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**EDITORIAL OFFICE OF OECONOMICA:**

Teodor Mihali str. no. 58-60, s. 231, 400591 Cluj-Napoca,  
Phone: 0040-264-41.86.52, [oeconomica@econ.ubbcluj.ro](mailto:oeconomica@econ.ubbcluj.ro),  
<http://studiaoconomica.ubbcluj.ro/>

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## FROM MANAGEMENT ACCOUNTING TO STRATEGY EXECUTION AND SYSTEMS THINKING: THE BALANCED SCORECARD (R)EVOLUTION AND NEW RESEARCH AGENDA

**Aurel BRUDAN\***

University of Melbourne, Australia

**Abstract.** The Balanced Scorecard (BSC) emerged as a highly regarded management concept, witnessing rapid global adoption. It became a key driver of the performance management revolution that took place in mid 1990s and it continuously evolved from its management accounting to become a management system supporting strategy execution. However, initial promises were only partially fulfilled and the value added by implementations is under expectations. The unique characteristics of the concept - continuous evolution, confusing literature and ambiguity - make the BSC misunderstood and misused. Future research needs to clarify the nature of the BSC and its role in organisations. The assumptions made are that the BSC is a management tool, with a polyvalent role that can be integrated in various organisational management systems. Overall, the crystallizing function of the BSC is perhaps the most valuable contribution to management, as it can provide structure and clarity in the fluid and complex business environment of today. This conceptual paper explores the evolution of the BSC and proposes new directions in the area of management accounting research.

**JEL Classification:** M19, M29, M40

**Keywords:** gender occupational identity, economic development, occupational specialisation, Romania, Slovenia

### **1. Introduction : Promising concept, wide adoption, limited results**

The Balanced Scorecard (BSC) emerged in early 90s as new management concept and was immediately embraced by both the academic and corporate world. Over the last ten years, the potential of this concept has been recognized in various forums. In 1997 Harvard Business Review considered that the BSC was by one of the most influential ideas of the twentieth century (Calabro, 2001). The American Accounting Association has given it an award as the best theoretical contribution in 1997 (Norreklit, 2003), while other renowned academics recognized

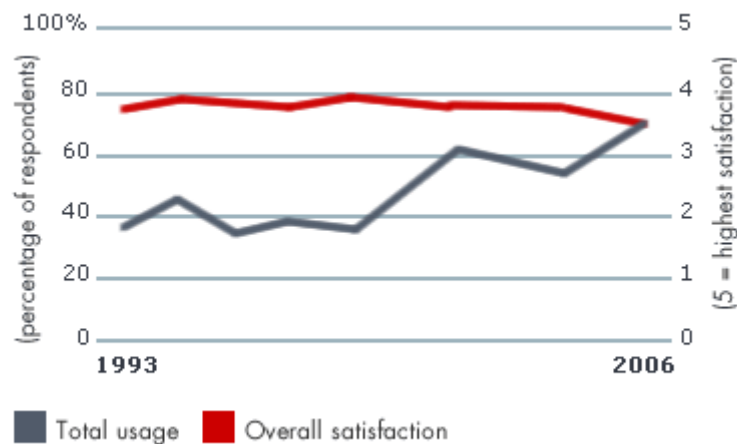
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\* Adress: eab group, Level 27, 120 Collins Street, Melbourne, Australia, 3000, E-mail: aurel@eabgroup.com.au and a.brudan@pgrad.unimelb.edu.au

it as one of the major innovations in performance management (Ittner & Larcker 1998, Otley 1999, 2003, Andon, Baxter & Mahama 2005).

The uptake of the BSC in a relatively short period of time is quite impressive. The Balanced Scorecard Collaborative (the initiators of the concept in 1992), claim that according to Bain & Company by 2002 the BSC was already used by half of the Global 1000 companies (Calabro, 2001). Also, according to Dave Norton (quoting Bain & Co. figures) between 40 and 45 percent of the Fortune 1000 companies in Europe are using this new concept, while in Australia, local research show estimate the rate of adoption at 35% (Calabro, 2001). Perhaps the most comprehensive evaluation of the global BSC adoption is given by the "tools and techniques" survey administered annually by Bain & Company to senior executives on five continents. The BSC was introduced in the survey in 1996, when 39% of the respondents claimed to be users. For about five years this figure remained fairly constant, and then it peaked at 62% in 2002 (Figure1). Overall, the BSC is considered one of the tools with the sharpest increases since being introduced in the survey, with an 18% change, although it its usage dropped slightly in 2004 at 57%. The same survey ranked the BSC 13th in the top 25 most used management tools, slightly higher in Asia (10th) and Latin America (8th) (Rigby, 2001, 2003, 2005).

Figure 1. The global use of the Balanced Scorecard and the user satisfaction.



Source: Bain and Company website, 2008

Despite the accolades and idealistic scenarios that abound in the BSC literature, the promises of the concept have yet to convert in widespread success in practice. According to Paul McCunn, a KPMG management consultant, the failure rate of BSC implementation is 70%, figure based on research conducted by Claude Levy, a professor at the Free University of Amsterdam (McCunn, 1998). The annual Bain & Co. "tools and techniques" survey administered worldwide by the company estimated that in 2004, only 15% of the users were extremely satisfied with the tool and 6% were dissatisfied. While the percentage of dissatisfied users can be considered modest, the proportion of extremely satisfied users is below average and less than half compared to the most popular tool. The

defection rate of 7% is the fifth highest in the list of 25 tools analyzed in the Bain & Co. research. (Rigby & Bilodeau, 2005). Also, research conducted by The Hackett Group in 2004, estimates that less than 20% of the typical implementers have in place mature balanced scorecards that are generating business value. According to Hackett's 2004 Finance Book of Numbers, the primary reasons are overweighting the scorecards with historical financial information and the use of too many metrics (The Hackett Group, 22 Oct 2004 News Release)

## **2. The unique characteristics of the Balanced Scorecard**

Overall, these surveys paint a picture of a promising concept, widely adopted, but misunderstood and misused, the result being that that most implementers fail to maximize the value added by the use of the BSC. In order to identify possible solutions to these challenges and future research directions, a brief analysis of the particularities of the BSC is required.

### **2.1. Evolving Concept**

One unique characteristic of the BSC concept is its evolving nature, as it witnessed a continual transformation process ever since its launch. The origins of the concept can be traced back to various sources. One of its precursors is the "tableau de bord", a management tool introduced in France in the 1930s and described as a "dashboard" used by managers to guide organizations to their destination (Bessire and Backer, 2005). The "tableau de bord" has been quite popular in France ever since its introduction and the majority of the large companies are using it, however, due to the limited availability of translated literature it had a minimal overseas diffusion (Bontis, Dragonetti, Jacobsen & Roos, 1999). Also, General Electric used a BSC-type system, designed to be used as a performance management system in early 50's (Hendricks, 2004).

In its initial form, the BSC was the result of a yearlong performance measurement research project run in 1990-1991 to determine what successful companies were measuring. The timing of presenting and promoting the BSC couldn't be better. In 1991, Eccles published the "Performance Measurement Manifesto" in Harvard Business Review. In this article, he predicts a performance measurement revolution will take place in the next five years. During this revolution traditional financial information systems would be replaced by nonfinancial information system. According to Eccles, such a revolution was necessary to improve manager's satisfaction with the information they receive and satisfy the increased information requirements of modern-day-organisations caused by new techniques like total quality management, focus on customer satisfaction and benchmarking. The BSC emerged as the catalyst of this revolution.

The transformation of the BSC in 1990s is clearly outlined by following the path of publications by its authors, who along the way also formed Balanced Scorecard Collaborative as a company dedicated to the promotion of the concept.

#### **1992 - Performance measurement tool**

Kaplan and Norton introduced the BSC to the wider public in 1992. The concept was presented at that time as a performance measurement tool, used to capture besides the financial measures, the value-creating activities from an organization's intangible assets (Kaplan & Norton, 1992). A year later, in a new article, they made the first references about the connection between performance metrics and strategy (Kaplan & Norton, 1993).

Table 1. Timeline of the BSC evolution from the Norton and Kaplan perspective based on Harvard Business Review publications.

Year	Publication type	Title	Approach to BSC
2008	Book	The Execution Premium: Linking Strategy to Operations for competitive advantage	Management system enabling strategy execution as an organisational capability
2008	Article	Mastering the Management System	BSC supporting the integration between strategy and operations
2007	Article	Using the Balanced Scorecard as a Strategic Management System	BSC as the foundation of an integrated and iterative strategic management system.
2006	Book	Alignment: Using the Balanced Scorecard to Create Corporate Synergies	Management system used for building enterprise value proposition through alignment
2006	Article	How to Implement a New Strategy Without Disrupting Your Organization	Management systems based on the balanced scorecard framework are the best way to align strategy and structure.
2005	Article	The Office of Strategy Management	Promotion of the OSM as a key component of the BSC framework
2004	Article	How the Balanced Scorecard complements the McKinsey 7-S model	Tool for aligning all organizational variables and processes for successful strategy execution
2004	Book	Strategy Maps: Converting Intangible Assets into Tangible Outcomes	Strategic alignment tool in an intellectual capital context
2004	Article	Measuring the strategic readiness of intangible assets	Strategic readiness of intangible assets
2001	Book	The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment	Encompassing strategic management and control system
2000	Article	Having trouble with your strategy? Then map it	Focus on strategy mapping
1996	Book	The Balanced Scorecard: Translating Strategy into Action	Implementation guidelines
1996	Article	Using the balanced scorecard as a strategic management system	Strategic performance management system
1993	Article	Putting the Balanced Scorecard to Work	First references about performance metrics/strategy connections
1992	Article	The Balanced Scorecard - Measures That Drive Performance	Performance measurement tool
1990-1991	Research project	What successful companies are measuring	Emergent concept

Source: Brudan, 2008

### **1996 - Performance management system**

By 1996, the BSC was labeled as a strategic performance management system, which formed the basis of a rallying framework for strategic processes, resource allocation, budgeting and planning, goal setting and employee learning (Kaplan & Norton, 1996). Same year they published the first book on the topic, which included instructions on how the concept should be implemented (Kaplan & Norton, 1996).

### **2000 - Strategic management and control system**

The shift towards a more strategic use of the BSC was confirmed in a new article published in 2000 (Kaplan & Norton, 2000). The following year, their second book (Kaplan & Norton, 2001) shined more light on the move to use the Balanced Scorecard as an all encompassing strategic management and control system.

### **2004/5 - Strategy Maps and Office of Strategic Management**

The transition from the management accounting school to the strategy management school is confirmed by the focus on two components of the BSC framework that support its strategic role: the Strategy Map and the Office of Strategic Management (Kaplan & Norton, 2004, 2005).

### **2008 - Integration between strategy and operations**

A new phase in the evolution of the BSC concept is the emphasis on its integration role, aligning strategy with operations (Kaplan & Norton, 2008). The BSC is presented as a key organisational enabler of strategy execution, which in itself is presented as an organisational capability.

## **2.2. Confusing Literature**

The continuous evolution of the BSC generated another important characteristic of the concept, the confusing literature surrounding this subject. Almost every article has a different definition of the concept, what the BSC is and what is its role.

### **2.2.1. Measurement, management or strategic control**

Although the evolution steps of the BSC are fairly clearly articulated in Kaplan and Norton books and articles, other literature in this field presents the role of the BSC in a multitude of ways. Some authors refer to it as a multidimensional measurement system (Bontis et al, 1999b:396) or performance measurement system (McNamara, 2005), articulating the measurement side of the concept. Others prefer to focus on its performance management role (Hanson, 2000), referring to it as a tool for performance assessment and a key driver to organisation's success (Hsu, 2005). A third group of authors refer to the BSC as a strategic control tool (Mooraj, Oyon & Hostettler, 1999, Norreklit, 2003). The interesting aspect is that with time, these opinions did not converge to a generally accepted and used approach, but continued to vary, some authors referring to the BSC as a measurement tool, even in 2005 when the concept is in a more strategy oriented phase.

### **2.2.2. Instrument/tool, system or framework**

Answering the "what is it?" question is another challenge, as the way in which the concept is labeled varies from one author to another. The most simplistic way to refer to the BSC is as a tool, being it a comprehensive management tool (Ahn, 2001), strategic management instrument (Kueng, 2000) or strategic



management tool (Pforsich, 2005). Some authors recognized early that the BSC is more than a performance measurement technique and considered it to be a management system (Butler, 1997). Just to be sure or in order to contribute to the confusion, some authors prefer to use both at the same time: “formal management technique and formal management system” (Hassan & Tibbits, 2000). Others consider the BSC to be a management philosophy as well as a performance management system (Hanson, 2000).

Even Norton and Kaplan offer a multitude of answers to the “What is the Balanced Scorecard?” question on the Balanced Scorecard Collaborative website: “powerful framework”, “tool” and “value-added management process” (Balanced Scorecard Collaborative, 2005).

Although it is fairly common for management concepts to have various definitions, the BSC literature goes a step further. The concept is not only defined differently, but it is presented and perceived in various ways. Entire articles analyze and promote the BSC as being used as measurement tool, a performance management system or strategic management and control system. More interestingly, these articles analyzing the BSC do not follow the Norton and Kaplan concept evolution timeline as they don’t follow a pattern, but were published at random points in time. Even some of the recent articles still refer to the BSC as a measurement tool, which is how the concept was perceived 10 years ago in the incipient phase of its evolution.

### **2.2.3. Ambiguity**

A third major characteristic of the BSC is the ambiguity of the concept. Although, the basic principles of the Balanced Scorecard and how the components work together are generously presented in the BSC literature, the concept itself has a high degree of customization both at design and post implementation level. According to Otley (1999), “little or no guidance is given in the Balanced Scorecard literature on how means and ends should be linked analytically. Same with the topic of setting performance targets (not much discussed in the BSC literature)”. Also, Nooreklit (2003) considers that “many of the concepts found in the BSC render the text imprecise and confusing and the use of this concept makes it difficult to discuss the contents of the model”. Although the literature abounds with case studies and success stories, the ways in which the BSC can be used are not clearly analyzed. At the same time, implementations can vary immensely from each other both as models and at measure level. The post implementation analysis is not sufficiently covered in the BSC literature, leaving a gap in the information available about the impact on organisations and their performance.

## **3. Clarifying the BSC concept – emerging research agenda in management accountants**

The evolutionary nature of the BSC, the confusing literature and the general ambiguity in its use can be considered serious challenges for the future of the concept and possible obstacles in achieving value added, successful implementations. Further exploration of the concept and its impact is needed to address these challenges by offering research grounded answers and possible solutions.

### **3.1 What is the nature of the BSC concept? Assumption: BSC is a management tool**

Clarifying the nature of the BSC is essential in establishing a more standardized approach to the presentation and use of the concept. Further research is needed to analyse the basis on labelling the BSC as a tool, system or framework. The assumption made is that the best term to define the nature of the BSC is as a “management tool”. The basis of this assumption is that the BSC as a tool can be integrated in various frameworks to create specific management systems in organisations. The term “management tool” can mean many things, but often involves a set of concepts, processes, exercises and analytic frameworks. (Rigby, 2001). One of the best definitions of the BSC is offered by Norton and Kaplan: “*A tool that translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system.*” (Balanced Scorecard Collaborative, 2005). However, at the moment there is limited research analysing the nature of the BSC and there is not a standardised way of defining the concept.

### **3.2. What roles can a BSC fulfill in organizations? Assumption: BSC has a polyvalent role, being used as a management tool in various systems.**

#### **3.2.1. Strategic management**

As a strategic management tool, the BSC could be used in both strategy formulation and organisational alignment. In the strategy formulation context, the BSC could contribute by structuring information and visualising the dynamics of strategy through one of its secondary tools, the Strategy Map.

#### **3.2.2. Operations management**

At operational level, the BSC could be used as a performance measurement tool, providing not only information whether or not business targets were achieved but also clarifying the impact on corporate strategy. This way, the BSC could be a source of business intelligence, used in various organisational decision making processes, such as its initiative generation and prioritization.

#### **3.2.3. Human resource management**

A complete BSC implementation cascades the corporate scorecard at divisional level, team level and finally at individual level. Personal scorecards have a double function. On one hand they define the personal contribution to strategy implementation. On the other hand, by assigning and monitoring personal targets, they could be used in the performance assessment process. Thus, the BSC could also be used as a performance management tool and consequently integrated in the human resources and compensation strategy.

#### **3.2.4. Marketing communications**

Perhaps one of the most value added roles that the BSC could have is the internal communication tool one. In this role, the BSC could communicate both strategic and operational information in a structured, standardised format, filling one of the most important gaps in today's organisational environment – communication and alignment. The BSC should tell the story of the strategy and how everyone in the organization contributes to it (Kaplan & Norton, 1996). The

BSC could also be used in external communication, in supplier management and other general communication with customers and shareholders.

### **3.2.5. Knowledge management**

Another important role that the BSC could fill in a knowledge management context is of measuring intangible assets. There is a considerable amount of literature analysing the BSC in parallel with intellectual capital (Bontis et al. 1999, Sveiby, 2004). Thus, a BSC may be one of the tools that could be used to bring forth intellectual capital and manage intangible resources (Mouritsen, Larsen & Bukh, 2005).

### **3.2.6. Financial management**

In a financial management context the BSC could be used to inform budgeting and for evaluating potential expenditures for their impact (Andon et al, 2005). Traditional budgeting emphasizes financial performance over the pursuit of strategy, however by using the BSC, organisations are able to align budgeting to strategy.

Although the BSC could be used in various ways, academic articles and case studies focus mainly on the measurement and control roles of the BSC. The literature is virtually polluted with idealistic scenarios and implementation case studies that present the BSC in this light. The assumption is that, influenced by this current of opinion, implementations focused on the strategy and measurement side of the BSC, giving too little consideration to the other roles the BSC could fulfil in organisations. More attention needs to be given to the polyvalent role of the BSC and how approaching the BSC as a polyvalent management tool might influence implementation success.

### **3.3. Is there a relationship between a polyvalent approach to BSC and implementation success? Assumption: The polyvalent role approach of the BSC positively affects implementation success.**

There is limited research available analysing the impact a specific approach to BSC has on implementation success. However, considering the focus on measurement and control of most implementations and their relative limited success, the assumption made is that methodology and approach, not conjuncture were the causes of most failed implementations. This might explain the need for a new approach to BSC as a polyvalent management tool and the investigation for the suitability and desirability of an integrated implementation methodology focusing on multiple BSC roles. One might argue that as a result of this approach, the BSC might become an answer for everything, so future research should also focus on finding a balance in the polyvalent approach to BSC.

### **3.4. What is the major contribution of a BSC to an organisation? Assumption: The crystallizing function of the BSC makes it unique and valuable for organisations.**

The BSC can bring structure and alignment in an otherwise fluid and vague organisational environment. The BSC can also be replicated in a similar format within the organisation, at various levels, thus creating new organisational links and facilitating communication. Perhaps the best way to describe this process is crystallization, with the BSC acting as a polyvalent management tool with

crystallizing function. According to Kaplan and Norton, the BSC “should be used as a communication, informing and learning system, not a controlling system”. Thus, promoting the crystallizing function of the BSC organisations might be more successful in shifting the focus from measurement and performance management to a more strategic, polyvalent approach to BSC. More research is needed to analyse how the BSC is perceived in organisations already using the BSC and if practice confirms the assumptions made.

#### **4. Command-and-control and systems thinking**

The Balanced Scorecard has its origins in management accounting research and management accounting evolved being driven by command-and-control and mechanistic thinking. Another area that worth exploring by researchers is the use of the BSC to make a bridge between the dominant command-and-control thinking in management accounting and the emerging systems thinking influence on the performance management approaches.

The roots of performance management as a discipline and performance measurement as a process can be traced back to the advancements made by Taylor in defining management as a science and the new approach to manufacturing and plant management promoted by Henry Ford at the beginning of the century. Command and control and mechanistic thinking emerged as simple solutions to respond to the needs of the social, technological and economical environment of those times. An uneducated workforce and ever-increasing demand from customers focused priorities on volume, standards and control through product standardisation, work process specialisation and the use of targets. This approach suited both the profile of the workforce, which contained a low number of educated agents and the limited understanding of organisations as entities, enabling considerable increases in productivity. Targets were set by managers for employees and their achievement was driven using a command-and-control approach. Performance management was mostly driven by financial indicators and production quotas, used to check if people were completing their tasks as assigned by managers.

However, to environmental conditions today are very much different. Customer needs are more diverse and the work is more complex. The workforce is more educated, more mobile and has different aspirations. Also, the concept of organisation/corporation has matured beyond the initial presentation of the concept in mid 50's by Peter Drucker. The nature of work has changed from mechanical work in mostly production facilities to knowledge work in the services industry. At the beginning of the 20th century the majority of industrial workers were involved in the production of subcomponents and their assembly in a finite product. Automation of industrial work and the growth of the services sector dramatically transformed the socio-economic landscape. At the beginning of the 21st century the vast majority of the workforce is active in services sector, which involves human interactions, stakeholder management and regular, fast decision making made by each employee. Performance management frameworks have been slow to adapt, most of them still emphasizing financial measures and a command-and-control approach, based on monitoring the achievement of targets. There are numerous instances in organisations of conflicting priorities and targets within the same organisation and ineffective performance management due to too much emphasis on managerial control.

Command-and-control thinking sees organisations as top-down hierarchies, where managers make decisions using budgets, standards and targets. Work is specialised in functions that complement each other, however are not completely integrated. Workers are controlled with an ever increasing array of management tools and practices – rules, specifications, procedures, inspections, performance management reviews, etc.

An alternative to command-and-control/mechanistic thinking is systems thinking, that enables a more holistic approach to managing organisations, as systems. Organisations managed as systems and not as functional hierarchies put people at the heart of the enterprise, enabling them to contribute. Seddon (2008) describes this organisational arrangement as putting the workers in control rather than controlling the workers. If staff members control the work, they need managers to be working on the things beyond the control of the workers which affect the system conditions – the way the work works. The comparison between command and control thinking and systems thinking proposed by Seddon (2008) reveals the importance of learning and integration for the systems thinking approach.

Table 2. The comparison between command and control thinking and systems thinking reveals the importance of learning and integration for the systems thinking approach.

CHARACTERISTIC	COMMAND AND CONTROL THINKING	SYSTEMS THINKING
Perspective	Top-down, hierarchy	Outside-in, system
Design	Functional specialization	Demand, value and flow
Decision-making	Separated from work	Integrated with work
Measurement	Productivity output, targets, standards: related to budget	Capability, variation: related to purpose
Attitude to customers	Contractual	What matters?
Attitude to suppliers	Contractual	Cooperative
Role of management	Manage people and budgets	Act on the system
Ethos	Control	Learning
Change	Reactive, projects	Adaptive, integral
Motivation	Extrinsic	Intrinsic

Source: Seddon, 2008

A systemic approach to performance management focuses on the definition of the system, its purpose and the measuring of how its purpose is achieved. Instead of an isolated approach, the focus is on integrating all components of the system and mapping the relationship between them in addressing and satisfying demand. Systems thinking places more focus on the learning and human relationships in organisations, in line with Theory Y of Douglas McGregor. Such an approach requires new personal and professional skills from a workforce already entrenched in a command-and-control mentality. This is one of the reasons why a direct shift from command-and-control to systems thinking will be difficult for organisations. Depending on organisational capabilities and the internal / external conditions, command-and control might be more appropriate for some organisations and systems thinking for others. Alternatively, an approach that balances both (such as the Balanced Scorecard) might be a suitable first step towards an improved organisational management system. Further research is

needed to explore further the systems thinking approach in management accounting.

### 5. From performance management for control to performance management for learning

Traditionally, performance management in organisations has been concerned with control, by setting and monitoring achievement of targets at strategic, operational and individual levels. Measurement can have its benefits as it provides valuable information and measuring in itself stimulates higher performance. The Hawthorn effect and the Westinghouse effect (Observer's paradox) demonstrate the positive effects of measuring.

At strategic level, senior management supported by management accountants and finance professionals focus their efforts in translating organisational objectives in quantifiable targets. These objectives and targets are delegated to functional areas for execution. Compliance with set targets is checked on a regular basis. These strategic objectives are then aligned with operational objectives and individual performance objectives. However, the focus on the measurement and control in the context of performance management has started to diminish in the 1990s, driven by the increase in popularity of the Balanced Scorecard, knowledge management and intellectual capital and systems thinking. The Balanced Scorecard was first presented in 1992 as a measurement tool promoted by the management accounting school and having roots in the quality movement. However it evolved quickly to become a complete management system supporting strategy execution as a core competency. As a performance management tool, the Balanced Scorecard enables not only measurement and control, but also communication and learning.

Table 3. The alternative to measurement for control is measurement for learning.

CHARACTERISTIC	MEASUREMENT FOR CONTROL	MEASUREMENT FOR LEARNING
Measurement drivers	Management	Employees
Measures development	Top-down commands	Process-oriented bottom-up approach
Measurement role	Measuring and managing work in functional activities.	Measuring and managing the flow of work through the system
Measurement focus	Productivity output, targets, standards: related to budget	Capability, variation: related to purpose
Results communication	Restricted	Open
Target driven by	Budget/political aspirations	Understanding achievement versus purpose
Follow-up to results	Rewards, punishment and action to improve results	Dialogue and improvement
Learning cycle	Single loop	Double loop learning
Link to rewards	Link to individual rewards and recognition system	Group rewards, based on improvement

Source: Author, 2008

This shift is supported by proponents of the knowledge management/intellectual capital school of thought who argue that “the main problem with all measurement systems is that it is not possible to measure social phenomena with anything close to scientific accuracy” (Sveiby & Armstrong, 2004). They invoke Heisenberg’s uncertainty principle (uncertainties, or imprecisions, always turn up if one tries to measure the position and the momentum of a particle at the same time) to illustrate the inherent imprecision in measurement that exists even in “exact” sciences such as physics. This leaves room for interpretation in setting targets and measuring results and ultimately abuse. Using targets for control and linking the achievement of these targets to individual performance has the risk of staff members manipulating the system to their benefit and the expense of other teams and even the entire organisation.

This perspective of the Balanced Scorecard and Management Accounting opens new research directions, to explore not only the current dominant practices, but also the emerging role of measurement for learning.

## **6. Conclusions. Benefits for theory and practice**

In recent years there has been an increased focus in management accounting research and practice on the development of tools to assist senior management in the formulation and implementation of strategy. The BSC proved to be a prime candidate, however it came with a legacy of measurement and performance management that contaminated a great deal of implementation efforts. As a result, refining the concept and adopting a more comprehensive approach to BSC as a polyvalent management tool would greatly benefit managers by offering a more clear and structured overview of the concept. Having a clear map of the main types of approaches to the BSC and linking them to key roles and the impact on organisations that use them is of particular interest to managers as they can make more informed decisions about current and future BSC implementations, based on academically validated research, and not just on the existing consultants’ rhetoric. Further research would also help to find out if the crystallising function of the BSC is the answer to the integration and alignment challenges that organisations are facing today. Both managers using the BSC or planning to implement it would benefit from such research, as they will be in a position to fine-tune the use of the concept.

