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VNIVERSITAT DE VALÈNCIA
Facultat d' Economia
DEPARTAMENT DE COMPTABILITAT
PROGRAMA DE DOCTORADO EN CONTABILIDAD

SUMMARY of DOCTORAL THESIS

Theoretical and Empirical Research regarding the Performance of Financial Investment Companies based on Accounting Information

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Suceava, Valencia
2016

“ACKNOWLEDGMENT

This paper has been financially supported within the project entitled ***„SOCERT. Knowledge society, dynamism through research”,*** contract number POSDRU/159/1.5/S/132406. This project is co-financed by European Social Fund through Sectoral Operational Programme for Human Resources Development 2007-2013. **Investing in people!**”

Contents of the summary of the doctoral thesis

STRUCTURE OF THE DOCTORAL THESIS

KEYWORDS

The doctoral thesis entitled ***Theoretical and Empirical Research regarding the Performance of Financial Investment Companies based on Accounting Information*** use the following keywords: IAS/IFRS, accounting information, financial indicators, financial instruments, financial assets, financial liabilities, own equity instruments, financial investment companies, Europe, regulated market, performance, Tobin's Q ratio, investment risk, liquidity risk, market risk, panel data, dependent variable, explanatory variables, control variable, fix effects regression.

INTRODUCTION

The thesis *Theoretical and Empirical Research regarding the Performance of Financial Investment Companies based on Accounting Information* will deal with the topic of financial instrument operations and associated risks from an accounting point of view, as well as from the perspective of the effects generated by the quotation of entities which operate with such instruments in the European regulated markets. The topic of our research is complex and actual, being debated upon in the literature. However, few published works so far have strictly dealt with the impact of the risks generated by the financial instrument operations on the performance of the financial investment companies.

The present thesis is within the field of accounting presenting a series of theoretical aspects with practical applications and problems related to the recognition and evaluation of the financial instruments. There are specified the main requirements regarding the accounting policies and options of the accountancy of the financial instruments, the main norms and rules of the registration operations of their funds, and also the way in which the international framework has developed in the last three decades, having a direct influence on them.

The strong *interdisciplinary* character, present in the doctoral thesis, is manifesting by interconnecting the methods, the techniques and the knowledge from finance and statistics field in the accounting field. Presents the aspects related to the evaluation of the financial instruments, especially those that belong to the evaluation of the risks that result from the operations with assets and financial debts and their active interconnection with the economic and financial life is another argument brought to this multidisciplinary character. The information that the accounting provides us is eventually correlated with financial and economic data and analyses in order to determinate, through the statistical analysis, the impact of risks arising from financial instruments on the entity's performance which operates with them. The specific *area of interest* in which our topic is positioned at the intersection of three research domains: international financial accounting, financial analysis and finance.

The changes, evolutions and significant consolidations of the information that must be presented regarding risk, especially the one arising from financial instruments, were amplified in the last three decades. The technology progress facilitated the appearance of new ways of identification and determination of risk in the synthesis accounting documents. The development of software and the efficient use of them, allow today the companies to use more appropriate methods of risk measurement and at the same time the possibility to evaluate,

with the financial indicators, the impact that it may determine on the value of the company. Thus, in order to determine the impact that certain risk factors have on an entity, especially on the performance, it becomes fundamental to analyse the interconnections between accounting and these risk factors. The applicability and branching of the accounting practice in various fields, induce, however, several dimensions of the concept of accounting.

Basics of a regulatory framework containing provisions regarding the significance that the risk has within an entity, in particular norms regarding the risk arising from financial instruments, were established by the standard-settlers in the 70s' (more precise in 1973 when SEC and the United States Congress constitute FASB). Through the continuing development of the accounting profession, the experts understood that it took more than the abilities and the elementary professional knowledge to understand the entities, and the way in which they should evaluate the financial instruments from the financial reports. Beginning with the process of convergence and harmonization of accounting, the professionals had to adapt themselves and to know the national (and international) legislations, in order to present the accurate, clear and whole image of an entity and according to the international conceptual framework.

Accounting does not only mean figures written on paper, it represents the art and the science of business management. With the financial indicators, which are calculated based on the information from the financial reports, the entities measure their performance. Taking into account that the business environment is continuously changing, and the professionals find new ways of measuring the performance, the accountants must find, in their turn, new methods to meet these market requirements.

From the foregoing, in the context of rapid changes and the century of speed, we cannot speak about accounting without taking into account its implications in other fields, like finance or statistics. Thus, our research activity focused on this direction, bringing novelty elements and an added value to the accounting field, offering new knowledge and information contributions to those already existing in the specialized literature and researchers in the field.

MOTIVATION AND THE IMPORTANCE OF THE SCIENTIFIC RESEARCH

The significant changes in the accounting treatment of financial instruments that has suffered, that influenced the records in the financial statements and the increasing proportions that the risks arising from financial instruments have noted, have given this subject a safe place in academic publications. The changes to the conceptual framework regarding the disclosure of the risks arising from financial instruments had an impact on the way that the information is presented in the financial reports, it is a heavily debated theme in the specialist publications.

The research was undertaken in the field and the changes in accounting practices that took place worldwide in the last three decades made us address implicit the question: what are the implications of these changes on an entity from the point of view of the performance and the risks arising from financial instruments? (underlining that the risk doesn't always have a negative impact and it should not be treated like „something" that may jeopardize a business cycle). Due to the monetary fluctuations in the economic environment, underlining the news within the international conceptual framework, this thesis presents the necessity of understanding the phenomena, the events, the transactions and processes specific to the financial instruments.

This paper examines the link between the disclosures of risk associated with the financial instruments operations as an additional mechanism for controlling the entity's performance with the aim to achieve the planned financial objectives. According to authors Fatemi & Fooladi (2006), an efficient risk management may lead to a more efficient equilibrium between this one and profitability (understood as performance) in the case of financial institutions. The synergy relationship between risk and performance may generate a better position on the market in the future, and the correlation of concepts is even more powerful in the case of entities which have as main object of activity the possession of financial instruments of other companies, exclusively for the purpose of investments, because they are more exposed to risks associated with the operations with them. In the case of these companies, the effects and the impact of risks on the financial performance can be seen more easily in the cash flow.

