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Empirical Evidence of the Effects of Erm Implementation in A Non-Life Insurance Company in Albania (Case Study)

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ABSTRACT

Enterprise Risk Management (ERM) and capital allocation have gained more attention recently especially in insurance industry since insurers intend to manage capital costs through risk management. Previous studies have shown that ERM has helped insurers in improving the firm's value through better risk-based decision making and capital allocation. This study investigates the case study of ERM adoption and ERM use within a non- life insurance company in Albania, the changes driven in the company from the adaption of ERM, and provides empirical evidence of capital allocation change process caused by the implementation of ERM in the context of insurance companies. An explanatory case study with interviews was used for the purpose of this research to offer empirical evidence on ERM implementation and the change in risk management routines within the company. The findings show that ERM has caused various changes in risk management practices such as capital allocation, underwriting andactuarial.

KEYWORDS: ERM, non-life insurance companies, risk management, management practices, case study

I. INTRODUCTION

ERM is seen an aspect of organizational control and accountability, as a corporate and management control field, which operates as a strategic management control tool. Enterprise Risk Management (ERM) is a method that doesn't simply cover the amplitudes of risk (Gordon, Loeb, & Tseng, 2009). It is a holistic process that starts with risk identification and continues with the manners to manage and supervise the enterprise's risk appetite. The implementation of ERM itself helps a lot in the direction of risk awareness and subsequently helping the decision-making process towards firm to maximize its value (Yazid& Tahir, 2011). Modigliani and Miller (1958) created their financial irrelevance theorem, according to which firms would not be involved in hedging activities because these activities add no value to thecompany. The COSO (2004) framework reversed the importance of risk management and internal control, which is recognizable since from its title. Enterprise risk management is incorporated in the internal control framework of COSO, and that made it the most dominant guidance by financial companies. The COSO (2004) framework placed ERM as the "overall control system within which other internal controls had additionalplaces". The initiative for the creation of Solvency II came to extend the use of ERM in the financial sector. The regulatory changes implied by this directive have an impact on ERM adoption and implementation in financial institutions. Companies are already obligated to meet the objectives of the regulations that require strengthened risk management. Despite that Solvency II is not obligatory, its regulative push financial institutions to adopt ERM. It is evident that riskmanagementinthefinancialsectorisregulated.

However, the ultimate objective of insurance companies is to create value. ERM adoption, still is flexible in the way that is not only directed by regulations, but takes into consideration also the economic needs of a business.
There doesn't exist a lot of research on ERM, its framework and value. Early field based researches revealed how major companies try to manage their risks. Insurance sector, aside the banking and other regulatory and supervisory sector, play an important role in ensuring a stable financial environment. Financial institutions and modern businesses consider the programs of risk management as a substantial part of corporate responsibility, and as a reflection of the financial stability of a country. According to Hutter and Jones (2006), some policies as high corporate taxes undertaken by the government can optimistically affect companies to be more aware on how they manage their risks of minimizinglosses.Weber et. al (2002) showed that not all government policies affect positively on ERM strategies because the complexity of a certain situations such as difficult economic regulations like high interest rates maintained by central banks, political conflicts reflect in insecurity situation that means low investor tendency to support external risk management manners.

Velandia et al (2009) determine other economic factors which influence ERM. Fundamentally the economic base of an enterprise reflects on how risk averse should be managed.