From an academic perspective, clarifying the way the BSC is defined and used would fill a gap in the existing body of literature on this subject. By giving more context to the generic ‘Balanced Scorecard’, the research will assist in channelling future academic research projects to specific approaches to the BSC, thus improving the relevance of research findings. Exploration of management accounting from a systems thinking perspective as opposed to the traditional command and control approach is an undertaking that has the potential to open new valuable avenues to progress this discipline in the 21<sup>st</sup> century.

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**LE FARDEAU FISCAL NON-MONETAIRE.  
UNE ANALYSE EMPIRIQUE DU TEMPS PASSE AUX GUICHETS DE  
DEUX ADMINISTRATIONS FISCALES LOCALES**

**Radu NECHITA\***

Babeș-Bolyai University of Cluj-Napoca, Romania

**Manuela STRĂINU**

The Independent Center for Economics and Law Studies, Romania

**Abstract:** The time spent by entrepreneurs in order to comply with fiscal regulation represents an administrative cost, a fiscal burden. Its reduction is a political goal proclaimed publicly by many countries' authorities. Our empiric research conducted in two fiscal administrations from Cluj County (Romania) suggests that the compliance time spent at their counters is significant. The on-line filing alternative has only a limited success because of its explicit and implicit costs. The reduction of these costs is possible but it supposes the involvement of the Parliament and of the Ministry of Economy and Finances.

**JEL classification:** H11, H21, H83.

**Key Words:** administrative costs, compliance costs, fiscal burden

### **1. Introduction**

La relation entre l'environnement économique existant dans un pays et sa croissance économique reçoit une attention croissante. Certes, les préoccupations des économistes en ce sens ne sont pas nouvelles, Adam Smith y faisait déjà référence il y a deux siècles et demi. Une catégorie à part dans la littérature consacrée à ce sujet est formée par des rapports qui classent les pays selon des critères comme la compétitivité, la liberté économique, la qualité du milieu des affaires, le respect des droits de propriété etc., ce qui permet ensuite de d'identifier et d'analyser des corrélations entre le critère étudié et des indicateurs de performance dans d'autres domaines (développement humain, PIB par tête, taux de croissance, etc.). Les corrélations positives constatées sont compatibles avec les théories qui attribuent un rôle déterminant aux facteurs institutionnels de la croissance économique (North, 1990, De Soto, 2000).

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\* Corresponding author: Faculty of European Studies, 1, Em. de Martonne Street, 400090, Cluj-Napoca, Romania. E-mail: Radu.Nechita@euro.ubbcluj.ro

Les plus connus rapports de ce type sont : *Global Competitiveness Report* du Forum Economique Mondial (Lopez-Claros, 2008) ; *World Competitiveness Yearbook* de l'Institut for Management Development ; *Economic Freedom of the World* du Fraser Institute (Gwartney et al., 2005, 2006, 2007) ; *Index of Economic Freedom*, élaboré par Heritage Foundation avec Wall Street Journal (Kane et al., 2007) ; *Doing Business* réalisé par la Banque Mondiale (World Bank, 2003-2007), etc.

Les critères retenus par chaque rapport prennent en compte plusieurs aspects, parmi lesquels figure sous diverses formes, le poids de la fiscalité.

Il existe plusieurs mesures ou estimations du fardeau fiscal (« *fiscal burden* ») dont la plus courante est le **poids des prélèvements obligatoires dans le PIB**. Le rapport entre les dépenses publiques et le PIB est parfois retenu comme indicateur du poids des décisions gouvernementales dans l'économie. Les différences significatives entre les deux apparaissent lors de déficits ou excédents budgétaires. Les avantages et les limites de ces approches macroéconomiques sont communs aux indicateurs macroéconomiques agrégés. Ces indicateurs sont néanmoins pertinents surtout pour apprécier les évolutions dans le temps, mais leur utilisation dans les comparaisons internationales est parfois critiquée. L'argument est que le financement de la protection sociale, (notamment les retraites et la couverture maladie) varie fortement d'un pays à l'autre. En effet, toutes choses égales par ailleurs, les contributions sociales sont moins élevées dans les pays aux systèmes de retraites « *beveridgiens* » que dans ceux de type « *bismarckien* ». Pourtant, s'il est vrai que dans le premier cas les contributions au système public sont complétées par des cotisations (volontaires ou obligatoires) aux fonds de pensions privées, le cotisant demeure propriétaire de ces contributions, ce qui n'est pas le cas des versements au système public. Pour ces raisons, le poids des prélèvements obligatoires représente donc davantage une estimation de l'intervention gouvernementale dans l'économie plutôt qu'une mesure incontestable du fardeau fiscal.

Une autre approche de la fiscalité fait référence aux taux **marginiaux des principaux impôts directs** (sur les sociétés, sur le revenu des personnes physiques, les charges sociales, etc.) **et indirects** (TVA ou sur les ventes au détail, accises, etc.). Les taux statutaires et leur évolution représentent, entre autres, un signal sur la « philosophie fiscale » de chaque pays. Les comparaisons internationales fondées sur ce critère sont donc intéressantes mais la complexité de la réglementation fiscale est telle que cet indicateur n'est pas suffisant pour estimer de manière précise le « fardeau fiscal ». En effet, en dehors des pourcentages, la base imposable est tout aussi importante. Dans ce dernier domaine, les différences d'un contribuable à l'autre rendent difficile l'estimation du « fardeau fiscal » pour des catégories larges de contribuables ou pour un pays dans son ensemble.

Une limite commune aux indicateurs précédents concerne leur incapacité à prendre en compte la charge administrative, c'est-à-dire les coûts de conformité (« *compliance costs* ») supportés sous diverses formes par les contribuables. Il s'agit du coût en **temps** passé à suivre la réglementation, à remplir et déposer les déclarations diverses, à effectuer les paiements des obligations fiscales, etc. Ces coûts sont supportés en fin de compte par le contribuable même lorsqu'ils

prennent une forme **monétaire**, par l'emploi de personnel supplémentaire dédié (salariés ou externes).

Le Rapport « *Doing Business* » de la Banque Mondiale réussit à dépasser ces difficultés par la prise en compte des coûts non-monétaires de l'activité entrepreneuriale, et notamment du « fardeau fiscal » de nature bureaucratique. En effet, la composante « Payer les impôts » du rapport est calculée non seulement sur la base du taux imposition réellement supporté par les entreprises moyennes, mais aussi en fonction du nombre de déclarations et paiements annuels effectués et du temps nécessaire au respect des exigences fiscales (World Bank, 2007, p. 77).

Malgré leurs méthodologies différentes, il existe une forte corrélation (supérieure à 0,85) entre les rangs occupés par les pays selon les rapports du Fraser Institute, de la Heritage Foundation et de la Banque Mondiale. Cependant, la corrélation est réduite dans le cas du classement établi sur la base de la composante fiscale de chaque indice. La Roumanie est un des pays dont l'écart entre le classement entre le rapport de la Heritage Foundation et celui de la Banque Mondiale est parmi les plus élevés du monde (Fazekas et Nechita, 2008). Cette différence provient du fait que, contrairement à l'IEF et l'EFW, le rapport de la Banque Mondiale prend en compte aussi le « fardeau fiscal » non-monétaire. Cette différence souligne l'importance d'autres éléments que les seuls taux d'imposition dans l'analyse de l'environnement fiscal d'un pays.

La Roumanie ayant réduit les taux de ses principaux impôts, la direction des réformes futures et à rechercher plutôt du côté de la réduction du « fardeau fiscal » non-monétaire. En effet, en dépit des taux d'imposition parmi les plus bas d'Europe, la Roumanie occupe la 21-ème place sur 22 du point de vue de l'attractivité fiscale, selon une étude récente menée auprès de 400 multinationales (KPMG, 2007).

Les arguments en faveur des prélèvements obligatoires font référence à la nécessité de financer les missions de l'Etat (biens publics et, éventuellement, la redistribution). Les transferts de richesses ne sont pas neutres (à moins de supposer un impact désincitatif nul sur l'effort productif de leurs victimes et de leurs bénéficiaires) mais ils peuvent être justifiés d'un point de vue normatif par les bénéfices retirés par certains groupes défavorisés. Cependant, le temps passé dans des files d'attente représente non pas un transfert de richesse mais une perte absolue pour les contribuables concernés et pour la société dans son ensemble. Par conséquent, *quel que soit le point de vue normatif adopté sur le rôle et les missions de l'Etat, la diminution de la charge fiscale non-monétaire est un objectif valable aussi dans une approche positive.*

Ce point de vue est présent dans les recommandations de l'Union Européenne et de l'OCDE. Par exemple, dans une approche plus générale, la Commission Européenne a annoncé l'objectif de réduire de 25% les charges administratives pesant sur les entreprises au niveau européen et ce jusqu'en 2012. En 2006, le coût des charges administratives était évalué à 3,5 % du PIB de l'Union. La Commission estime qu'une réforme pourrait entraîner des économies considérables, jusqu'à 150 milliards d'euros (soit 1,3 % du PIB européen). Le second rapport d'étape de ce projet est disponible depuis début 2008 (CE, 2008). Afin d'impliquer les parties concernées, une consultation en ligne des PME s'est déroulée entre le 1er octobre 2007 et le 21 septembre 2008 ([http://ec.europa.eu/entreprise/admin-burdens-reduction/home\\_en.htm](http://ec.europa.eu/entreprise/admin-burdens-reduction/home_en.htm)).

Dans cette même approche, la Commission a lancé aussi un prix de la meilleure idée de réduction des charges administratives ([http://ec.europa.eu/entreprise/admin-burdens-reduction/competition\\_fr.htm](http://ec.europa.eu/entreprise/admin-burdens-reduction/competition_fr.htm)). Cependant, ces initiatives concernent les charges induites par les réglementations européennes et non celles émises au niveau national. L'OCDE a analysé les initiatives nationales prises par les pays membres (OCDE, 2007) et a publié récemment une note d'information exhaustive sur ce sujet (OCDE, 2008).

L'objectif de cette recherche est d'estimer le temps moyen passé par les entrepreneurs de Cluj-Napoca ou par leurs employés dans les sièges des autorités fiscales et de l'Inspection Territoriale du Travail. Ce type d'interaction directe est principalement le résultat des exigences légales concernant les rapports et déclarations périodiques, notamment mensuelles. Une question connexe est l'identification des raisons de l'utilisation réduite du dépôt en ligne des déclarations mensuelles. Le choix du département de Cluj se justifie par le poids économique de la ville chef-lieu du département et par le nombre des entreprises. En effet, selon ce dernier critère, le département de Cluj se situe à la seconde place au niveau de la Roumanie, juste après le cas particulier de Bucarest (ONRC, 2007, p. 6). Selon la Direction Générale des Finances Publiques Cluj (DGFP Cluj, 2008, p. 7), au 31 décembre 2007, 30.600 agents économiques ont déposé des situations financières.

## **2. Méthodologie**

Dans la méthodologie adoptée par la Banque Mondiale, « le temps de conformité » indique globalement le temps nécessaire à la préparation et au dépôt des déclarations fiscales ainsi qu'au paiement des obligations fiscales (World Bank, 2008, p. 79). Le calcul est fait à partir des estimations fournies par les experts (cabinets conseils, d'audit, etc.) ayant une activité sur place dans le pays concerné. Le temps global est utile pour les comparaisons internationales et constitue un signal pour les autorités fiscales des pays les moins bien classés. Cependant, si un nombre d'heures élevé suggère la nécessité de réformer, il n'indique pas quelles sont exactement les démarches administratives de nature fiscale qui en sont la cause et qui devraient donc être révisées.

Les entrepreneurs roumains ont l'obligation de déposer plusieurs déclarations et/ou rapports financiers, avec une fréquence mensuelle, trimestrielle, semestrielle et annuelle. Les autorités concernées par les déclarations mensuelles sont :

- l'Administration des Finances Publiques ;
- La Caisse Départementale d'Assurances de Santé ;
- La Caisse Départementale des Retraites ;
- L'Agence Départementale pour l'Emploi ;
- L'Inspection Territoriale du Travail.

La démarche adoptée dans notre travail est complémentaire à celle du rapport « Doing Business ». L'étude s'est déroulée aux sièges de l'Inspection Territoriale du Travail (ITM) et de l'Administration des Finances Publiques (AFP) sur deux périodes, du 19 au 24 octobre 2007 et, respectivement, du 17 au 21 décembre 2007. Dans les deux cas, l'intervalle horaire a été celui d'ouverture au public : 8h-12h pour l'ITM et 8h30-16h dans le cas de l'AFP. La Caisse Départementale des Retraites, l'Agence Départementale pour l'Emploi et l'Inspection Territoriale du Travail sont regroupées dans le même bâtiment. Les

démarches administratives peuvent donc être réglées lors d'un seul déplacement sur place. L'Administration des Finances Publiques et la Caisse Départementale d'Assurances de Santé sont situées dans des immeubles différents, mais situés à environ 5-10 minutes distance l'un de l'autre, ce qui permet de regrouper les deux déplacements. Cependant, cela n'est pas toujours aisé, à cause de la procédure adoptée par la Caisse Départementale d'Assurance de Santé. Celle-ci requiert aux contribuables de se rendre deux fois sur place : dans un premier temps (le matin, avant 8 heures), pour leur remettre un numéro d'ordre et ensuite pour le dépôt des déclarations à un certain moment dans la journée, dont l'estimation reste à la charge du contribuable.

La technique a consisté en l'application de questionnaires sur un échantillon de contribuables qui entraient dans les sièges respectifs. Le caractère aléatoire de l'échantillon a été assuré par la distribution des questionnaires à chaque vingtième personne. Dans les rares cas où la personne ainsi sélectionnée ne faisait pas partie de la population cible, elle était remplacée par la suivante. Les questionnaires étaient numérotés et avaient marquée l'heure d'entrée. Ils étaient ensuite remis à l'opérateur lors du départ du contribuable. La différence entre l'heure d'entrée et l'heure de sortie a permis d'identifier le temps réel passé dans le bâtiment.

L'avantage principal de cette approche sur les méthodes qui demandent aux contribuables d'indiquer eux-mêmes le temps est l'élimination des problèmes de perception.

Sur les 296 questionnaires distribués pendant 5 jours dans le cadre de l'ITM, cinq (1,7%) ont été annulés parce que les contribuables respectifs ont quitté le bâtiment sans déposer leurs déclarations. Ils ont précisé qu'ils allaient revenir un autre jour, donc le temps passé au guichet manquait de pertinence pour notre étude. Cette situation n'a pas été enregistrée à l'AFP et tous les 405 questionnaires ont été validés.

### 3. Résultats et limites de la recherche

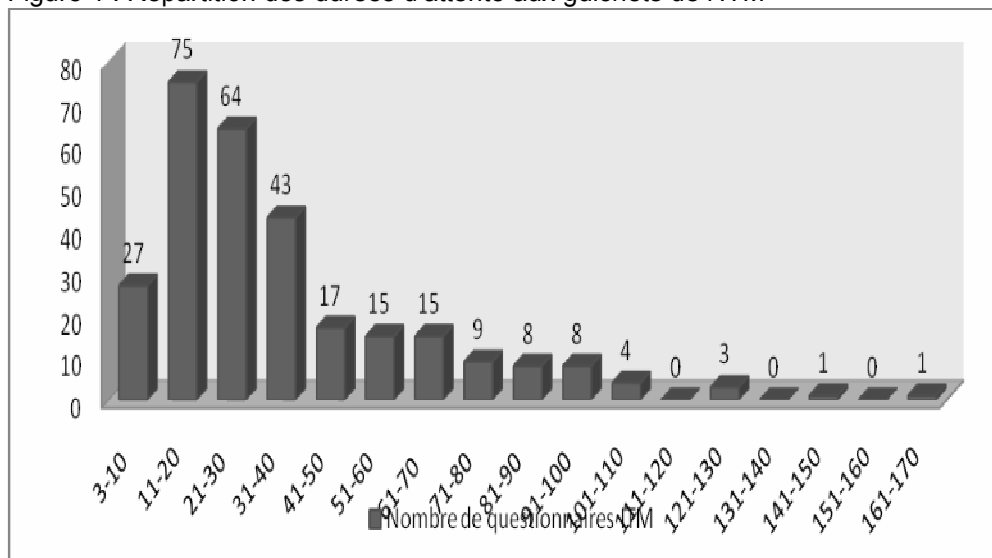
Durant les périodes étudiées, un peu plus de 5900 contribuables sont entrés dans le siège de l'ITM, ce chiffre étant de 8100 pour l'Administration des Finances Publiques. Pour l'ensemble de la période étudiée, le temps moyen (pondéré) passé par une personne dans le cadre de l'AFP est de 17 minutes et de 34 minutes pour l'ITM.

Tableau 1 : Nombre des questionnaires et temps moyens passés aux guichets

Admin.		Jour 1	Jour 2	Jour 3	Jour 4	Jour 5	Semaine
Nbre quest.	AFP	104	83	70	76	72	405
	ITM	47	72	48	66	58	291
Durée	AFP	00:18:25	00:20:25	00:16:13	00:14:23	00:14:38	00:17:01
	ITM	00:25:38	00:37:00	00:29:47	00:42:21	00:31:44	00:34:02

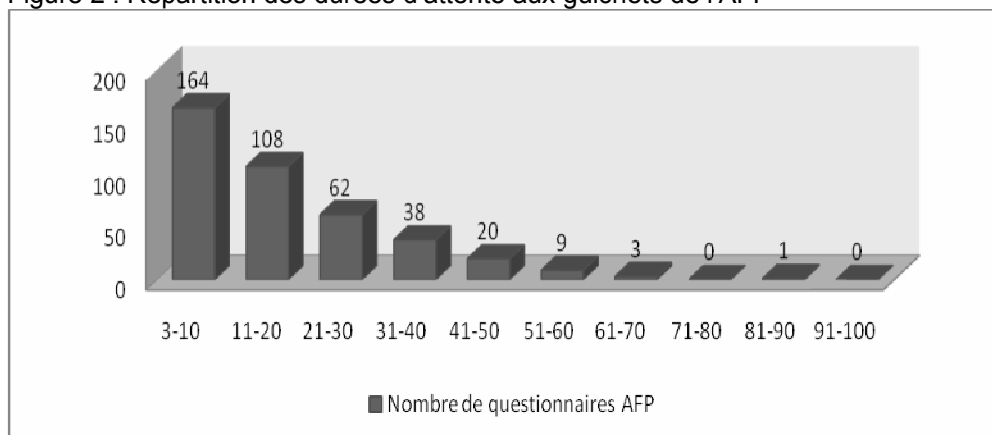
Les temps d'attente les plus élevés sont enregistrés le mardi (AFP et second temps pour l'ITM) et le jeudi (ITM). Le temps minimum passé sur place est de 3 minutes, situation rencontrée dans le cas de contribuables qui ont déclaré avoir renoncé de déposer leurs déclarations le jour respectif, avec l'intention de revenir une autre fois pour finaliser ces démarches, mais aussi dans le cas de contribuables qui n'ont pas fait cette précision.

Figure 1 : Répartition des durées d'attente aux guichets de l'ITM



Dans le cas de l'ITM, 57% des contribuables finalisent leurs démarches administratives dans moins de 30 minutes.

Figure 2 : Répartition des durées d'attente aux guichets de l'AFP



Dans le cas de l'AFP, 67% des contribuables finalisent leurs démarches dans moins de 20 minutes et 40% dans moins de 10 minutes. Les temps d'attente maximum sont enregistrés entre 10 heures et midi pour l'ITM, c'est-à-dire dans la seconde moitié de l'horaire d'ouverture. Il n'y a pas de régularité discernable dans le cas de l'AFP, probablement grâce au programme plus étendu. L'attente maximum se situe entre 95 et 164 minutes pour l'ITM et entre 51 et 81 minutes à l'AFP.

Il existe plusieurs limites à cette recherche. Tout d'abord, elle concerne seulement deux des organismes publics avec lesquels les contribuables doivent

interagir au moins mensuellement, ce qui fait que les résultats obtenus sous-estiment le temps de conformité nécessaire aux entrepreneurs roumains. Une étude similaire plus exhaustive devra concerner également la Caisse d'Assurances de Santé, et, éventuellement, détailler les résultats sur les trois administrations, la Caisse Départementale de Retraites et l'Agence Départementale pour l'Emploi et l'Inspection Territoriale du Travail.

En second lieu, les périodes d'étude ne sont pas « neutres ». En effet, elles concernent la semaine entière précédant le 25 du mois, date de dépôt des déclarations mensuelles. La plupart des contribuables déposent leurs déclarations durant cette semaine, ce qui explique la surcharge de travail pour les employés et les files d'attente pour les contribuables. Il n'est donc pas rigoureux d'extrapoler les résultats pour les autres semaines. Cependant, pour cette même raison, les résultats sont pertinents car ils concernent la majorité de contribuables.

L'étude part de l'hypothèse que les contribuables quittent les lieux sans délai une fois qu'ils ont déposé leurs déclarations et réglé leurs problèmes administratifs. L'étude n'a pas surpris toutes les situations où le contribuable doit revenir plusieurs fois pour le même problème. Des situations de ce type peuvent apparaître, par exemple, lorsque la diskette qui doit accompagner les déclarations imprimées n'est pas lisible par l'ordinateur ou, moins souvent, lorsque le logiciel informatique téléchargeable sur le site internet est modifié par les autorités entre le jour de rédaction des déclarations et celui de dépôt. Seulement cinq contribuables ont déclaré avoir abandonné sans finaliser leurs démarches le jour de l'enquête (dans le cas de l'ITM). Ils ont été exclus de l'analyse mais il est possible que leur nombre soit plus élevé. En effet, ces contribuables « impatientes » ont passé au maximum 9 minutes sur place avant d'abandonner, avec une moyenne entre 5 et 6 minutes. Selon ces deux critères (temps maximum et temps moyen), parmi les contribuables maintenus dans l'échantillon, 27 et respectivement 7 pourraient être dans la même situation.

L'étude ne tient pas compte du nombre de déclarations déposées par chaque personne sélectionnée. En effet, il est possible que les personnes sélectionnées agissent pour le compte de plusieurs entreprises, ce qui influence le temps de conformité moyen par entreprise.

#### **4. Analyse, interprétation et propositions : Comment réduire le fardeau fiscal non-monnaire ?**

Le premier constat est l'écart important entre le nombre de minutes passés dans les sièges des deux organismes. Quel que soit le critère retenu – temps moyen ou temps maximum – l'attente est deux fois plus élevée à l'ITM par rapport à l'AFP, pour un nombre de contribuables présents inférieur d'un tiers dans le cas de l'ITM. L'explication principale est le fait que l'AFP dispose de plusieurs guichets et d'un horaire d'ouverture plus étendu que celui de l'ITM.

Compte tenu des faibles scores enregistrés par la Roumanie dans le chapitre « *Payer les impôts* » du rapport de la Banque Mondiale, le temps relativement réduit passé à l'AFP a constitué une surprise pour les auteurs de l'étude. En effet, il est probablement difficile de déposer les déclarations ou de résoudre un autre problème administratif dans moins d'un quart d'heure. De ce point de vue, l'organisation de l'AFP apparaît comme exempte des critiques courantes concernant le poids de la bureaucratie sur l'activité entrepreneuriale. Cependant, ce n'est pas l'organisation du dépôt des déclarations qui est en cause



mais plutôt la nécessité de passer au guichet pour une démarche qui pourrait être réglé à distance, en ligne. Autrement dit, il est peut-être préférable d'éliminer une démarche administrative inutile au lieu de l'organiser parfaitement.

Cumulé sur l'ensemble des contribuables présents sur place, le temps passé aux guichets durant les deux semaines de l'étude s'élève à 338.300 minutes, soit 5638 heures par mois. Cela représente l'équivalent de 32 postes de travail à temps plein. L'extrapolation de ces résultats pour l'ensemble des 30.600 contribuables actifs du département de Cluj n'est pas rigoureuse mais elle permet d'identifier l'ordre de grandeur du temps total maximum passé par les contribuables aux guichets des deux institutions : environ 26.000 heures par mois, soit l'équivalent de 148 postes à temps plein. Le coût d'opportunité de cette attente est égal à la valeur des services de travail qui auraient pu être produits pendant le temps passé dans les files d'attente.

A ces résultats devraient être ajoutés le temps passé aux guichets de la Caisse Départementale d'Assurances qui, compte tenu de la procédure adoptée, est certainement supérieur aux moyennes constatés dans organismes étudiés. Il existe une raison supplémentaire pour laquelle les temps d'attente au guichet déterminés par notre démarche sous-estiment le temps réel passé à remplir les démarches administratives qui impliquent le déplacement des contribuables ou des leurs représentants aux sièges des administrations fiscales et sociales. En effet, cette recherche ne tient pas compte du temps nécessaire à ces déplacements et qui pourraient doubler les chiffres obtenus.

Est-il possible de réduire le fardeau fiscal non-monétaire ? Plusieurs approches peuvent être envisagées : une meilleure organisation des institutions concernées (4.1.), le remplacement des déclarations-papier par des déclarations en ligne (4.2.) et la réduction de la fréquence des déclarations (4.3.).

#### **4.1. Une meilleure organisation de l'accueil des contribuables**

Dans cette approche, la solution serait d'étendre l'horaire d'ouverture, notamment dans le cas de l'ITM et des deux autres organismes du même bâtiment, dont les 4 heures par jour apparaissent comme insuffisantes. Il reste à déterminer si cela suppose nécessairement des embauches supplémentaires ou si une réorganisation interne est suffisante. Cette réorganisation peut être réalisée par la mensualisation du temps de travail des employés concernés (alternance de semaines à temps réduit et semaines à horaires prolongés) ou par la réallocation du personnel vers le service d'enregistrement des déclarations pendant les périodes de pic d'activité (ce qui suppose une flexibilité dans les qualifications). L'augmentation du nombre d'heures d'ouverture pourrait concerner seulement la semaine précédant le 25 du mois, date de dépôt des déclarations. Dans ce processus, le nombre de guichets opérationnels représente une variable d'ajustement alternative ou complémentaire.

Cette solution présente certaines limites évidentes. Tout d'abord, il est probablement difficile de réduire en-dessous de 5-10 minutes le temps d'attente moyen, surtout dans des conditions d'efficacité, c'est-à-dire sans tomber dans les travers d'un sous-emploi du personnel employé aux guichets. En outre, l'objectif d'un temps moyen relativement réduit est presque atteint déjà par l'AFP, pourtant le temps d'attente maximum reste encore élevé. Ensuite, le temps nécessaire au contribuable pour se déplacer aux sièges des institutions reste pratiquement incompressible. Ce temps, exclus de notre analyse pour des raisons

méthodologiques, n'est pas négligeable car les sièges sont situés en centre ville, à 20-30 minutes l'un de l'autre, soit l'équivalent du temps d'attente aux guichets. L'alternative serait d'éliminer la nécessité d'une présence physique du contribuable ou de son représentant pour le dépôt des déclarations.