The starting point of our research was the adaptation of IFRS 7 *Financial Instruments: Disclosures*, which contributed to the improvement of the financial results of the entities. In the literature from the accounting field, we can find papers and research which analyse the

impact of adopting the standard on the quality and quantity of information provided by entities (Abraham & Shrives, 2014; Armstrong, Barth, Jagolinzer, & Riedl, 2010; Atanasovski, Serafimoska, Jovanovski, & Jovevski, 2015; Moumrn, Othman, & Hussainey, 2015; Zaiceanu & Hlaciuc, 2015a). In this context, we wonder: what are the real effects of the risk associated with the financial instruments operations on the financial investment companies' performances?

Adopting on a large scale the International Financial Reporting Standards (IFRS) represents one of the most important moments in the evolution of accounting leading to the increase in the number of researchers that investigate the determining factors and the consequences of adopting the standards on different normative frameworks. The results of the previous researches make available „balances" regarding the benefits and the effects of implementing the IFRSs, the focus being on the external environment of the entity. Thus, there are few proofs regarding the modifications occurred in the internal environment of the entities, especially in matters of disclosure of risks arising from financial instruments. Among the effects of adopting the international standards, those about the performances of the entities are by far the most debated upon the problem.

After an extended period of observations, individual study and empirical investigation, we found that the problem of the impact of risks arising from financial instrument operations on the financial investment companies' performance was not enough debated upon in the academic literature. The results of the doctoral research can represent, we think, a benchmark for other studies, analyses, and works that will have as spectre the investigation of the implementation of the IFRSs.

Regarding the contributions to the research topic, and thus to the accounting field, they will be highlighted through the theoretical and empirical research that is covering the area of risks associated with financial instruments operation and the impact they have on the financial investment companies' performance that is regulated on the European market.

It is well known, among the professionals in the financial –accounting field, that the financial instrument operations become more and more complex. The check procedures must be properly adopted in order to cover the involved risks and, therefore, to assure their credible character regarding the evaluation, the presentation and the relevance in the financial ratios of the entities. The idea of the study of the impact of risk occurred in the financial investment companies' performance results from the modifications of accounting policies of the conceptual framework (Zaiceanu & Apetri, 2015).

In light of the above-mentioned and from the desire of discovering the answers to the questions and issues raised, through the scientific demarche we are proposing to *elaborate a model of estimation of the risks associated with financial instruments operations for the evaluation of their impact on the financial investment companies' performance*, this being the *general objective* of our research.

In order to achieve the general objective, we established since the beginning more secondary objectives which we are trying to fulfil them, and we think that we succeeded this thing, along this theoretical and empirical research. They are:

Secondary objective 1: Presentation of the requirements regarding the disclosure of information regarding the financial instruments and associated risks through the various scientific, theoretical and normative foundations.

Secondary objective 2: Identification of the main modifications regarding the accounting policies of the financial instruments and which were the main effects on the financial investment companies' performance.

Secondary objective 3: Defining and identifying of different methods of evaluation of risks arising from financial instruments by analysing the financial publication in the field.

Secondary objective 4: Analysis of the financial investment companies' performance from the point of view of the risks associated with financial instrument operations for the definition of methods for determining it.

Secondary objective 5: Determination, identification, and analysis of the impact of risks associated with financial instrument operations on the financial investment companies' performance.

In accomplishing the proposed objectives, we planned our scientific approach in several stages that are reflected in the five chapters of this doctoral thesis. During our research we combined the theoretical and practical aspects of the empirical studies, in order to form a clear picture, a logical structure and an aspect of continuity, starting from clarifying the concepts of financial instruments, risks and performance and ending with the last step: achieving an empirical research to prove the impact of risks associated with financial instruments on the entities' performance. An analysis of the research structure is exposed in the section on synthesis of the main parts of the doctoral thesis.

RESEARCH METHODOLOGY

Scientific studies in the accounting field imply resolving a problem occurred due to the economic context evolution, reconsideration of relations between accounting phenomena and procedures, and continuously renew the existing set of knowledge. The doctoral thesis is structured to go through the entire scientific demarche. Through the fundamental scientific research method, we review the representative literature at the international level in order to investigate the theoretical and practical aspects of accounting of financial instruments. This subject considers the relationship between three elements that represents accounting themes debated through the literature: risk arising from financial instruments, the information presented in the financial statements and entity's performance. Thus, this thesis contributes to the existing body of accounting knowledge by development a new empirical research regarding *risk arising from financial instruments by determining the impact that they have on the financial investment companies' performance*. Our research thus falls into a descriptive, explanatory and comprehensive logic.

The overall analysis is the most common method of research that is carried out primarily by consulting the literature. Knowledge of the field of the research is to be made a fundamental part of any doctoral thesis. By carrying out the work *Theoretical and Empirical Research regarding the Performance of Financial Investment Companies based on Accounting Information,* the following typologies of sources of information were used:

- printed sources of information including monographs, relevant articles from specialised magazines, doctoral theses which approach the same topic, specialty books, the international accountancy standards, the international standards of financial reference and other relevant standards for this research, as well as reference works which approach the topic of risks, financial instruments, and performance. Using these important sources of information, the knowledge of what has been written in the field of accounting, so far, on the topic of risks associated with financial instrument operations and their impact on the performance of entities, is fundamental.
- electronic sources of information which include: specialty databases, journals, magazines and other electronic documents. Taking into account the speed with which the information circulate by means of the internet networks, this source of information becomes essential, and the information through these means is important to know the present stage of development of the research field or the tendencies of this field. Another equally important reason, in order to

justify the use of these resources, is consolidating and testing the ability to choose between the representative materials in the field and materials that present overlaps of concepts in the field.

The complexity and the global economic progress had led to increasing the uncertainty regarding the information around. These elements generate the necessity of investigating the specific phenomena and processes in a constructivist approach, which combines the deductive logic (which implies starting from theory to reach a remark) with inductive logic (which implies starting from a remark to reach the theory). In our theoretical and empirical research, we use the deductive approach starting from the changes in the international conceptual framework to develop various assumptions (hypotheses), which it shows how a specific risk of financial instruments can influence the performance of a company's operating with them.

By definition, the human being is creative, and the doctoral research represents a real opportunity for creativity and originality especially by means of scientific community, of projects of national and international research (Moraru, Bostan, Hlaciuc, & Grosu, 2013, p.420). This doctoral thesis has the purpose of bringing original scientific knowledge, relevant internationally falling within the scientific research.