II. CASE STUDYMETHODOLOGY:

ERM is a complex social phenomena and it can be studied only under case study methodology because its complexity can only be unzipped through different data collection methods (Yin, 2009). According to Lukka(2005),theadvantageofusingthecasestudymethodology is adequate for the risk management systems, because it isn't an isolated process and needs a more complexed examination within it in a certain period of time. It proceeds with choosing a single particular analysis unit, and gathering deep- concentrated data about this specific unit. Since the research questions are selected to help explaining different actual conditions and how they affect the phenomenon understudy.According to Cooper and Morgan (2008), the case study approach can be used to study certain practices and the specifics of activities. Since the main objective of my study is to explain the changes in capital allocation practices, from the implementation of ERM, it can be defined as an explanatory case study. I selected one large insurance company which has already implemented ERM to be the representative for my interpretive case study. That implies a holistic approach that explores the links between different parts of the system under study and the relationship of the system itself with the contextual details. My study explains the reasons on why and how capital allocation practices change and the specific role of ERM in this change, specifically in the risk team relationship, and the roles and responsibilities of risk officials init.According to Yen (2009), the case study is used to test a theory, its propositions and the circumstances, to define which of them are correct or more relevant. Intentionallythenon-lifeinsurancecompanywas

selected to be a typical one where capital allocation practices were known to have been affected by the implementation of ERM. The size of the company matters in this study and that was the reason I choose a large and mature insurance company which has shown stability in its activity through years. On the other hand, it was a relevant fact that this company is known for implementing ERM and their risk management strategies were accessible. Finally, the factor of capital allocation change after ERM implementation was determinant intheIn my case study, I used all the various sources that were possible to reach like: interviews documentation, archival records and observations. All the internal and publicly possible sources were used in order to respond to each research question of my research. The internal company sources that I used were ERM polices and frameworks, business plans, the operating output records, reports from CFO or risk management department, and documents related with employee's trainings. Some of the public data sources included annual reports and other public company'sinformation.A number of officers and staff from different levels within the company were chosen to be the subject of the interviews. I updated the list of all the respondents in the Table 1. The background and responsibilities of each participant who deals with risk was considered in each interview, to discuss a lot of issues and to furnishinformation.

Interviewee	Code
Chief Risk Officer	CRO
Chief Underwriting Officer	CUO
Reinsurance Officer	RO
Actuary	AA
Accountant Chief	AC
Risk Manager 1	RM 1
Chief Financial Officer	CFO
Risk Manager 2	RM 2
Chief Operating Officer	COO
Management Accountant	MA

Table 1. The case study interviewees

Since the assumption was that ERM is a process that is dispersed in all the stages and departments of the company, the target of the interviewees covered different employers in the hierarchy- structure of the company to reach an overall view of the problem. For writing this chapter, I visited periodically this company for a period of 5 months (under the consent of the shareholder and CEO), during which I kept notes about the all the information that I would possibly include in the elaboration of this thesis. The

company that I choose for the case study, is the oldest company in the insurance market in Albania. The fact that is the one with the largest experience in the market, assures the fact that the company has worked hard enough to create a sustainable reputation in the market and has preserved its financial position carefully, despite the volatility of the market in these thirty years of capitalism. The fact that it was founded as a public company, to be privatized after, has

created in the sight of clients, the image of a big and safe company.

THE CREATION OF THE ERM MODEL WITHIN THECOMPANY: ERM was implemented in this company officially in 2015, even though the first steps were undertaken since one year before, in 2014. Its ultimate objective was to rely the decisions of the company on the strategic objectives that consider the assessment of risks. Similarly, on the strategic management levelthe corporate governance mechanism has a similarrole and basically creates the organizationalframework in which strategic riskmanagement"The first phase in the risk management process isrisk identification, the second step is risk assessment,and the final phase is the selection and adaption ofappropriate risk management tools. As a department,we distinguish risk management on the top strategicmanagement level and after that on the businessprocess level. I think that we achieved a successfulimplementation of Enterprise Risk Management inour company because the risk management functionis implemented in all the organizational structure ofthe company."(CRO)

