# **STUDIA UNIVERSITATIS** BABEŞ-BOLYAI



# NEGOTIA

1/2012

YEAR MONTH ISSUE

# S T U D I A universitatis babeş-bolyai

# **NEGOTIA**

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**Desktop Editing Office:** 51<sup>ST</sup> B.P. Hasdeu, Cluj-Napoca, Romania, Phone + 40 264-40.53.52

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#### USING THE THEORY OF TECHNOLOGY ACCEPTANCE MODEL TO EXPLAIN TEENAGERS' ADOPTION OF SMARTPHONES IN TRANSYLVANIA

## ALT MÓNIKA ANETTA<sup>1</sup>, PÁL ZSUZSA<sup>2, 3</sup>, SEER LÁSZLÓ<sup>4, 5</sup>

ABSTRACT. In Romania the mobile phones has been adopted rapidly, and the newer generation of these devices, the smartphones follow the same pattern. The main purpose of the research is to study the smartphone adoption process among teenagers from the 1st Macro-region in Romania. The originality of this paper is to study a very special and vulnerable market segment such as teenagers. In our study, we test a simplified Technology Acceptance Model on a convenience sample, which contains 1,864 questionnaires, collected online. According to the results, in the high school students market, the smartphone penetration is 60%, higher than in case of other age and educational groups. We found that perceived usefulness of these devices is influenced both by social norms and behavioral control while perceived enjoyment is not. The results also show that the teenagers use smart phones from a utilitarian necessity not a hedonic one. The model was tested on a convenience sample; therefore the results cannot be generalized. The proposed technological acceptance model is not perfectly suited for teenagers. In a further research we should proposed a specific model for them. From the practical viewpoint, the teenagers represent a new generation, which should be called "a smartphone generation". They represent a real market for the smartphone producers.

Keywords: Romania, Technology Acceptance Model, smartphone, teenagers.

JEL: M31

<sup>&</sup>lt;sup>1</sup> Lecturer PhD, "Babeş-Bolyai" University Cluj-Napoca, Faculty of Economics and Business Administration, Romania, monika.alt@econ.ubbcluj.ro

<sup>&</sup>lt;sup>2</sup> Assist. PhD Student, "Babeş-Bolyai" University Cluj-Napoca, Faculty of Economics and Business Administration, Romania, zsuzsa.pal@econ.ubbcluj.ro

<sup>&</sup>lt;sup>3</sup> Supported by Ph.D. scholarship, Project co-financed by the Sectorial Operational Program for Human Resources Development 2007 – 2013; Priority Axis 1. "Education and training in support for growth and development of a knowledge based society"; Key area of intervention 1.5: Doctoral and post-doctoral programs in support of research. Contract nr.: POSDRU/88/1.5/S/60185 – "Innovative doctoral studies in a Knowledge Based Society" Babeş-Bolyai University, Cluj-Napoca, Romania

<sup>&</sup>lt;sup>4</sup> PhD Student, University "Babeş-Bolyai" University Cluj-Napoca, Faculty of Economics and Business Administration, Romania, laszlo.seer@econ.ubbcluj.ro

<sup>&</sup>lt;sup>5</sup> This work was possible with the financial support of the Sectoral Operational Programme for Human Resources Development 2007-2013, co-financed by the European Social Fund, under the project number POSDRU/107/1.5/S/77946 with the title "Doctorate: an Attractive Research Career".

#### 1. Introduction

Information technology is present in both our personal and professional lives, and has changed our entire way of living. The development of information technology industry can be divided into four plus one periods: the information technology mainframe in the '60s, the minis in the '70s, the personal computer in the '80s, and the emergence of internet in the '90s, and today we face a convergence of the convergence of computing, Internet, and wireless communication embodied by a portable and wireless handheld mobile device like smartphones and others (Chang & Chen 2005).