In order to achieve the objectives regarding the approached topic, we used the methodology of scientific research which harmoniously combines the qualitative and quantitative research, so that their mixture induces a bigger efficiency and quality of the results obtained. The role of qualitative research it is to generate consistent information needed to understand the overall context and deepening of the general context (Chelcea, 2007) of financial instruments allowing outlining key aspects of the researched topic, diagnose the problems and identify the hypotheses for future descriptive research (Lefter, 2004) of the effects of the risks arising from financial instruments on the financial investment companies' performance. Instead, the role of quantitative research is the characterization and quantification of the relevant issues, identified by qualitative methods, being analysed using statistical data, for examination and testing of existing theories or developed using specific methods.

Taking into account the objectives proposed in order to test the hypotheses put forward, we resorted to the analysis of financial indicators by means of an econometric model because we wanted *to introduce the practical substance in the theoretical structures* (Anghelache, Mitruț, Bugudui, Deatcu, & Dumbravă, 2009). The model was created by using the instruments offered by econometrics and it involved three steps, as follows:

- Step 1. Developing the hypotheses

The hypotheses that base the approach of our theoretical-empirical research were proposed following a detailed analysis of the actual stage of knowledge in the accounting field. Thus, developing the hypotheses is dependable on empirical scientific observation of the phenomenon being formulated the following hypotheses:

Hypothesis 1: The investment risk that results from the financial instruments operations will generate a negative, significant impact on the performance of the financial investment companies.

Hypothesis 2: The performance of the financial investment companies may be positively affected by the liquidity risk that results from the financial instruments operations.

Hypothesis 3: The market risk arising from financial instruments will generate a significant, positive impact on the financial investment companies' performance.

- Step 2. Creating the econometric model

The sample selected for testing hypotheses was based on the criterion of representativeness. As the world's total market capitalization represented 55% of European markets, we decided to focus on this area. Thus, there were selected the financial investment companies which operate on a regulated European market. The financial data that we selected for this sample are quantitative and have been extracted from the financial statements of the entities, which have been prepared in accordance with IAS / IFRS.

In order to avoid the problem of multicollinearity and autocorrelation in the empirical research, the variables of risks were not evaluated in one model but were analysed by developing three econometric models. We decided to approach it because we want to observe and investigate the impact of every type of risk associated with financial instrument operations on the performance of the financial investment companies, separately.

Following data collection, we select the variables, and we design the empirical model for each type of specific risk. The model takes the structure and types of variables chosen by the authors of similar studies. First, we define all the variables included in the empirical models. We will continue with the presentation of the specific model for each type of risk arising from financial instruments in order to be tested to verify the hypotheses. Each model includes a dependent variable (Performance - P_{it}), an explicative variable (Investment risk - $InvestmentRisk_{it}$, Liquidity risk - $LiquidityRisk_{it}$ and Market risk - $MarketRisk_{it}$), as well some control variables (Size of the company – $Size_{it}$, Leverage – $Leverage_{it}$, Auditor opinion –

AuditorOpinion$_{it}$ and Audit network - *AuditNetwork*$_{it}$). We include control variables in our models in order to get a more precise answer to the assumptions made and we aim to get more accurate and safer parameter estimation. Even if the control variables are not directly explanatory to the tested hypotheses, their use improves the econometric models. Empirical models are designed after similar models in the literature, and we have adapted and customized them according to our research purposes.

- Step 3. Checking the econometric model

Even if all the results confirm the hypotheses made initial, the results will be tested to verify their robustness and explain the theory from which we started. We validate the models to determine their capacity to remain unaffected to the small and deliberate modifications and to observe if they fit into the same testing parameters. In order to confirm if our results are robust, we modified two specifications of the basic model. The first modification is made with the robust estimator of the standard deviation and the second modification is achieved by redefining the dependent variable (performance). The empirical results and conclusions of the study will be expressed at the end of chapters devoted to empirical research.

Any data analysis is done in two stages. In the first stage will be performing a descriptive analysis and the second stage will be represented by empirical analysis. It is important to use the descriptive analysis because represents the first step to provide an overview of the variables used in the doctoral thesis and it represents the basis for the empirical analysis. The data used in our research will be collected through the international databases. The financial and accounting information will be collected using Thomson One database, and the period under study is eight years. Primary analyses were used such as average value parameter, mean, median and standard deviation of the variables. For the descriptive analysis of the data, we will be using the software STATA 13.0 and Microsoft Excel 2010. Please note that the license of the statistical analysis program STATA 13.0 was provided by the University of Valencia.

THE SYNTHETICALLY PRESENTATION OF THE DOCTORAL THESIS

The doctoral thesis is structured in two parts. The first part is dedicated to the theoretical framework regarding the financial instruments, where we will describe the conceptual framework of international standards and will present the main effects of changing the conceptual framework which has taken place in the last three decades. The second part of the thesis is dedicated to the empirical research, where we developed the three models which are related to the risks arising from financial instruments and we presented the impact they have on the performance of the financial investment companies of the European regulated market. The paper is formed from five chapters, plus the introduction part and the conclusions with the personal contribution and future research directions, following to assure a logical presentation of the problematic, so we include in this structure all the theoretical and practical elements that we considered necessary in order to follow the scientific approach.

CHAPTER 1 THEORETICAL ASPECTS REGARDING THE DEFINITION, THE CLASSIFICATION AND THE ACCOUNTING TREATMENT OF FINANCIAL INSTRUMENTS

The objective of this section is focused on exposing theoretical aspects regarding the financial instruments. The secondary aims of the first chapter are represented by the description of financial instruments from the accounting point of view, as a significant part of the entity; identification of the modalities of recognition and evaluation of financial instruments, and the information that an entity must disclose regarding them. We also studied and presented the way in which different standards of accountancy throughout the world approached the problems of financial instruments. Thus, we chose to approach the particular conceptual limits, focusing on the problems of delimitation and classification of financial instruments in the three categories: financial assets, financial debts, and capital instruments.

Within the free market economy, the impact of financial information on the behaviour of investors is decisive to make the decision to invest capital in an entity. Thus, the influence that the financial instruments exercise on the position and financial performance of the entity represents an important element both for the issuer and the investor, determining, more and more often, the change and the up- to-date of accounting information in order to keep up with the continuing changes that take place on the market.

