

**“ALEXANDRU IOAN CUZA” UNIVERSITY IAŞI  
FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION  
DOCTORAL SCHOOL OF ECONOMICS  
FIELD ACCOUNTING**

**ABSTRACT**

**DOCTORAL THESIS**

**DECISIONAL OPTIMIZATIONS BASED ON THE SYNTHESIS AND  
ACCOUNTING REPORTING DOCUMENTS**

**Scientific coordinator,**

**Prof. PhD. Emil HOROMNEA**

**PhD student,**

**Ec. Alexandra-Daniela SOCEA**

**2012**

**RECTOR**

*Ms/Mrs:* .....

We inform you that on **September 29, 2012, 10.00, Room R502**, Miss **Alexandra-Daniela SOCEA** from the Faculty of Economics and Business Administration will sustain, in public, the doctoral thesis entitled "**Decisional optimizations based on the synthesis and accounting reporting documents**", in order to obtain the scientific title of Doctor in the fundamental field of Economic Sciences, **the doctoral field Accounting**.

The special committee shall be composed of:

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We transmit you the abstract of the thesis and invite you to attend the meeting of sustaining the thesis. The thesis may be consulted at the Library of the Faculty of Economics and Business Administration.

## ***Introduction***

The PhD thesis entitled “*Decisional optimizations based on synthesis and accounting reporting documents*” represents an interdisciplinary research that combines elements of accounting, financial and economic analysis, financial diagnosis, management, decisional modelling and optimization.

Specialized literature on subjects in the area of decision making and use of information is multidisciplinary, covering areas such as management, social sciences, information technology, neurology, including human psychology. As a consequence, *the fact that we are still far from an agreement on the mechanisms of the decisional process or on the best way to support decisions is not surprising at all.*

The work addresses theoretical and practical aspects concerning the optimization of the decisions based on the information provided by the synthesis and accounting reporting documents. By the theoretical foundation scientifically argued, our research aims to valorise the information contained in the annual financial statements, in order to optimize decisions. In order to treat it in a timely and logical manner, the work follows the way in which the information offered by the synthesis documents is valorised through the economic and financial analysis. The approach is completed by developing the company’s financial diagnosis and by formulating the decisions regarding the optimization of the financial and economic activity.

Our approach is *based on a variety of the latest bibliographic sources* both in country and abroad. The numerous representative studies and articles used anchor this approach in the actuality of the research.

### ***The objectives of the research and motivation of choosing the topic***

The decisions’ optimization is one of the current concerns of specialists in the field. Undoubtedly, faced with a new problem, any manager wishes to choose the best solution among several possible alternatives. Certainly, the quality of the decision and, implicitly, the efficiency of the action depend essentially on knowing the situation. The latter includes a part of the answer to the problem and partially predetermines the choice of the solution. Thus, under the conditions imposed by the need to implement an efficient management, we consider that ***the research topic is important and of great interest.***

Our research *aims to optimize the decisions based on synthesis and accounting reporting documents, as situations that reflect the financial position and performance of the company.* To achieve this goal, we have chosen a structure in five chapters.

### ***Approaches and methods used***

The research methodology used in this paper is based on a comprehensive and interdisciplinary approach, the research being conducted in *two directions:*

➤ *The first part of the thesis includes a fundamental research of the evolution of accounting and of the theory concerning the synthesis and accounting reporting documents using a regulatory technique.*

➤ *The second part of the thesis includes an applied research of positive type.* The research of the theory is extended with an empirical-analytical research of the way in which the financial position and business performance of the company may be determined, based on the synthesis and accounting reporting documents.

## CHAPTER I

### ACCOUNTING – A SCIENCE IN CONTINUOUS EVOLUTION

The fundamental and applied researches that shape a vast specialized literature reveal the ability of knowledge, foresight and utility of the accounting within the economic area. By the means of rigor and discipline, the accounting arranged the economic life, directing it towards profitable alternatives and cultivating the sense of trust in business, thus contributing to the establishment of the economic balance. For the efficient management to be effective and operative in exercising its functions, it appeals to the multi-dimensional information of the accounting. These are the arguments that have led us to make, in the first chapter of the work, an overview of the history of accounting. We considered, in the same approach, that a presentation of the representative stages in the development and progress of accounting constitutes an essential condition to enter the depths of its approach and to understand the meanings of its vast domain of knowledge.