#### **4.2. Le dépôt des déclarations en ligne**

La possibilité de déposer les déclarations en ligne a été introduite initialement pour les contribuables de Bucarest et du département Ilfov. Depuis novembre 2007, cette facilité est devenue accessible à 10 autres départements, dont Cluj. Malgré l'apparition d'une alternative aux files d'attente, seulement 4.171 déclarations ont été déposées en ligne durant le premier semestre 2008 (DGFP Cluj, 2008, p. 7). Ce chiffre – l'équivalent d'environ 10% des contribuables du département – est trompeur car il ne concerne pas le nombre de contribuables. En effet, selon le porte parole de la DGFP Cluj, seulement 737 certificats digitaux avaient été émis jusqu'au 5 mai 2008. Ce n'est pas la tendance à la hausse qui est une surprise – 246 contribuables avaient déposé en ligne leurs déclarations en novembre 2007 – mais plutôt l'intérêt réduit suscité par cette facilité auprès des contribuables.

La question est donc de savoir pourquoi les contribuables n'utilisent pas le dépôt en ligne des déclarations. Du point de vue de la rationalité économique, il existe deux réponses possibles : soit les coûts du dépôt « à l'ancienne » sont moins élevés et donc le comportement des agents serait rationnel, soit les coûts sont plus élevés mais les agents adoptent un comportement « irrationnel » pour des raisons à déterminer.

Notre étude empirique démontre que les coûts en temps nécessaires au dépôt des déclarations au guichet ne sont pas négligeables et sont certainement inférieurs au temps de dépôt en ligne, surtout si le temps de déplacement est pris en compte. Il semblerait donc que l'hypothèse de la rationalité est mise en défaut par le comportement des contribuables.

Cependant, une analyse plus approfondie montre qu'il existe des coûts explicites et implicites associés au dépôt en ligne. Leur niveau est tel que l'hypothèse de la rationalité n'est pas contredite. En effet, le dépôt des déclarations en ligne suppose l'acquisition d'un certificat d'identité (signature électronique) auprès d'une des (seulement) deux entités agréées. Initialement, les certificats étaient délivrés à titre gratuit par l'ANAF, mais depuis mai 2008, ce service n'est plus fourni par les services fiscaux. Le prix est d'environ 100 euro pour un certificat valable un an et il peut être utilisé pour déposer les déclarations d'une seule entreprise. Cela veut dire que dans le cas du dépôt en ligne – contrairement au dépôt au guichet – il n'y a pas la possibilité d'économies d'échelle pour les cabinets de comptabilité ou les comptables individuels qui tiennent les comptes de plusieurs sociétés ni même pour les entrepreneurs qui ont plusieurs sociétés. A ces coûts monétaires s'ajoutent les coûts en temps pour les démarches bureaucratiques nécessaires à l'enregistrement initial auprès de l'ANAF. En outre, en cas de dépôt en ligne, les contribuables perçoivent aussi le risque de l'absence d'une « preuve physique » de leurs démarches administratives. Ce risque perçu est difficilement quantifiable mais il n'est pas négligeable, compte tenu du montant élevé des amendes en cas de retard de dépôt. Leur montant minimum est forfaitaire et il est donc relativement plus difficile à supporter pour la grande masse des petits contribuables.

Par conséquent, le développement du dépôt des déclarations en ligne suppose de la part des autorités fiscales une attention à la maîtrise de coûts indirects que ce canal alternatif engendre pour les contribuables.

#### **4.3. Réduire la fréquence des déclarations et éliminer certaines d'entre elles**

Une approche plus ambitieuse serait la réduction de la fréquence des déclarations, voire par l'élimination de certaines d'entre elles. Cela ne constitue pas un objectif illusoire, comme le démontre la réussite de l'Estonie, pays qui a une expérience historique similaire à celle de la Roumanie. Le contraste entre les deux pays montre qu'il existe une marge de manœuvre significative pour la simplification administrative dans le domaine fiscal. En effet, selon le rapport « Doing Business » de la Banque Mondiale, les firmes estoniennes de taille moyenne doivent effectuer 10 paiements de nature fiscale par an et allouer 81 heures pour se conformer aux exigences administratives de nature fiscale ; ces chiffres sont 96 et, respectivement, 202 pour les firmes roumaines. Cependant, la simplification des démarches administratives de nature fiscale nécessite l'implication des autorités centrales (Parlement, Ministère de l'Economie et des Finances), bien au-delà de l'initiative de la publication en ligne du Registre des taxes fiscales et non-fiscales de l'administration publique centrale de Roumanie (MEF, 2008).

#### **5. Conclusions**

De manière paradoxale, en dépit de la réduction des taux des impôts sur les sociétés et sur les revenus, l'attractivité fiscale de la Roumanie reste réduite aux yeux des investisseurs étrangers et roumains. Une des explications invoquées est la charge fiscale non-monnaire, c'est-à-dire le coût des démarches administratives induites par la fiscalité. L'estimation du temps passé par les entrepreneurs du département de Cluj aux guichets de deux administrations suggère que ce temps est significatif : 17 minutes pour l'AFP et 34 minutes pour l'ITM. Le coût d'opportunité qui lui est associé est difficile à justifier car il n'est associé à aucune redistribution de richesse envers des groupes défavorisés mais représente plutôt une perte sèche pour la société.

Les autorités fiscales locales peuvent réduire le fardeau fiscal non-monnaire supporté par les contribuables. Cependant, l'efficacité des mesures prises au niveau locales est limitée car le temps moyen passé aux guichets avoisine (au moins dans le cas de l'AFP) un niveau relativement réduit. Une piste plus prometteuse est la réduction du nombre des démarches administratives ou, au moins, leur déroulement en ligne. L'alternative du dépôt en ligne des déclarations est disponible depuis 2008 mais elle a enregistré un succès modéré.

Ce second paradoxe est expliqué par les coûts – visibles et cachés – que cette solution engendre pour les entrepreneurs. Il s'agit notamment du prix à payer pour les certificats d'identité numériques et du risque perçu par les contribuables à cause de l'absence des « preuves physiques » opposables aux autorités fiscales en cas de contrôle. Par conséquent, l'implication des autorités centrales (Parlement et Ministère de l'Economie et des Finances) est nécessaire pour une amélioration significative de l'attractivité fiscale de la Roumanie et plus généralement de l'environnement économique du pays.

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## AUDIT QUALITY DIFFERENCES AMONG BIG 4 AUDITOR: CASE FROM MALAYSIA

**Tyrone M. CARLIN,**  
University of Sydney, Australia

**Nigel FINCH, Nur Hidayah LAILI\***  
Macquarie University, Australia

**Abstract.** Audit quality can be defined as relates to the level of assurances or probability that financial statements contain no material omissions or misstatements. Previous research on audit quality relies on the assumption that big audit firm provided high audit quality. There is evidence that large audit firms provide higher quality audits and offer greater credibility to clients' financial statements than small auditor. However, the collapse of Arthur Anderson has undermined the assertion that large auditors are associated with high audit quality. Recent study had an attempt to distinguish audit quality services among big audit firm as to question the assumption that the quality of audit services provided by big audit firms has been assumed to be treated as homogenous. Thus, this paper examined the audit quality pertaining to the disclosure requirement under the new FRS 136 in the transition period. The data were from the 2006 annual report for 34 large Malaysian listed corporations and all companies were clients of "Big 4" auditors. The result found that the audit firm identity appear to be a substantial proportion of observed cross sectional variation. Which, the quality of disclose pertaining to impairment testing process were significantly varies among Big 4 audit firms.

**JEL Classification:** M42

**Keywords:** Audit Quality, Goodwill Accounting, FRS 136, Impairment testing, Malaysia

### 1. Introduction

Auditors play an important role in maintaining and issuing high-quality financial reports. The question of whether auditors effectively play this role in ensuring credible accounting information has received much attention. Since, the

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\* Corresponding author: Macquarie Graduate School of Management, Macquarie University NSW 2109 Australia, Phone: +61 4 2047 9625, Email: nur.laili@students.mq.edu.au

Enron bankruptcy in 2001 and the related collapse of Arthur Andersen in 2002, auditors of big 4 firms have become widely criticized on the auditing process and the quality of audits being performed (Francis, 2004). These criticisms concern the audit quality among big 6 (currently Big 4) audit firms, which are normally considered the leading audit firms and associated with higher audit quality (Lam and Chang, 1994).

The perception that audit quality varies systematically across classes of audit firms has been a very productive research since the 1980's. Large audit firms provide higher quality audits and offer greater credibility to clients' financial statements than small audit firms (Lennox, 1999). It is because large auditors have better reputations and auditors with many clients will also be more concerned with maintaining their reputation; hence is less likely to lower audit quality (DeAngelo, 1981). In addition, larger audit firms are generally perceived as the provider of high audit quality and would attempt to maintain their independence to keep up their image (Dopuch, 1984). It employed the assumption that audit quality is relatively homogeneous across audit firms (DeAngelo, 1981)

On the other hand, there are opinions about the lack of audit quality through the provision of non-audit services. It has been argued that audit firms offer a range of specialized services besides audit services, which may impair auditor independence (Healy and Lys', 1986, Sabri, 1993 and Chen et. al 2005). According to DeAngelo, 1981, the auditor's provision of non-audit services creates an economic bond on the auditor and may potentially cause the auditor to be financially reliant on the client and being less independent.

Consequently, the transition to the new and revised financial reporting standards (FRS) in Malaysia effective from 1 January 2006, will present a great challenge for auditors of financial reports. Auditors have to audit more information as the new standards will cover a bigger area and need to disclose more to the users of financial statements. Prior to that, auditors have to take note of a client's potential insufficient preparations, which can result in being risks in their audit process. In particular if the previous standards are different significantly from the new standards or nonexistent.

As such, this research investigates whether there is any audit quality difference among the Big 4 Auditors by looking at the disclosures pertaining to the high risk issue of goodwill impairment (FRS 136 – *Impairment of Assets*) testing made by a sample of large Malaysian listed corporations in the first year after their transition to FRS.

This research commences with a brief review on theoretical and empirical prior research on the audit firm size which impacts on the audit quality. Then section 3, consists of details of the data and methodology employed. Next, section 4 discusses the results of the study and lastly, section 5 constructs a conclusion and suggests some potential further research.

## **2. Literature review**

Audit quality can be defined as the probability that an error or irregularity is detected (DeAngelo, 1981) and the willingness to report any material manipulation or misstatements that will increase the material uncertainties or/and going concern problems (Bradshaw et al., 2001). In other words, the audit quality assures that financial statements will contain no material omissions or misstatements (Palmrose, 1988).

Many researchers frequently used audit firm size as a surrogate for audit quality. It is assumed that larger audit firms incur costs to develop a reputation for adding value to the audit and are better able to detect and reveal management's errors or irregularities in financial reporting (DeFond and Jiambalvo 1993). DeAngelo (1981) has suggested that large auditors have more reason to issue accurate reports because they have more valuable reputations and the auditor has a greater reputation to lose if they misreport. Another explanation is that larger audit firms have more clients and the aggregate quasi-rents at stake are higher and would better motivate them to detect and report such breaches of standards (Francis and Wilson, 1988).

Prior audit research has tested audit quality under the established assumption that larger audit firms provide higher audit quality. Becker et al. (1998) suggests that large audit firm is able to detect earnings management because of their advanced knowledge and act to control opportunistic earnings management to protect their reputation. This is shown in the result that clients of large audit firm have lower discretionary accruals than other audit firm clients.

Capital market studies have found that the stock market reacts more positively when a company switches to a large audit firms [Nichols and Smith, 1983; and Eichenseher et al., 1989] and Teoh and Wong (1993)] and report higher earnings response coefficients for clients of large audit firms compared to clients of non-large audit firms. Other studies on the market reaction to the initial public offerings of stocks, reveals that the trading volume on the first trading day was significantly larger for Big Eight clients than for non-Big Eight (Jang and Lin, 1993). Study by Balvers et al., 1988; and Firth and Smith, 1992 had demonstrated that companies involved in IPOs experience less under-pricing when they hire large audit firms.

The evidence above provides that auditor size is in fact a surrogate for audit quality and it is widely accepted. However, the bankruptcy of Enron and the related collapse of Arthur Andersen have undermined the assertion that large audit firms are associated with higher audit quality and the assumption that large audit firm quality homogeneity should be subjected to scrutiny. Fuerman (2003) empirical research has examined the quality-differentiated among Big Six auditor and the results suggest that Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG and Price Waterhouse were each higher quality auditors compared to the non-Big Six. But, the results do not suggest the same with regard to Arthur Andersen.

On the other hand, empirical research by Eisenberg and Macey (2003), analyze restatements by auditor and find no difference in audit quality among Big Auditors, including Arthur Andersen, based on restatement data. Other study by Tiliis (2005) also supports the assertion. She found that none of the Big Auditor, particularly Arthur Andersen, was producing significantly lower quality audits as perceived by financial markets. Therefore, there is small evidence showing the existence of variation in audit quality among large auditor.

The Enron controversy, the exit of Arthur Andersen from the public auditing services market, as well as new empirical research suggests that an empirical study of audit quality among Big-4 auditor is essential. Moreover, there are



substantial numbers of large companies audited by Big 4 auditor<sup>1</sup>. As a consequence, the adoption of International Financial Reporting Standard (IFRS) gives huge impact on the auditor and prepares of financial statement. For auditors the complexity of IFRS transition and a client's potential insufficient preparations can result in being risks to the audit assignment, especially if the prior IFRS practice has not exists. Malaysia is one of the cases in implementing FRS 136 – *Impairment of Assets* for the first time.

The new accounting treatment for goodwill represents one of the biggest challenges to Malaysian reporting entities. Most entities will be impacted by the more prescriptive impairment test under FRS 136. The requirement to perform annual impairment test for goodwill, in addition to the requirement to test when there are indication of impairment, will be very significant for many entities. Entities will also need to deal with significantly expended disclosure requirements in particular in relation to recoverable amount and impairment testing, including information about key assumptions.

The value of goodwill has been impaired in a given year is determine by the recoverable amount of portfolios of assets. Paragraph 18 of FRS 136 – *Impairment of Assets*, defines recoverable amount as the higher of an asset's or a cash generating unit (CGU)'s fair value less costs to sell and its value in use. This involves a selection of fair value or value in use and company is required to disclosure which method has been adopted. However in Malaysia's scenario, the absence of active and liquid market for portfolios of assets' valuation makes companies elected to adopt value in used method as to determine the recoverable amount.

The disclosure requirement for companies adopted value in used are informative for financial statements users. Paragraph 134 (d) of FRS 136 – *Impairment of Assets*, states that the disclosure requirement if the unit's (group of units') recoverable amount is based on value in use;

- i. a description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive<sup>2</sup> ;
- ii. a description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information<sup>3</sup> ;
- iii. the period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a cash-generating unit (group of units), an explanation of why that longer period is justified<sup>4</sup> ;

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<sup>1</sup> As an example, recent study by Ali et. al. (2006) reported that as of 1998, 83% of public companies in Malaysia were audited by the then Big 5 (currently Big 4).

<sup>2</sup> FRS 136 – *Impairment of Assets*, Paragraph 134 d (i)

<sup>3</sup> FRS 136 – *Impairment of Assets*, Paragraph 134 d (ii)

<sup>4</sup> FRS 136 – *Impairment of Assets*, Paragraph 134 d (iii)

- iv. the growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated<sup>5</sup>; and
- v. the discount rate(s) applied to the cash flow projections<sup>6</sup>

In implementing the new standard for goodwill, companies need to deal with significantly expanded disclosure requirements in particular in relation to recoverable amount, impairment and information about the key assumptions. This has not change the format and nature of information recognized in the balance sheet but changed the information required in the notes to the accounts, for users to have a better understanding on the amount of goodwill reported in the balance sheet.

From an auditor's perspective, the new IFRS requires increases in disclosure and, therefore, greater audit effort is needed (Hoogendoorn, 2006). The expanded disclosure in goodwill impairment testing created additional work for auditors, where the level of attention required to the additional information pertaining to the disclosure of goodwill and the assessment of its potential value impairment. Thus, the concentration is not solely on the value of goodwill stated in the balance sheet, but also the information disclose in the notes to the accounts.

Recent study by Libby et. al. (2006) indicate that partners of Big 4 auditor required almost complete correction on the amount recognized in the balance sheet and almost no correction on the information disclosure in the notes to the accounts. In other word, auditors are willing to tolerate more error in disclosed numbers in the notes to the accounts than in recognized numbers in the balance sheet, which reduce the reliability of disclosed numbers in the notes to the accounts. Thus, the disclosure requirement by transition to the new IFRS resulted into probability of audit quality differentials among auditors. As a result, it may impact audit quality since the auditor's responsibility was to assure that financial statements will contain no material omissions or misstatements (Palmrose, 1988).

As a consequence, the adoption of FRS 136 *Impairment of Assets* initiates three significant ways that give a huge impact on the treatment of goodwill. First, goodwill acquired in a business combination is allocated to the CGUs and test for impairment annually or whenever events or circumstances indicate its value may have been impaired (FRS 136)<sup>7</sup>. Second, the discount rates applied to the cash flow projections in the context of impairment testing exercises. Third, the growth rates used to extrapolate cash flow projections in the impairment testing exercises.

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<sup>5</sup> FRS 136 – *Impairment of Assets*, Paragraph 134 d (iv)

<sup>6</sup> FRS 136 – *Impairment of Assets*, Paragraph 134 d (v)

<sup>7</sup> FRS 136 – *Impairment of Assets* requires that goodwill should, from the acquisition date, be allocated to cash-generating units of the combined entity. A CGU is the smallest identifiable group of assets that generates cash inflows that is largely independent of cash inflows from other assets or group of assets. It as well represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Then, the recoverable amount of the cash generating unit must be assess by comparing the higher of fair value less disposal costs and value in use. Finally, impairment must be recognized when the amount by which the carrying amount of a cash generating unit exceeds its recoverable amount.

The importance of the technical process of goodwill impairment testing process had been explained clearly in previous literature (Carlin et. al. 2007). The allocation of goodwill to CGU for an impairment testing is a crucial process, as it reflects the impairment loss being recognized. Higher risk of inappropriate of CGU aggregation may have an implication on the goodwill impairment testing process. Results reveal that constituent allocates goodwill to too few CGUs and this could cause in avoiding the impairment charges. This happened by the possibility that the constituents combining non perfectly correlated assets portfolios, where it could be argue that the aggregated assets portfolios can be defined independently at a lower level of aggregation rather than as disclosed for impairment testing by the reporting entities<sup>8</sup>

Therefore the investigation on the aggregation of CGUs defined by reporting entities gives some information on the level of rigour inherent in conducting the audit. The disclosure requirements of FRS 136 – *Impairment of Assets* pertaining to discount rates and growth rates used for impairment testing are also being examine, which may provide evidence of variation in audit quality. Data and methodology of this research is discussed in the next section.

### **3. Data and Methodology**

All business combinations with the agreement date are on or after 1 January 2006 are required to comply with FRS 136's requirement. For that reason, the 2006 annual report for Malaysian companies listed in the 100 FTSE<sup>9</sup> Bursa Malaysia with the accounting period ended on December has been gathered.

In constructing the final research sample of 34 companies, the following procedures were undertaken. First, the largest 100 Malaysian listed companies (ranked by market capitalization as at 3 April 2007) were identified. Then, 36 companies were excluded as not having goodwill as comprising an element of their asset base in their 2006 consolidated financial statements. A further 28 companies were excluded as the accounting period ended other than December. This is due to the effect of goodwill being recognized which arrived from the business combination with the agreement date are on or after 1 January 2006. Another 2 companies were excluded because they were audited by non-Big 4 auditors. Details of the final research sample's companies, their market capitalization and the value of their goodwill balances are set out in Appendix A. The research

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<sup>8</sup> The allocation of goodwill will need to be carefully thought through. Take a company which has a number of portfolio of assets and each one is being able to generate cashflows independently from each other. Assume that each portfolio of assets has characteristics that vary in term of the risk and growth patterns of the cashflows. For the impairment testing process, usually the value of each portfolio of assets being assessed by referring to the recoverable amount from the estimated discounted value of future cashflows. If the estimated recoverable amount is lower than the book value attributed to the asset in the portfolio, an impairment losses being recognized to the particular portfolio. Thus, an appropriate write down against earnings will be required. If this process is being repeated with combination of non perfectly correlated cashflows risk and growth by each asset portfolios, it will foam a larger combined portfolio. Which, the aggregated assets portfolios is to reduced the overall risk and thus reduced the possibility of impairment occurred.

<sup>9</sup> The largest 100 FTSE Bursa Malaysia companies are ranked by market capitalization as at 3 April 2007

sample represented 35.2% of FTSE Bursa Malaysia total market capitalization as at the conclusion of December 2006.

To facilitate analysis of the final research sample, the thirty four companies were divided into six groups comprising organizations with related principal lines of business. At the date of sampling, the thirty four companies included in the final sample controlled assets valued at RM 572,393 million, which included goodwill of RM 31,202 million. An overview of the research sample broken down by assigned sector, the ringgit Malaysia value of company assets within the sector, and the ringgit Malaysia value of goodwill for each sector is shown in Table 1.

Table 1. Overview of Research Sample

Sector	Total Assets (RM million)	Total Goodwill (RM million)	Goodwill as % of Total Assets
Basic Materials & Oil & Gas ( <i>n</i> =2)	5,695	195	3.43%
Consumer Goods ( <i>n</i> =5)	57,375	798	1.39%
Consumer Services & Health Care ( <i>n</i> =3)	64,667	5,200	8.04%
Financials ( <i>n</i> =11)	349,289	9,783	2.80%
Industrials ( <i>n</i> =9)	82,159	4,136	5.03%
Technology & Telecommunication & Utilities ( <i>n</i> =4)	13,208	11,090	83.96%
TOTAL ( <i>n</i> =34)	572,393	31,202	5.45%

Table 2 shows the number of companies audited by each of the big 4 auditor, by industry sector. The number of client for each auditor is inconsistent, which Ernst & Young dominates 47.06% of the companies included in the research sample. Then, PricewaterhouseCoopers (PWC) and KPMG at 29.41% and 20.59% respectively and Deloitte auditing only 2.94% of the companies in the research sample.

Table 2. Number of Companies Audited by Sector

Sector	Deloitte	Ernst & Young	KPMG	PWC
Basic Materials & Oil & Gas ( <i>n</i> =2)	-	-	2	-
Consumer Goods ( <i>n</i> =5)	-	3	1	1
Consumer Services & Health Care ( <i>n</i> =3)	-	2	-	1
Financials ( <i>n</i> =11)	-	5	2	4
Industrials ( <i>n</i> =9)	1	5	1	2
Technology & Telecommunication & Utilities ( <i>n</i> =4)	-	1	1	2
TOTAL ( <i>n</i> =34)	1	16	7	10

Table 3 shows the key descriptive statistics for the companies in the research sample classified by auditor. On average, Ernst & Young dominate the number of client in the research sample, but it was smaller (as measured by market capitalisation) compared to other client of Big 4 auditor. Then, the potential earnings sensitivity of PWC clients to impairment losses on goodwill write downs was on average higher than for clients of other Big 4 auditor included in the sample. Key descriptive statistics pertaining to the firms in the research sample, sorted by audit firm identity are set out in Table 3.

Table 3. 2006 Descriptive Statistics of Companies by Auditor

Description	Deloitte <sup>10</sup> (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
Mean Market Capitalisation (RM million)	5,155	3,301	6,870	17,280
Mean Total assets (RM million)	3,817	17,511	25,540	10,962
Mean Goodwill (RM million)	1,188	127	438,829	2,491
Mean NPBT (RM million)	212	222	459	1,216
Goodwill as % assets (financials)	-	0.45%	1.34%	54.83%
Goodwill as % assets (non-financials)	27.25%	1.18%	6.35%	18.63%
Goodwill as % assets (all sectors)	27.25%	0.72%	1.72%	22.73%
Ratio of Goodwill : NPBT	6 : 1	0.57 : 1	0.96 : 1	2.05 : 1

In order to fulfil the objective, this study examined whether there is an evidence of possible variation in the quality and consistency of goodwill impairment disclosure, with the audit firm being the explanatory variable. There are three key issues disclosure requirements under FRS 136 – *Impairment of Assets* are of potential interest and can be investigated. Hence, a key starting point relates to the allocation of CGU, discount rate disclosure and growth rate disclosure. Consistence with Carlin et. al. 2007 studied, six analytical structures were applied to the data. First, companies in the research sample were sorted by audit firm according to the choice of method employed in estimating the recoverable amount of CGU assets. These choices of method include a value in use approach to recoverable amount estimation, a fair value approach, a combination of methods, or failed to provide disclosure.

Second, the companies in the research sample were sorted by audit firm, according to whether they allocate all the value of goodwill to the CGUs, for the purpose of impairment testing or whether there is no meaningful information indicate that how or if the value of goodwill being allocate to CGUs.

<sup>10</sup> Deloitte have only one client in the observe companies (which represent 2.94% of observation). Therefore, in this analysis procedure it will not include for the comparison purposes as it may provide bias result.

Third, the companies in the research sample were sorted by audit firm according to whether the number of defined CGUs was larger than the number of business segment defined by the company, or whether the number of defined CGUs is equal to business segment defined, or whether the number of defined CGUs is small than the business segment defined, or no effective disclosure of data pertaining by the company.

Forth, the companies in the research sample were sorted by audit firm and to have a better understanding on the characteristics of the defined CGUs and to identify whether there is an evidence of variation in audit quality, the analysis is expended by calculating the CGU to business segment ratio to each company, which effective disclosure existed support the calculation.

Fifth, the companies in the research sample were sorted by audit firm according to the disclosure quality of discount rates used in the impairment testing process. Carlin et al. 2007 approach suggested to apply taxonomy for discount rates and categorized it in four elements i.e 'no effective disclosure', 'range of discount rate', 'single explicit discount rates' and 'multiple explicit discount rates'. Allocation of a company in the first category signified that companies provide inadequate disclosure regarding the discount rate and as a result it provides no meaningful information for external analysts relating to the impairment testing process. Therefore, companies in this category breach the requirement under FRS 136 – *Impairment of Assets*.

In the second category i.e. 'range of discount rates' companies that was been categorized under it still provide information regarding the process of impairment testing. However, companies under third category disclosed a range of discount rates used across a range of CGUs. This is questionable in term of fulfilling the requirements under FRS 136.

Companies in the third category i.e. 'single explicit discount rate' indicated that the company disclose a single discount for each of the CGU. Meaning that the company allocate the same amount of discount rate for each CGU even though CGU risk levels were arguably different.

Finally, the company in the fourth is fully complied with the requirements of FRS 136 in relation to discount rate. The companies in this category have disclosed the details of the specific discount rates used to discount cashflow for the purpose of impairment testing for each of the CGU, and used multiple discount rates which reflect the risk characteristics of each CGU. It also indicate that the quality of disclosure was adequate in giving useful insight for external analysts to rely on the process of impairment testing employed by the sample company.

Relating to the growth rate as required under FRS 136 – *Impairment of Assets*, the same methodology employed which the result sorted by audit firm identity. Companies in the sample allocated their growth rate to four categories i.e. 'multiple growth rates and periods for each CGU', 'single growth rate and period for all CGUs', 'partial disclosure only' or 'no effective disclosure'. The results of the analysis are reported in section four.

#### **4. Results and Discussion**

The research interest of this paper establish around the audit quality among Big 4 auditor by looking at disclosure requirement for goodwill impairment pertaining to FRS 136 *Impairment of Assets*. Thus, the disclosure requirement is focus on the CGUs as an element of impairment testing. The analysis of

companies in the sample was related to the choice of method employed in estimating the recoverable amount of CGU assets and determined whether goodwill impairment had occurred. Table 4 sets out the frequency of companies' choice of method in estimating the recoverable amount of CGUs, which sorted by audit firm.

