance companies in Kosovo? In order to respond to this research question, we will set some hypotheses which will be tested by econometric patterns in the Stata program and their validity will be shown.

The dependent variables of the study will be variables that improve the company's performance or the value of the firm. In this study there will be used four variables to measure the firm performance: Return on assets (ROA), return on equity (ROE), net profit on sales (ROS) and Earnings per Share (EPS). The return on total assets is a ratio that measures the

effectiveness of the total asset utilization in generating the net profit. This report is used by many financial analysts in measuring profitability, therefore in this study it was included as a dependent variable, through which performance of the insurance companies will be measured and at the same time, there will be shown empirical analyses on how much does the financial leverage affect the performance of the insurance companies.. The return on shareholder equity measures the profit achieved by regular investors on the assets of the company. The rate of return of the share capital, in the successful years of the enterprise is always considerably higher than the rate of total return asset. This happens due to the positive effects of the financial leverage. However, in the weak years of business in the enterprise, the rate of return of the share capital is lower than the return on assets; due to the effects of the financial leverage are negative and which means that the ratio of the return of stocks is followed by a smaller risk. The ratio of net profit to sales shows the amount of realized profit in every 1 euro of sale. Through this indicator, it is valued the ability of the management in controlling the expenditures. Profit for action is expressed as the ratio of net profit after the preference dividend to the number of shares in possession. On the other side, as an independent variable of this study we will use the ratio of debt to total assets, which evaluates the long term solution of the company and shows the safety margin to the creditors.

In the below table, there are presented the data of the econometric model where the calculation of these financial reports was done in a five year term.

**Table 2:** Database (the calculation of the financial reports about ten insurance companies listen in the study).

Year	ROA	ROE	ROS	EPS	DR
2010	6.26	6.49	10.06	35.75	5.75
2011	3.10	11.52	14.35	34.15	6.23
2012	7.55	13.15	16.18	36.45	6.8
2013	6.41	11.04	24.75	40.13	7.45
2014	4.27	10.02	23.15	43.71	8.13

Source: Authors' calculation in Stata program

In order to respond to the research question of this study, the following hypothesis to be tested was set:

H1 - There is a significant link between the return on assets (ROA), return on shareholder equity (ROE) net profit on sales (ROS), earnings per share (EPS) and the financial leverage rate (DR). So, the management of the integrated financial risk in the insurance companies in Kosovo including the period from 2010 up to 2014 had a positive impact on the effectiveness of decisions in the financial leverage.

The data shown in the table 2 were calculated based in the financial reports, and all the results were calculated through natural logarithm as can be seen below.

**Table 3:** The values of the natural logarithm based on the econometric model tested in this study.

Year	ROA	ROE	ROS	EPS	DR
2010	0.7967	0.8124	1.0002	1.5532	0.7596
2011	0.5009	1.0614	1.1568	1.5333	0.7944
2012	0.8779	1.1189	1.2089	1.5616	0.8325
2013	0.8068	1.0429	1.3935	1.6034	0.8721
2014	0.6304	1.0008	1.3645	1.6405	0.9101

Source: Authors' calculation in Stata program

The main variables of this research (ROA, ROE, ROS, EPS dhe DR) will be shown through the analysis of the correlation shown by the mathematical formula:

$$\rho_{XY} = \frac{\sigma_{XY}}{\sqrt{\sigma_X^2 \sigma_Y^2}}$$

The correlation coefficient is valued by 1 when the three is positive correlation and the value of -1 when there is a negative correlation. When the coefficient is equal to 0, there is no correlation between the variables. Through the method of simple linear regression and through the method of

small squares (OLS), we will test the impact of management of the integrated financial risk on the efficiency of decisions of the financial leverage about the insurance companies in Kosovo for the period including 2010 to 2014. The main goal of regression is the calculation and the forecast of the average of a variable Y (dependent variable) based on the values of the other variable (independent variable) X. In the following we will show the correlation analysis and we will specify the model of multiple and logarithmic to calculate it.