The chapter begins with a theoretical research of the concept of financial instruments. It starts with the definition of the financial instrument from an accounting perspective and with the presentation of the financial instruments typologies in the vision of the main accounting

referential. The theoretical research is constructed to answer the following questions: what is a financial instrument?, how is classified a financial instrument from the accounting point of view?, which is the importance of financial assets, financial liabilities and own equity instruments for a financial investment company?

In the free market economy, the impact of the financial information on the behaviour of investors is one determinant in the decision to place equity in an entity. Thus, the influence that the financial instruments which exert on the entity's financial position and performance are an essential element for both the issuer and for the investor, causing the increasingly of the changing and updating the accounting information in order to keep pace with the constant changes taking place in the regulated market.

Bearing in account that in the last two decades the accounting of financial instruments has become a more controversial subject we decided to approach and debate upon this issue which in certain contexts becomes problematic. At the beginning of the 90s', the vagueness the legal framework for financial instruments it led to the emergence of new methods of manipulation of information in the financial statements by failing to present of all significant information thereon. The identification of the effects produced by a financial instrument depends on the rights or the obligations of the issuing entity and the legal requirement in implicit or explicit terms to exercise the contract. The entity must recognize a financial asset, a financial liability or an own equity instrument only when the entity becomes part of the contracting provisions of the financial instrument. The subsequent evaluation of financial instruments is achieved after the initial recognition and has in view the criteria of classification of financial assets and financial liabilities, evaluating them at the just value or at the amortized cost.

The last part of the first chapter is dedicated to the analysis of the requirements imposed by the international conceptual framework in matters of presentation of information and disclosure regarding the use of financial instruments. The users of financial statements need information relating to the exposure of the entities to the risks arising from financial instruments and the way in which they are managed by the entities. The objective of the standard IFRS 7 is to impose the entities to present in their financial statements, information that allow the users to appreciate the importance of financial instruments for the financial position and performance; the nature and the extent of the risks that result from financial instruments to which the entity is exposed during and at the end of the reporting period, and the way in which the entities manage these risks.

CHAPTER 2. ACCOUNTING PARTICULARITIES REGARDING THE OPERATIONS WITH FINANCIAL INSTRUMENTS. THE EFFECTS INCURRED ON AN ENTITY'S PERFORMANCE

Given that the financial instruments are relevant to understand the financial statements and have a significant impact on the financial reporting, they should disclose information on: the evaluation bases and accounting policies used in accounting the financial instruments.

The second chapter begins with chronological analyses of the conceptual framework and of the main changes in accounting policies of financial instruments caused by the evolution of the accounting regulatory framework. Having the whole picture of the characteristics and typologies of financial instruments, we determine which the particularities are regarding the operations with them, and how they were influenced by the accounting regulatory framework in the main accounting systems from America (US-GAAP), China (CAS), Europe (IAS/IFRS), India (Ind AS) and Japan (ASBJ). The analysis highlights the importance of identifying, assessing and managing the risks associated with financial instruments operation, from an accounting approach.

The secondary objective that results from the structure of this chapter is to observe the interaction between the requirements of the accountancy of financial instruments and the international conceptual framework. Given that the financial instruments cover an extensive range of financial assets and financial liabilities, the problems of the effects on the performance of the financial investment companies in matters of specific risks is analysed and presented. In this chapter, in order to observe the consequences of risks and to determine their impact on the performance of the researched entities, they were identified, defined and evaluated.

It is certain that the most debated upon the subject in the last ten- fifteen years regarding the field of the conceptual framework of financial instruments refers to the disclosure of information in the financial statements, regarding the risks associated with operations with such instruments. Even if the primary concern of the regulatory bodies was represented by measuring and evaluating the financial assets, the financial liabilities and own equity instruments, the big financial scandals of the world lead to a consciousness of the importance of one of the main attributes of financial instruments - the risks.

A good qualitative and quantitative disclosure must provide references on the extent of exposure to risks arising from financial instruments: credit risk, liquidity risk, and market risk. The credit risk is defined as the risk that one party to a financial instrument will cause a financial loss to the other party by failing to discharge an obligation. the second category of

risk that is defined is the liquidity risk which represents the risk that an entity will encounter difficulties in meeting its obligations associated with financial liabilities which are settled by delivering cash or other financial assets. And the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices is the market risk.

The emergence, the development and the extension of the companies on the capital market represent an important factor for the internationalization of the economic activity, and the applicability of the IFRSs in more than 100 countries, at the international level, facilitates this process. The implementation of the IFRSs resulted from the necessity of a common language between the international companies, in this respect „ accounting is the language of business", and businesses around the world cannot afford to communicate in different languages while they share and exchange financial results (Mirza & Hold, 2011, p.2).

In the second part of the chapter we focus on the analysis of the performance registered by the entities which operate with financial instruments from an accounting point of view, and also through an interdisciplinary approach, taking into account the effects on the performance generated by the operations with this type of patrimonial elements. Along the theoretical research, we insist on the analysis of the differences between the modalities of determination and definition of performance. Taking into account the operational activity specific to the financial investment companies, the approach of the performance strictly from an accounting point of view would have led to an alteration/ misrepresentation of the results of the research, because the way of its determination cannot fully justify the performance generally, taking into account that the risks associated with the financial instrument operations don't interfere directly with the accounting performance.

CHAPTER 3 EMPIRICAL RESEARCH REGARDING THE EVALUATION OF THE FINANCIAL INVESTMENT COMPANIES' PERFORMANCE THAT OPERATES ON A REGULATED EUROPEAN MARKET

If in the first part of the thesis we focused on the theoretical aspects of financial instruments, risks, and performance, with this chapter we aim at arguing the empirical study, defining the variables and validating the proposed hypotheses. This aspect helped us to understand and identify the most important aspects which can contribute to the performance of a financial investment company, and, on the other hand, we analysed and evidenced the main causes and points that can lead to a decrease in performance, because of the arising of risks associated with financial instrument operations.

The third chapter is dedicated to the empirical research regarding the way in which the risks associated with financial instruments affect the performance of a financial investment company on a European regulated market and begins with a review of the literature regarding the definition, identification, and evaluation of the specific risks. Analysing the concept of risk associated with financial instruments operation and the way of how to identify it has led us to address the question of if a theoretical and empirical research it is analysed the specific risks arising from financial instruments in a financial investment company, then how can we define this types of risks? Having the whole picture of the IAS/IFRS, we decided to readapt the concept of credit risk under the name of investment risk, because when we analyse an entity which operates with financial instruments, it is exposed to the risk of default risk because of the other party, so in this case, it is an investment risk. We considered that this approach of the investment risk concept represents a plus for the doctoral thesis, taken into account that this issue is not well known in the financial publication from the accounting field.