Table 4 – Method Employed by Companies to Determine Recoverable Amount

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
Fair Value method	-	-	-	-
Value in Use method	-	11	3	10
Combination of methods	-	1	-	-
No effective disclosure <sup>11</sup>	1	4	4	-

The main approach used as a basis for the estimation of recoverable amount was the value in use method, used by 24 of 34 companies in the research sample. Only 1 company used mixed method and none of the companies adopted fair value method in estimating CGU recoverable amount. In Malaysia's scenario, the reliability of using a fair value method in estimating the recoverable amount of CGUs is questionable since there are limited active and liquid markets (Fah, 2006). This could be the explanation why none of the companies used fair value method in determining the CGU recoverable amount for impairment testing. Nine out of 36 companies have not disclosed the method used in determining the recoverable amount<sup>12</sup> for CGU.

Looking at the audit firm identity, the data does not demonstrate any meaningful cross sectional variation, but it is surprisingly those four clients from each audit firm (Ernst & Young and KPMG) and one client audited by Deloitte, have insufficient disclosure of method employed in determining the recoverable amount for the impairment testing. Ernst & Young's client, Bintulu Port Holdings Berhad, Boustead Holdings Berhad and Magnum Corporation Berhad, the value of goodwill are RM 11 million, RM 108 million and RM 31 million, respectively. Whereas client of KPMG i.e. KNM Group Berhad and Ta Ann Holdings Berhad with RM 4 million each for value of goodwill. It could argue that both of the audit's clients have immaterial value of goodwill in comparison to the company's balance sheet as a whole<sup>13</sup>.

<sup>11</sup> The auditor identity, value of goodwill and companies with no effective disclosure on the method used to determined the recoverable amount for impairment testing were: [Deloitte & Touche], Lafarge Malayan Cement Bhd (LCEMENT) RM 1,188 million, [Ernst & Young], Bintulu Port Holdings Berhad (BIPOrt) RM 11 million, Boustead Holdings Berhad (BOUSTEAD) RM 108 million, Magnum Corporation Berhad (MAGNUM) RM 31 million, Multi-Purpose Holdings Berhad (MPHB) RM 548 million, Chemical Company of Malaysia Berhad (CCM) RM 191 million, KNM Group Berhad (KNM) RM 4 million, Ta Ann Holdings Berhad (TAANN) RM 4 million, Time Dotcom Berhad (TIMECOM) RM 591 million.

<sup>12</sup> It is clearly shown that these companies breach of FRS 136 – *Impairment of Assets* due to failure to disclose the information regarding the method employed to determined recoverable amount.

<sup>13</sup> Referring to the FRS 136 – *Impairment of Assets*, all of the goodwill balances are subject to an impairment testing. Even, if the value of goodwill is immaterial as compared to the

Each of the audit firm's client, Deloitte & Touche, Ernst & Young and KPMG, had a material value of goodwill. The client for Deloitte & Touche is Lafarge Malayan Cement Berhad and the value of goodwill is RM 1,188 million, whereas client for Ernst & Young is Multi-Purpose Holdings Berhad and the value of goodwill is RM 548 million and client of KPMG are Chemical Company of Malaysia Berhad and Time Dotcom Berhad, with value of goodwill RM 191 million and RM 591 million, respectively. There is no clear justification on the failure of these companies to clearly disclose as required by FRS 136 – *Impairment of Assets* and looking at the value of goodwill above, the lack of information was surprisingly. On the other hand, none of PWC's client failed to provide this basic level of disclosure. However, taking this limited data set into consideration, it is not possible to construct a conclusion of variation explained by audit firm identity alone.

The next analysis employed was comparing the allocation of total reported goodwill value of each sample company with the total values of company's defined CGUs. As set out in Table 5, the annual reports of thirty four companies reveal two different cluster of practice. The companies in the sample were categorized as fully compliant (in which case it was possible to allocate the total amount of goodwill from the balance sheet to the goodwill component allocated to CGUs) or non-compliant (companies that failed to allocate any goodwill to CGUs) with the disclosure requirement under FRS 136.

The first cluster consists of 19 companies that are fully compliant with FRS 136 and second cluster consists of 15 companies with no allocation of the value of total goodwill to CGUs as require in the standard. In other words these companies are not complying with the disclosure requirement under FRS 136. The number of companies in second cluster is surprising, 15 out of 34 (44.12%) have no meaningful disclosure in regards to the allocation of goodwill to CGUs.

Table 5. CGU Allocation Compliance by Auditor

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
Fully compliant	1	8	2	8
Non-compliant <sup>14</sup>	-	8	5	2

From an audit firm identity, there still a few evidence of cross sectional variation in practice. But, the number of reporting entities that failed to provide any meaningful

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value of the balance sheet as a whole. In the case of Boustead holdings Berhad with value of goodwill RM 108 million, it is arguable that at least some valuation of the assets is conducted because the value may represent a material component of reported earnings.

<sup>14</sup> Non-compliant companies were those who failed to allocate any goodwill to CGUs. The requirement under Paragraph 80 of FRS 136 *Impairment of Assets* are "For the purpose of impairment testing, goodwill shall be allocated to each of the acquirer's cash-generating units, or groups of cash generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units". Those companies and the value of their goodwill, deemed non-compliant can be view at Appendix 2. In total, RM7,483 million in goodwill was not allocated to CGUs. This represents approximately 23.98% of the combined goodwill of the top 34 companies.



disclosure as required in the paragraph 80 of FRS 136 – *Impairment of Assets* (disclosure related to the allocation of total goodwill to CGUs) was relatively high. Possibly, 10<sup>15</sup> of these 15 companies could argued based on the immaterial amount of goodwill at the balance sheet level. But, the remaining 5<sup>16</sup> companies could not be maintained in this issue and have not provided any qualification of the audit report pertaining to their financial statements. The two analyses above did not provide enough evidence of cross sectional disclosure practice variation pertaining to the audit firm identity. But, the next analysis did provide consistence pattern with this possibility. Table 6 below reveals that part of KPMG’s client has a greater tendency to define few CGU as compared to the business segments or did not provide meaningful disclosure on CGU definition than other client of the Big 4 audit firms, especially PWC.

Table 6. Business Segments and CGU Aggregation by Auditor

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
No Effective Disclosure <sup>17</sup>	-	8	5	2
CGUs < Segments	1 <sup>18</sup>	4	1	5
CGUs = Segments	-	2	-	2
CGUs > Segments	-	2	1	1
Proportion of firms where CGUs <	100%	75%	86%	70%
segments or no effective disclosure				

The proportion of KPMG clients defined fewer CGUs than business segments or did not provide meaningful disclosure on allocation of goodwill to defined CGUs is 86%. However, client of Ernst & Young and PWC have a slightly lower proportion compared to KPMG clients that are 75% and 70% respectively. The result shows that a higher risk factor of CGU aggregation in KPMG clients than other big audit firms, but the difference of percentage is small and this suggests that clients of Ernst & Young and PWC still have high risk factor of CGU

<sup>15</sup> One of these 10 companies, Kumpulan Guthrie Berhad, audited by Ernst and Young, had stated in the notes to the accounts of goodwill that they had allocated the goodwill to nineteen CGUs. However, what they did not disclose in the notes to accounts is the total value of goodwill been allocated to each of the nineteen CGUs, even though they had an impairment losses recognized in the income statement

<sup>16</sup> One of the PWC’s clients, Genting Berhad, had recognized an impairment loss in the income statement without any allocation of goodwill to CGU. Other than breach the standard, it shows that the company did not provide enough information on the process of impairment testing

<sup>17</sup> The companies that provided no effective disclosure on business segments and CGU allocation were : BPORT (E&Y), BSTEAD (E&Y), BAT (PWC), CCM (KPMG), GENTING (PWC), KNM (KPMG), GUTHRIE (E&Y), MAGNUM (E&Y), MPH B (E&Y), Nestle (KPMG), PACMAS (E&Y), PPBOIL (E&Y), TAANN (KPMG), TIMECOM (KPMG), UEMBLDR (E&Y).

<sup>18</sup> Deloitte have only one client in the observe sample of 34 companies (which represent 2.94% of observation) in the research sample. Therefore, in this analysis procedure it will not include for the comparison purposes as it may provide bias result.

aggregation. However, in table 7 PWC clients show a high risk factor of CGU aggregation by only 10% of the CGU to business segment ratio is more than 1.01. The other two audit firm client i.e KPMG and Ernst & Young have slightly high percentage, 14.29% and 12.50% respectively. Therefore, it shows that KPMG and Ernst & Young still have high risk factor of CGU aggregation.

Table 7. Ratio of CGUs to Business Segments

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
No Effective Disclosure	-	8	5	2
CGU : Segment is between 0.0 – 0.5	1	1	-	-
CGU : Segment is between 0.51 - 0.99	-	3	1	5
CGU : Segment is = 1	-	2	-	2
CGU : Segment is between 1.01 - 1.50	-	2	1	1
CGU : Segment is > 1.50	-	-	-	-
Mean CGU : Segment ratio	0.50	0.44	0.28	0.71
Median CGU : Segment ratio	0.50	0.25	-	0.75
Minimum CGU : Segment ratio	0.50	0.00	-	-
Maximum CGU : Segment ratio	0.50	1.33	1.20	0.25
% CGU : Segment ratio > 1.01	NA	12.50%	14.29%	10%

Further analysis focus on the audit firm identity in the quality of disclosure pertaining to the discount rates applied in the cash flow projections to determine the recoverable amount of defined CGUs. Client of Ernst & Young make less effective disclosure pertaining to discount rates compared to other big audit firms especially PWC. However, in term of the average discount rate applied in the context of modelling CGU asset recoverable amount, KPMG clients used lower discount rate than other big audit firms especially PWC. This is shown in Table 8.

Table 8. Analysis of Discount Rates Used to Test Impairment

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
No Effective Disclosure <sup>19</sup>	1	7	5	1
Range of discount rates	-	2	-	-
Single explicit discount rate	-	5	1	3
Multiple explicit rates	-	2	1	6
Minimum discount rate	NA	4.00%	7%	5.09%
Maximum discount rate	NA	31.5%	10.6%	18.50%
Median discount rate	NA	9.00%	7.59%	11.28%
Mean discount rate	NA	9.35%	7.59%	11.30%

<sup>19</sup> Nine of fourteen companies did not adopt the value in use method are BIPORT (E&Y), BSTEAD (E&Y), CCM (KPMG), KNM (KPMG), LCEMENT (Deloitte & Touche), MAGNUM (E&Y), MPH B (E&Y), TAANN (KPMG) and TIMECOM (KPMG).

Even though the tendency that the data being influenced by industry effects<sup>20</sup>, using a lower discount rates to determine the recoverable amount estimation would results in increasing estimated asset recoverable amount and reduced the possibility that an impairment loss being recognized in any given year.

Table 9 provides an evident of the disclosure for estimating future growth rate by client of big 4 auditor in this sample. The result of the growth rates used in estimating the recoverable amount reveals that a similar pattern to the above discount rates did occur. It shows that Ernst & Young clients make less effective disclosure pertaining to growth rates which will not enables a financial statement user to meaningfully quantify the growth rates used as part of the cash flow projections. The PWC clients show a high quality of disclosures on a more frequency compared to client of other big audit firm.

Table 9. Analysis of Growth Rates Used to Test Impairment

Number of companies	Deloitte (n=1)	Ernst & Young (n=16)	KPMG (n=7)	PWC (n=10)
No Effective Disclosure	1	11	5	4
Partial disclosure only	-	-	-	-
Single growth rate and period for all CGUs	-	5	2	6
Multiple growth rates and period for each CGU	-	-	-	-
Mean explicit forecast period (years)	NA	2.69	1.14	4.80
Minimum growth rate	NA	0.00%	0.00%	0.00%
Maximum growth rate	NA	5.00%	6.50%	50.0% <sup>21</sup>
Median growth rate	NA	3.00%	2.75%	2.97%
Mean growth rate	NA	3.17%	2.75%	2.19%

By using higher growth rates to determine the recoverable amount of CGU assets, it would results in increasing estimated asset recoverable amount and reduced the possibility that an impairment loss being recognized in any particular year.

<sup>20</sup> Referring to Table 2, it shows that clients of Ernst & Young, KPMG and PWC were spread across the industries categorization for the purpose of this study. This did not appear for Deloitte, whose have only one client included in the research sample.

<sup>21</sup> One of PWC client, Scomi Group Berhad indicated that the company will grow at 50% compounded, in perpetuity after the conclusion of the explicit cash flow forecast period built into its recoverable amount estimation model. Scomi Group Berhad reported in the notes to the account that "the weighted average growth rate is consistent with the forecast included in industry reports". Ignores the outliers of SCOMI extreme growth rate assumptions (35% and 50%)

## 5. Conclusion

This research investigates the existence of audit quality difference among the Big 4 auditors by looking at the disclosures pertaining to the high risk issue of goodwill impairment (FRS 135 – *Impairment of Assets*). By pursuing the methodology used in Carlin et. al. (2007)'s study, the quality differences among Big 4 auditor was tested on a sample of large Malaysian listed corporations in the first year of transition to the new FRS regime. Even though the sample of data is small, the striking pattern did emerge.

Empirical results of this study provide evidence that variation in audit quality for Big 4 audit firm do exist. The result shows that, as compared to client of other Big 4 audit firms, KPMG client have a higher risk of CGU aggregation, whereas Ernst & Young client make less effective disclosure pertaining to discount rates and growth rates applied in the cash flow projections to determine the recoverable amount of defined CGUs. This will not enable a financial statement user to meaningfully quantify the discount rates and growth rates used as part of the cash flow projections. On the other hand, PWC clients tend to provide high quality of disclosure pertaining to discount rates and growth rates applied in determine the recoverable amount of defined CGUs. In other word, PWC clients do provide high quality disclosure under the requirement of FRS 136 – *Impairment of Assets*.

The possible explanation of lack disclosure is due to the first time adoption of accounting standard on goodwill for companies in Malaysia. The new accounting treatment for goodwill represents one of the biggest challenges to Malaysian reporting entities. Further study on the audit quality of disclosure relation to the provision of FRS 136 after the transition period would benefit for determining whether there is still a variation among Big 4 audit firms. The disclosure requirement of FRS 136 after the transition period will probably improved as companies gain experience in understanding its requirements.

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**THE EFFECTS OF FUNCTIONAL RESTRUCTURING  
AT THE BANCA COMERCIALA ROMANA.  
ENHANCING THE MARKETING STRATEGY.  
AN EMPIRICAL RESEARCH APPROACH**

**Eugenia Ana MATIȘ\***

Dimitrie Cantemir Christian University of Cluj Napoca, Romania  
& Banca Comerciala Romana, Romania

**Zsuzsanna NAGY**

Banca Comerciala Romana, Romania

**Abstract.** The improvement of the bank's functioning is a continuous process, especially in the case of a privatization, with powerful impact on the internal structures, and also on clients. In the case of the Banca Comerciala Romana, the shares have been sold to BERD and IFC. These institutions have implemented a programme with the title "The Institution's Structuring Programme", with the purpose of finalizing certain significant actions, which must be fulfilled by the BCR in the process of transformation, into a completely private commercial bank. The study presents and analyses a wide research, composed of two processes of client surveying.

**JEL classification:** G21, M19, M31

**Key Words:** functional restructuring, marketing strategy, bank strategy

## **1. Introduction**

The relationship between the bank and its client represents a systematic approach at the level of the whole bank. The clients have their own preferences related to banking activities, in the case of personal clients or corporate clients. The present study is based on a research related to performance management from the perspective of relationships with internal and external clients, and banking risk management from the perspective of implementing the Basel II system. After attracting a client, the bank is interested in maintaining the relationship, with the aim of improving its income that comes as a contribution from the client.

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\* Corresponding author: Dimitrie Cantemir Christian University of Cluj Napoca, Faculty of Economics, 56 Teodor Mihali Street, 400591, Cluj-Napoca, Romania. E-mail: eugenia.matis@cantemircluj.ro

This study analyses the way this relationship is made, the benefits resulting for the client as well as for the bank, in a period of transformation of the whole banking sector in Romania, in concordance with the European Union's standards. The legislation process of improving the norms of financial law in Romania is taking place, in order to get in concordance with the transition's necessities in the market economy. In these conditions, together with the new legislation, the financial law still contains overfulfilled norms that make this process more difficult. Due to this fact, the legislation process must be accelerated, especially in the financial domain, by adopting required regulations for improving and modernising the fiscal and the budgetary systems, according to the market economy's requirements.

In the same time, the legislation activity should be mobilised for harmonizing the present and future legislation in Romania with that of the European Union's, because there are numerous regulations that have not been changed after Romania's becoming part of the European Union. Harmonizing the legislation will extend, especially in the following fields: banking laws, accounts and taxes of firms, intellectual property, work-force protection and workplace protection, social security, financial services, competition regulations, consumers' protection. Within this transitory environment, the bank has the intention of developing in an active way a long-term relationship with its customers, based on reciprocal trust. The clients find themselves in front of taking financial decisions that would point in the direction of banks with a positive image. This provides clients the safety of decision-taking – in a relationship based on trust.

## **2. The Marketing Concept at the Banca Comerciala Romana. Introducing the Relationship Marketing**

In the commercial banks' sector, the product or service offered is, in essence, more or less the same at all the institutions in competition. The customer chooses the bank according to his / her own personal preferences that, in the most cases, are not linked to the product itself. The bank can maintain a client through offering consultation and education, this being the best service possible.

Therefore, the banking institutions orientation on these markets is concentrating more on clients and less on products. This means recognizing the clients' necessities at the first place, because there is no bank without clients. In order to understand the importance of clients for a bank and the importance of concentrating on their needs, their options' impact must be analysed in the financial and banking system. It is a well-known fact that clients are not obliged to work with a certain bank; they can select any of them. Most banks are searching for new clients and market segments for promoting their products and services.

The most significant benefit from a good relationship between bank and client is the fact that the client is encouraged to purchase all products and banking services from one certain bank, in order to become less tempted to appeal to other banks. Thus, the client portfolio's development is a major challenge for commercial banks, in the condition of growing competition and the evolution of Romania's economy. Hence, there is an aspect of banks' capacity in obtaining and maintaining stable relationships with clients – an aspect that requires from the bank the improvement of the quality of services, and in the same time, improving the products and services.



The relationship with clients, the role of the Front Office in making them devoted, stand at the foundation of a new marketing concept, that has in main focus the client, and only in a smaller measure the products or services. The role of commercial banks in the Romanian economy is permanently growing, and influences favourably the pressure coming from the customers on their relationships with banks – relationships meant to grow their advantages from using the banking services.

The modern marketing concept has at its base the development of stable relationships with clients, implying all the bank's resources. Because of this, it is essential to understand the process of pro-active communication between bank and client, active components in their relationship. The concept of relationship marketing was introduced first by L.L. Berry, in 1983, in a conference study on service marketing, as "attracting, maintaining and, in multi-service organizations, enhancing customer relationships" (Berry, 1995).

Berry admits that customer acquisition has to remain a major part of the marketer's and Front Office staff's responsibilities, highlighting the fact that the relationship view of marketing implied that development and partnership with clients is more important to the organization on a long term, than simple customer acquisition. The emphasis falls on relationships, rather than a flow of transactions. This perspective has in its focus the idea that customers have continuing value over the period they stay in business with an organization – in this study's case, a commercial bank. Among the many concepts regarding the marketing of relationships – which was the starting point at the Banca Comerciala Romana's structural changes – on a theoretical approach, we can also mention Gummesson, who agrees on the theory that relationship marketing is "seen as interactions, relationships and networks" (Gummesson, 1994)

Relationship marketing has developed significantly at commercial banks in Romania, after becoming a European Union member. The concept focuses on the nature of the relationship between the personal or business client and the financial institution, on a long-term level, taking into account the client's needs and quality. According to Gronroos, "The role of relationship marketing is to identify, establish, maintain and enhance relationships with customers and other stakeholders, at a profit, so that the objectives of all other parties involved are met; and this is done by a mutual exchange and fulfilment of promises" (Gronroos, 1990).

In order to approach clients, banks come up with sales force strategies. After establishing the objectives, they determine the strategy, the structure, the size and the method of selection. The strategy must offer explanations on the most suitable way of vending, the structure of the sales force and last but not least, the size of the sales force. A sales force that is oriented towards the market is going to be much more efficient on a long-term period than one oriented towards simple sales. Its efficiency will be reached only by attracting new clients, and also in obtaining long-term relationships full of advantages for both parties. The clients' satisfaction is thus essential when the main purpose is to maintain them and avoid their migration to other commercial banks. A client satisfied with the banks' products and services is the best and at the same time the cheapest marketing tool, bringing permanently new clients.

In the case of the Banca Comerciala Romana, the high dynamics of its clients confirms the trust it has in its working capacity, in the employees' quality and its products and services. At the moment, we can find in the client portfolio a

large number of firms, with shares held by the state, budgetary institutions, privately owned firms. However, the competition on the banking market is evolving day by day, and it is a great challenge for the Banca Comerciala Romana to maintain the highest market share in Romania. The bank has been marked by an important event – privatization, which began in 2004, and was finished in 2007, as presented in Cetateanu I.M.'s detailed book, on the history and development of the Banca Comerciala Romana, after its privatization (Cetateanu, 2007).

The improvement of the bank's functioning is a continuous process, especially in the case of a privatization, with powerful impact on the internal structures, and also on clients. In the case of the Banca Comerciala Romana, the shares have been sold to BERD and IFC. These institutions have implemented a programme with the title "The Institution's Structuring Programme", with the purpose of finalizing certain significant actions that must be fulfilled by the BCR in the process of transformation, into a completely private commercial bank. This project has contained numerous organizational actions, especially a programme linked to corporate governance.

In the organizational field, one of the most important projects of the strategy has been the grouping of the bank's activity on five business lines: financial, retail banking, corporate banking, risks, and operations. These changes have a strong influence on the bank's employees and on the clients as well. The Banca Comerciala Romana's reorganization strategy provides priority for attracting new clients, even though this process is much more expensive than maintaining the already existing ones. It is recognized that in the market economy, the cost of attracting new clients is four or five times higher than the development and maintenance of existing clients. Thus, maintaining the relationship with the already existing clients is an essential part of the marketing strategy.

Understanding the client is a starting point for the bank, and the factors that influence the client's behavior, as a customer, in his / her relationship to the bank are as it follows: trusting the banking system, the bank's reputation, accessibility to purchasing the services, the diversity of products and services, their perceived value, the possibility of fulfilling their financial and banking needs, and, very important, the existence of a kind and capable personnel.

While reorganizing the bank, the most important aspect related to the bank-client relationship was reconsidering the preoccupation towards the client:

- paying attention to the time provided for a client;
- paying attention to the moral values of clients;
- paying attention to the education of clients – helping the client understand his / her needs.

### **3. General Presentation of the Research Method**

The study presents and analyses a wide research, composed of two processes of client surveying. The first one was accomplished in 2007, before implementing the separately functioning business lines, when the signs of the privatization were not entirely visible for the external clients.

The second survey has been accomplished in 2008, after the Banca Comerciala Romana has passed through all major transformations, on every level. In order to make these surveys possible, external and internal clients have also participated.

The main objectives of the first research were to define and determine the level of customer satisfaction in their relationship to the bank, regarding products and services offered, as well as flexibility in approving loans. This survey has been finalized before the Banca Comerciala Romana's reorganization process on separate business lines.

The second research survey has been done in April 2008, with the participation of external clients, after the implementation of the reorganization strategy, with special focus on informing clients about the changes, the importance of the reorganization process for the client and last, but not least, the client's satisfaction towards the new structure. The methodology that has been used for collecting the information and the real determination of the above-presented aspects, has been the face-to-face interview based on questionnaires, with direct questions and more possible answer to choose from, in order to maintain a transparent and objective view while analyzing the resulting data.

This way, in the case of the first survey between 12-24 February 2007, a number of 200 external clients have been interviewed, both personal and business clients, approached whilst making banking operations. In the case of the second survey, there were 200 external clients interviewed, and 50 internal clients of the Banca Comerciala Romana, between 1-15 April 2008, after the end of the reorganization process.

The main goal of the study consists of comparing the two survey's results, regarding the decisive aspects of the bank-client relationship, and the client's reaction in front of a major structural change of the bank.

#### **4. Empirical Analysis of the 2007 Research Survey**

Between 12 and 24 of February 2007, the Business Development Department together with the Marketing Department of the Banca Comerciala Romana Cluj County Branch has organized a research survey for external clients, both personal and business clients, with the aim of defining their grade of satisfaction towards the bank's products and services they are using, and possible advice in improving their quality.

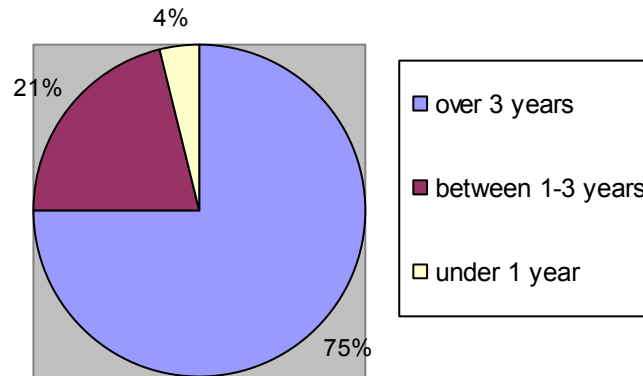
The objectives of the survey were as follows:

- Understanding clients' preferences in finding out information about the bank's products and services;
- Analyzing the interviewed clients' opinion on the bank's attitude towards its clients, highlighting certain aspects, such as informing, confidentiality, operativity and flexibility;
- Analyzing the grade of using the bank's products and services;
- Highlighting the reasons why clients might leave the bank.

As a result of completing and centralizing the data from the survey, the following information has been collected:

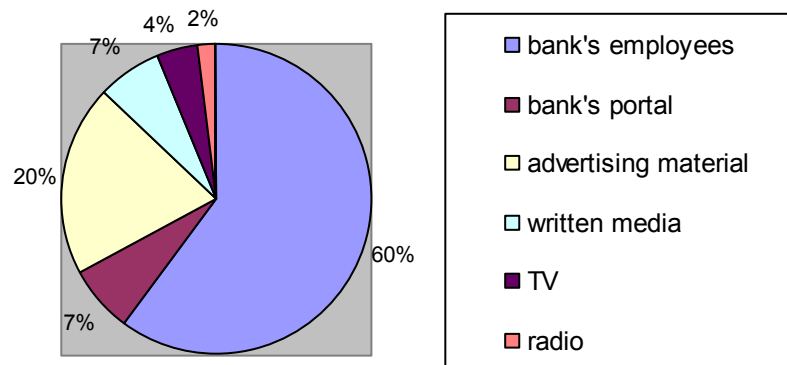
1. The Banca Comerciala Romana's clients' profile is: 75% clients of the bank for more than 3 years, and 21% have been clients between 1 and 3 years.