Among the “moments” with an undeniable contribution to the evolution and spread of accounting are: the introduction by Leonardo Pisano of the method of the arab figures, *“modus Indorum”*, in his book *“Liber Abaci”* (1202), and also the act of “nattus officiale” of the first work of double entry accounting system (1494). The latter is the most important work of the scientist mathematician Luca Paciolo, *“Summa de arithmeticā, geometriā, proportioni et proportionalitā”*, in which he describes the classical venetian method *“scrittura doppia”*. The subsequent emergence of the Italian, French and German accounting schools marked the true dimensions of Paciolo’s influence and the accounting itself, providing convincing examples about the flexibility and the adaptive power of this science.

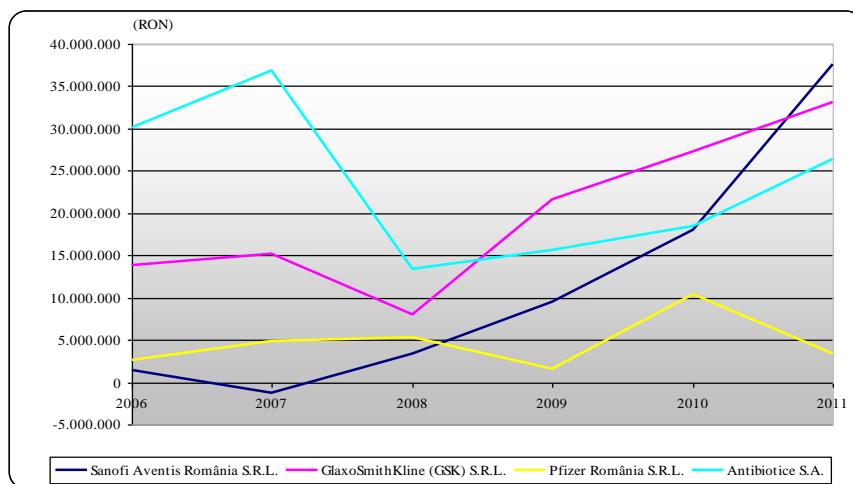
The increasing globalization of capital markets imposes the use, at international level, of a unique language in accounting. As the accounting practice and theory confirms, the accounting’s evolution is characterized by three major phenomena, namely standardization, harmonization and convergence. The current concerns in this field focus on the creation of a unique accounting referential, given the need of using a harmonized terminology, an international accounting language, including the comparability of the annual financial statements of companies of different nationalities. In other words, it is *the need for universal in accounting*. Within this complex process several regulatory and professional bodies are working hard. Recent developments have determined the passage from the approach in abstract and distant terms to that based on concrete and close. *The conversion towards IFRS is inevitable, “if” being replaced by the much more relevant “when”*.

## CHAPTER II

### COMPANY'S MANAGEMENT IN CONNECTION TO FINANCIAL- ACCOUNTING INFORMATION

In the conditions of the market economy, the efficiency of any enterprise depends essentially on the ability of managers to understand and apply the principles, methods and modern management techniques. The quality of the management act is a vital condition for firms to obtain competitive advantages and to survive in the competitive mechanisms. The previous statement is even more important as, in the last years, it has been shown that the main factor of the bankruptcy of a company is the incompetence of managers and management errors due to mistakes in decision-making. *Efficient management is required, which means competence and rational decisions.*

For some fields, the transition to IFRS presents both unique and complex challenges, as in the case of the pharmaceutical industry, in the top sectors that invest in research and development. In this chapter, we proceed to a presentation of the evolution of the pharmaceutical market, at global, european and national level. In order to achieve a comparative analysis in space of the evolution of the leading companies in the international market of medicines, we considered the financial results registered at national level by Sanofi-Aventis, Pfizer, GlaxoSmithKline and Antibiotice Iași for a period of six years.



**Figure no. 1. The evolution of the turnover of the top pharmaceutical companies in the period 2006 – 2011**

As a result of the analysis, we determined that, although it is not supported by an international profile group, the company S.C. Antibiotice S.A.

competes with the major international companies in terms of turnover and profit recorded (see Figure no. 1).