Our investigation reveals that when investigating the risks arising from financial instruments, most studies focus on financial institutions, neglecting and other types of institutions: investment firms, insurance companies, non-financial companies, etc. Studies show that the risks arising from the operational activity of an entity can become serious impediments to achieving the objectives and its mission. Sources of origin of the causative factors of risk can be of two types: internal or external. Causative factors of risk can be avoided by correctly diagnosis and prevention strategy well-founded of the companies. An effective management of risks associated with financial instruments implies that a company to "learn" to identify and assess them in order to avoid them. Our analysis highlight that between risk and performance is establishes a direct strong link, especially in the process of managing the portfolio of financial instruments, as is confirmed by the literature: Barna (2008), Fatemi & Fooladi (2006), Qu (2006), Breiteryte & Rumsaite (2009) și Resti & Sironi (2015).

The evolution of the risk management in the last three decades had a significant impact on the way in which they are identified, evaluated and then "eliminated" from an entity. The risk management is a critical business function following which an entity manages it so that it may maximize the value (Leautier, 2007, p.2). The effects of the risks on the market value of a firm can be observed in the previous studies, like: Myers (1977, 1984), Froot, Scharfstein, & Stein (1993), Graham & Rogers (2002), Allayannis, Rountree, & Weston (2006), Jayaraman (2008), Mulier, Schoors, & Merlevede (2014). Also, in these studies we find analysed the

relationship between the risks and the market value of the firm, arguing that the increase of the cash flow may add value to the company. The studies show us that companies that present a bigger volatility of the cash flow encounter problems of insufficient investments type and cannot function under normal conditions.

The theories in the field indicate that the optimal policy of risk management represents one of the main concerns of a financial investment company. In order to test the expressed hypotheses, we divided the risks associated with financial instrument operations that can have an impact on the performance of the companies into three categories: investment risks, liquidity risks, and market risks.

We took into account all the financial investment companies of Europe. The Thomson One database was an important source of information, which offered us data about the following countries (included in the empirical study of this work): Austria; Belgium; Bulgaria; Denmark; Cyprus; Latvia; France; Germany; Greece; Ireland; Italy; Luxembourg; Monaco; the Netherlands; Norway; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey (we considered only the firms that are registered on the European continent); the United Kingdom. The companies taken into consideration are listed on a European regulated market.

One of our objectives was to emphasize the impact that the risks associated with financial instrument operations may have on the performance of financial investment companies. Thus, in the model proposed to be analysed we considered the performance as being dependent variable (performance is defined as a Tobin's Q ratio calculated as a ratio between market capitalization and total assets), investment risks (as a ratio of the difference between the market value of assets and the assets volatility, and market value of assets and book value of assets), liquidity risks (calculated as a ratio between the difference of the standard deviation of total cash flow and the mean of cash flow, and total assets) and market risks (that is calculated as a difference between total cash flow and the product of total cash flow and the ratio of the added value of one plus risk-free rate, and one plus total discount rate) become explanatory variables and the size of the company (natural logarithm of total assets), the leverage (ratio of total debt and total assets), the auditor's opinion (dummy variable of 1 for unqualified opinion and 0 the qualified opinion) and the network of the audit firm (dummy variable of 1 if the audit network is Big 4, and 0 if the audit network is not Big 4) are considered control variables.

As one can see in the descriptive analysis of the collected data, a number of 162 companies were submitted to analysis for a period of eight years, with a distribution of elements for each analysed entity, resulting in a total number of 1,181 observations. The year 2007 was our reference year because the IFRS 7 *Financial Instruments: Disclosure* took effective on January 1, 2007. Starting in 2007, companies were required to disclose additional information about the risk related to financial instruments. The financial items were collected through the Excel add-ins of the Thomson Reuters Report.

The variables were defined and calculated in accordance with the IAS/IFRS, and the financial informational were collected from the financial statements and profit and loss statements. After collecting the Thomson One Database data of 279 companies, we eliminated a total of 117 companies (70 were outside Europe, five had a missing identifier, and 42 had missing data for the variable of interest). Table 1 reports the summary statistics of the interest variables.

Table 1. Statistics description of interest variables

	No. of observation: 1181 (162 entities)					
Variables	Obs.	Media	St. Dev.	Median	Min	Max
Performance	1177	1.766	1.357	0.597	0.052	5.851
Investment risk	1177	0.029	0.738	0	-1.807	2.062
Liquidity risk	1088	0.3709	1.516	0.055	-0.289	13.203
Market risk	1177	1.110	1.100	0	-2.820	8.960
Size	1177	7.581	1.262	7.576	3.357	11.940
Leverage	1172	0.408	0.464	0.306	0.001	3.159
Audit opinion (dummy)	1084	.	.	.	0	1
Audit Network (dummy)	1112	.	.	.	0	1

An average of the distribution of dependent variable can be seen in the following figure.

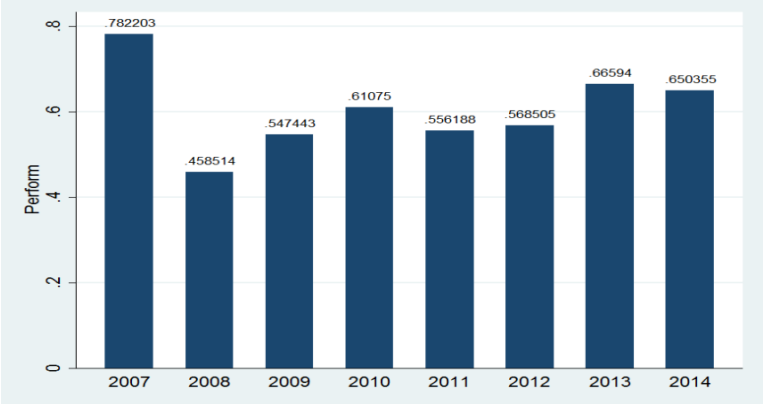

Figure 1. Distribution of independent variable

In order to avoid the problem of multicollinearity and autocorrelation in the empirical research, the variables of risks were not evaluated in one model but were analysed by developing three econometric models.