Figure 1. For how long they have been BCR clients



2. The information channels preferred by the strategic clients – all of the interviewed clients agreed on the fact that the bank’s personnel is the most important channel of information, product promotion, but advertising is also an important way to provide information.

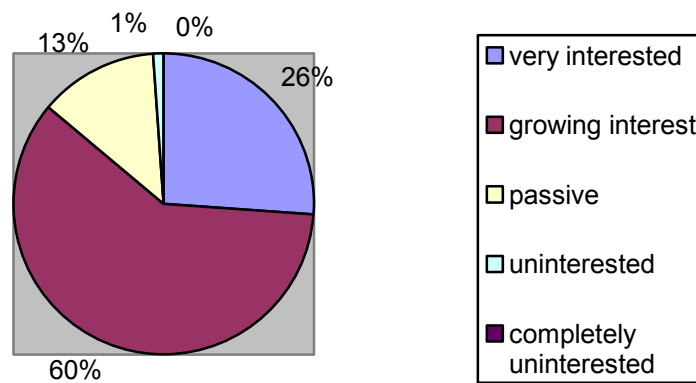
Figure 2. Information channels preferred by strategic clients



To the question “How do you appreciate the quality of information provided by the bank to the clients” – a proportion of 47% opted for very good quality, and 44.7% for good quality.

3. In the case of the bank’s attitude towards clients, the interviewed clients agreed in a proportion of 60% that the bank manifests a growing interest towards them.

Figure 3. Attitude towards clients



4. In order to have a detailed image of the level of clients' satisfaction, the bank's activity has been detailed, thus:

- Taking into consideration the bank's products and services:

The clients' appreciation of operativity and flexibility in loan approval: from the 200 clients interviewed, we could not take into consideration those who did not have any loans, thus a number of 136 answers was the result. Among these answers, 52 are satisfied and 34 are very satisfied; 36 are passive. As a conclusion, 89.71% of the clients are satisfied with this aspect.

Figure 4. Satisfaction grade towards BCR products and services

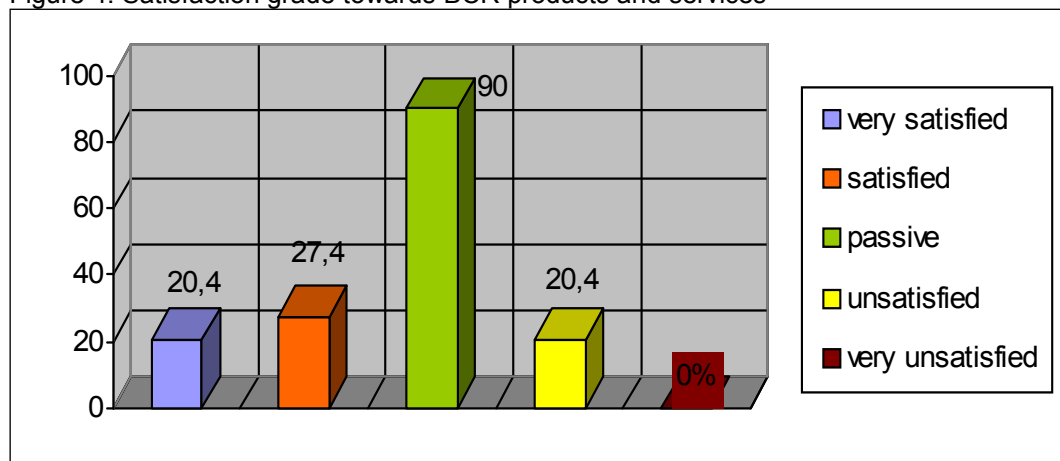
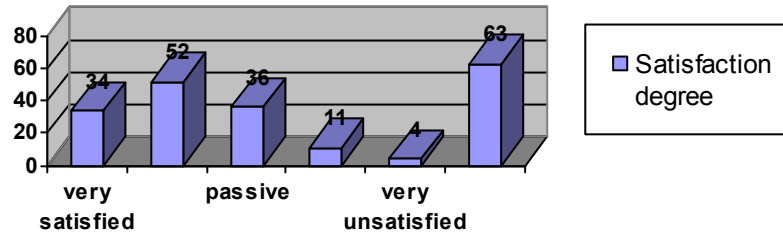
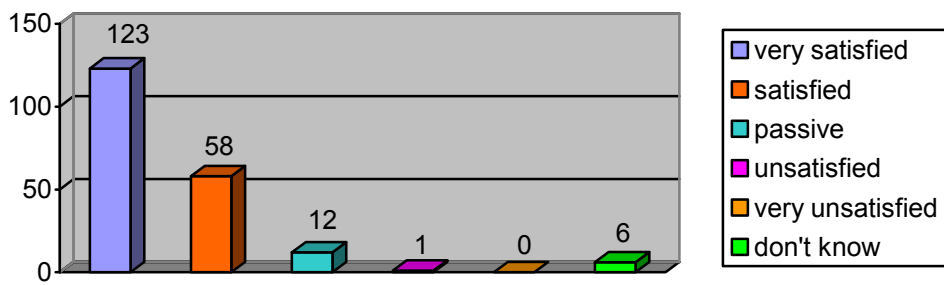


Figure 5. Satisfaction level in loan approval



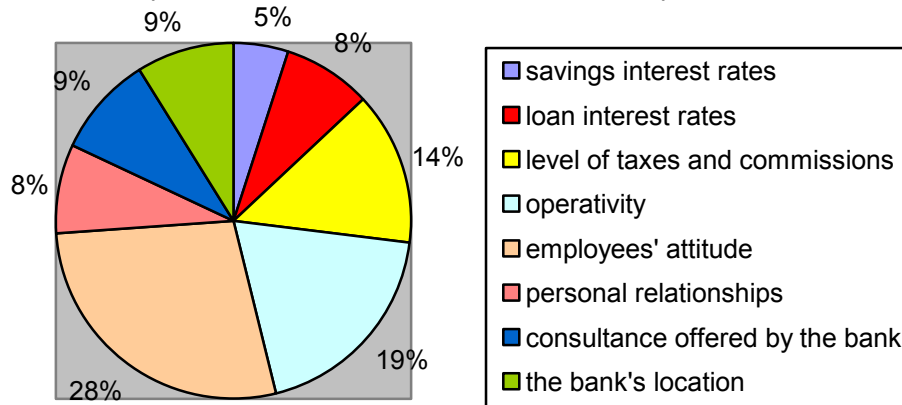
- The level of satisfaction towards the behavior of the bank's employees is 99.48%.

Figure 6. Level of satisfaction towards the quality of employees



- The most important factor of the client-bank relationship is the attitude of the employees and only then the flexibility in approving loans and level of interest rates.

Figure 7. Most important factors of the client-bank relationship



From 200 external clients, only 10.5% were using the BCR's subsidiary's products.

The primordial aim of the first survey was to determine the reasons why these clients could decide not to work with the Banca Commerciale Romana anymore. Among these, the most important are: reduced flexibility in problem-solving; the bank's rigidity towards negotiation. As a conclusion referring to this first survey, finalized in 2007, one can determine the aspects of bank-client relationship, and the client's profile in its relationship with the bank. The main conclusion is that the Banca Commerciale Romana's clients are satisfied with the bank's products and services; they also consider that the bank's operativity is taking place in confidential conditions; they are satisfied with the loan approval system. Therefore, the total grade of satisfaction reaches 93.43%.

## 5. The Reorganization Strategy of the Banca Commerciale Romana

Implementing new organizational structure focuses on the business lines in Front Office and reorganizing the process of Back Office and Support Functions. The main reason for implementing changes is the centralized administration of risks and separate business lines. According to the new organization, the bank has been reorganized in concordance with the Erste Bank Group's requirements, and in the present it has the following structure:

1. The Corporate Business Line
  - Separate targets and distribution channels;
  - Full responsibility for businesses (budgetary, product development; vendor management; transparent client segmentation)
  - Relationship management principle;
  - individual performance management.
2. The Retail Business Line:
  - Separate targets and distribution channels;
  - Full responsibility for businesses (budgetary, product development; vendor management; clients' sub-segmentation; product-orientation)
  - Individual performance management;
  - Multi-channel distribution.

3. Support Functions:

- Risk management is separate from the sales management;
- Responsibility for operations in a centralized Back Office;
- Acquisitions and Property management to be centralized.

Therefore, the Retail and Corporate Business Lines are going through a separation, this way obtaining a higher level of specialization and a more effective operation of processes, regarding a modern approach in banking operations and customer service.

Corporate clients are divided into groups, such as Group Large Corporate, Large Corporate, SMEs, all of them having a dedicated relationship manager. The implementation of this process is taking place following a precise scheme: communicating the changes to the clients, migrating the products towards the new entities, providing a separate manager for each firm on the Corporate business line.

The risk management at Corporate level has to be defined through strict delimitations of responsibilities between sales and risks, the latter to be transferred as a whole to the Risks functional line. Sales provide a full view of commercial, economic, legislative, and risk-based aspect of the client, thus capable of selecting the most suitable products and services at their requestss.

The Banca Comerciala Romana's reorganization has had a powerful impact on clients, that is the reason why the main accent is put on maintaining them. This was the main reason why the bank's strategy for 2004-2007 focuses on maintaining the existing clients, and growing the number of operations in the bank. The principle of the Strategy has been doubling the effort for attracting new customers, especially in segments with great potential for profitability.

The action-plan to maintain clients is constructed from the following topics:

- various criteria for segmentation and a more specific approach towards clients; increasing the number of savings and tax-generating services;
- stabilizing the targets for attracting new clients;
- enlarging the database of clients to make the segmentation process easier;
- elaborating specific procedures for loan approval, cost negotiation, and decision-taking competences;
- monitoring the Private Banking sector, and creating personalized offers through the structure of financial products and services for clients of this segment;
- encouraging the financial innovation in order to make a difference from other commercial banks in competition. These product bundles are constructed on the basis of a standard product, which has complementary products attached for clients; the key element of success lies within the structure of these bundles, meant to attract a large scale of clients;

By attracting and maintaining clients, the trust towards quality increases, and targets can be reached easier. This is the only way to obtain a positive image by having a concept and reaching its application through an integrated management system. A benefit regarding resources means introducing the application of quality management and monitoring them through performance indicators in order to reach the targets. As far as results are concerned, the most important benefits are elaborating and implementing the identification system,



classifying data and documents and setting up new standards for each data category.

## 6. Empirical Analysis of the 2008 Research Survey

Between 1<sup>st</sup> and 15 of April 2008, another research survey was organized at the Banca Comerciala Romana, Cluj County Branch, among personal and business clients, with the aim of defining the importance of changes taking place in the bank; informing clients on the process of reorganization, and finding out their opinions related to the major effects of these internal transformations.

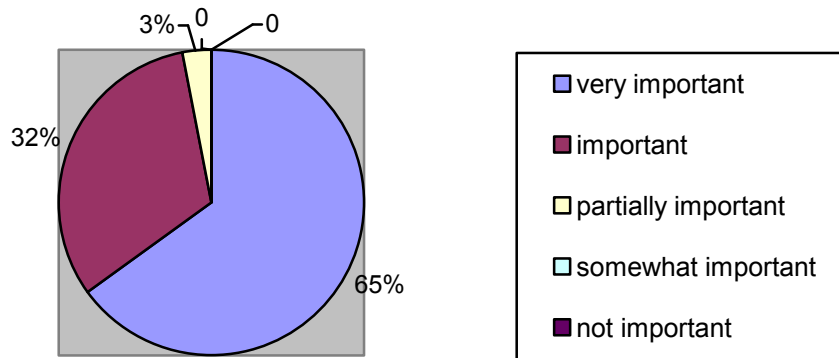
Throughout the survey, 200 clients were interviewed, after the finalization of the reorganization process. The following part of the study focuses on the analysis of the research results, having the main objectives as follows:

- the importance of informing customers on the changes within the bank;
- if the client was informed or not about the reorganization;
- which were the sources of information;
- is the reorganization process a source of influence on decision-making;
- is the new structure more flexible;
- if the reorganization process is completely finished or not.

The results reflect major differences compared to the previous research survey organized in 2007, before implementing the new structure. The first research survey shows good results of the clients' relationship with the bank and operativity in serving them. However, after the reorganization process, the reaction of clients showed a natural approach that defines a transitory period, considering it unstable, insecure, with major effects on the whole structure of the bank.

1. The importance of informing clients on the changes that occurred in the bank is considered very important to 65% of the interviewed clients, and it is important for 32%.

Figure 8. Informing the client on the bank's reorganization

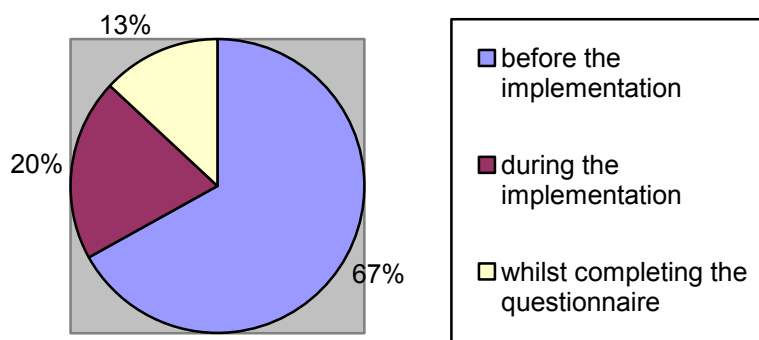


2. If the client was or was not informed on the bank's restructuring – among 200 interviewed clients, only a number of 6 responded negatively to this question. The task of informing clients on the reorganization process belonged to

the entire Front Office, responsible for the direct interaction with clients. This was an important part of their duties as advisors, because the new system provides a bigger openness towards customers, considering them long-term partners, and by centralizing the Back Office functions, the Front Office became larger and more client-oriented.

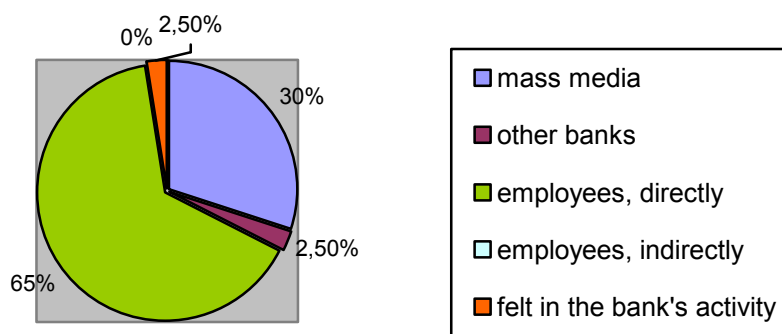
3. Those who had an affirmative answer to the above-described question, 194 out of 200 interviewed clients, 67% had found out information on the restructuring process before its implementation, whilst 13% while completing the questionnaire.

Figure 9. When was the client informed on the reorganization process?



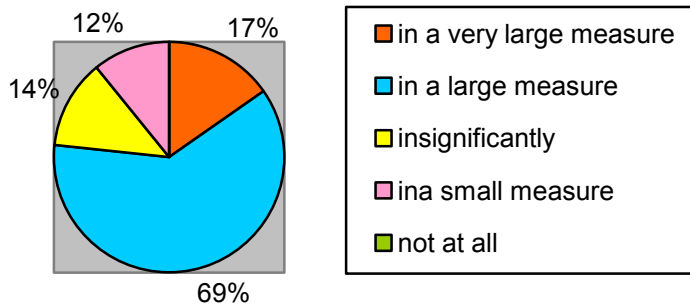
4. As far as the source of information is concerned, 65% of the clients received them from the bank's employees, and 60% from the mass media.

Figure 10. Sources of information on the reorganization process



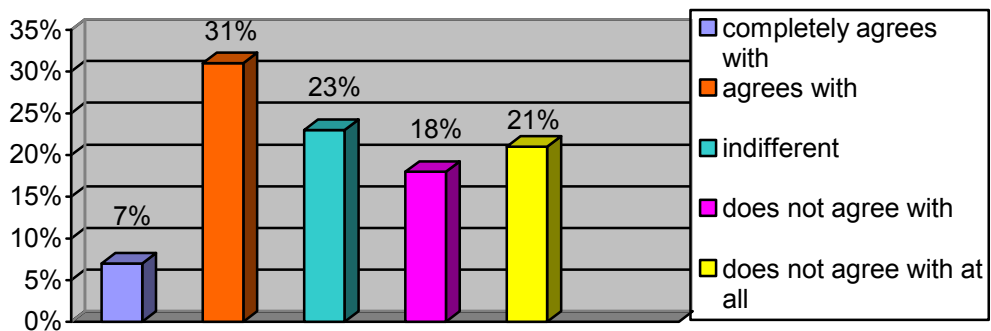
5. The research considered an essential factor the measure in which the bank's reorganization is a decisive factor in maintaining and improving the relationship with clients. 17% considers this process as very important, whilst 69% considers important to have separate functional business lines within the bank.

Figure 11. In what measure does the restructuring influence the client-bank relationship?



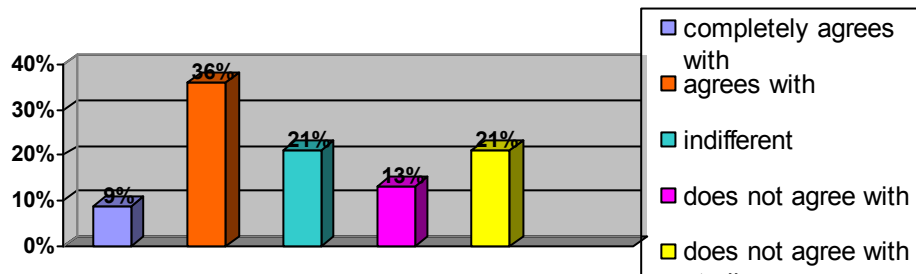
6. Another aspect of the survey regarded flexibility in loan approval – 31% of the interviewed clients had an affirmative response, and 18% a negative one.

Figure 12°: The bank's new structure is flexible in loan approval



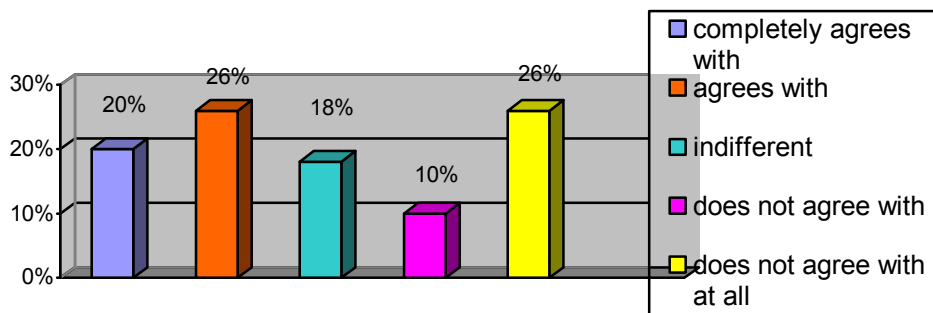
7. The interviewed clients' opinion on effectiveness in banking operations – 36% completely agrees with the effectiveness in banking operations in the restructured system, while 21% had a negative response. The difference occurs naturally in a reorganization period, because all changes lead to different approaches and opinions. Each customer reacts differently in a subjective way to changes in transitory periods, and these divergences keep on appearing until the final stabilization.

Figure 13. The new structure is effective in banking operations



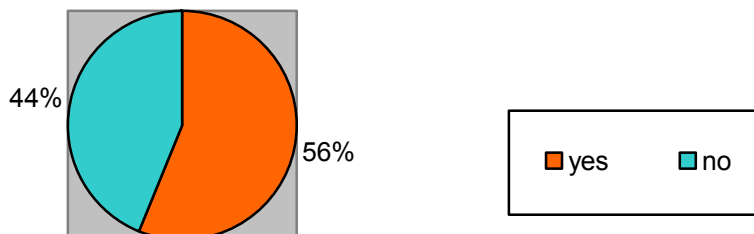
8. Whether the new structure provides suitable sources of information and advice for customers or not, the level of satisfaction shows the following results: 26% agrees with it, and 26% does not. Their answers depended largely on personal experiences with the Front Office staff. These employees are responsible for interaction with clients, and any unpleasant experience might influence their choice of decision.

Figure 14. The new structure is effective in providing necessary information for clients



9. Finally, the clients were asked to express their opinion on whether the reorganization process is finished or not – 56% considers it as finished, and 44% considers it an open process.

Figure 15. Considers that the reorganization process is finished



Comparing these results with the previous ones from 2007, it is obvious that these show certain unsatisfactory items, regarding flexibility in loan approval and effectiveness in banking operations. The main cause of this result is the centralization of the Back Office Functions; including risk controlling management – yet, the client is protected and is offered counseling in a larger spectrum.

## 7. Conclusions and Perspectives

The research offers an overview on the situation of commercial banks in reorganization process and it highlights the fact that the most important aspect is making the difference among the competitors. The strategy for achieving the objectives has to concentrate on the quality of the employed staff, their efficiency, creating new products dedicated to personal and business clients, thus coming up with competitive advantages in the banking sector.

The comparison of the two research surveys' results at the Banca Comerciala Romana underlines that only the management of changes can be a solution for creating better results and opinions. Schein, based on the theory of Kurt Lewin (Schein, 1999), considers change as a dynamic harmonization of certain forces that affect changes, but at the same time, determine a resistance to change.

According to Lewin, there is harmony between the elements that facilitate changes – such as technology changes, knowledge explosion, better working conditions, and elements that make changes more difficult – conservative attitude, mental obstacles, lack of interest, fear from the new, fear from failure, reduced level of professionalism, or changes within the workforce structure. The clear and deep perception of the necessity of change by the organization's managers is essential in the transformation process. The change's perception is very important, but not always enough, that is the reason why it has to be supported by a series of complex and efficient activities from the bank's leading board.

One of the most important aspect is understanding the need of change by the bank's leading management and employees – they all have to understand that the current organizational structure must be adapted to the new requirements. The transformation implies an effort to adaptation, at a certain cost, yet it is inevitable in a country where commercial banks are required to start working in the Basel II system, with centralized risk management, and by a large Front Office, placing the client on the top of priorities.

The intensification of competitiveness on a macroeconomic level, and Romania's real accession to world economy represent a great challenge for the country's commercial banks.

In the same time, the economical instability creates great efforts for adapting to changes while maintaining the position in the market. For this purpose, a modern and efficient bank marketing approach is indispensable. Banks must understand that positive results come from satisfying the clients' needs, by convincing each internal client – the bank's employees. Product development means to have the clients' necessities as a starting point. Thus, banking products and services represent a narrow variety, and that is the reason why it is very important to have an efficient positioning, regarding the competition, especially during internal restructuring.

The marketing strategy of a bank under transformation process has to focus on the value criteria of clients and their requests. A similar strategy adds more value to its products and services; it increases the bank's efficiency, and it creates an image of quality for both internal and external clients, according to Kotler (Kotler, 1999). The quality of services and the attention payed towards the client remain key-elements in the complete banking products and services offer, nevertheless conditioned by cost controlling and maintaining competitiveness regarding prices.

The key in maintaining the customers' loyalty is keeping them constantly satisfied – long-term partnerships provide profit for the bank. Customers' loyalty improves a bank's image, and can be an excellent source of promotion and advertising. Customers like to be offered consultancy on a wide range of products and services, in order to find those that are suitable to their needs and requests.

The research survey has offered a clear overview of customers' necessities and general opinions on the bank and its staff, and this is the reason why another survey is being prepared, after a period of stabilization after the restructuring period.

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## LE ROLE DE L'INFORMATION FINANCIERE ET DE LA DIVULGATION VOLONTAIRE

**Sorin ACHIM\***

Babeș-Bolyai University of Cluj Napoca, Romania

**Abstract.** Mandated and voluntary disclosures reduce information asymmetry among market participants, which in turn lowers the cost of capital and facilitates the channeling of investment into the most productive projects. However, a corner solution of maximum disclosure is not observed because direct, proprietary, and litigation costs of disclosure and benefits of disclosure vary across countries. Institutional factors like the code-law and common-law legal systems and the stakeholder and shareholder corporate governance models create differential demands for public disclosure of financial information. Thus, systematic international variation in accounting standards and information disclosure is observed.

**JEL Classification:** M49

**Keywords:** voluntary disclosure, financial information, quality.

### 1. Introduction

La mondialisation croissante des financiers et des marchés de produits a soulevé l'intérêt des participants au marché et des organismes de réglementation de la qualité de rapports financiers du monde entier. L'augmentation de la volatilité des rendements boursiers dans le monde entier au cours des dernières années a également été un sujet de préoccupation. Pour entendre ça on doit répondre aux questions suivantes: Est-ce qu'une plus grande transparence dans l'information financière pourrait réduire la volatilité et produire plus précisément les évaluations des actions? Est-ce que les plus transparentes états financiers de sociétés de services financiers (par exemple, banques) pourrait améliorer les décisions d'évaluation du prêt et du crédit et évaluer les risques d'une crise bancaire? Ces questions sont d'intérêt pour tous les acteurs du marché.

Une plus grande ouverture aux normes comptables internationales permettrait de réduire les coûts pour les entreprises étrangères qui cherchent à lister leurs actions aux bourses étrangères d'échanges et de mobiliser leurs capitaux là. Cela renforcerait la compétitivité du marché des capitaux

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\* Faculty of Economics and Business Administration. Adress : 58-60 Teodor Mihali Street, room 227, 400591 Cluj-Napoca, Romania. E-mail: sorin.achim@econ.ubbcluj.ro



internationale, lui permettant ainsi d'attirer une plus grande part du marché mondial des services financiers. Le compromis est le risque que les normes étrangères IAS ou GAAP ou les informations données par elles pourraient être de mauvaise qualité, situation qui pourrait potentiellement affaiblir la stabilité des marchés financiers européennes.

Dans le présent document, il s'agit d'un résumé de la littérature théorique et empirique concernant les effets de la divulgation de l'information financière sur les risques financiers du marché. Les participants au marché cherchent des informations financières de haute qualité car ils atténuent l'asymétrie entre l'information de la direction de l'entreprise et des investisseurs extérieurs. La réduction de l'asymétrie de l'information comptable a les effets souhaités sur le coût des capitaux et sur la volatilité des prix. Ces avantages motivent les régulateurs à travers le monde à lutter pour une meilleure qualité de normes comptables. La qualité des informations financières, cependant, est influencée non seulement par la qualité des normes de comptabilité, mais aussi par d'autres facteurs institutionnels qui influent sur la demande et sur l'offre de l'information financière. Les principaux facteurs influents sont la nature de la gouvernance d'entreprise, le système juridique et l'existence et l'application des lois régissant la protection des investisseurs et des normes de divulgation.

La demande, et donc l'approvisionnement, de la qualité des informations financières sera élevé si les entreprises peuvent se décrire comme appartenant à très dispersés et individuelles actionnaires. Les lois de protection des investisseurs, la bonne application de ces lois et un système juridique „common law” sont les conducteurs vers la transparence d'une société. Dans ces circonstances, indépendamment du fait que la qualité des rapports financiers est élevé, les numéros des états financiers divulgués seront d'une haute qualité. Cross-sectional variation est susceptible d'exister dans la demande de qualité de l'information comptable en fonction de la nature d'une entreprise, le financement et les activités d'exploitation. Pour cette raison, cet article voudrait attendre les « cross-sectional » variations de la qualité des informations financières, mais, dans l'ensemble, ces informations financières de haute qualité seront disponibles pour les participants au marché.