No technology has ever experienced such a rapid adoption rate as the mobile phone (Katz 2007). Prior to 1973, cellular mobile phone technology was limited to phones installed in cars and other vehicles. On April 3, 1973, Martin Cooper a Motorola researcher and executive, made the first analogue mobile phone (Shiels, 2003). The mobile phone technology has developed very quickly: the 80's were dominated by the first generation of mobile phone (1G cellular network); during the 90's the second generation (2G, digital networks) mobile phone systems emerged; in 2001 the first third generation (3G High speed IP data networks and mobile broadband) was launched; by 2009, it had become clear that, at some point, 3G networks would be overwhelmed by the growth of bandwidth-intensive applications like streaming media; consequently, the industry began looking to data-optimized 4thgeneration technologies (all IP networks) (Literral, 2008).

In the mid 2000's specialized devices appeared to access the mobile internet. The first smartphone models became available in 2002, but their wide spread use was gained after 2008, specifically after the release of Apple's first iPhone model. (La Rue et. al 2010).

There are many definitions for smartphones out there. The most important difference between these definitions is regarding the functions that a smartphone has to possess. In our study, we have classified mobile phones as smartphones and traditional mobile phones using the following definition:

"A smartphone is a mobile phone with built-in applications, i.e. video player, MP3 player, television, camera, with the ability to access the internet. While second generation mobile phone have similar utilities, the smartphone has a computer operating system to an applications" (La Rue et. al 2010).

The smartphone phenomenon raised the marketing researchers' interest as well. The number of studies in this field has increased from 2005. During the first stage the most popular research topics were focuses on the new technology applicability in different fields and on the new technology adoption process. The smartphone is very useful in medicine (Parkert et. al. 2010), in agriculture (Molina-Martíneza and Ruiz-Canalesb 2009), in food industry (Mattolia et. al. 2009), in

commerce (Chang and Chen 2005), in traffic (Herrera et. al. 2010) and in building operations (Bowden et. al. 2006). Technical journals are presenting the technological possibility and the data security questions.

From a marketing perspective, we are interested in how consumers adopt and use smartphones. The researcher considers (La Rue et. al 2010; Katz, 2007) that smartphones change our life in many ways: smartphone facilitate the information access; smartphones allow a person to be available online all the time; smartphones stimulate a communication shift from text message to voice to voice conversations; smartphones can be eligible as a fashion icon and have become an important part of forming one's identity and also a tool for social stratification and integration.

Identity formation is more important to adolescent than for children or adults. It is known that the young generation is more innovative than the older one. They willingly try this new technology. Besides this, there are no studies regarding teenagers' smartphone adoption process.

According to specialists there are five categories of adopters: "innovators, early adopters, early majority, late majority, and laggards. Innovators are those individuals who are first in adopting an innovation. Innovators are willing to take risks, they are the youngest in age and they are situated in the highest social class, have great financial lucidity, very social and have closest contact to scientific sources and interaction with other innovators. Risk tolerance has them adopting technologies which may ultimately fail. Financial resources help absorb these failures." (Rogers, 1962).

**The main purpose** of this research is to study smartphone adoption process at teenagers. The research is focused of high school students at Hungarian high schools in 1st Macro-region in Romania<sup>6</sup>. This research was part of a competition between high school's teams. The main objective of this activity was to present economic carrier applicability for high school students. According to the main objective, we tried to make an easy questionnaire which would be fun for students, similar to a game.

#### The smartphone market

According to an Olswang report in early 2011, in USA, Smartphones are experiencing accelerating rates of adoption: 22% of consumers already have a smartphone, with this percentage rising to 31% amongst 24-35 year olds (Olswang, 2011).

Estimation regarding the Romania market, in early 2011, reveals that smartphones represent 10% from the total mobile phone used (Seceleanu, 2011).

According to a pivot survey based on a convenience sample, 508 questionnaires completed in 2010 in 1st Macro-region in Romania, 30% of the students had smartphones (Alt and Herman, 2010).