The first model used, which also corresponds to the first expressed hypothesis of work is:

$$P_{it} = \beta_0 + \beta_1 InvestmentRisk_{it} + \beta_2 Size_{it} + \beta_3 Leverage_{it} + \beta_4 AuditorOpinion_{it} + \beta_5 AuditNetwork_{it} + \mu_{it} \quad (1)$$

The second model used, which corresponds to the second expressed hypothesis of work is:

$$P_{it} = \beta_0 + \beta_1 LiquidityRisk_{it} + \beta_2 Size_{it} + \beta_3 Leverage_{it} + \beta_4 AuditorOpinion_{it} + \beta_5 AuditNetwork_{it} + \mu_{it} \quad (2)$$

The third model used, which corresponds to the third expressed hypothesis of work is:

$$P_{it} = \beta_0 + \beta_1 MarketRisk_{it} + \beta_2 Size_{it} + \beta_3 Leverage_{it} + \beta_4 AuditorOpinion_{it} + \beta_5 AuditNetwork_{it} + \mu_{it} \quad (3)$$

Where, for all three models:

P_{it} = performance of the financial investment companies observed in the current period *t* for the company *i*.

$InvestmentRisk_{it}$ = investment risk of the financial investment companies observed in the current period *t* for the company *i*.

$LiquidityRisk_{it}$ = liquidity risk of the financial investment companies observed in the current period *t* for the company *i*.

$MarketRisk_{it}$ market risk of the financial investment companies observed in the current period *t* for the company *i*.

$Size_{it}$ = size of the financial investment companies observed in the current period *t* for the company *i*.

$Leverage_{it}$ = leverage of the financial investment companies observed in the current period *t* for the company *i*.

$AuditorOpinion_{it}$ = auditor opinion of the financial investment companies observed in the current period *t* for the company *i*.

$AuditNetwork_{it}$ = audit network of the financial investment companies observed in the current period *t* for the company *i*.

The parameter β_0 is a constant and β_1, β_2, β_3, β_4, and β_5 are the associated vectors of coefficients. The last element of the equation is μ_{it}, and it represents the error term, measured

over time and among companies. All three equations are estimated by panel data methodology and do not control for biases in the coefficients because of the explanatory variable endogeneity problems.

CHAPTER 4. ANALYSIS AND INTERPRETATION OF THE EMPIRICAL RESEARCH RESULTS

The fourth section comprises the results of the empirical research, which were obtained by investigating the financial indicators of 162 financial investment companies within a period of eight years. Along this section, we present the three models and the results produced by them, according to the statistical analysis. Initially, the models were analysed first by ordinary least squares (OLS) regression. After having the Hausman test to observe with what type of regression dedicated to the panel type data we can continue, we received the results of the fixed effects regression. The results of the three analysed models can be observed in table 2.

Table 2. The results of the three analysed models

Model I	**Expected sign**	***p*-value**	**Model II**	**Expected sign**	***p*-value**	**Model III**	**Expected sign**	***p*-value**
CR	-	0.000***	**LR**	+	0.001***	**MR**	+	0.046**
LogAssets	-	0.000***	**LogAssets**	-	0.000***	**LogAssets**	-	0.000***
LEV	+	0.000***	**LEV**	+	0.000***	**LEV**	+	0.000***
Dummy_Au_Op	+/-	0.888	**Dummy_Au_Op**	+/-	0.950	**Dummy_Au_Op**	+/-	0.887
Dummy_Au_Firm	+/-	0.998	**Dummy_Au_Firm**	+/-	0.611	**Dummy_Au_Firm**	+/-	0.943
Number of observation		1044	**Number of observation**		969	**Number of observation**		1044
Companies		160	**Companies**		148	**Companies**		160
Within R^2		0.4549	**Within R^2**		0.4330	**Within R^2**		0.4381
Wald test (*F-statistic*)	146.74	(0.0000)	**Wald test (*F-statistic*)**	124.62	(0.0000)	**Wald test (*F-statistic*)**	137.06	(0.0000)
Hausman test χ^2	171.80	(0.0000)	**Hausman test χ^2**	81.29	(0.0000)	**Hausman test χ^2**	157.28	(0.0000)

According to Table 2, we validated the research hypotheses with the help of the fixed effects regression model. The results of the fixed effects regression model, for the three models, show us that between the investment risk coefficient and the dependent variable there is a significantly negative relationship. These results *confirm* the first expressed hypothesis, being validated at a 99% confidence interval. Thus, from the financial investment companies that register a high level of the variable *performance*, one can expect to be in a relationship of

indirect proportionality with the investment risk. According to the carried out statistical analysis, the control variables *the size of the companies* and *leverage* are significant. According to *t*-test, we must give up the dummy variables *auditor's opinion* and the *audit network.*

In the case of the second model, one can observe that there is a significant positive relationship, *confirming* the second hypothesis, at a 99% confidence interval. The results obtained are upheld by the literature. In the case in which the financial investment companies register a high-performance rate, one can expect to encounter difficulties to achieve the financial obligations toward a third party, not managing to discount or to deliver other financial assets or cash. The *t*-test confirms us that the control variables *the size of the companies* and *leverage* are significant, invalidating us the results for the dummy variables.

The third hypothesis is confirmed by the results offered by the statistical analysis of the impact of market risk on the performance of the financial investment companies. The relationship between the dependent variable and the explanatory one is significantly positive. The results in the case of this model are validated at a 95% confidence interval. After applying *t*-test, we observe that the results are also maintained at the level of this model, being confirmed for the quantitative variables, but invalidated for the dummy variables.

The chapter ended by making different tests of correlation of variables and control tests of standard errors to determine if the errors affect the model in a considerable way or they can be monitored.

CHAPTER 5 ROBUSTNESS OF THE EMPIRICAL RESEARCH RESULTS

In this section, we bring additional contributions of "proofs" in order to offer more robustness to the results of the empirical research obtained following the application of the theory according to which the risks generated by the financial instrument operations have an impact on the performance of the financial investment companies of Europe. In order to confirm that the results obtained from the empirical research are robust, we continued by stating two different specifications of the basic model. First, it is possible that the models proposed by us encounter problems regarding the carried out estimations. In the presence of heteroskedasticity, the standard errors of the estimators shift and robust errors must be calculated in order to correct its possible existence. The Wald test determined the heteroskedasticity of the residues for the three regression models with tested fixed effects. The most probable deviation from the homoscedastic errors in the case of panel data is due to the variances specific to the individual. The test shows us that the errors are homoscedastic

within the models and submitted to the heteroscedasticity test, the coefficients behave normally, consolidating the results obtained.