The approach, in the same chapter, of the theoretical premises of decisions' foundation represents an essential condition for treating the decisional process within the pharmaceutical company. In the foundation of the economic decisions, the financial-accounting information has a very important role. Expression of the position and of the financial performance of a company, the financial-accounting information gives the manager an understanding of the past, information about the present and a prediction of the future.

### **CHAPTER III**

### **COMPANY'S FINANCIAL POSITION AND PERFORMANCE EXPRESSED THROUGH THE SYNTHESYS AND ACCOUNTING REPORTING DOCUMENTS**

Due to the disappearance of the trade barriers and the intensification of the international economic competition, the macroeconomic data and the general information are no longer sufficient for decision making. The attention is directed towards specific information about the companies in the area of interest of the investors. Especially since the synthesis and accounting reporting documents constitute an important tool in the adoption of the economic-financial decisions of the organization's management. We appreciate that there is no right decision without a prior informing of the same manner.

Accounting's performance criterion is the true and fair view, the extent to which it renders the objective reality, through comprehensive and relevant information about economic facts and processes that may be expressed by monetary standard. It is the expression of truth and ethics in accounting. Not few times however, the achieving of this objective confronts with the temptation of manipulation of the accounting information. The "creativity" of the accountant appears thus as a source of distortion, designed to provide the "desired image".

The auditors are those who control the accounting freedom that the company has, with the aim to maintain it on the not really narrow track of an acceptable practice, from legal and social point of view. They are the ones who guarantee, in the end, the truth contained in the synthesis and accounting reporting documents. After all, the "real" accounts are the accounts "certified" by the auditors with reference to the rules issued by the professional bodies.

Accounting always tends to "the true and fair view" performance desideratum and what realizes is always "a true and fair view" since there are many possible truths. Although in the development of the accounting image of a company there are more parties involved, the accountant professional continues to fulfil a key role in producing and reporting financial information.

## **CHAPTER IV**

### **THE VALORISATION OF THE INFORMATION CONCERNING THE FINANCIAL POSITION AND PERFORMANCE IN THE COMPANY'S MANAGEMENT**

This chapter contains a fundamental part of the research regarding the economic-financial analysis of the synthesis and accounting reporting documents. The documentation conducted at Antibiotice Iasi made possible a detailed presentation of the financial position and performance of the entity in terms of each synthesis and accounting reporting document for a period of ten years (2002 – 2011).

Following the conducted investigations, we have identified, on the basis of the specific methods, techniques and procedures, a series of difficulties or shortages in the financial evolution of the Antibiotice company. Among these are included: the decrease of the income's profitability, the decrease of the turnover speed of the current assets, the negative trade margin (2011) in relation to the turnover, due to a high level of trade discounts granted and the capacity of self-financing, which has increased at a lower rate compared with the turnover (2003, 2008 and 2009). To these are also added the net result that has met, in general, a lower increase than the turnover, the reduction of the weight of current assets in the total asset and of the result of exploitation in the gross surplus, the diminution of the result in exploitation caused by the increase of the financial expenses, the advancing of the net financial profitability rate by the net economic profitability rate, starting with the year 2007, which resulted in a negative and in decline net financial leverage.

Based on the profit and loss account of the company S.C. Antibiotice S.A., we have determined the evolution of the intermediate management balances concerning the company's operating activity (Figure no. 2) during the ten years.

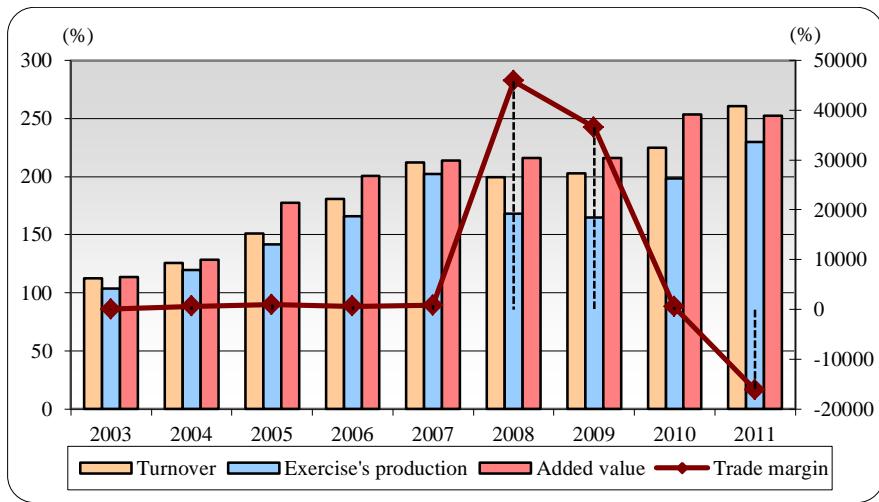


Figure no. 2. The evolution of the intermediate management balances concerning the exploitation during the period 2002 – 2011