After putting the data of the five main variables of this study in the Stata program, we used the correlation analysis which shows the association of these variables between each other. The following data are shown below, as take from the Stata program analysis:

**Table 4:** The results of the correlation analysis (Source: Author’s calculation in Stata program)

Year	ROA	ROE	ROS	EPS	DR
ROA	1.0	-	-	-	-
ROE	0.3	1.0	-	-	-
ROS	0.3	0.2	1.0	-	-
EPS	0.3	0.2	0.8	1.0	-
DR	0.1	0.1	0.9	0.9	1.0

$$\text{Correlate} = 0.1 + 0.1 + 0.9 + 0.9$$

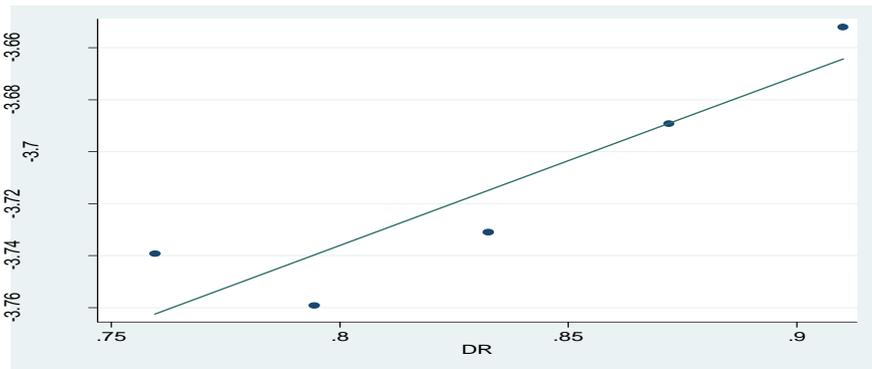
According to the financial theory, this result shows that these variables are associated to each other, to summarize, if one of this five variables is increased, it can affect the increase of the other variable. So, if we say that the rate of the financial leverage was increased, the rate of return on assets or share capital will also be increased. In this way, the rate of the financial leverage affects the dependent variables (ROA, ROE, ROS and EPS) both based on the economic theory and on the results of the correlation analysis. In the table 5, a summarized view of the data can be found about the results of the regression analysis, where some conclusions will be drawn upon the statistical relevance of the variables included in this empirical study. The data shown in this table are: the constant value, beta coefficient, T-test and value of standard errors.

**Table 5:** The results of the regression analysis

Variables	Constant value	Beta coefficient	t	Standard Error
ROA - DR	0.767	0.054	-0.04	1.236
ROE - DR	0.248	0.909	0.91	0.833
ROS - DR	-0.895	2.542	5.14	0.413
EPS - DR	1.034	- 0.652	3.73	0.146

Source: Authors' calculation in Stata program

The impact of financial leverage on the rate of return on total assets (ROA - DR). In order to analyze the impact of the financial leverage on the return on total assets, we will be based on the results of (table 4) and (table 5) of the regression analysis. Return on assets is a profitability ratio that is calculated as the quotient between the net profit and total assets. The average value of this report that includes the period 2010-2014 time is 5.51% , about ten insurance companies listed in this empirical analysis. On the other hand, the average value of the financial leverage is 6.87. The main goal of this empirical analysis is to see if the financial leverage has affected the growth of return on assets, during these five years in the insurance companies in Kosovo. So, if the rate of financial leverage affected on the growth of return on assets, there is also a lower level of the financial risk, because the effects are positive and vice versa.



**Figure 2:** The impact of the financial leverage to the return on assets in the insurance companies in Kosovo

In the following we will interpret the results of the correlation analysis to the regression to see the impact of the financial leverage on the e profitability of the insurance companies. So, if there is an increase of the financial leverage, then, there will also be an increase on the return on assets. Based on the results of the analysis, the correlation coefficient value of this report ROA - DR is 0.1, it means that the correlation is positive. Based on the results of regression (Table 5), we may conclude that a 1% increase in the scale of financial leverage has caused an increase on the growth of return on assets at the value of 0.054%. So, during these five analyzed years, the financial leverage has caused a 5.4% increase on the rate of return on total assets. In Figure 2, it is graphically presented the impact of the financial leverage on the dependent variable (return on assets). From the ten listed companies, the highest rate of increase was reached by Croatia Sigurimi JCK. The increase of the financial leverage by 1% in this company has caused a rate of 1.02% on the return on assets. These scientific findings are similar to the findings of MetricStream (2014), Herrinton (2012) and Bishara (2015).