In the second part, we resort to the change of the definition of the dependent variable to observe if the coefficient acts as we expected or if the model proposed encounters problems. The new specification of the dependent variable is recalculated using the definition of the Tobin Q indicator, adding "total debts" to the numerator. Also, after the change of the definition of the dependent variable, we continue with a fixed effects regression (Hausman test formulates this hypothesis), and then we check again the presence of heteroskedasticity in the explanatory variables with the help of the robust estimator of standard errors. In table 3, we can see the results of the fixed effects regression with the specification of the changed dependent variable.

Table 3. The results of the three analysed models with the specification of the changed dependent variable

Model I	**Expected sign**	***p*-value**	**Model II**	**Expected sign**	***p*-value**	**Model III**	**Expected sign**	***p*-value**
CR	-	0.000***	**LR**	+	0.000***	**MR**	+	0.099*
LogAssets	-	0.000***	**LogAssets**	-	0.000***	**LogAssets**	-	0.000***
LEV	+	0.000***	**LEV**	+	0.000***	**LEV**	+	0.000***
Dummy_Au_Op	+/-	0.465	**Dummy_Au_Op**	+/-	0.680	**Dummy_Au_Op**	+/-	0.471
Dummy_Au_Firm	+/-	0.590	**Dummy_Au_Firm**	+/-	0.927	**Dummy_Au_Firm**	+/-	0.552
Number of observation		1044	**Number of observation**		969	**Number of observation**		1044
Companies		160	**Companies**		148	**Companies**		160
Within R^2		0.5146	**Within R^2**		0.5752	**Within R^2**		0.5046
Wald test (*F-statistic*)	186.40	(0.0000)	**Wald test (*F-statistic*)**	220.99	(0.0000)	**Wald test (*F-statistic*)**	179.08	(0.0000)
Hausman test χ^2	401.53	(0.0000)	**Hausman test χ^2**	39.79	(0.0000)	**Hausman test χ^2**	398.10	(0.0000)

The results in the case of the first model are validated at a 99% confidence interval, for the second model of analysis the result confirms at the same level of confidence, and for the third model we can observe a confidence level of 90%. Thus, we can validate all the hypotheses developed in the third chapter, even if we are changing the specification of the dependent variable.

We ended the empirical study by validating the results of the research and capitalizing them by correlating them with the actual economic- financial context.

SCIENTIFIC RESEARCH CONCLUSIONS

The thesis *Theoretical and Empirical Research regarding the Performance of Financial Investment Companies based on Accounting Information* has analysed the topic of financial instrument operations and associated risks from an accounting point of view, as well as from the perspective of the effects generated by the quotation of entities which operate with such instruments in the European regulated markets. The carried out analyses, the tested correlations, calculation and the results obtained through this research are presented and capitalized with the help of the figures, tables, and graphic schematizations. In the last part of the doctoral thesis we synthesized the empirical result and we developed the final conclusions which emerged from the scientific research carried out by us in:

- the conclusions that are drawn from the theoretical part;
- the conclusions that are drawn from the empirical part.

Theoretical research findings

Studies on financial instruments, especially those dedicated to the specific risks, they materialized in the form of scientific articles, books, various academic lectures and international conferences now more than half a century. The increased interest in the topics of financial instruments gradually led to the emergence of an impressive number of financial publications in the literature, where different and divergent aspects of this issue are much debated. Definition and the fluctuation of the accounting treatment of financial assets and liabilities, and theories on financial instruments were topics of research in the accounting field. Our approach aims to bring new scientific contributions to the literature concerning the relationship between the performance of entities operating with financial instruments and risk associated with these operations. The novelty of the theoretical research undertaken has resulted in from the way the financial and accounting disclosure are presented in the mandatory reporting and their relevance from the perspective of the risks arising from financial instruments. In the first chapter, we have examined in detail the provisions of the IASB on financial instruments. This analysis aimed at understanding the accounting treatment of financial instruments in order to investigate the risk associated with them. The first chapter provides a thorough understanding of the concept of financial instruments, of their typology and relevance of disclosure on financial assets, financial liabilities and own equity instruments.

History and historical sources are a major source of information for understanding past events. The second chapter begins with a chronological analysis of the accounting regulations and the significant changes occurring on accounting policies for financial instruments. The analyses underline the main changes that happened in the accounting referential IAS/IFRS and the way of how this affected the recognition and evaluation of financial assets, financial liabilities and own equity instruments in the last thirty years.

In the second part of the chapter we focus on the analysis of the performance registered by the entities which operate with financial instruments from an accounting point of view, and also through an interdisciplinary approach, taking into account the effects on the performance generated by the operations with this type of patrimonial elements.

We conclude that the way of identification and assessment of risks arising from financial instruments have an impact on the way how they are managed, especially from the accounting point of view. After analysing the IAS/IFRS accounting referential and the way of how the risks are defined, and taken also into account that our empirical study is based on the financial investment companies, we decided to readapt the concept of credit risk under the name of investment risk.

Empirical research findings

We considered that we explored the conceptual framework enough to be able to proceed towards what we believe was the most challenging part of the paper, the empirical study. The empirical research that has been performed in this thesis, it was organized around a system of hypotheses that have been subject to validation or invalidation based on analysis of results of the calculated regression. The results of testing the hypotheses are presented in table 4.

Table 4. The hypotheses and their validation or invalidation

Hypothesis	**Validation or invalidation of hypothesis**
H1: *The investment risk that results from the financial instruments operations will generate a negative, significant impact on the performance of the financial investment companies.*	Validated
H2: The performance of the financial investment companies may be positively affected by the liquidity risk that results from the financial instruments operations.	Validated
H3: The market risk arising from financial instruments will generate a significant, positive impact on the financial investment companies' performance.	Validated

First hypothesis validation results show that the influence of investment risk is significant, and its effects on the performance of financial investment companies from Europe are negative. Thus, the successful financial investment companies on the European regulated market may be predisposed to negative effects of this type of risk. Consequently, the financial investment companies on the European capital market may register a level of investment risk which evolves indirectly proportional with the performance of these entities.