THE ADOPTION OF ERM AS AN EMBEDDINGPROCESS :ERM is implemented through the whole organization. As in all organizations it starts from the top management, and then down to the lower levels. Nevertheless, the most important departments that cooperate together are now the actuary, risk management and the underwriting department."It has been a substantial change in the way of thinking, not only of acting. Before it was a random calculation formula, now implies more than that, considering all the factors to achieve a meaningful risk-based approach."(CRO)The data is elaborated differently in terms of the accuracy, completeness, persistence and functionality. Since now more than ever the underwriting department is in relation with the operation department, it is comprehensible that all the departments play a crucial role and are related with each-other."Now, the underwriters depend on the work of our department. We handle and manage to register each claim according to the categories, and after then the information passes to the underwriting department." (RM-1)The Risk Department and Actuary work closely with each other, consulting about the level of reserves and capital on quarterly basis."Beside the calculation, it is my duty to justify the level of the reserves held. It has to be meaningful to the board of directors and to the shareholder. The risk of making mistakes would cause different problems

in the company, mainly in the cost of capital. Before deciding to go for a new product or service, the internal management goes through a review process, under which the amount of capital needed is calculated." (AA)
Risk assessment is the key factor in company 1. It is the responsibility of everyone to perform qualitatively in achieving the results, but mainly is CRO who uses historical data to compound a complex model that summarizes all the aspects."My tasks consist in creating a register, with all the inherent and residual risks. When we are able to enter every relevant exposure in the register, and after that to create a statistical model that will give us the amount of capital that is required to be held".(RM-1) The duties of risk managers consist in being included all the aspects of risk assessment and for every risk that the company faces. Their work seems to have been facilitated from the implementation of ERM. They understand more than the others the importance of it and though their work, risk can be not only assessed but mitigated too. The duties of the actuary of the company is divided between pricing insurance, capital insurance and reserve calculations and among these "day to day" jobs, the use of ERM is inevitable. In other words, risk managers are more concentrated on the quantitative side of risk registering within the company, meanwhile the actuary and the Chief of Risk Director take care of the qualitative aspects of risks such as capital allocation and decision making."ERM has played a role in strengthening and unifying the relationship between actuaries and risk managers in all the insurance companies. Their work is related ultimately in that point that their cooperation is a must, taking in consideration that risk is managed holistically. Before ERM, the focus was more in the operational side of each department, meanwhile now "the picture" has to be seen as a whole to be understood adequately." (COO)Not only the way of working has changed, but also the way of work thinking within company 1. The risk managers admit that practicing ERM in their daily work is far way from learning it in theory. Now their work can be judged and assessed in a more precise and criticalway.

"The process of underwriting of premium takes more time than before since now more control is pressured towards new contracts. Now the question is not how much profit I can get from it, but rather how much it will

cost me in the terms of capital" (MA)ERM is embedded in the strategic planning of the company driving the process of capital allocation. Every decision is risk-based but still the rate of return on capital is the main indicator on decision making. A better management of risks increases the chances of achieving a high return on capital, especially in the long-run periods.

III. INVESTIGATING ERM FRAMEWORK IN THECOMPANY:

All the participants play an important role in "giving their hand" to the creation of the ERM model, providing information according to their field of work. The setting of the parameters of reserve risks for each type of claim is a duty under the function of Chief Risk Officer, meanwhile for example the parameters of operational risks are under the function of Chief Operation Risk. The duty of the actuary is therefore, to collect all the risks from each department to create the accurate model of the company. The model considers on daily basis two parameters when projecting. The two most important elements in the calculation of claims are the severity and the frequency of the events which have an impact on capitalalso."Finding the right amount of capital might seem easy in theory, but in practice is quite challenging. If we decide to hold more capital than we should, there's an investment risk related with the fact that if you would have that capital free, you would utilize it to invest it in profitable investment choices. On the other hand, if we go for a small amount of capital there is a risk of insolvency in cases when an unpredictable or catastrophic event happens. That is the reason why in practice there is always a 'mistake' in calculating the capital needed to be held in the company". (AC) Anotherconsideration to be noted after the implementation of ERM, is the importance that each product has on capital allocation. Not that before that was not done, but now is done in a different way, assessing the chances of a possible loss for each line of product in details. The volatility of the events affects directly the risk that the company faces. An increase of the events increases risk probabilities and hence the capitalrequired."In our company, there are certain products, which are very volatile. For instance, the property insurance is a product, the claim of which might be very volatile, that means that you might be lucky to receive a few cases of claims, or you might receive a lot, like in the case of the year 2019 when the earthquake happened and we had an increase of the cases of property insuranceclaims."