<sup>&</sup>lt;sup>6</sup> 1st Macro-region in Romania includes 12 counties: Alba, Bihor, Bistriţa-Năsăud, Braşov, Cluj, Covasna, Harghita, Maramureş, Harghita, Satu Mare, Sălaj and Harghita.

#### 2. Theoretical background

Research and prediction into the adoption and use of information technology has been a primary interest since the early days of information systems research (Burton-Jones and Hubona, 2005). The most important goal of technology acceptance theory is to explore those factors which influence the adoption and diffusion of new technologies across a social system (Barnes and Huff, 2003). Over the years, several independent theories for acceptance as well as adoption of information technology have been developed. The most important theories and models are the following (Röcker, 2010):

a) Innovation Diffusion Theory (Rogers, 1983) - several intrinsic characteristics of innovations influence an individual's decision to adopt or reject an innovation: relative advantage, compatibility, complexity/simplicity, trialability, observability;

b) Theory of reasoned action (TRA) (Fishbein and Ajzen, 1975) - is based on the proposition that people's actual behaviour is determined by their intention to behave in a certain way and that that intention is influenced both by their own attitudes and by a subjective standard (social influences);

c) Theory of planned behavior (TPB) (Ajzen, 1991) - was proposed as an extension of TRA by including the variable of 'perceived behavioral control', which measures a person's perception of control over performing a given behavior;

d) Technology acceptance model (TAM) (Davis, 1989) - predicts people's intentions to use a technology based on their perception of its ease of use and usefulness;

e) Task-Technology Fit Model (TTF) Goodhue, 1998). – makes the general assumption that users will choose the technology, which is most appropriate for the task they intend to perform.

f) General Model of Technology Acceptance (Matieson et. al. 2001) – is a combination between TPB and TAM.

It is a real challenge for researchers to select the proper theory for testing their hypothesis. Comparing TAM and TPB, Mathieson (et al. 2001) consider that in most of the cases TAM is easier to apply when predicting Information System's usage, but TPB includes more effects, which may be important in some specific situations (Röcker, 2010).

The authors consider that the best fitted adoption model according to this study's objectives is the technology acceptance model.

# **3**. Technology Acceptance Model and motivation of hypothesis and research model

#### 3.1. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Davis in 1986. "The Technology Acceptance Model proposes that two particular constructs determine the user's acceptance of a technology: perceived ease-of-use (PEOU) and perceived usefulness (PU). Davis el al. (1989) believe that external variables (like individual abilities or situational constraints) indirectly influence technology usage through their impact on PEOU and PU. Both PEOU and PU affect the user's attitude towards the technology, which, in turn, influences the intention to use the technology (Mathieson et al., 2001)". (...) As we can see on the fig. 1 "there is also a direct impact of perceived usefulness on the user's behavioral intention to use the technology. This is due to the fact, that even if individuals have a negative attitude towards a specific technology, this could be outweighed by a positive belief about the system's usefulness, which should finally lead to a positive usage intention" (see (Mao and Palvia, 2006)). (Röcker, 2010).



Fig. 1. The original TAM model (Röcker, 2010)

Over time, the original TAM model was slightly modified in order to incorporate new findings. Three major upgrades were proposed: TAM2 (Venkatesh and Davis, 2000), the UTAUT model (Venkatesh et al., 2003), and TAM3 (Venkatesh and Bala, 2008) (Röcker, 2010).

In spite of a large scale use of TAM, the model gets some criticism, too. Based on meta-analysis Turner (et. al 2010) found that BI (behavioral intention) is more likely to be correlated with actual usage. However, the TAM variables perceived ease of use (PEU) and perceived usefulness (PU) are less likely to be correlated with actual usage.

Röcker (2010) argues that Traditional Technology Acceptance Models won't work for future information technologies because the concepts of future information technologies are different for the information technologies used in past. While in the past, the information technologies consist of a personal computer with a standard software application and a single user working with this system in a private work context, the future information technologies will be designed to continuously support users in technology-enhanced environments by providing them a variety of personal and services adapted to context throughout the day.