The profit and loss account allows the evaluation of the company's performance, by establishing the connection between the intermediate balances of economic activity and the results flow, having as starting point the added value (see Figure no. 3).

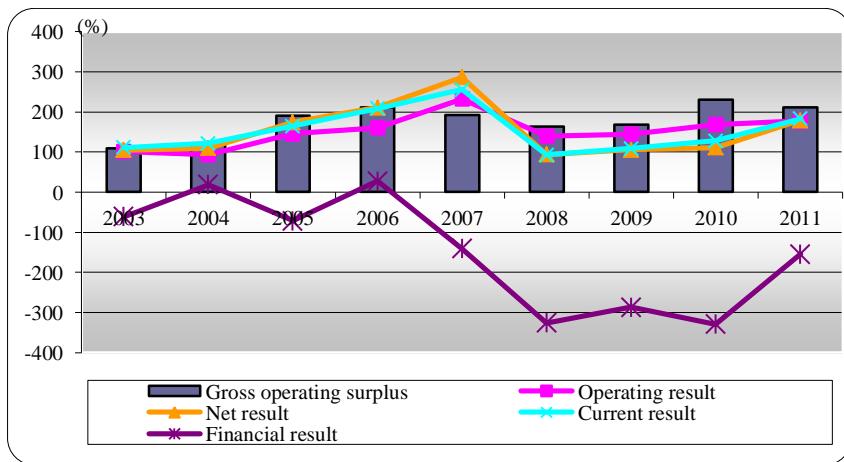


Figure no. 3. The evolution of the intermediate management balances concerning the profitability during 2002 – 2011

Taking into account the results of the economic-financial analysis over the ten years, we consider that the enterprise is in a classic financial balance, relatively stable. The net treasury was negative and registered a descendent trend during the

ten years (see Figure no. 4). This means that the enterprise emits a positive working capital, namely its permanent resources cover on a whole the immobilization fees, but does not allow the financing but for one part of the necessary of the working capital. The company's resources are thus insufficient to fully cover the needs, reason why the organization resorts to short-term loans. Since these loans have become a permanent element of the financial stability of the company, they no longer present any restraint on the part of managers, threatening with the installation of a structural imbalance.

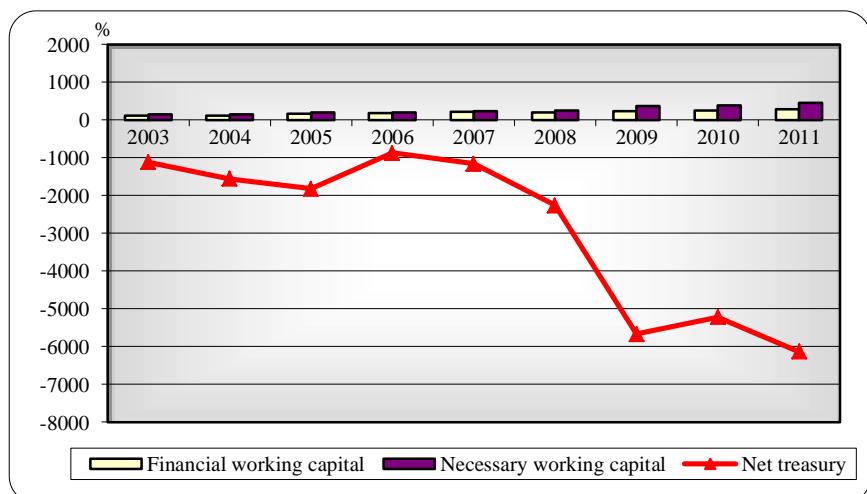


Figure no. 4. The financial stability of the company during the period 2002 – 2011

Self-financing constitutes a resource available to the company by the presence of the company's capitals, whose absence would lead to the imbalance of the balance's structure. In the case of the enterprise S.C. „Antibiotice” S.A., the indicator registered, in general, an increasing trend (see Figure no. 5). We specify that self-financing must cover totally or partially the financial necessities generated by the growth investments and straighten of the necessary working capital. It is very difficult to assess the optimal level of self-financing, since it depends on the objectives of the company. However, it is possible to implement some measures to increase its level.