SUPPORTING THE FOLLOWING VISION OF THECOMPANY : The implementation of ERM is going accordingly and coherently with the company's strategy. It is still indicated by internal factors that have long period objectives. So, we can affirm that ERM is a sub- strategy of the whole strategy of thecompany."I could say that ERM is part of the strategy that helps our company to achieve long time objectives, creating the appropriate framework of work for that. So the policies of the company are inter-related and ERM is a contributor inthis."ERM has helped to create a strategy of growing for the company, by assessing, comparing and diversifying risks. From a plan of growing the company sustainably, thecompany can be strengthened in each aspect by creating comparative advantages over the other companies in the market. "The aspect that I like more about ERM is the logical part of it. Not only has facilitated the process of identifying, mitigating and controlling risks but now is more understandable and logical for all that work in insuranceindustry."

PUTTING NUMBERS INSTEAD OF WORDS: Since the implementation of ERM, the company has changed its operational work various times, to improve the operational system. The information is now more concentrated and the risks are more monitored now than before. The new approach towards risks has indicated the importance of ERM. As one risk officer admits now the quality of the information has improved giving more qualitative and accurate results, focusing more on facts rather than on opinions of specialists."Now more than ever is important to present quantitative data to the board of management, not what we consider important, but what the system sets as relevant data. We are objective in what we do, and now we speak more in terms of numbers rather than words."(CRO)The quantitate data is required to measure the performance of the firm and its financial strength which are ultimate parts of the strategy of the company. When referring to financial industries like insurance industries, numbers are crucial."Creating a culture where all the indicators of performance can be deducted in numerical measurements has been a quite turnover point in our company. This increases the individual responsibility of each division and promote a new management culture in our company. For example, if we do not process 'numerically' a reinsurance risk by not covering it in time, the loss might be much higher than expected if the supposed event occurs. Similarly, ERM has helped to compare the lines of product with each other by comparing the profit from the maintenance of a certain product with its cost."(CUO) The efforts of the company to put numerical values even in sectors like human resources or IT, are achieved only by the directives ofERM."The input of data has improved by the increase of risk information after the implementation of ERM. Furthermore, the capital allocation practices have been improved by the accuracy of the process itself."(COO)

The lack of qualitative data is the main issue concerning risk management. A poor source of information creates the problem of overcapitalizing, sotheissuestartsalwaysbyimprovingthesourceofdata. Another important issue is the separation of risks appropriately according to their nature, for instance liquidity risk, underwriting risk, market risk etc. By allocating risks correctly, also the capital can be allocated correctly. Another beneficial aspect is the cost that we save ininsurance."“As Underwriting Department, we are responsible for the accuracy, quality and completeness of the information that we pass to the other departments, especially to the Risk Management Department. Since we implemented ERM in our company, we have improved in this direction, giving more attention and investing to create a functional system of data information.”(CUO)Both the actuary and the Chief of Risk Management share the same view of the problem. According to the CRO:“The only way to measure the effects of ERM quantically is to compare the return on capital before implementing ERM with the return of capital after implementing it. It has been always a practice here, to keep more capital than needed but now, since we implemented ERM things have changed. We are no longer obliged to keep more capital than calculated. That means that rest of capital might be diversified in more profitable portfolio.”Before the adaption of ERM, the segmentation of capital in the company 1, has been done by dividing it according to the categories of risk, the lines of business and between the countries where the company was expanded. The staff has been qualified to use more sophisticated data not limiting it only on quantitative information but rather on subjective opinions of relevant persons in the company.“The categories of risks that we asses through the ERM program can be summarized as: market risk; underwriting risk; operational risk; group risk; strategic risk; liquidity risk; credit risk and investment risk. For each category of risk, a model is created, considering the previous historic data regarding that risk. For instance, potential claims can be assessed through calculating all the previous events of earthquakes in thepast.”(RM-2)