The validation of the second hypothesis proves us that the coefficient of the liquidity risk is strongly significant, from a statistical point of view, and has a positive effect on the performance of the financial investment companies. If a financial investment company has a high level of performance on the capital market, then, there is a significant probability that it encounters difficulties in fulfilling it's financial obligation. This is due to the transaction of assets with a high degree of liquidity on the capital market, and the financial investment companies must „protect" these assets. Thus, the financial investment companies have to elaborate different strategies for managing this type of risk, taken into consideration that its effects will be observed in the cash flow, there are likely to encounter difficulties as entities with its liquidity.

The empirical research confirms us the third analysis, indicating us that the coefficient of the market risk is strongly significant, from the statistics point of view, and the influence of its effects are positive on the performance of the financial investment companies. We can observe that in the case of the first two models the confidence interval awarded is 99%, the results obtained for the third model demonstrate a 95% confidence interval, that was expected to take into account the multitude of the macroeconomic factors that influence the market risk.

To be sure that our results are robust, the last part of the thesis was dedicated to confirming this aspect. Heteroskedasticity testing by introduction of the robust estimation of standard deviation and changing the specification of the dependable variable, can let us to state that we can accept the assumption according to which our models are robust at a confident level of 99% (in the case of the first two models) and 90% (in the case of the last model). We note that we did not find statistical significance by introducing the dummy variables in the econometric models, both in the case of when the analysis is done, or when the robustness of the models is checked.

We conclude that the doctoral research results are relevant and meaningful by content and can be a benchmark for other studies, analyses, papers or projects which will have as spectrum investigate the effects of risk on the performance of companies.

PERSONAL CONTRIBUTIONS

Any research work, irrespective of its complexity, must have a „raison d'etre", that of bringing an added value to the research field, either we discuss accounting as a study subject, or as practice in the business entities. We believe that our research results are a relevant information basis and a starting point for assessing and quantifying the impact of risks associated with financial instruments operations (without pretending that we managed to adequately cover this area), and it can be extended to other measures of performance, profitability or yield.

In the first chapter, we defined the concepts of financial assets, financial liabilities and equity instruments, identifying the different approaches in the primary accounting referential. As well, we analysed the accounting policies and options applicable to the financial instruments, sketching the steps to be followed for identification, recognition, measurement and presentation of them. It will be noticed that in the chapter, for a better understanding of the concepts, of the various clarifications, rules or regulations, was often used to map in the form of figures and tables just for a better understanding of them.

In the second chapter, through the chronological analysis of the evolution of the normative accounting framework, we proved how the main changes in the accounting policies and options applicable to the financial instruments affect the way of evaluation and recognition of them, and how this issue is still debated in the financial literature.

The third chapter was dedicated to a literature review in order to establish the bases of our empirical research regarding the impact of the risks arising from financial instruments on a financial investment company's performance. Thus, we considered that the significant personal contribution it can be observed in the way of how we formulate the hypotheses, where was questioned and debated the problematic of the credit risk. Here, we analyse if in the case of an entity which operates with financial instruments we can talk about a credit risk or an investment risk, especially that the main operating activity of them is to hold financial instruments exclusive for investment purposes.

The significant personal contribution it can be found in the last two chapters of the doctoral thesis, were we made detailed analyses regarding the impact of risk arising from financial instruments on a financial investment company' performance, and we prove the robustness of the empirical research results. Through the results obtained within the research, we demonstrated that a financial investment company can manage and control the risks

associated with financial instrument operations in order to increase the level of performance. Thus, one can elaborate different strategies of risk management in order to „produce antibodies" in the zone possibly affected by it. A second aspect which results from the carried out analysis that we consider very useful is the possibility to prevent the future currency losses in the context of the activity of the entities that operate with financial instruments.

The models can be extrapolated and applied also in the case of companies that operate in similar fields of activity and at the same time, we can resort to a comparative analysis between the entities of type: insurance companies, real estate investment companies, and other financial companies. Actually, this aspect constitutes one of our future research directions.

A plus offered by this thesis we considered to be the fact that we managed to achieve a model for each specific risk associated with financial instrument operations, offering to the financial investment companies the possibility to understand to what extend their activity could be affected, in order to help the accounting and management practice to identify new methods of estimation and control of risks. We also believe that the sample size is another strong point of this thesis. Although the empirical research was carried out at the European level, we believe that the study can be replicated by other researchers from other continents where IAS / IFRS is applicable.

FUTURE DIRECTIONS OF RESEARCH

This doctoral thesis may be read by different categories of readers-users represented by researchers, the academic community, professors, doctoral candidates, students and people interested in the study of economic sciences.

From the foregoing, we consider that this research work may become a subject of interest for the financial analysts, regarding the environment in which the risks, taken into account along the work can affect the performance of the companies where they work. Given the high interdisciplinary character that this work requires, the thesis can represent an interesting point of view also for those interested in the finance field in order to establish new ways of estimation and prevention of the risks arising from financial instruments.

Another norm that we want to focus on in the future refers to the analysis of other fields of activity of the companies in Europe. Studying the relationship between the two concepts (risk and performance) can be achieved from the point of view of the stochastic models in order to determine exactly the internal and external factors that influence the variables by applying the calculations of probabilities to the results obtained.

Another method of analysis of the relationship between the risks associated to financial instrument operations and the performance of an entity can be achieved through the DID statistic method (difference in differences), method that tries to imitate an experimental research design using observational study data, by studying the differentiated effect of a treatment on a „group of treatment", compared with a „control group" in a natural experiment.

A high interest subject represents the analysis of the impact of risks generated by financial instruments operations on the accounting performance of an investment company, performance measured as a difference between the total income and total expenses.

We also find interesting the idea of a future research on the types of computer programs that should be achieved by the IT companies for the accountancy firms, in order to interact in the digital environment with their clients and to offer them consulting agency regarding the identification, evaluation and solution of risks associated to financial instruments operations.

Another research perspective that we can identify is referring to an extension of the empirical research by increasing the sample, in all countries that prepare financial statements in accordance with the rules and regulations of IAS/IFRS. Also, there can be extend the period for the study sample, so a comparison can be made between the significance and impact of the specific risks arising from financial instruments on the performance of financial

investment companies, that had before the publication of IFRS 7 *Financial Instruments: Disclosures* and after adoption of the standard.

We believe that the advantage of the thesis is that can generate new insights for future research directions by including new factors in the study, new variable, or redefining the existing variable, not be limited to a particular aspect.

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