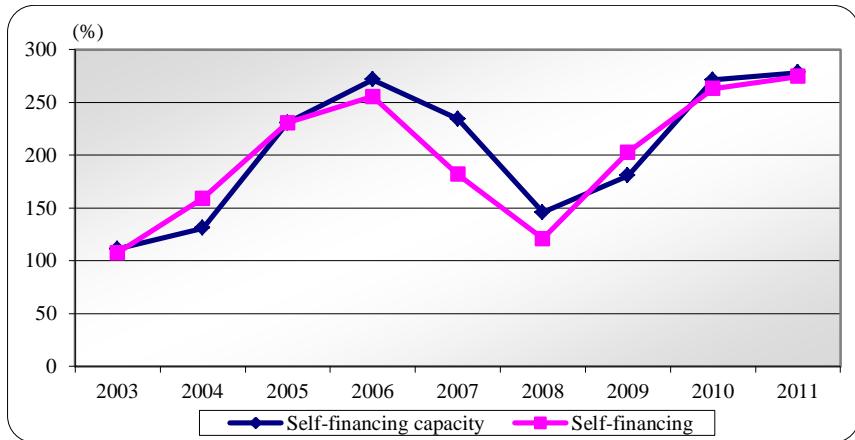


Figure no. 5. The evolution of self-financing capacity and self-financing in the period 2002 – 2011

Following the conducted research, we have identified several risks faced by the S.C. „Antibiotice” S.A. pharmaceutical company, respectively the decrease of prices because of the exchange rate movements, difficulties in providing the necessary cash-flow for the progress of the activity, because of the extended payment terms, which determines resorting to loans, the increasing development of the original products, the reunification of some hospitals, the decrease of the number of beds, according to the program initiated in 2011 at national level. In addition, the results obtained after the calculation of the leverage coefficients of S.C. „Antibiotice” S.A. company, revealed the increased economic risk and total risk, generated by the increasing of the fixed costs.

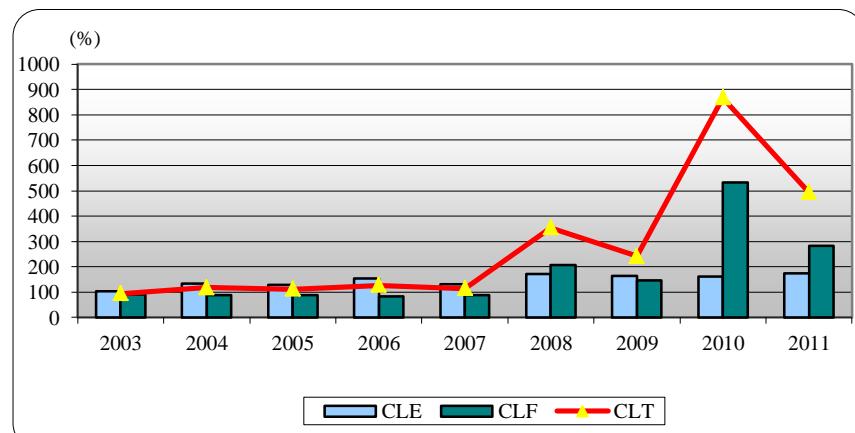


Figure no. 6. The evolution of the leverage coefficients during 2002 – 2011

We mention that the highest risk to which the company S.C. „Antibiotice” S.A. has been subjected during the ten years has been the diminution of liquidities. Based on the data from the company’s financial statement, we determined the evolution of the liquidity ratios during the ten years (Figure no. 7).