CHANGES IN CAPITAL ALLOCATION ROUTINES: The capital model used contains quantitative and qualitative data to measure the amount of capital needed for regulative and internal purposes. Capital allocation can be used to facilitate and improve the measurement of the economic profitability of businesses with different sources of risk and different capital requirements.“We calculate the allocation of capital allocation related also with some emerging concepts such as risk adjusted return on capital (RAROC) and economic value added (EVA), which now have become important management decision-making techniquesnot only for us as a financial firm but also for non- financial businesses.” (RM-1)It is relevant to think that the capital is being allocated by line of business for pricing, underwriting, and other types of decision making. Nevertheless, if the insurer becomes insolvent, the entire company will experience bankruptcy, not only one or some line ofbusinesses.

“The pricing is one of the main problems not only in our company but in the market generally. The competitiveness has its impact as in all the other industries. The risk of fraud is present and is very difficult to be minimized completely. We have increased the number of employers to control fraudulent claims in the risk department because the cost of avoiding fraud is still less than the cost of capital that we would experience if we wouldn't do it.” (CUO)As stated before, the prior procedure of calculating capital before implementing ERM has been a fixed percentage over the amount of the total premium without considering risk assessment.“We have created our own model of calculating capital based on risk assessment using different techniques to understand all the risk that we face as a company, affecting all the decisions we take and the allocating capital according to each individual exposure.”(CRO)ERM is seen to revolutionize the process of capital allocation, creating the possibility of identifying possible risks before happening and how they affect capital. Underwriters are now more aware of the importance of strategic thinking.“Considering all the strategies we have practiced in the past, now there have been changes in the way we choose clients, focusing on their risk profile. Since increasing the prices of insurance products is becoming more and more difficult in a country that is not very financially healthy, it is crucial to address the issue towards the selection of the business and entities when we talk about non-compulsory insurance.”(CUO)ERM has changed the way capital is allocated by providing actuaries an overall information about capital allocation and affecting the decision making it more strategic rather than only financial“The robustness of the ERM program creates a broader view of the process as a whole, helping to enforce the control and the way premium is invested. The linking of the work of underwriters and actuaries is inevitable and since the implementation of ERM in our company their cooperation has been reinforced.” (AA)Through statistical software-s, actuaries calculate all the risks obtained from the Risk Management Department dividing it through various clusters of risk. Risk managers create “risk profiles” to classify new costumers into potential or non-potential loss for the organization.

“Nevertheless, models are redefined through the process, including the work of other employers. Before the implementation of ERM, the modelling was a duty only of the actuary of the company who cooperated with CRO to create the models of risk assessment. Now more actors are included in giving final outputs because they are all concerned from the information derived from the model.” (RM-2)In the insurance industry, it is customary to define businesses in terms of lines of insurance, for example, the commercial liability line or the auto liability line. Capital allocation in the context of the insurance industry is useful to facilitate the interaction between financial decision making and the risk-based capital rules applied to the insurance industry by regulators policy or line of business.“There are times we use external data for internal models, meanwhile when no information is available, we use external models to forecast because not all types of risks might be public or available.”(RM-1) Especially in long run terms, is very important to use correctly the capital allocation and ERM might play a relevant role on that.

INCREASING THE ROLE OFCRO : The staff has undergone through different training programs and qualifications, but still since it not a genuine theory it is difficult to find the practical approach in using it.“The experience and knowledge that you gain from using ERM is difficult to be measure since it is related with a very wide understanding of the risk phenomena. When using ERM you get a close look of all the individual risks that our company faces and then you are able to direct and control them. The better we understand risks as Risk Management Department, more chances we have to measure and model them according to risk categories and allocate capital accurately.(RM-2).The support of the Chief of Risk Department is a key factor for the adaption and implementation of ERM in this company. It requires a lot of efforts from his part that the process goes successfully completed. His determination in explaining to his staff the importance and the beneficial aspects of ERM implementation is part of his dailyjob.“Our Chief of department has always encouraged us to be actively included in all the new tasks that ERM has added. Now we communicate on daily basis, several times a day and the process has become faster and more efficient.”(RM-1)

CONTROLLING THE EFFICIENCY OF THE PROCESS : Risk assessment is now more focused in this company considering current market information and not only historical data. The time that the information gets processed has been shortenedsignificantly.