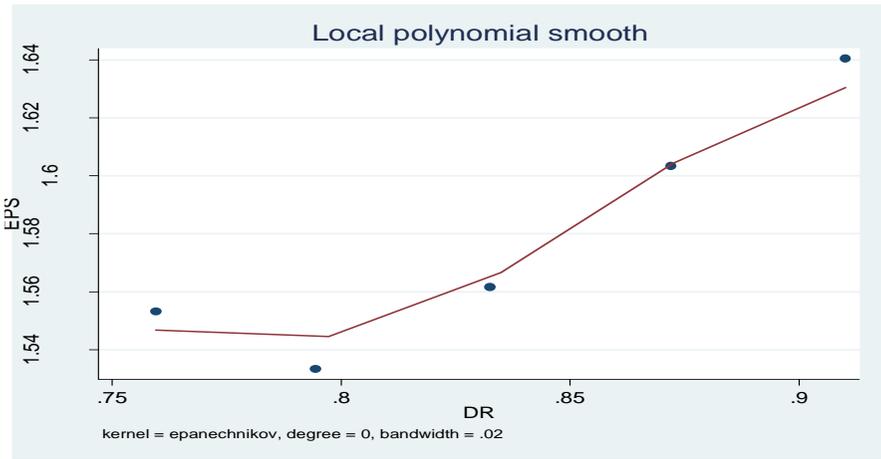
The rate of return of shareholder equity (ROE) and the financial leverage rate (DR) - another quite important report in this empirical study is that of ROE to DR. Referring to the statistical results of the of the correlation analysis, it shows that there is a significant relationship between these variables, because the value of the correlation coefficient is positive 0.10. So, this value shows that the increased ratio of the financial leverage increases the shareholder return on equity. Based on these results, it can be seen that the analyzed variables are associated to each other. The average value of the shareholder return on equity is 5.22% (an assessment of 10 insurance companies - in the period 2010-2014). Meanwhile, the average value of the debt scale is 6.87. During the five year period of time, a 1% increase in the scale of the financial leverage has brought an increase of the shareholder return of capital in the amount of 0,909%. Of the 10 companies listed in this study, the effects of the financial leverage have been positive in 80% of them, while the financial leverage has affected negatively only on two of the insurance companies (Dardania and Siguria JSC). The years 2011-2012 have not been very successful for these two insurance companies, as a result the impact of the financial leverage are negative since the activity of these companies was followed by a high scale risk. On the other hand, in the other eight companies these effects have been positive and especially in the Sigma Vienna Insurance Group and Illyria insurance company. In Sigma

insurance company, the financial leverage during the period of 2010-2014 had an impact on increasing the return on shareholder equity of 1.13%, while on Illyria Insurance Company the impact was on growth was of 0.92%. An increase like that, offers empirical facts that the management of the integrated financial risk has a positive effect on the efficiency of the decisions of the financial leverage.

The ratio of net profit to net sales (ROS) and the financial leverage leverages rate (DR). By referring to table 4, we may interpret all the results of the correlation analysis. The value of the correlation coefficient between the ROS - DR is 0.90, which implies that both of the variables are positively correlated with each other. The average value of this report for the five year period is 8.84%, and based on the regression results we may conclude that the increase of 1% in the scale of the financial leverage impacts on the growth of net profit to sales ratio of 2:54%. In practice, reports with higher values are considered favorable and these reports have greater values in Sigma and Sigal Uniqa Group Austria insurance companies. Only during 2013, the increase of the financial leverage has had an impact on the growth of net profit in this company of 114.874 €, while during 2014, the company increased the net profit in compared to the sales of 9.4%, i.e 122.187 €. Nonetheless, some facts show that the effects of the financial leverage have been negative to the net profit of the Kosovo e Re insurance company. During the years 2013-2014 this company has been exposed to the financial risk in a high scale, and the management of the integrated financial risk has affected on the decrease on the net profit in this company. So the growth of the financial leverage by 1%, affected the net income to drop by 7.3%.

Earnings per share (EPS) and the financial leverage rate (DR). In order to analyze the effect of the management of the integrated financial risk on the efficiency of the decisions of the financial leverage, we have included in this study the EPS-DR ratio. Based on the results of the correlation analysis (table 4), it can be seen that there is a positive correlation as the coefficient value is 0.90 and this value proves that these two variables are associated to each other. The average value of earnings per share in the industry of the insurance companies in Kosovo is 19.01 €. Since this is an econometric study for the period of 2010 to 2014, the impact of the financial leverage in the growth of earnings per share in the last two years has been higher which contradicts some other studies in this field which claim to have different results. The growth of 1% on the scale of the financial

leverage has caused a decrease on the earnings per share of profit 0.65%. A decrease in the earnings per share as a result of the growth of debts is reflected more in Elsig JSC insurance company.