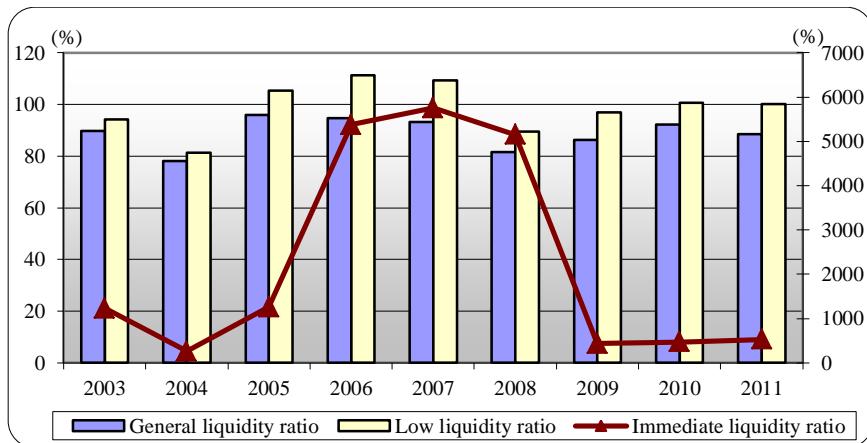


Figure no. 7. The evolution of the liquidity ratios during 2002 – 2011

The business environment is constantly facing new challenges. The constant pressure exerted by the factors which both determines and conditions it has led to the increase of the complexity degree of the economic-financial activity performed by companies. All these have profound implications on management, who can no longer base their decisions only on the empirical knowledge and on a purely pragmatic approach of reality. It is required a more complex approach to enter into the essence of the phenomena, in order to know the past performances, the cause-effect relations and future activity orientation. An efficient management will proceed to a careful analysis of the data of the problem, in order to base its decision on a comprehensive knowledge of the situation, which will considerably increase the chances of success of the action.

## **CHAPTER V**

### **DECISIONS AND MODELS OF OPTIMIZATION OF THE ECONOMIC-FINANCIAL ACTIVITY**

Managers are interested in the further development of the company, the projected financial situations proving thus their utility by providing some information on the future behaviour of the assets elements, of the debts and own capitals of the organization. For the image projected to be complete, we proceeded to the realization of the SWOT matrix of the enterprise. We consider that this type of analysis contributes essentially to the creation, adaptation and strengthening of the organization's strategy. A special place is given in this chapter to the optimization of the decisions based on the financial-accounting information. Starting with the difficulties and shortages which the company faced during its financial development, we proceeded to formulate some proposals and recommendations to optimize the entity's activity.

We appreciate that the efficient management of the treasury requires a synthesis of all the financial problems that the company faces. Taken into account the fact that the negative evolution of the treasury was mainly due to the short-term bank loans, as shown in the results of the economic-financial analysis and in the correlation analysis, we have developed a series of proposals on the modalities in which the enterprise may reduce their levels: the increase of the own resources, the increase of profitability, the augmentation of the financial debts by negotiating a long-term loan, the reduction of financial assets, the inventory diminution, the decrease of the rate of uncertain customers, the optimization of the balance between cashing and payments, the comparison of the investment alternatives on short term of the treasury surplus, the evaluation of the various sources of short-term financing, as well as the selection of the means of payment depending on the needs of the organization. All these measures will lead to increased profitability and increased financial autonomy of the company.

In the same chapter, we paid special attention to the risks that Antibiotice company faces constantly, highlighting a number of solutions to reduce their negative effects, among which we mention: the implementation of some measures to reduce the financial exposure, inventory optimization, ensuring a correlation between imports and exports, keeping the operational costs to a minimum level, the implementation of some efficient strategies concerning the supply with quality raw materials at reasonable prices and in due time. In addition, it is also necessary to reduce the fixed costs and resort to disinvestment, in order to reduce the economic risk.

To reduce the risk of liquidity diminution, we developed a series of recommendations for increasing the weight of the export in the turnover, the increase of profitability of the operating activities, the participation in a greater manner of the assets to the economic circuit, the implementation of an efficient

strategy regarding the storage network and the decrease of the average exposure on customer. To these, we also add the on-going monitoring of the terms of collection from customers and payment due dates, including the evaluation of the business expenses, in order to reduce or eliminate those that are not essential, the increase of the weight of the current assets in the total asset and the results of operations in the gross surplus, the increase of the profitability of own capitals, which will allow finding new capital in the financial market to finance the company's growth.