“In order to allocate the economic capital for market risk, we recure portfolio methods and statistical simulation methods. According to the iterative portfolio method, the risk manager creates an imaginary investment portfolio by generating exactly the same cash flow as the insurer's liabilities.” (AA) Sometimes, though, the market information lacks, so it is obligatory to use historical information in creatingmodellings.“In the balance sheet at market value, capital represents a closed gap between the insurer's liabilities (technical provisions) and assets. When projecting, we create a simple scenario including variables such as: interest rates, exchange rates or other variables can be created through the software that we use including two scenarios. First, we use historical scenarios, which are the current developments that have taken place, actualizing the possible consequences of the current balance sheet, for example what could happen if the crises in the capital market of 1997 in Albania would happen again. Secondly, we use scenarios based on simulations, where statistical models are used for valuations, for example the changes of interest rates in the future. We examine the effects and consequences of the fluctuation of interest rates in selected investments from the perspective of changes in the balance sheet.”(CFO)

The Finance Department monitors cash flow on a daily basis and utilizes liquid assets as efficiently as possible in the short-term and liquid investments. “There are random situations, where insurance liabilities should suddenly be paid. Insurers are less strongly intertwined than banks, it is less likely that one insurer's problems have the effect of spreading to other insurers. However, this does not mean that liquidity risk is not significant for insurers.” (CFO) Although, implementing ERM has not been an easy process in the company 1. As discussed previously, some risks cannot be assessed and some of them can be assessed incorrectly. There are risks that might be correlated in different ways and their relationship can be difficult to be detected. Another major problem is the fact that some data can be difficult to be found or measured. Previous events have shown problems with the existence of data or its relevance.Now it is obligatory, under the framework of ERM to record a complete data in the systems. The quality of data is a lack and a weakness in all thecompanies.“I personally think that the non-life insurance companies in Albania are taking notes from the implementation of ERM. Hence, still the supervisory financial institution is still only scratching the surface of what companies who adopted ERM accurately can achieve. The process has faced many challenges, especially in regulatory aspects which exist in theory but in practice lack. Other companies might simply comply with the obligatory regulations to have a position in the market, meanwhile in our company we

tend to surpass that by benefiting in all aspects that ERM offers."(MA)

IV. CONCLUSION

The main risks that may be faced during the implementation are the customer expectations, the attitudes and behaviors of customers, the demographics, the individual risks affecting policyholders and the rapid change of technology which has strong impacts on price settings. If, the companies seek not only the surviving, but to overpass it by searching opportunities and achieving profitable growth. More than ever, by adapting ERM, companies must be able to anticipate, react and adapt if there is a need to change. A successful implementation of ERM requires the right persons in the organization hierarchy from the top to the bottom. As risk moves within different departments in the company from transactional decisions to strategic ones. The board members must be better informed about risk and its implications. In particular, the CRO's role is crucial, because of the right skills and the right combination of tools. The Chief Risk Officer is the main orchestrator of ERM by completing its tasks in coordinating people and creating a risk- focused strategy in the entity that drives real value. Below it is represented the CRO's role as and driver of the benefits ofERM.In long term periods, the allocation of capital gains a more important role within the company. A deep understanding is required to fully achieve the objectives and to change the way business is managed. The better that is done, the higher are the chances that the risks are correctly assessed and modelled. The role of all risks has a higher impact in capital allocation, including strategic risks that helptocreate the overall strategy of the company in long- terms.A post-implementation review is still early to show all the problematic issues. If systems are restricted to meet only the regulatory reporting, which can bring high volatile reporting on a daily basis. In order to access all the benefits of ERM, insurers need to apply it to each identified current and future risk that may influence their short- and long-termfortunes.

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