Par contre, les entreprises dans les pays à faible protection des investisseurs ou les pays avec une faible application de la loi trouvent coûteux d'augmenter le financement externe de petites individus. Les sociétés ont tendance à faire preuve de la propriété concentrée par les familles et les banques pourtant que les agences gouvernementales et les syndicats jouent généralement un rôle important dans la gouvernance d'entreprise. Souvent, ces pays ont également un système juridique développé de droit civil.

La section suivante définit la qualité de la divulgation et résume les effets des normes comptables et des facteurs institutionnels sur la variation de la qualité de l'information financière sur la scène internationale. Suivant il s'agit d'un débat de l'influence des lois sur la protection des investisseurs, de droit mise en œuvre sur la nature de la gouvernance d'entreprise et la qualité de l'information financière. La dernière section énonce les implications pour les décideurs et fournit un résumé du document.

## 2. Etudes précédentes

La recherche sur les dates de divulgation volontaire date dès 1961 avec les travaux faites par Cerf et une volumineux recherche ultérieure dans ce domaine montre que la divulgation volontaire est associée avec des caractéristiques spécifiques comme la taille, l'inscription, transmission de propriété et de gestion de l'entreprise (par exemple, Singhvi Desai, 1971; Chow et Wong-Boren, 1987 et Lang et Lundholm, 1993). Toutefois, une des dernières preuves adoptée par Skinner (1994, 1997) est l'incitation manifesté par les entreprises à anticiper leurs grands résultats négatifs des revenus et une divulgations volontaires. Ainsi, il est prévu que les entreprises en difficulté financière ont davantage de mesures d'incitation à divulguer volontaire d'informations que les entreprises financièrement saines. C'est le principal intérêt de ce document.

En outre, la gouvernance d'entreprise, qui favorise la transparence, a l'obligation de rendre compte de la possibilité de faire une association significative avec la divulgation volontaire. En fait, Jensen (1993) fait valoir que la composition et la structure de direction sont associés avec le conseil de surveillance d'incitations. Il est postulé que la composition et la structure de la direction sont associés à la divulgation volontaire. L'indépendance du comité de vérification a également été trouvée à être un facteur déterminant du niveau de divulgation volontaire à Hong Kong (Ho et Wong, 2001). Un autre déterminant du niveau de divulgation volontaire est la structure de propriété de l'entreprise. L'ampleur de la relation entre l'actionnariat et les administrateurs est associée à la théorie de l'agence (Jensen et Meckling, 1976). Participations par des non-exécutifs (Jensen, 1993) et par l'extérieur blockholders (par exemple, Shleifer et Vishny, 1986) sont associés avec plus de suivi des incitations.

La littérature théorique sur la divulgation volontaire est d'avis que les actionnaires bénéficient d'une plus grande divulgation volontaire et alors la divulgation volontaire peut réduire le coût du capital en réduisant les coûts de transaction (Amihud et Mendelson 1986, Diamond et Verrecchia 1991) ou non diversifiables risques d'estimation (Barry et Brown, 1985, Coles et Loewenstein 1988, Coles, Loewenstein, et Suay 1995). Les preuves fournies dans les études empiriques est généralement en accord avec ces prédictions théoriques. Botosan (1997) affirme que les documents de faible analyse, avec les notes plus élevées de divulgation des rapports annuels ont un moindre coût du capital social. Healy, Hutton, et Palepu (1999) trouvent que les augmentations des notes analystes de la divulgation sont accompagnés par une augmentation des rendements boursiers, la propriété institutionnelle et de la liquidité des actions. Brown et al. (2004) trouvent que le fait d'avoir une conférence téléphonique peut atténuer les effets néfastes de l'écart acheteur-vendeur. En somme, une grande masse de connaissances théoriques et la recherche empirique montrent que la divulgation volontaire peut réduire le coût du capital et soutient l'idée reçue selon laquelle les actionnaires préfèrent la divulgation volontaire d'informations en temps voulu (Healy et Palepu (2001)).

Toutefois, les résultats de plusieurs études récentes concernant question suggèrent que tous les actionnaires ont les mêmes préférences. Ajinkya et al. (2005) qui se consacre à trouver des institutions de propriété, affirme que la propriété des cinq plus importants investisseurs institutionnels est associée à moins de divulgation volontaire. Ils font valoir que cela est dû à un meilleur accès à des informations privées ainsi que les investisseurs institutionnels avec de

l'exploitation sont analogues à des initiés. Karamanou et Vafeas (2005) définit la fraction des actions ordinaires détenues par les cadres supérieurs et les directeurs de l'entreprise comme un groupe. Toutefois, une plus récente, Ali et al. (2006), constate que, parmi Fortune 500 entreprises, les entreprises familiales fournissent de plus, plutôt que moins, de divulgation volontaire que les non-entreprises familiales lorsque le fonctionnement des entreprises est faible.

Ainsi, alors que la majorité de la divulgation volontaire de recherche soutient que les actionnaires préfèrent la divulgation volontaire d'informations en temps voulu, des recherches récentes ont documenté une association négative entre la concentration de propriété et des actions et la divulgation volontaire. En outre, les preuves existantes sur l'impact de la concentration de la propriété sont variées.

### **3. Variation dans la qualité de l'information financière**

Cette section commence par définir la qualité de la divulgation. Normes comptables et l'application de ces normes influent sur la qualité de nombre des états financiers divulgués. On discute les coûts et les avantages de la divulgation, qui affectent la demande et fourniture de divulgation.

#### **Divulgation de qualité**

Il semble y avoir une quasi-unanimité entre les régulateurs et les investisseurs dans leur demande pour la grande qualité des rapports financiers, en raison de ce que beaucoup pensent que la qualité de l'information financière affecte directement les marchés de capitaux. Arthur Levitt (1998, p. 80), Président de la SEC, a déclaré: «Je crois fermement que le succès des capitaux est directement tributaire de la qualité de la comptabilité et la divulgation. La divulgation des systèmes qui sont fondés sur des normes de qualité donne la confiance des investisseurs dans la crédibilité de l'information financière et sans la confiance des investisseurs, les marchés ne peuvent pas se développer. »

Alors que la «qualité» des informations comptables et la "transparence" d'un système de divulgation ou de normes comptables sont généralement des termes interchangeable, une définition précise et commune de la qualité ou la transparence étant difficile à atteindre. Pownall et Schipper (1999, p. 262) définit la transparence comme des «normes qui révèlent les événements, les transactions, jugements et estimations pour les états financiers, et leurs implications." Levitt (1998, p. 80) définit les bonnes normes comptables comme ceux qui «produisent des états financiers pour déclarer des événements seulement dans les périodes pendant lesquelles ils se produisent, pas avant, et non après. »

Ball, Kothari, et Robin (2000) et Ball, Robin, et Wu (1999) ont interprété la transparence comme une combinaison des propriétés de l'actualité et de conservatisme. L'actualité est la mesure dans laquelle au cours de l'exercice la finance est intégrée dans les événements économiques et la rapidité avec laquelle les états financiers reflètent de mauvaises nouvelles économiques versus bonnes nouvelles. Cette dernière définition, vise à tenir compte de la gestion asymétrique des incitations telles que les rapports de bonnes nouvelles ne sont pas crédibles, mais une déclaration d'une mauvaise nouvelle est crédible. Un grand chevauchement existe dans les différentes définitions de la qualité et la transparence des informations comptables.

## **Des normes de qualité par rapport à la qualité des signalements de comptabilité**

La qualité de l'information financière que les utilisateurs reçoivent est une fonction à la fois de la qualité de normes (comptabilité) régissant la divulgation de l'information comptable et l'application de la réglementation ou d'application des normes d'une entreprise dans une économie. Les raisons pour lesquelles les divulgations sont importantes sont présentées dans les idées suivantes.

Fortes divulgations sont apparues comme un facteur critique de succès qui s'explique en partie par le degré de jugement tenu d'appliquer la Déclaration 157, en particulier dans les périodes d'incertitude alors que certains titres ne sont pas négociés sur des marchés actifs. Une attention particulière à l'information peut renforcer les processus de l'information financière dans des périodes difficiles. Par exemple, les informations peuvent aider les entreprises, les investisseurs et les administrateurs de la manière suivante:

- Les informations peuvent aider les entreprises à mettre "papier pertes" en perspective. Les cadres supérieurs de certaines d'entreprises ont exprimé des préoccupations sur la "Pertes de papier" qui peut résulter de la combinaison de la juste valeur comptable avec les conditions actuelles du marché. Ces préoccupations traitent à l'utilisation de la juste valeur de l'actif et passif dont la juste valeur doit être fondée sur inobservables intrants. Une clé est la peur sur laquelle l'utilisation de la juste valeur comptable se concentre, trop d'attention sur les pertes qui sont fondées à court terme, sur les conditions du marché et ne pas nécessairement la réflexion sur les valeurs de la réalisation ultime. Ces pertes peuvent causer l'attitude des investisseurs de réagir. Les informations complémentaires sont un moyen d'ajouter une perspective à plus long terme.

- Les informations peuvent aider les investisseurs à éviter surprises. Les investisseurs semblent être devenus maintenant plus prudents. Nombreux sont ceux qui souhaitent obtenir de plus amples l'information, afin qu'ils puissent protéger leurs investissements des surprises. Les grandes divulgations liées à risques de liquidité sont un moyen d'éviter ou au moins atténuer les mauvaises surprises. Les informations peuvent ajouter dans une perspective à long terme et d'aider les investisseurs éviter les mauvaises surprises.

- Les informations peuvent aider les comités d'audit prévenir les lacunes. Les grandes pertes peuvent causer la baisse de la valeur des actionnaires et attirer l'attention sur le rôle du conseil d'administration. Par exemple, imprévus pertes et des faillites peut soulever des questions quant à l'adéquation du contrôle interne l'établissement de rapports. Dans certains cas, les actionnaires ont blâmé les comités d'audit pour un manque de surveillance. Déjà, le président d'au moins un entreprise en vue de comité de vérification a démissionné de son poste en réponse réactions des investisseurs. Ces situations peuvent également conduire à de vastes réglementaire enquêtes. Une attention particulière aux informations peuvent aider à éviter ces types de problèmes par la création des attentes réalistes. Tout aussi important, de bonnes informations peuvent aider à éviter coûteux litiges qui pourraient autrement se poser au du recul, car les questions des investisseurs si la société était au courant de l'imminence d'un perte n'ont pas divulgué de manière adéquate le risque.

### **Avantages de la divulgation**

Avantages de la divulgation financière expliquent la demande des normes comptables de grande qualité et de la divulgation. La littérature dans le domaine montre que les divulgations volontaires font la différence entre les participants du marché mal informés et le marché transparent (voir Diamond et Verrecchia, 1991). La réduction de l'information contribue à la réduction de l'asymétrie (l'asymétrie d'information de la composante) du coût de capital par la diminution de l'écart acheteur-vendeur, l'amélioration du volume et la diminution de la volatilité des actions (voir Leuz et Verrecchia 2000). Un lien entre tous les trois de ces effets et le coût du capital est développé théoriquement et empiriquement dans Stoll (1978), Glosten et Milgrom (1985), Admati et Pfleiderer (1988) et par Amihud et Mendelson (1986 et 1989). Les régulateurs semblent adopter la conclusion, en dépit de la fait que les données empiriques sur l'effet de la divulgation et sur le coût de capital sont tout à fait modestes.

### **Coûts de la divulgation**

Malgré les avantages évidents d'une divulgation accrue, la divulgation maximale n'est pas respectée en raison des coûts potentiels de ce procédé. L'amélioration de l'efficacité de la répartition est interprétée comme une autre manifestation de la réduction du coût du capital. Divulgation entraîne des coûts directs. Divulgation d'informations dans le cas quand les perspectives sont incertaines et invérifiables au moment de la divulgation, expose une entreprise à potentiel de contentieux si le résultat final est défavorable. Enfin, en raison de la nature de l'information, la divulgation peut être concurrentiel désavantageuse. Pour toutes ces raisons, une solution concernant l'intérieur de la société est optimale.

### **La variation des coûts et les avantages de la divulgation**

A l'échelle internationale, il ya la diversité des normes comptables et, donc, dans les propriétés le nombre des états financiers. L'hypothèse de Ball, Kothari, et Robin (2000) dit que les différences dans les domaines juridique et les facteurs institutionnels contribuent à des différences dans la demande pour les comptables l'information, ce qui génère une predictibilité dans la variabilité des normes comptables et dans la propriété des chiffres dans la comptabilité. Les facteurs du cadre juridique et institutionnel sont liés au fait que les pays ont un code ou un droit nommé "common law" qui a également des répercussions sur les formes de propriétés d'entreprises et les mécanismes de gouvernance d'entreprises (voir aussi Laporta, Lopez-de-Silanes, Shleifer et Vishny 1997). Les romans ont présenté le Code de droit, aussi appelé droit civil, et il a fait l'objet des adaptations allemandes, scandinaves et françaises. Les pays avec les systèmes de droit généralement élevés exercent une influence politique sur la comptabilité et sur les normes et pratiques comptables. La „common law” a une origine anglaise. Les normes comptables dans un régime de droit se posent dans un marché de la comptabilité et non au gouvernement. La demande d'un contractant dans une économie influence l'évolution de la „common law”, et aussi les normes de divulgation. Le rôle du code de droit ne se limite pas à son influence sur les normes de comptabilité, il a également des répercussions sur le modèle de gouvernance d'entreprise qui a évolué en même temps avec les normes comptables et avec la divulgation dans les systèmes de l'entreprise. Cette sous-

section s'inspire largement de Ball, Kothari, et Robin (2000) et essentiellement résume leurs opinions.

#### **4. Le rôle de l'information financière**

Ball, Kothari et Robin (2000) font valoir que dans le code de droit d'une pays, une «partie prenante» du modèle de gouvernance est susceptible d'être observé dans les personnes des actionnaires, des gestionnaires et des employés, du gouvernement et des banques (en qualité d'actionnaires ou debtholders). Dans le modèle de gouvernance de la partie prenante, la demande de publication des informations comptables est diminuée parce que les acteurs sont les agents qui participent à la gouvernance d'entreprise. Les agents sont généralement informés en raison de leur accès à des informations privilégiées. Cela résout de la plupart des renseignements des problème d'asymétrie qui se posent généralement en raison de la connaissance supérieure d'une entreprise gestionnaires vis-à-vis des „autres claimholders”. Bien que le demande de divulgation publique est réduite, le nombre des états financiers parties prenantes dans un système de gouvernance sont probablement influencés par le gain de main-d'œuvre des agents, des capitaux et le gouvernement.

Dans les pays de „common law”, un "actionnaire" modèle est plus probable. Dans ce modèle, la diffusion et une séparation de propriété de contrôle sont fréquemment rencontrées. La gestion et le conseil d'administration ne sont pas généralement grand blockholders de la dette ou l'équité, de sorte qu'ils représentent la gestion sans grande propriété. De plus, les employés et le gouvernement n'ont pas une plus grande appropriation des enjeux et ils sont rarement représentés au conseil d'administration. Cela crée une demande de publier en temps voulu de l'information financière, à atténuer l'asymétrie d'information entre la direction et actuel et entre le potentiel et les propriétaires pour contrôler le rendement des gestionnaires.

La preuve est compatible avec l'hypothèse que l'actionnaire modèle de gouvernance dans les pays de „common law” encourage davantage la divulgation de l'information comptable par rapport au code-pays de droit avec un modèle de gouvernance des parties prenantes. Revêtant une importance particulière du vue d'atténuer les risques financiers sur les marchés, Ball, Kothari, et Robin trouvent que la divulgation de la mauvaise nouvelle est particulièrement opportune dans les pays de droit commun. L'une des raisons est que la divulgation des mauvaises nouvelles par gestionnaires est plus crédible et sert ainsi à des informations utiles aux fournisseurs extérieurs de capitaux. En outre, l'omission de déclarer des infos mauvaises peut susciter des litiges. Le litige de l'actionnaire est beaucoup plus susceptible d'être couronnée de succès que si les demandeurs peuvent attribuer leurs pertes à la gestion du refus de mauvaises nouvelles, plutôt que de plaider qu'ils avaient subi une perte de chance parce que la direction retenu une bonne nouvelle.

#### **La divulgation et les gains de qualité**

Les premiers travaux d'étude de divulgation volontaire traitent la qualité des informations privées du gestionnaire comme exogènes (voir Grossman et Hart (1980), Milgrom (1981), Verrecchia (1983)). Dans ces contextes, on obtient le résultat que la divulgation a le but d'atténuer l'asymétrie d'information sur le marché, de sorte que les entreprises avec une plus grande asymétrie accroît les

informations à renforcer les droits des actionnaires. Une mesure du bénéfice de l'entreprise qui est utilisée de procuration pour l'asymétrie de l'information l'implication est que le niveau de la divulgation d'une entreprise est inversement corrélée avec un revenu de qualité, ou dans une relation de substitution. Cette intuition ne tient pas compte, toutefois, du fait que, dans un tel cadre la divulgation de l'entreprise serait également basé sur la mauvaise qualité des informations par conséquent, un marché des attentes rationnelles mettra moins de crédibilité sur ces informations. Cet argument démontre la nécessité de la divulgation dans la décision et permet de reconnaître que les divulgations faites par le gestionnaire sont d'origine sous-jacente et le système d'information peut être de pauvre (ou de haut) qualité. Plusieurs études théoriques sont la base d'un modèle endogène qui reflète la relation entre la choix de la divulgation et la qualité de l'information. Dye (1985), Jung et Kwon (1988) ont un modèle de qualité de l'information dans lequel est présentée la probabilité qu'un gestionnaire soit informé en privé et l'enquête sur sa décision de divulguer ou de refuser les informations.

Comme la probabilité d'être informé (c'est-à-dire, la qualité de l'information) augmente, la probabilité de divulgation augmente également car le marché est plus susceptible de non-divulgation interprétée comme une mauvaise nouvelle et, par conséquent, il s'agit de la réduction de la valeur de l'entreprise. Ce paramètre, donc, prévoit une association entre la qualité de l'information complémentaire et la divulgation volontaire. Une autre caractérisation de la qualité de l'information (qui donne aussi une association complémentaire) est fournie par Verrecchia (1990), qui fournit des modèles concernant la précision du signal des informations observé par la société gestionnaire. Il montre que dans le cas quand le seuil de l'équilibre de divulgation diminue, la probabilité de divulgation augmente alors que la précision de l'information privé d'un gestionnaire augmente. L'intuition ici, c'est que parce que les participants savent la précision des informations privées du gestionnaire, une entreprise avec des informations de haute qualité retient l'information du marché, un marché avec des attentes rationnelles concernant la valeur des actifs de l'entreprise. Cette force provoque une diminution du seuil de divulgation de l'entreprise et l'augmentation de la probabilité de divulgation, entraînant la prévision de plus (moins) informations pour les entreprises avec une bonne (mauvaise) qualité des informations, ou un rapport complémentaire. Enfin, dans le modèle de Penno (1997) le choix de divulgation est fondé sur deux compensateurs forces: l'augmentation de la probabilité d'être informé et le fait que la divulgation est plus probable (comme dans Dye (1985)), mais la réduction concomitante de la qualité de l'information rend la divulgation moins probable (comme dans Verrecchia (1990)). Si la qualité de l'information est plus élevée de manière significative et elle réduit la probabilité d'être informé, Penno (1997) montre que la divulgation peut se substituer à la qualité de l'information.

Des études empiriques concernant la relation entre la divulgation volontaire et la qualité de l'information financière ont trouvé des substitutions ainsi que des relations des compléments, en fonction des mesures de divulgation volontaire et de la qualité de l'information examinée. Dans les essais de l'Association pour la gestion des placements et la recherche, les évaluations de la procuration pour la divulgation volontaire et la corrélation entre les rendements annuels et les revenus annuels sont comme la procuration pour la qualité de l'information. Tasker (1998) soutient une relation similaire entre la probabilité qu'une entreprise utilise des conférences téléphoniques (son indicateur de

divulgarion volontaire) et son approximation de l'information de leurs états financiers. Dans Essais de gestion des prévisions pour la procuration de divulgation volontaire et la volatilité des revenus ainsi que pour la procuration de la qualité de l'information, Waymire (1985), Cox J. Francis, D. Nanda, et P. OLSSON (1985), et Imhoff (1978) trouvent que les entreprises ont un effet négatif lié à la volatilité de leurs revenus.

Les hypothèses sur la complémentarité ou de substitution relation entre divulgation financière et la qualité de l'information sont les suivants:

H1A: (complémentaire) Les informations publiées sont de plus en plus dans la qualité du bénéfice d'une entreprise.

H1B: (Substitutive) Les informations sont en baisse dans la qualité du bénéfice d'une entreprise.

### **La divulgation et le coût du capital**

La prémisse centrale de la littérature théorique concernant la divulgation est que l'information différente des participants au marché des capitaux empêche l'investissement dans une entreprise. En conséquence, une émission des équités dans une entreprise est motivée à s'engager à le plus haut niveau possible pour une divulgation qui peut réduire son coût du capital. La littérature identifie un certain nombre de coûts de la divulgation spécifiques à chaque firme: le partage des risques (Diamond et Verrecchia (1991)), agence de coûts (Baiman et Verrecchia (1996)) et les coûts de propriété (Hayes et Lundholm (1996)). Ces coûts compensent le coût du capital en bénéficiant de l'influence de la divulgation dans une entreprise (Healy et Palepu (2001)).

Si on veut savoir si la divulgation de décision est plus influencé par les coûts de propriété, l'agence des coûts, des risques ou le partage des préoccupations, on constate que la plupart des recherches antérieures estiment que les entreprises qui doivent divulguer moins ont un coût plus élevé des capitaux que les entreprises qui divulguent plus. Les recherches montrent, cependant, que le résultat contraire peut aussi prévaloir. Par exemple, Kim et Verrecchia (1994) ont modélisé un cadre plus large où les informations conduisent à un accroissement des incitations sur une part des investisseurs d'acquérir des informations privées, en résultant une meilleure asymétrie d'information (et, par voie de conséquence, une augmentation du coût du capital). Comme un autre exemple, on peut utiliser un des modèles de Zhang (2001) où une entreprise sélectionne ses divulgation et ça montre que la relation entre le coût du capital et divulgation volontaire peut être positif ou négatif, selon les variations des niveaux de divulgation. Lorsque la variation est principalement alimentée par des facteurs et étant donné que, avant la recherche des différents échantillons ainsi que les différents mandataires c'était une action volontaire de la divulgation, il est difficile d'isoler la cause du conflit résulté dans cette littérature.

De même, McNichols et Trueman (1994) décrivent un contexte où l'asymétrie de la divulgation d'informations est plus élevée ayant une conséquence endogène en raison de l'acquisition. Bien sûr, après la divulgation, l'asymétrie de l'information diminue en raison de nouvelles révélations. Pour les entreprises qui divulguent les informations l'asymétrie de l'information est susceptible d'accroître en raison de l'événement prévu. Pour non-disclosing entreprises, l'accumulation de toute l'information endogène ne peut jamais être dans l'attente de la divulgation, et



par conséquent, il n'existe aucune relation entre l'asymétrie de l'information et de divulgation.

Ca c'est possible parce que la variation de la divulgation est motivée par la divulgation des coûts on constate que le coût du capital est négativement liées à la divulgation. Sur la base des prévisions de l'état de la recherche théorique, on peut formuler encore une fois une hypothèse entre la divulgation volontaire et le coût de capitale:

H2: La variation dans les entreprises des niveaux de divulgation volontaire est associée à la variation dans le coût du capital.

On a trouvé beaucoup de documents de recherche empirique avec des résultats mitigés concernant la relation entre divulgations volontaires et le coût du capital. Botosan (1997), qui ne constate aucune association significative entre son auto-construction et la divulgation vers le client. Dans un échantillon d'entreprises britanniques, Gietzmann et 'Irlande (2005) identifient une relation négative entre la divulgation volontaire et le coût des capitaux propres, mais seulement pour les entreprises qui sont "agressives" dans leurs choix comptables. Enfin, on peut noter qu'il existe d'autres études fondées sur le marché des procurations pour milieu de l'information de l'entreprise (tels que les écarts acheteur-vendeur, des mesures de la liquidité, et la probabilité de négociation a informé les évaluations)qui trouvent généralement des associations négatives entre ces mesures et les mandataires de divulgation volontaire (Welker (1995), Coller et Yohn (1997), Healy, Hutton, et Palepu (1999), Leuz et Verrecchia (2000), Brown et Hillegeist (2007)), les résultats ne sont pas cohérente à travers tous les acteurs du marché à base de proxies (Heflin, Shaw, et Wild (2005) ce qui est des mesures de profondeur du marché; Bushee et Noe (2000), Lang et Lundholm (1993), et Leuz et Verrecchia (2000) en ce qui concerne les volatilités de retours).

On est d'accord avec la relation entre la divulgation volontaire et le coût du capital prouvée par l'extension de Botosan (1997) parce que les mandataires pour ces constructions sont le plus étroitement lié à ses mesures. Les tests de H2 la fois apportent des preuves supplémentaires sur les résultats de ses travaux pour une plus grande, plus récente et la diversité échantillon d'entreprises et fournissent une étape intermédiaire importante dans les relations entre le coût des capitaux et de divulgation volontaire.

### **Effet de l'application de la qualité de l'information financière**

De plus en plus les normes de comptabilité financière et aussi les lois sur les valeurs mobilières avec incidence sur la divulgation comme d'autres facteurs déterminants de la qualité de la divulgation sont respectées au niveau international. Une nouvelle littérature (voir La Porta et al. 1997; Ball, Robin, 1999 et Wu et Bhattacharya et Daouk 2000) suggère que l'application des lois sur la protection des actionnaires et la menace de litiges est tout aussi importante que l'application des normes de divulgation, si pas plus important. Si l'exécution des droits des actionnaires et des normes de divulgation est faible, on peut affirmer que la qualité de la divulgation tend à être pauvre, indépendamment des normes de la divulgation. L'impact de la faiblesse d'exécution sur la qualité de la divulgation a deux façons. Tout d'abord, la faiblesse de la protection des actionnaires a une incidence négative sur la croissance des marchés des capitaux et les sociétés qui ont fait une gouvernance totale des actionnaires sont un modèle d'investissement peu attrayant pour les investisseurs.

Ces deux phénomènes réduisent la demande de publication en temps voulu des informations financières, quelle que soit la qualité des normes de divulgation. L'absence de la demande de la divulgation publique de pair avec peu de moyens aussi que la qualité de la divulgation financière dans les économies seront pauvres. En second lieu, si les normes comptables ne sont pas appliquées avec vigueur et si les moyens privés d'inciter le respect des normes par les actionnaires ne sont pas facilement disponibles, alors la divulgation de qualité est susceptible d'en pâtir.