## ***Conclusions***

We ascertain that, on its historical past, the need of accounting was felt in all ancient people. It made possible the systematization, analysis and interpretation of the events related to the economic activities, constantly adapting to the new requirements corresponding to each stage of development of the human society. Undoubtedly, from the first annotations with accounting significance to the advanced models of current accounting, the “science of the accounts” essentially contributed, by its functions and its pragmatic character to the appearance and consecration of the „homo economicus”.

Clearly, the efforts taken towards the accounting convergence at global level have led to significant progress. However, the objective of a unique referential still remains a goal. We keep in mind that many countries are outside the harmonization process, and between the two sets of standards, U.S. GAAP and IFRS, there are still significant differences. Moreover, issue continue to occur, the differences among the regulatory bodies is still a reality that no one opposes to.

Worldwide, the top pharmaceutical corporations lead, with ambitious expansion plans, as confirmed by the numerous fusions and acquisitions that took and take place between the originator companies and generic producing companies. U.S. companies dominate the global pharmaceutical market, among the top ten companies in the world, five being American companies. On the other hand, in the emerging economies it is registered a rapid growth in the market and in the research field, which causes a migration of the economic activities and research outside Europe to these markets in rising. The market in Romania presents an increased attractiveness among foreign investors, the evidence being the ample movements of takeover of local producers by the large groups.

We appreciate that, in order to make the best decision of several possible alternatives, it is necessary to know how to get to the final choice, the steps taken and taking actions to optimize them. In reality, the events and transactions take place with a much higher speed. In such circumstances, the decision maker does not have the time to analyse each phase. However, by being aware of the steps to follow, the decision maker will be able to initiate in advance amelioration actions. We believe that currently the decision results from an interpretable, multi-rational procedure, with a multitude of simultaneous finalities.

In our opinion, the success of a company is subject to the reciprocal interactions between the economic, social and environmental factors, which permanently influence its evolution. The accentuation of competition at international level determined the appearance of responsible organizations. We consider that the achievement of the financial objectives is no longer sufficient and that the companies must adopt on their own initiative a responsible attitude towards the environment in which they operate. We conclude that the performance of a

company is at the intersection between economy, efficiency and efficacy. By combining these variables, the performance level of an enterprise is determined.

The true and fair view, though considered a fundamental objective, is often regarded as an unattainable ideal. This is understandable in an environment where the truth hardly finds its way through frauds, errors, manipulations and cosmetizations. However, it is not acceptable. It should exist an approach for identifying and removing the negative influences. The accountant professional should contribute fairly to build this image, on ethical, moral and legal grounds. Nonetheless, the financial audit must contribute to the validation of the true and fair view .

Under the current conditions, the slogan “rules were made to be broken” is among the “principles” followed by companies in business management and is about time for the independence, integrity, objectivity and professionalism of the specialist who produces the accounting information to enter the stage. Essential for the health of the economic environment, these values lead to truth and to the true and fair view, generating credibility to the business partner.

As a whole, our research emphasizes the essential link between company's management and the accounting's relevant information. The valorisation of the informative potential is not a matter of choice, but an imperative for maintaining the entity in terms of efficiency.

The economic information is present in all fields of activity, representing an essential element of progress. We believe that in the context of the market economy and the increase of its complexity degree, it needs to develop properly as area, content, including operability, in order to supply the elements necessary to decision making and accurately reflect the patrimonial situation of enterprises, respectively the results of the economic and financial activity. The efficient use of the economic information may be achieved only in an economic informational system, where accounting is a basic component.

The managers' decisions are influenced by a variety of economic, financial, social, psychological factors, which action together to identify the solution to solve a problem. To suppose that some of them have less influence or to attempt to eliminate them, it would provide only a distorted image of the real situation. We may however suppose, and usually this is the way it happens, that depending on the case, some factors have more or less influence. As a result, the decisions made within a company and, with predilection, those that have an important influence on the future evolution of the entity are based largely on the information that describe the financial position and performance of the enterprise. Optimizing such decisions involves actually the valorisation of that information, in order to identify and assess the influence of each part on the whole, including the optimal proportion to ensure the balance at the company's level.

The PhD thesis entitled *“Decisional optimizations based on synthesis and accounting reporting documents”* represents the result of comprehensive and

laborious research, in which we approached complex problems, we sought solutions and identified proposals and relevant recommendations, leaving room also for the future approaches.