**Figure 3:** The effect of the financial leverage on the earnings per share ratio on insurance companies in Kosovo

During 2014 the value of the share capital was € 4,113,964, while the losses and costs were extraordinary high, reaching the values of 7 million Euros. The growth of the financial leverage by 1% has caused a drop of the earnings per share by 6.5% and a growth of loss by 38%. So, based on these results, there can be seen a positive correlation between the variables, because the growth of the financial leverage can affect the decrease of earnings per share but it can also cause an increase and such a result can be found in 40% of the companies participating in this study. In figure 3, there can be seen the impact of the financial leverage in net earnings per share, where Kernel density value reaches 1.64 %. As an example, we can see that Illyria insurance company during 2012 has had a net profit of € 130,994, and the growth of 1% of the financial leverage in this company has caused a growth on the net earnings per share by 2.45%. The growth of the debt ratio has caused a growth on earnings per share by 50.7% (net profit for 2013 was € 258,267). Based on the interpreted results in this empirical analysis, sufficient findings have been shown in order to validate the hypothesis of

the study. To summarize, based on the empirical findings of this study it was proved that there is a significant correlation between the ratio of the return on assets (ROA), return on shareholders' equity (ROE) net profit on sales (ROS), earnings per share (EPS) and the financial leverage scale rate scale (DR). All in all, the management of the integrated financial risk in insurance companies in Kosovo including the period from 2010 up to 2014 had a positive impact on the effectiveness of decisions of financial leverage.

## Conclusions

The main purpose of this study was to find empirical evidence on the impact of management of the integrated financial risk on the effectiveness of the decisions of the financial leverage in the insurance companies in Kosovo. The findings of this study are similar to a number of similar studies from different authors in the world. Studies which were conducted in developing countries have found that the financial leverage has an impact on the growth of the profit and performance of the company and especially in banking, insurance industries and in small and average enterprises. The empirical findings of this study are as in the following:

- The financial leverage rate has an impact on the dependent variables (ROA, ROE, ROS and EPS) by both economic theory and also by the data obtained from the correlation analysis.
- Based on the results of the correlation analysis, the coefficient value of the report ROA - DR is 0.10, so the correlation is positive. By this, we may conclude that a 1% increase in the financial leverage rate, effects on the growth of return on assets by 0.054%. During these five analyzed years, the financial leverage has affected the rate of return on total assets in insurance companies in Kosova to grow by 5.4%.
- During the five year period, the increase of 1% of the financial leverage has had an impact on the growth of the shareholder return of capital in the amount of 0.909%. Of the 10 companies listed in this study, the effects of the financial leverage have been positive in 80% of them, on the other side the financial leverage has adversely affected only in two insurance companies (Dardania and Siguria JSC).

- The average value of the ratio ROS - DR in the five-year period is 8.84%, and based on the regression results, we may conclude that the growth of 1% of the debt rate had an impact on the growth of net profit to sales by 2.54%. In practice, reports with high values are considered favorable, and these reports show a higher value in: Sigma and Sigal insurance company and Uniqa Group Austria.
- The increase by 1% of the financial leverage rate had an impact on the decrease of the earnings per share by 0.65%. A decrease in the earnings per share due to the increase of the debts is reflected more in: Elsig JSC, where also the rate of the financial risk is much higher.

All of these empirical findings are similar to many studies in this field from different authors all over the world such as: MetricStream (2014), Herrinton (2012) and Ojo (2012). On the other side, these findings are in contrast to the studies of Shehia (2012) and Nazir & Afza (2008). Insurance companies in Kosovo have a critical challenge in the management of the integrated financial risks in more effective way. Applying the integrated model in the process of the risk management (strategic and operational models), insurance companies in Kosovo will be able to determine the appropriate degree of financial leverage to apply in their capital structures. Consequently, if these integrated models are implemented and applied, real-time information on the financial risk will be more transparent and more reliable both inside and outside the organization. This will be more effective and will directly lead to a superior and competitive intelligence.

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