### **La protection des investisseurs**

Une autre littérature est en train d'émerger sur l'interaction entre l'efficacité de systèmes juridiques dans la protection des actionnaires et des droits des créanciers et les finances des entreprises, ainsi que le développement des marchés des capitaux dans une économie. Les entreprises augmentent le financement externe sous forme de dette et de l'équité fournies par l'extérieur (qui est, de la non-gestion) des investisseurs. La gestion, cependant, agit en son propre intérêt. Cela crée une demande pour la protection des intérêts des actionnaires et des créanciers contre l'expropriation par les actionnaires de contrôle et la direction. Certains droits de l'autonomisation des actionnaires dans la mesure où elles peuvent remplacer les administrateurs et les créanciers ont le droit d'en garantir (voir La Porta et al. 1998). Sinon, un système juridique avec un bon fonctionnement permet également de protéger les intérêts des investisseurs en faisant respecter leurs droits par actionnaire contentieux contre la gestion et les administrateurs qui sont l'expropriation de leurs richesses. Potentiel actionnaires et les créanciers sont plus disposés à fournir un financement extérieur à des entreprises si le système juridique protège leurs droits que si les lois sur la protection des investisseurs et l'exécution de ces lois sont laxistes. Des données récentes conclure qu'il existe un lien entre la protection d'un investisseur et la mesure de financement externe et de propriété.

### **10. Conclusions**

L'analyse et les éléments de preuve résumés dans les sections précédentes suggèrent une simple politique d'incidence. Avec ou sans une bonne exécution des lois sur la protection des investisseurs et des normes de divulgation, le cas de grande qualité, chargé des normes de divulgation est étonnamment faible. Cela semble contraire, et on doit expliquer. On peut expliquer les raisons qui sous-tendent l'implication politique, d'abord en supposant que la bonne application de la loi, puis sous l'hypothèse d'un faible régime d'exécution.

Pays avec une bonne application de la loi pourrait avoir le „common law” ou droit civil. Dans les pays de „common law”, la propriété de l'investisseur est susceptible d'être diffuse de la propriété séparée de contrôle de gestion. La demande de divulgation est élevée. La „common law” et sa bonne exécution impliquent également que les droits des investisseurs sont bien protégés par les actionnaires et il est exclu le droit des faillites. Dans ces circonstances, indépendamment des normes de la divulgation, la qualité de la divulgation devrait être élevé. Si les normes ne sont pas de haute qualité, les entreprises s'engagent dans de divulgation volontaire pour répondre à la demande de divulgation publique.

L'avantage de ne pas rendre obligatoire la divulgation de haut vient du fait qu'il est susceptible d'être une variation cross-sectionale de la demande de la divulgation publique de l'information financière, en fonction de la nature de la l'investissement et les décisions de financement d'une société. Par exemple, le demande d'information pourrait être plus élevé pour la croissance, de la haute technologie, et la R & D-intensive entreprises que pour les autres entreprises. Les sociétés peuvent d'affiner leur offre de divulgation volontaire pour compléter le mandat de divulgation afin de répondre à des investisseurs demande. Il pourrait être coûteux et impraticable pour les normalisateurs d'avoir un éventail de normes adaptées aux capture de la variation de la demande de divulgation. Mais aussi une norme de divulgation de haute qualité pourrait imposer inutile les coûts sur un sous-ensemble des entreprises.

Il est prouvé que la haute qualité des informations comptables a été efficace dans un sous ensemble des entreprises qui font partie d'une économie qui ne possède pas particulièrement un niveau élevé de qualité des normes de divulgation, mais où l'exécution n'est pas faible. L'Allemagne exige les entreprises à fournir une meilleure qualité des divulgations, à la suite de l'IAS ou US GAAP (voir Johnson, 2000; Leuz 1999; Leuz et Verrecchia 2000). En outre, de nombreuses entreprises allemandes qui cherchent à mobiliser des capitaux, ont volontairement adopté la norme IAS ou US GAAP (voir Leuz et Verrecchia 2000; Ball 1998). Les autres entreprises allemandes qui sont susceptibles d'être des investisseurs concentrés dans l'exploitations, ils ne font pas probablement l'expérience d'un degré élevé de l'asymétrie de l'information et ils ne perçoivent pas une nécessité activement à réduire l'asymétrie de l'information grâce à une divulgation accrue. Autrement dit, ces entreprises ne sont pas confrontées à forte demande de divulgation publique. Le résultat est qu'on peut observer une coexistence pacifique entre les entreprises avec une divulgation de haute qualité et celles avec une divulgation publique à faible qualité dans une économie, parce que leur divulgation répondre aux stratégies différentes dans la demande de divulgation publique de ces entreprises.

On peut conclure que la divulgation de haute qualité obligatoire est souhaitable pour au moins deux raisons. Tout d'abord, la logique et les preuves de Ball, Robin, et Wu (1999) suggèrent que, à faible application de la loi, les propriétés des signales financières peuvent être pas conformes à des normes de haute-qualité. Deuxièmement, le développement des marchés de capitaux avec la diffusion de la propriété de l'actionnaire est un retard de croissance dans les pays à faible application de la loi et la protection des investisseurs. Cela réduit la demande de divulgations publiques de qualité. Ainsi, les normes de qualité pourraient imposer des coûts inutiles sur les entreprises qui choisissent de se conformer aux normes prescrites.

En résumé, les facteurs institutionnels comme les lois sur la protection des investisseurs, la structure de gouvernement d'entreprise et la qualité de l'application de la loi conjointement influent sur la demande d'informations comptables. Ces facteurs sont chargés de déterminer les propriétés signalées par l'information financière. Par conséquent, la décision de la fixation de normes devrait tenir compte des facteurs institutionnels et de la qualité des services de répression dans une économie, plutôt que d'être prises sur les normes dans l'isolement. Une traduction simultanée fait pression pour une plus grande protection des actionnaires et pour la transparence des normes comptables.

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## THE PLACE OF WINE CHAIN IN ROMANIAN ECONOMY

**Dan BOBOC, Nicolae ISTUDOR, Vasile MANOLE\***  
Academy of Economic Studies Bucharest, Romania

**Abstract.** The issue of agro-food chain is a topic of a large interest in research field, university curricula, symposiums and conferences' debates. The discussions focus on chain coordination mechanisms, performance, and competition. In this paper it is described the food marketing system, with references to one vegetal origin product – wine. The chain's components took into consideration are: agriculture, public policy for wine sector, processing industry, market, performance assessment, internal and external trade, and the relationship between Romania and United States of America concerning the trade with wine. We conclude our study with SWOT analyze. There is presented and implemented a model of profit maximization in the chain, underling the importance of integration (horizontal and vertical) and its contribution in achieving higher performance in the chain. Also, the agro-food system is detailed presented from the point of view of its integration into the European Union agro-food system. Therefore, we focus our study on Romanian efforts to harmonize its rules and legislation to European Union one.

**JEL Classification:** Q11, Q13, Q24, L1

**Keywords:** wine chain, SWOT analyze

### 1. Introduction

Short time before accession to the European Union, Romania faces big structural problems, having a lack of medium-sized farms' sector and a chain of cooperatives upstream and downstream to agriculture. The accession to the European Union represents a big economic and social opportunity, and a reason for fundamental changes in micro and macro management of the food system, as well as in reconsidering the agriculture and rural areas in the process of sustainable development.

Wine chain is one of the most efficient agro-food chains in Romania, well organized, with specific regulations for and relationships between actors, and with professional and inter-professional organizations on the chain, that coordinate different activities. Wide assortments of grapes and large varieties of wine, high

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\* Corresponding author. Faculty of Agro-Food and Environmental Economics, 5-7 Mihail Moxa Street, room 3203, 010961 Bucharest, Romania. E-mail: victormanole@eam.ase.ro

quality and specific compositions of wine, place our country among first ten world producers and exporters of wine.

## 2. Agro-food chain's performance

Agro-food chain is efficient when the returns are over the payments, meaning the effects are over the efforts made for their achievement. To maximize the difference between returns and payments, meaning the profit, represents an objective for which we projected an optimization model.

The premise in model's construction is that the profit on the chain is not just the sum of each agent's profit on the chain supplying – producing – processing – selling, but we take into consideration the synergic effect as a result of their cooperation. Such an effect could be obtained through expenses' economies of transportation, supplying, selling and administrative, when it involves the activities' integration phenomena.

The optimization problem is:

$$P_{\max} = \left( \sum_{j=1}^n r_j x_j - \sum_{j=1}^n e_j x_j \right) + \sum_j E_j$$

Capacity restrictions:

$$\sum_{j=1}^n a_{ij(t)} \cdot X_{j(t)} \leq b_{i(t)} + I_{i(t)}$$

Financial restriction:

$$\sum_{j=1}^n f_{j(t)} \cdot I_j + F_{(t)} = \sum_{j=1}^n (r_{j(t)} - e_{j(t)}) \cdot X_{j(t)}$$

$P$  = Profit

$r_j$  = Revenues

$e_j$  = Expenses

$x_j, X_j$  = Activities of type  $j$

$E_j$  = Expenses' economy of  $j$  activity

$I_{j(t)}$  = Investments

$a_{j(t)}$  = Cost per investment unit

$F_{(t)}$  = Fix expenses (taxes, insurance)

$a_{ij(t)}$  = Transfer and technological coefficients

$b_{i(t)}$  = Production capacity

$f_{j(t)}$  = Investments' depreciation.

$E_j$  Expenses refer to some operation cancelled by chain integrated

organization. For example, there will be obtained an economy of transportation, supplying and selling expenses if the operations of agricultural production, processing, and packaging are made in a single company. This model will be applied later on this paper for wine chain.

### 3. Wine chain - Particularities

There are some weak points and threats that must be reconsidered in order to improve efficiency on the chain. The particularities of the wine chain are the following:

- grapes are produced in seven well known wine areas and are processed in 160 centers;
- grapes growers integrate several functions on the chain: grapes' growing, processing, storage, transportation and selling;
- high level of specialization;
- vineyard establishment implies large investments, intense labor work and high costs per hectare;
- there are small units of grape production where technologies are old, and human and animal energy are used;
- there are large units as well where technologies are modern, and the yields and performance are high;
- high level of self-consumption in small units that puts limits on quantities of grapes and wine that actually enter the chain;
- lack of hygiene and quality oriented policy;
- lack of marketing oriented strategy done by aged wine producers;
- selling the wine in small stores organized in markets represents an opportunity for consumers with low revenues.

### 4. Agriculture

Viticulture accounts for 1.8% of the agricultural areas and 2.8% of the arable area. The area harvested, the yield and the total production of grapes are presented in the following table.

Table 1. Area harvested, yields and production of grapes, 2003-2007

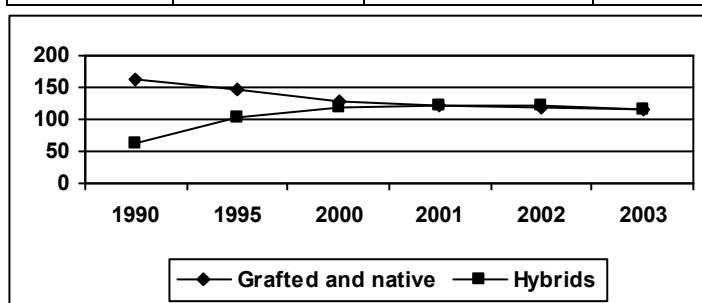
Specification	MU	2003	2004	2005	2006	2007
Area harvested	1000 ha	247.5	244.4	242.9	238.3	191.8
Yield	Kg/ha	5,234	4,590	4,433	4,626	5,529
Total production of grapes	1000 tons	1295.3	1121.7	1076.7	1102.4	1060.5

Source: Ministry of Agriculture, Forests and Rural Development, Romania, 2006, [www.mapam.ro](http://www.mapam.ro)

The structure of vineyards raises problems to chain performance. Thus, of total area of 233,000 hectares, just 50% represent the grafted and native vineyards (Table 2). Beginning with 1990, the areas cultivated with hybrids have increased with 85%. This structure represents an obstacle in European acquis implementation in wine sector, as will be seen in the paragraph Public policy for wine sector.

Table 2. Structure of areas cultivated with vineyards

Year	Vineyards area (1000 ha)		
	Total	Of which:	
		Grafted and native	Hybrids
1990	224	161	63
1995	249	146	103
2000	247	128	119
2001	244	122	122
2002	242	120	122
2003	233	116	117



Source: National Institute of Statistics, Romania, 2006

Modern management concepts state that every production and distribution process is derived from the demand and needs of the consumers (Kaplan and Norton, 1997). It seems that consumer' requirements for quality, quantity and availability dictate the design of the chain. But today consumers demand a new type of quality. They are concern and asking for quality throughout the whole chain, starting from the farm suppliers and ending to their own plate (Hanf and Kuhl, 2002). Therefore, the approaches of food system regard the products' quality, in general, and the approaches for wine chain, the remove of the hybrid vineyards, in particular.

##### 5. Public policy for wine sector

Wine chain implies particular approaches, because there are no governmental politics based on instruments and mechanisms like there are for other products. Still, this market benefited of some general measures of agriculture policy, like financial and credit policies, tariffs and subsidies for wine storage and distillation.

Romania, as a candidate country, was supposed to accomplish the acquis in wine sector by implementing the European Union measures regarding removal of hybrid vineyards in a period of 8 years beginning with 2007, and organizing the vineyards inventory and Vine Register until 2007.

Romania has requested a transition period of 4 years until December 31, 2010, for organizing the vineyards inventory and a register (Reg. 2392/86 and Reg. 649/87). The commissioners have considered this period too long, the Register could have been solved until 2007 (Mayhew, 2000). The second request was a transition period of 8 years until December 31, 2014, for the removal of hybrid



vineyards (Reg. 1493/99) (Romanian Position Document, 2001). The results of the negotiations between European Union and Romania, in May 2004, show that the Commission has accepted an area of 30,000 hectares of hybrid vineyards to be replanted with grafted and native vineyards, in a transition period of 8 years.

Briefly, the mechanisms of wine market organization refer to the products quality and to the removal of the hybrid vineyards. The quality level makes the difference between products on the common market, being regulated by measures such as authorized laboratories for analyzes execution, quality certification and transactions with viticulture material, controlled origin denomination and geographical protected indication and so on (Boboc, 2005).

For the removal of hybrid vineyards, the farmers receive primes and licenses for vineyards plantation and re-plantation. In the Law no.244 there is stipulated that the hybrids areas from vineyards regions and out-side the villages should be removed until 2014, through programs initiated by the Ministry of Agriculture and Rural Development (Law 244/2002).

The farmers will receive yearly re-plantation rights, consisting in financial intern support, maximum 30% in 2007, and 35% in 2008, the financial support increasing with 10% yearly, to 75% in 2014. The re-plantation rights are received for those 30,000 hectares negotiated with the European Union.

Also, as it is mentioned in the law, Romanian farmers will benefit of supplementary plantation rights for recommended varieties on an area of 2830 hectares (1.5% of the total area of 188,000 cultivated with vine). These supplementary rights consist in financial support from the European Union, until 2014, which means 353.75 hectares yearly.

## **6. Wine industry**

Grapes production is processed in the same unit, if there is a large company, or is delivered to processing industry. In Romania, there are over 1200 units in alcoholic beverages business, most of them small and medium enterprises with less than 50 employees. Alcoholic beverages industry has accounted for 13.6% of the agro-food system, in terms of supply (Association of Wine Producers and Exporters, 2003).

There are presented bellow some indicators of performance (National Institute of Statistic, Romania, 2005):

- turn over	1,989,888,888 USD
- exports	23,185,185 USD
- gross added value	459,074,074 USD
- investments	147,777,777 USD
- turn over per employee	59,229 USD/person

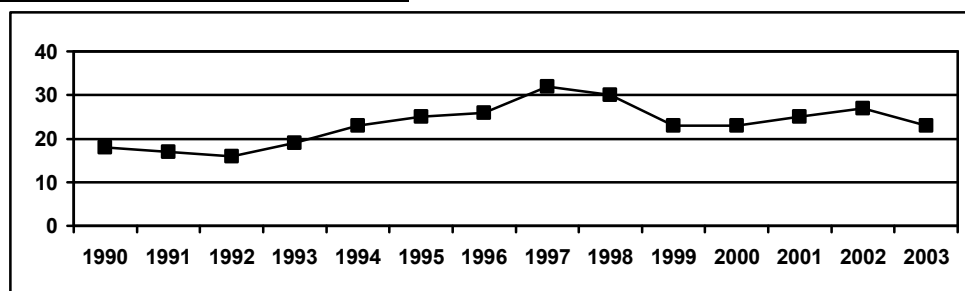
The wine production is appreciatively 5-6 million hectoliters per year, depending on weather conditions.

## **7. Wine market**

In this stage of the chain, we analyze the demand, supply and prices for wine. Wine consumption in Romania is 23 liters/person/year lower than the level of consumption in the European Union, which is 33 liters/person/year, but much higher than the level of consumption in the United States of America, which is 7.33 liters/person/year (FAOSTAT, 2003 – last year for food consumption's statistics).

Table 3. Wine and wine products' consumption, 1990-2003 (liters/capita)

Specification	Level of consumption
1990	18.5
1991	16.9
1992	16.1
1993	19.5
1994	23.2
1995	25.3
1996	26
1997	32.2
1998	30
1999	22.7
2000	23.2
2001	25.5
2002	27
2003	23.1



Source: National Institute of Statistics, Romania, 2005

The wine consumption has increased from 1990 to 1997. After 1997, until present, the level of consumption has stabilized around 20 liters/person/year. In Romania, wine supply on the market is varied in terms of assortment. There are over 400 types of wine, depending on qualitative characteristics, composition, and technology used, classified as follows: 11 types of table wines, 42 types of superior quality wines, 118 types of superior quality wines with origin denomination, 231 types of superior quality wines with origin denomination and stages of quality (Association of Wine Producers and Exporters, 2003).

Table 4. Structure of wine production in Romania, 2007 (thousand hectoliters)

Specification	Total	Of which:		Noble wine			Hybrid wine		
		noble	hybrid	White	rose	red	white	rose	Red
Wine production	6166	3561	2605	2384	234	943	832	169	1604

The structure of wine varieties is much diversified. Production of noble wines is larger than that of hybrids (Table 4). In the noble wines category, white

wines account for more than 50%, but in the hybrid category, red wines account for more than a half.

Wine production is supplemented with imports in order to achieve the total supply necessary to satisfy the internal consumption. But the quantities imported are too low in the whole supply, and they will be mentioned in the paragraph *External trade*. The *prices for wine* vary depending on assortments, type, season, geographical area of provenience, type of store, brand, and so on. There is a wide range of assortments of Romanian wines, from domestic ones to foreign ones. The average shelf prices for wine vary between 3-10 dollars/bottle.

## 8. Wine chain's performance

### *Necessary dates for model implementation*

In the case study for wine chain we have used dates provided by different companies.

$X_{j(t)}$  Activities in the model refer to the following: grapes production, wine making and stabilization, wine packaging and promotion, and wine selling. Dates are introduced in the model. We consider three situations: open chain, part integrated chain and total integrated chain.

$$P_{\max} = \left( \sum_{j=1}^n r_j x_j - \sum_{j=1}^n e_j x_j \right) + \sum_j E_j$$

In the open chain, the activities  $X_{j(t)}$  are made in separate companies; it means the expenses economies  $E_j$  are not added in the model expression.

In the part integrated chain, the activities of grapes production, wine making and stabilization, packaging and promotion are made in the same company and wine selling in a different one. In this case, there will be obtained an economy of transport, supplying, selling and administrative expenses, which will be added in the profit expression.

In the total integrated chain, all  $X_{j(t)}$  activities are made in the same company, so the expenses economy is higher than in the case of part integrated chain.

### *Results and discussions*

It results three scenarios related to the three types of chains. In Table 5, there are presented the results of the model implementation.

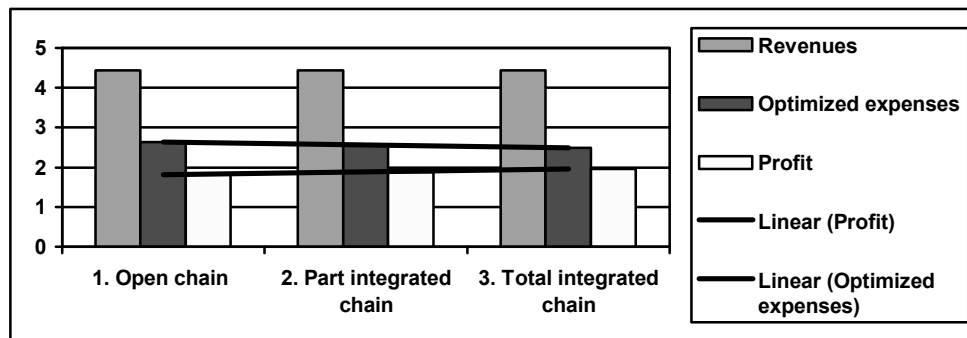
In scenario no.2, there are obtained economies of general – administrative expenses (0.1784 USD/bottle) and economies of transport and supplying expenses (0.0191 USD/bottle), which were added in the profit expression.

In the third situation, all the activities are made in the same company, so the profit level is the highest – 1.9569 USD/bottle resulted from the highest level of expenses' economy (0.5878 USD/bottle).

This expenses' economy obtained in the integration case is transposed economically in a plus of profit, which means an increasing efficiency on the wine chain.

Table 5. Economic results' optimization for wine chain (USD/bottle 0.75)

Specification	Scenario		
	1. Open chain	2. Part integrated chain	3. Total integrated chain
Revenues	4.4444	4.4444	4.4444
Basic expenses	2.6296	2.6296	2.6296
- indirect expenses, of which:	-	0.1784	0.5317
Farm (grapes production)	-	0.0044	0.0044
Wine making company	-	0.0068	0.0068
Packing company	-	0.1672	0.1672
Selling company	-	-	0.3533
- transport and supplying expenses	-	0.0191	0.0561
+ general administrative expenses	-	0.1277	0.4457
Optimized expenses	2.6296	2.5598	2,4875
$P_{max}$	<b>1.8148</b>	<b>1.8846</b>	<b>1.9569</b>



Source: own calculation

### 9. Wine trade. Internal and external trade

*Internal trade* with wine may be presented in a conceptual model like in the figure no.1. There are seven distinguish types of channels representing opportunities for producers to put their products on the market as well.

Circuits no. 1 and 2 – large companies of wine and grapes producers → consumers / export – it is characteristic for large companies that integrate the functions of wine making and distribution. The production has two possible destinations: internal market (circuit no. 1) and external market (circuit no. 2).

Circuit no. 3 – large companies of wine and grapes producers → engross wine selling → consumers / export – it is used when the grapes producers integrate just the function of wine making and sell the wine to engross resellers, the wine having two possible destinations: internal market and external market.

Circuit no. 4 – small grapes producers → centers of grapes' collecting → wine making companies → engross wine selling → consumers – it is used when small

grapes producers do not process the grapes production themselves, this one being sold to centers of grapes' collecting.

These centers are equipped with necessary logistics, having the role of grapes' collecting, transport and storage from numerous and small grapes producers, characterized by low economic power. The centers deliver forward the grapes production to the wine making companies who will process it and sell the wine forward to resellers. Previous studies show that the integrator in this case is the wine making company (Manole et al., 2005).

Circuit no. 5 – small grapes producers → wine making cooperatives → engross wine selling → consumers — it is hardly met in economical practice. This circuit should be revealed in Romanian agricultural structures' context, in which the dimensions of farms are very low and the farmers have reduced economical power.

Circuit no. 6 – small grapes producers → wine making cooperatives → consumers – it is similar to circuit no. 5, having in particular wine selling direct to final consumer.

Circuits no. 7 and 8 – small grapes producers → consumers / self-consumption – consist in ultra-short channels. In this case, the grapes producers integrate numerous functions: grapes' and wine's transportation, storage, processing and selling. They are the integrator of the chain. Artizanal wine making takes place in households, the wine production having two possible destinations: local market (circuit no. 7) and self-consumption (circuit no. 8).

The circuit producer — consumer is specific for all agro-food chains in Romania. In this type of circuit, the physical functions of distribution (storage, packaging, transport, and selling) are done in unsuitable condition of hygiene and quality. This type of commerce is forbidden in the European Union countries and it will disappear when Romania will join the community. Taking into account the experience gained by the countries where the agro-food system is competitive, it is necessary to promote those channels and circuits that favorite and creates associative and integrative structures between different partners of the chain and that assure the highest advantages (Hueth and Marcoul, 2003).

*External trade.* Romania's balance trade for wine is positive (Table 6). Romania exports over 7.5% of the whole production of wine. The main export destinations are Republic of Moldova, Great Britain, Germany, Japan, and United States of America.

Table 6. External trade with wine, 2003-2007

Specification	2003	2004	2005	2006	2007
Exports (million USD)	17	19	23	24	26
Imports (million USD)	1.23	1.33	1.75	2.26	4.19
Difference (million USD), export-import	15.77	17.67	21.25	21.74	21.81

Source: FAOSTAT, 2006.

The imports coming from France, Italy, Spain and California are usually designated to satisfy the needs of consumers with high levels of income. Those coming from new world countries Australia, New Zealand, Chile and South Africa as well, make strong competition to internal supply of wines for the same

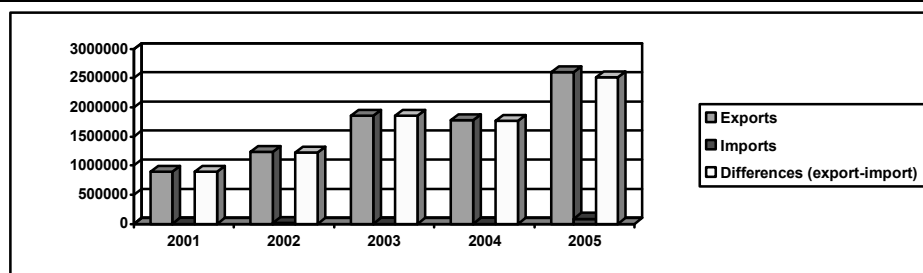
assortments. Still, Romania has domestic varieties very much appreciated by the consumers. Those varieties (Francusa, Feteasca, Babeasca, Tamaioasa) have no external competitions and are exported successfully on the world market.

### Romania – United States of America wines' trade

The United States of America exports of wine have as main destinations Great Britain, Canada, Netherlands, Japan, and other countries. United States usually export in Romania about 0.14% of the whole export of wine. Concerning the imports, the U.S. main suppliers of wine are France, Italy, Australia, and Chile. From Romania, U.S. import about 0.07% of the total imports of wine.

Table 7. Wine trade of Romania with the United States of America (USD)

Specification	2003	2004	2005	2006	2007
Exports	894,974	1,234,173	1,853,896	1,776,508	2,595,202
Imports	3,048	11,373	0	4,800	87,568
Differences (export-import)	891,926	1,222,800	1,853,896	1,771,708	2,507,634



Source: United States Department of Agriculture, Foreign Agricultural Service, [www.fas.usda.gov](http://www.fas.usda.gov)

Romania has exported to the United States of America about 7% of its whole wine exports, and has imported from the U.S. about 0.12% of its whole wine imports, in 2004.

### 10. Conclusions for wine chain – SWOT analyze

Concluding the debates above, there are some *strengths* that should be underline: grapes producers integrate numerous functions: grapes production, wine making, storage, transport and trade (wine sector is characterized by high level of specialization and division into specific regions); in agricultural farms specialized on grapes production there are cultivated large areas of vineyards and there are developed modern technology; the grapes meant wine making are cultivated on large areas, especially in associative organizations, companies and in some families' farms from different areas of grapes production; in agricultural stage, inputs' costs are low, especially labor costs; there are numerous professional and inter professional organisms, governmental and nongovernmental organisms on the whole chain.

On the wine chain there are some weaknesses worth to be remembered: the technologies used in the small farms are traditional, based on labor work and animal energy; vineyards areas are divided into small fragments, which determine difficulties in supplying the wine centers with grapes; the structure of the areas

cultivated with vineyards suffered deterioration in the last few years, in those that concern the share of native and grafted vineyards; grapes' production implies high level of expenses, especially those with phyto-sanitary actions, resulting a high level of expenses by hectare; wine making technology is very old (there are demanded measures for technologies' rebuilding to improve the wine's quality); the wine produced in small families' farms is used for self-consumption, as a priority, thus the quantities delivered for processing are very low; lack of orientation to quality and hygiene; lack of marketing orientation, in the agricultural stage of the chain, argued by the age of the owners and by the high level of self-consumption; lack of information regarding market's situation and evolution; and distribution system fragmentation.

The *opportunities* for wine sector development are very large in Romania. There may be mentioned: tradition and experience in wine making; environment conditions (climate and soil) are very favorable for grapes production coming from native and grafted varieties; vine culture reclaims areas unsuitable for other cultured plants; wine chain is characterized by high level of vertical integration, for both large and small units; for wine sector, Romania negotiated with European Union an area of 30,000 hectares to be replanted with grafted and native vineyards in a period of 8 years (for replanting and abandoning, there will be received primes); investments that could be made in vineyards that produce high quality wines; increasing of demand for good quality wines as a result of consumers' education regarding wine consumption.

*Threats* for wine chain consist in excessive humidity, frosts, floods and droughts and other restrictive environmental factors that determine quantitative and qualitative losses of production; perishability of grape, which implies taking actions regarding transportation, storage and processing; low level of power purchasing; lack of information regarding industry structure, its yields, prices etc.; lack of opportunities regarding labor market in rural area brakes; demand's increasing for beer in some periods of the year determines wine selling reduction; large penetration of imported wines on internal market. If the wine quality and its productivity are maintained on a low level, new „actors” of the world wine market: Australia, New Zealand, South Africa, Chile, penetrate Romanian wine market, which implies a strong competition (Manole and Ion, 2006).

The Common Market Organization for agricultural products in Romania could be implemented by a marketing strategy focused on quality. This objective could be achieved by providing financial support for the farmers, by setting up cooperatives that will provide appropriated services for producers, especially those services regarding logistic system and promotional activities. A public organization that will facilitate access to export market is needed. Competitive structures, high quality and a good image of national products will lead Romanian agro-food products to success.

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## L'ANALYSE DU RISQUE DE FAILLITE PAR DES METHODES STATISTIQUES - DES CONCEPTS THEORIQUES

**Monica ACHIM\***

Babeș-Bolyai University of Cluj Napoca, Romania

**Abstract.** To reduce risk, uncertainty, and avoid bankruptcy one must appreciate the usefulness of financial statement analysis by using some tools and techniques to evaluate and project the future performance of the firm within a given industry. The aim of the paper is to present how multi-discriminant models (MDA) perform in practice and to measure these models' effectiveness in bankruptcy prediction. For this purpose an ex-ante approach is adopted to emulate the way in which the models are used in practice. The paper fills a gap in the literature on independent testing of the developed MDA models.

**JEL Classification:** G33, C19

**Keywords:** bankruptcy risk, multi-discriminant models, financial statements

### 1. Introduction

La présentation de l'information financière est devenue un élément essentiel de la communication entre l'entreprise et ses parties prenantes. L'information financière pour les intervenants de l'extérieur qui ne participe pas à la gestion quotidienne de l'entreprise, a besoin d'un processus soigneusement équilibré de l'extraction des caractéristiques essentielles, tout en préservant l'essentiel, l'intégrité, l'objectivité et la base de l'information. Le rapport annuel publié est le moyen le plus important pour une entreprise de communiquer avec ses parties prenantes externes. Même lorsque les faits saillants du rapport annuel ont été pré-annoncés aux parties intéressées, le document reste la clé de la sécurité sur la situation financière et les performances passées de l'organisme (Weitzman, 1996).

Le type d'information requis à partir des états financiers peut varier en fonction de l'utilisateur pour lequel l'information est nécessaire. La responsabilité de la direction est d'employer efficacement les ressources pour atteindre les objectifs de l'entreprise (Foss, 1995).

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\* Faculty of Economics and Business Administration. Address: 58-60 Teodor Mihali Street, room 509, 400591 Cluj-Napoca, Romania. E-mail: monica.achim@econ.ubbcluj.ro

Les investisseurs ont besoin d'information pour les aider à décider si ils doivent acheter, détenir ou vendre. En outre, les investisseurs sont intéressés par l'information financière qui leur permet d'évaluer la capacité de l'entreprise de verser des dividendes (c'est-à-dire, le retour sur investissement) - Helfert, 1991. Les salariés et leurs représentants sont intéressés par des informations au sujet de la stabilité et la rentabilité de leurs employeurs. Les prêteurs sont intéressés par l'information qui les aide à déterminer si leurs prêts seront versés à l'échéance. Les fournisseurs ou les créanciers commerciaux sont intéressés à l'information qui leur permet de décider de l'opportunité de vendre à l'entreprise et de déterminer si les montants dus leur sera versée à l'échéance. Les créanciers sont susceptibles d'être intéressés dans une entreprise sur une période plus courte que les prêteurs, à moins que, ils dépendent de l'entreprise comme l'un de ses principaux clients (Horne et James, 1998). Les clients ont l'intérêt à l'information sur la poursuite d'une entreprise, surtout quand ils ont une implication à long terme, ou dépendance à l'égard de l'entreprise. Les gouvernements et leurs organismes sont intéressés dans l'allocation des ressources, et donc dans les activités de l'entreprise. Ils ont aussi besoin d'information afin de réglementer les activités des entreprises, d'évaluer la fiscalité, et de fournir une base pour le revenu national et les statistiques économiques. Les entreprises affectent les membres du public de diverses façons. Les états financiers peuvent aider le public en fournissant des informations sur les tendances et les développements récents dans la prospérité de l'entreprise et l'éventail de ses activités (Higgins, 1995).

Beaucoup de recherches ont été entreprises dans le développement de multi-discriminant analyse (MDA) au parcour des nombreuses années, par exemple Altman (1968, 1980), Marais (1980), Taffler (1982, 1984), Koh et Killough (1990) et C.Y. Shirata (1998). Toutefois, peu d'attention a été accordée au contrôle sur la fiabilité des ces modèles dans la pratique. Étant donné que ces modèles sont largement utilisés dans la pratique, par exemple, les agences de crédit rating, les institutions bancaires et financières et d'autres institutions financières c'est très important essentiel de faire d'une évaluation approfondie sur la fiabilité et la validité de ces modèles. Il est approprié que les modèles sont évalués de façon indépendante l'ex-ante parce que les modèles seront utilisés dans la pratique. Le directeur financier a une double responsabilité en ce qui concerne les difficultés financières. Si l'entreprise a des problèmes financiers, il est évident que la capacité de gestion peut faire la différence entre le fait de perdre l'entreprise et la remise en état comme une entreprise en cours. Lorsque d'autres entreprises se répartissent en difficultés financières, la connaissance des droits des créanciers peut faire la différence entre les grandes et les petites pertes ou pas de pertes. Les entreprises qui ne réussissent pas ne sont généralement pas en mesure de gérer les risques de crédit, les compétences que les entreprises sont censées les meilleures performances. En outre, un faible ratio de capital augmente les chances d'échec. De même, les entreprises avec des grandes fonds achetés sont plus susceptibles d'échouer. Le ratio de commerciaux et industriels prêts à l'actif total est un précurseur évident à l'échec. En général, l'échec est soit:

- économique – les recettes d'une entreprise ne couvrent pas les coûts.
- financières – l'échec financier signifie insolvabilité qui peut être:
  1. Insolvabilité technique, si une entreprise ne peut pas répondre à ses obligations à leur échéance, même si le total de ses actifs mai dépasser le total de ses engagements.

2. Dans le sens de faillite, si le total du passif l'entreprise dépasse son actif total, la valeur nette de l'entreprise est négative.

Beaucoup de sociétés ont rencontré des difficultés financières au début des années 1990. Les problèmes allaient de problèmes temporaires de liquidités, de nécessité de restructurer, de l'insolvabilité ultime. Bien que les ratios financiers pris individuellement peut indiquer les forces et les faiblesses, on peut néanmoins trouver des explications satisfaisantes où les taux semblent hors de la ligne. Un certain nombre de chercheurs ont essayé de faire une distinction entre les caractéristiques financières des entreprises performantes et ceux qui font face à l'échec. L'objectif a été de mettre au point un modèle utilisant des ratios financiers à prévoir que les entreprises ont la plus grande probabilité de devenir insolvable dans un avenir proche. Altman est peut-être le plus connu de ces chercheurs. Il a fait appel à plusieurs analyse discrimination. Au Royaume-Uni (UK), Taffler (1982) a été le principal chercheur.

Son point de vue en ce qui concerne la discrimination a été:

- 1) Le bénéfice avant intérêts et taxes (EBIT) / Total de l'actif
- 2) Total du passif / Les capitaux employés nets
- 3) Actif rapide / Total de l'actif
- 4) Le fonds de roulement / Valeur nette
- 5) Coût des ventes / La valeur des actions

Dans les deux modèles, le ratio de rentabilité (EBIT à Total de l'actif) a été le plus important discriminateur entre solvant et des entreprises insolubles. Une entreprise est couronnée de succès dans la création de bénéfices si elle peut surmonter à court terme des problèmes de liquidités. En outre, si une entreprise fait des bénéfices mais il est par ailleurs mal géré, il est de nature à prouver une belle cible d'acquisition.

Le risque de faillite peut être définie comme l'incapacité des entreprises à faire face à une des opérations financières - bancaires, et aussi ses incapacités à rembourser les sommes empruntées au temps, dans les conditions convenues par des tiers en vertu d'un contrat de prêt. Il peut être le résultat d'une difficulté qui, dans un premier temps, dans l'étape d'analyse et de l'évaluation et l'approbation du prêt, ne pouvait pas être identifié mais qui, pendant la durée du contrat, a fait son apparition.

Par conséquent, le processus de diagnostiquer le risque de faillite est d'évaluer la capacité de répondre aux engagements pris à la fête, dans l'évaluation de la solvabilité de l'entreprise. L'analyse de risque de faillite peut être réalisé par l'analyse de la table ronde de financement ou peut être faite sur la base de deux concepts de la préparation d'un bilan: patrimoine et fonctionnel.

Dans la première conception ce qui nous intéresse est le patrimoine net d'actionnaires et l'activité économique dans son ensemble, en tant que la garantie pour les créanciers. Dans la seconde conception, le bilan est l'ensemble des allocations de fonds et les sources d'achat sur les différents cycles financiers (investissement, le financement et l'exploitation).

## **2. Revue de la littérature**

La longévité financière d'une entreprise est une préoccupation pour les intervenants internes et externes. Les parties prenantes internes pourraient être intéressés à savoir si les compétences sont transférables, tandis que les intervenants de l'extérieur pourraient être directement concernés par les investissements ou les bénéfices (Mossman et al, 1998). Pour répondre à ces préoccupations, il peut être d'une importance particulière pour l'industrie de prédire la faillite ou la détresse financière. Bien que différents modèles sont largement acceptés, Aziz et Dar (2006) montrent que l'analyse de discrimination multiple (MDA) et les modèles Logit sont très précises avec des taux d'erreur de 15% chacun. Alors que le modèle MDA fait appel à un score calculé du faillite par une équation linéaire pour déterminer la probabilité de faillite, le modèle Logit prévoit que la probabilité est „une variable dépendante dichotomique qui est une fonction d'un vecteur de variables explicatives” (Aziz et Dar, 2006) . Dans le passé, les chercheurs ont comparé différents modèles de la faillite (c'est-à-dire différents Uni MDA, Logit, etc.) et ont conclu que, malgré certaines limites théoriques et pratiques, la méthode Altman est supérieure en raison de sa simplicité, sa praticité et précision (Collins, 1980; Mossman et al, 1998).

Plusieurs auteurs (Zavgren et Dugan, 1989, Chen et Shimerda, 1981) ont défini sept facteurs financiers qui peuvent aider à prévoir les difficultés financières: le retour sur investissement, le levier financier, le capital de chiffre d'affaires, les liquidités à court terme, la situation de trésorerie, le revenu de débiteurs et le revenu de l'inventaire. En utilisant les ratios financiers, la précision de la prévision de faillite d'une entreprise est supérieure à 90% (Chen et Shimerda, 1981). Altman, dans son modèle, a recours à divers ratios pour examiner les sept facteurs mentionnés ci-dessus. Il convient de noter que certains chercheurs (c'est-à-dire Morris, 1998) soutiennent que dans la mesure où la faillite est due à des événements imprévisibles, par conséquent, il ne peut pas être prédit.

## **3. La méthode « crédit score » d'évaluation du risque de faillite**

Au cours des dernières années, grâce au dynamisme inhérente à l'activité économique et financière des entreprises, il était nécessaire de savoir combien des informations plus précises sur le risque de faillite. Cela a permis la mise au point d'une méthode de prédiction du risque de faillite nommée la méthode de scores, qui a vu un développement important à cause de l'usage de méthodes statistiques pour l'analyse de la situation financière d'un taux global. Études de la période '60 ont cherché des différences dans les valeurs des indicateurs performants et des sociétés qui ont fait faillite. Les études ont montré que certains indicateurs financiers avaient des différences importantes pour les deux catégories de sociétés. Le plus souvent, la technique utilisée dans les études statistiques sur la faillite est l'analyse discriminante. Il s'agit d'une méthode statistique pour trouver certaines variables dispositions à qui sont accordées certain nombre d'actions afin qu'ils donnent une indication qui est le score Z (Z score). La méthode vise à classer les dispositions de modèles prédictifs pour évaluer le risque de faillite d'une entreprise. Son application implique l'observation d'un groupe d'entreprises composé de deux groupes distincts: un groupe d'entreprises avec des difficultés financières et un groupe d'entreprises sans problèmes financiers. Pour chacun des deux groupes on doit établir un ensemble de taux et

puis on doit déterminer la meilleure combinaison de taux linéaire qui permet la différenciation des deux groupes de sociétés.

À la suite de l'application d'analyse discriminante, on obtient pour chaque entreprise le score Z, qui est une fonction linéaire d'un taux fixe. Distribution des scores des différentes entreprises permet de distinguer une "saine" pour ceux qui sont en difficulté.

La fonction discriminante estimée est ligne droite qui sépare les entreprises en faillite d'un côté et ceux qui ne sont pas en faillite de l'autre côté. Tant que plus d'entreprises entrent dans le mauvais côté de la ligne, la technique peut être modifiée de manière à estimer par deux lignes, minimisant ainsi la classification incorrecte. Toutes les entreprises trouvées entre les deux lignes dans le domaine de l'ignorance, ne peuvent pas être classés correctement. En fait, la méthode de scores a évolué dans deux directions. L'une est en service la fonction z et la seconde est basée sur l'attribution des scores aux indicateurs qui caractérisent l'entreprise analysé.

Dans les méthodes bancaires de l'analyse, la z est considéré comme faisant partie d'une évaluation globale et cette analyse est complétée par l'appréciation et la critique des éléments suivants:

- La gestion d'entreprise;
- La gestion financière;
- Les rapports des comptes agréés;
- Les relations avec les créanciers;
- Les déclarations à la presse;
- Les conditions d'exploitation;
- Le degré de satisfaction des employés.

Dans la théorie économique, ont été élaborés une série de modèles basés sur la méthode des partitions et on remarque le modèle Altman et le modèle Conan.

### **Le modèle d'Altman**

Le professeur américain E.I. Altman a mis au point en 1968 la première fonction score utilisée dans l'analyse du risque de faillite. Il a utilisé des informations obtenues à partir de l'étude d'un large échantillon d'entreprises, dont certaines ont été en faillite, et d'autres ont survécu. Il a noté que l'analyse sur la base de plusieurs variables, fait avec 5 indicateurs, a permis à prévoir les 75% des faillites, à 2 ans avant de leur production.

Le modèle Altman est dérivé à partir d'un échantillon de 66 entreprises manufacturières. L'échantillon se compose de 33 entreprises faillites et 33 pas faillites, choisis par la taille et l'industrie et sélectionnés sur une base aléatoire stratifiée. La construction du modèle suit la méthodologie commune à la MDA analyse. Le modèle se compose des variables suivantes:

- X1 = Fonds de roulement / total des actifs
- X2 = Bénéfices non répartis / actif total
- X3 = Bénéfice avant intérêts et impôts / total des actifs
- X4 = Valeur de marché de l'équité / valeur comptable de la dette totale
- X5 = Ventes / actif total

Eidleman (1995) définit chacun des rapports ci-dessus comme suit:

X1: le ratio de liquidité. L'objectif est de mesurer la liquidité des actifs "par rapport à la taille de l'entreprise."

X2: est un indicateur de la rentabilité cumulée de l'entreprise au fil du temps.

X3: est une mesure de la productivité de l'entreprise, ce qui est essentiel pour la survie à long terme d'une entreprise.

X4: définit la façon dont le marché est vue de la société. L'hypothèse est que l'information qui est transmis au marché sur une base constante, le marché est en mesure de déterminer la valeur de l'entreprise. Le résultat est ensuite comparé avec dette de l'entreprise.

X5: décrit cela comme une "mesure de la capacité de la direction de la concurrence." Toutefois, Eidleman affirme que le ratio varie selon l'industrie.

Le Z-score de Altman a été calculé selon l'équation suivante:

$$Z = 1,2 * X1 + 1,4 * X2 + 3,3 * X3 + 0,6 * X4 + 0,999 * X5$$

En utilisant ce modèle, Altman conclu:

Z-score < 1,81 = forte probabilité de faillite.

Z-score > 3,0 = faible probabilité de faillite.

Z-score = 1.81-3.0 = indéterminable.

La suite, Altman a développé le modèle en 1968 par le développement d'une fonction de z pour les entreprises privées et des entreprises dans les domaines non-manufacturière. Pour classer les entreprises tenues en propriété privée, Altman a révisé le modèle de score et a remplacé le numérateur dans le rapport X4 (la valeur de marché de l'équité) à la valeur comptable. La modification a changé de façon significative les coefficients de pondération des taux de tous les autres rapports:

$$Z = 0,717 * x1 + 0,847 * x2 + 3,107 * x3 + 0,42 * x4 + 0,998 * x5$$

Pour les valeurs de z de moins de 1,3 les entreprises sont dans une situation de faillite, le domaine de l'ignorance (l'incertitude) est 1,3-2,9 et pour 2,9 et plus les entreprises sont dans une situation de non-faillite.

L'amendement suivant pour la fonction a été l'élimination de taux X5 (chiffre d'affaires / actif total). Altman a estimé que ce taux est sensible à la nature de l'industrie, de sorte que le modèle est applicable dans toutes les branches.

La nouvelle fonction score prend la forme:

$$Z = 6,56 * x1 + 3,26 * x2 + 6,72 * x3 + 1,05 * x4$$

La zone d'incertitude est entre 1,1 et 2,6, pour les valeurs moins de 1,1 les entreprises sont dans un état de faillite, tandis que les valeurs au-dessus de 2,6 les entreprises sont dans une situation de non-faillite. Le modèle a été appliqué à un échantillon d'entreprises de l'extérieur des États-Unis, en particulier les entreprises sur les marchés émergents.

### **Le modèle de Conan - Holder**

Le modèle mis au point par les deux auteurs relève de l'essai des méthodes statistiques. Elles s'appliquent aux entreprises industrielles avec un nombre compris entre 10 et 500 employés. Il est fondé sur un échantillon de 95 petites et moyennes entreprises, dont la moitié ont été données au cours de la faillite de 1970 à 1975. Les entreprises ont été analysées statistiquement regroupées et ont conduit à une note en fonction applicable pour les industriels, entreprises de construction, les entreprises du commerce de gros et de transport.

Le modèle est fondé sur la base suivante:

$$Z = 16 X_1 + 22 X_2 - 87 X_3 - 10 X_4 + 24 X_5$$

Les indicateurs choisis dans ce modèle sont les suivants:

1. Le taux de liquidité intermédiaire ( $X_1$ ) est déterminé comme le ratio entre l'actif à court terme (ACR), avec la réduction des stocks (S) et le passif à court terme de l'entreprise (DCR).

$$X_1 = \frac{ACR - S}{DCR}$$

2. Le taux de la stabilité financière ( $X_2$ ) représente la part du capital permanent (CPM) dans le total des passifs de bilan (PB).

$$X_2 = \frac{CPM}{PB}$$

3. Le degré de financement des ventes provenant de sources externes ( $X_3$ ) est déterminé que la relation entre les dépenses financières (FC) et le chiffre d'affaires net de l'entreprise. (CAN).

$$X_3 = \frac{CF}{CAN}$$

4. Le niveau de rémunération du personnel ( $x_4$ ) est calculé comme le ratio entre les dépenses de personnel (CP) et la valeur ajoutée (VA).

$$X_4 = \frac{CP}{VA}$$

5. Le taux de rendement de la valeur ajoutée ( $X_5$ ) est la mesure dans laquelle le résultat brut d'exploitation (RBEXP) produite de la valeur ajoutée (VA) et est déterminée par la relation:

$$X_5 = \frac{RBEXP}{VA}$$

Selon le score fait par une entreprise a fait observer que la possibilité de faillite diminue avec l'augmentation de score:



La valeur du score	La probabilité de faillite
Z < 0	> 80 %
0 < Z < 1,5	75-80 %
1,5 < Z < 4	70 -75 %
4 < Z < 8,5	50 -70 %
Z = 9,5	35 %
Z = 10	30 %
Z = 13	25 %
Z = 16	15 %
Z > 16	< 10 %

Le groupement des entreprises en fonction du score z avec le modèle Canon est fait comme suit:

- Si  $z > 9$  lorsque la société est solvable;
- Si  $z \in [4,9)$  la société est dans une zone d'incertitude avec la possibilité de recouvrement;
- Si  $z < 4$  lorsque la société fait faillite imminente.

#### **Le modèle Datastream**

Le modèle Datastream est un modèle de classification mis au point par Marais (1979). C'est sur la base d'un échantillon de 100 entreprises du Royaume-Uni composé de 50 entreprises faillites et 50 non faillites. Même si dans la littérature sont disponibles peu d'informations sur la construction du modèle, le type de variables utilisées est connue. Le modèle se compose de quatre variables qui mesurent aspects distincts de la performance de l'entreprise. Variables:

- X1 = mesures de profitabilité,
- X2 = mesures de la liquidité,
- X3 = mesures de levier,
- X4 = mesures de chiffre d'affaires réalisé par les actions.

#### **Le modèle de la Banque Centrale de France**

En France il est utilisé, le Z score fixé par la Banque centrale de la France et est déterminé sur la base de 8 indicateurs:

$$Z = -1,255 X1 + 2,003 X2 - 0,824 X3 + 5,221 X4 - 0,689 X5 - 1,164 X6 + 0,706 X7 + 1,408 X8 - 85,544$$

Les huit indicateurs de modèle sélectionné sont:

1. Le taux de la suppression de dépenses financières (X1) est déterminé comme la relation entre les dépenses financières (FC) et résultat brut d'exploitation (RBEXP), à savoir:

$$X1 = \frac{CF}{RBEXP}$$

2. Le taux de couverture du capital investi ou de la stabilité financière (X2) est déterminé comme le rapport entre les capitaux permanents (CPM) et la responsabilité bilanciale:

$$X2 = \frac{CPM}{PB}$$

3. Le taux de la capacité de rembourser les dettes de leurs propres (X3) est déterminé par un rapport entre la capacité d'auto (CAF) et la dette totale (DT):

$$X3 = \frac{CAF}{DT}$$

4. Le taux de rentabilité des ventes (x4) est défini comme étant le ratio entre le résultat brut d'exploitation (RBEXP) et le chiffre d'affaires net (CAN):

$$X4 = \frac{RBEXP}{CAN}$$

5. La vitesse de rotation de la dette commerciale (X5) a déterminé que la durée en jours:

$$X5 = \frac{\overline{DC}}{S} \times 360$$

-  $\overline{DC}$  est le solde moyen de la dette commerciale calculé entre deux moments successifs  $\overline{DC} = \frac{DC1 + DC2}{2}$

- S est le total des actions

6. Déviation par rapport la valeur ajoutée (x6), à savoir:

$$X6 = \frac{\Delta VA}{VA0} = \frac{VA1 - VA0}{VA0}$$

7. La vitesse de rotation calculée de réclamations (X7), comme une longue journée en:

$$X7 = \frac{\overline{CR}}{CAN} \times 360$$

- $\overline{CR}$  est le solde des créances commerciales calculé entre deux moments successifs: 
$$\overline{CR} = \frac{CR1 + DCR0}{2}$$
- CAN représente le chiffre d'affaires net

8. Le taux d'investissement dans les ressources naturelles (x8) est déterminée par un rapport entre la valeur des investissements (tel que déterminé violation absolue de la valeur comptable nette des immobilisations AI) et la valeur ajoutée (VA), à savoir:

$$X8 = \frac{\Delta AI}{VA} = \frac{AI1 - AI0}{VA}$$

En fonction de la valeur de score z obtenue les entreprises se répartissent en 3 catégories:

- Si  $z > 0,125$  lorsque la société est en bonne santé
- Si  $z \in [-0,25, 0,125)$  puis l'entreprise est incertain dans une zone
- Si  $z < -0,125$  puis l'entreprise est en difficulté financière.

#### 4. Conclusions

L'analyse des rapports financiers est utilisée pour évaluer la rentabilité et les risques, actuels et futurs, du point de vue des prêteurs, des investisseurs, et d'autres opérateurs au sein de l'entreprise. Les ratios varient selon les conditions des échanges. Les conditions économiques au cours des périodes couvertes par les comptes analysée est une considération importante.

On peut conclure que le modèle de Altman peut être utilisé comme un indicateur et peut être un élément de preuve pour déterminer la faillite de l'entreprise à l'avenir. On sait qu'un modèle mathématique est une abstraction de la réalité, donc, on peut penser que d'autres éléments de preuve et les indicateurs économiques peut être nécessaires pour déterminer le résultat de l'entreprise à l'avenir dans ses activités d'exploitation et sa situation financière.

Les faillites privés, publics et fermes faillites de banques sont un problème grave pour la vie économique. Le cout haut des faillites des entreprises fait le problème de la prédiction de la faillite très important pour les gestionnaires, les banques, investisseurs, les décideurs politiques et des auditeurs. L'effondrement des entreprises et la faillite apparaît comme un grave problème de la transformation des économies post -communistes des pays de l'Europe Centrale et d'Est depuis quatre-vingt-dix. La prévision est très importante, en particulier pour les groupes de bénéficiaires de l'information comptable et les recherches dans ce domaine vont continuer parce que c'est une question importante de l'économie en général.

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