Over the last two decades, numerous studies on technology acceptance have been conducted in several fields. Technologies and applications which were being tested include e-mail programs, online banking, electronic commerce applications, word processors, electronic meeting systems, and different tools for computer-aided software engineering (Röcker, 2010).

TAM is used not only in information technology but in many other domains such as medical technology, dairy growth technology, games, trust, search engines, e-learning, and virtual socialization (Chen et. al. 2011).

#### TAM applied in mobile technology

Several studies have used the TAM to discuss adoption behavior with regards to mobile telecommunications technology.

Based on Teng (et. al. 2009), Tsai (et. al. 2011), Tseng - Lo (2011) and our literature review we present a historical synthesis about the adoption behavior with regard to mobile telecommunications technology: Hung, Ku and Chang (2003) - WAP service, Bruner and Kumar (2005)-handheld internet device, Wu and Wang (2005) – mobile commerce, Huang, Lin, and Chuang (2007) – mobile learning, Lu, Liu,Yu, and Wang (2008) – wireless mobile data service, Kim (2008) – smart phone, Kim, Park, and Morrison (2008) - traveler acceptance of mobile technology, Qi, Li, Li, and Shu (2009) – mobile data service, Teng (et. al. 2009) – 3G mobile phone, Verkasalo et. al. (2010) – smart phone aplication, Tsai (et. al. 2011) – mobile communication system, Tseng - Lo (2011) – mobile phone upgrade, Chen (et. al. 2011) – smart phone.

There is not a generally accepted TAM model which should be used in adoption of mobile telecommunication technology. Teng et. al. (2009) based on TAM theory had differentiated drivers and inhibitor factors which influence the intention to use. Verkasalo et. al. (2010), used an extended TAM model (technical barriers, behavioral control, social norm, perceived enjoyment, perceived usefulness) to study intention to use. Tsai et. al. (2011) integrate the TAM and the TPB model to study intention to use. Tseng - Lo (2011) used original TAM model combined with new product adoption and repurchase behavior model in studying consumers' intentions to upgrade their mobile phone. Chen et. al. (2011) investigates TAM in its simplified form version (without the external factors and the attitude construct) with self-efficacy added as an additional construct.

We could see that all the presented papers study only the intention to use omitting actual usage. With this paper we would like to fulfill this gap.

#### **3.2.** Motivation of hypothesis

After a literature review, we based our theoretical approach on Verkasalo et. al. (2010) study. Their Technology Acceptance Model is based on the following concepts: behavioral control, barriers, social norms, and perceived enjoyment and usefulness, in relation to behavioral intention.

The simplicity was the most important guideline in creating our conceptual model. We would like to create an easy questionnaire which should be fun for the high school students. We are aware that in this way we risk to omit some variables which should influence the smartphone adoption process.

In our study, we use only the concepts of perceived enjoyment, usefulness, social norms and behavioral control. We excluded barriers and behavioral intention since we found that the concept of barriers is too difficult for high school students and we want to avoid any commercial intention which would be suggested by measuring behavioral intention. The behavioral intention was replaced with actual usage.

The construct definitions used in our study are the following:

- Behavioral Control refers to people's perception of the ease or difficulty with which they can perform a certain task. (Ajzen, 1991);
- Social Norms as the degree to which individuals have the impression that important others believe they should (be able to) use a new system; (Ajzen, 1991);
- Perceived enjoyment the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use; Davis et al. (1992);
- Perceived usefulness defined as the degree to they believe that using a particular system would enhance their job performance; Davis (1986);
- ✤ Actual usage the fact of high school students having smartphone.

Based on the literature review the authors formulate the following hypothesis:

- H1: Social norms have a positive effect on perceived usefulness using smartphones.
- H2: Social norms have a positive effect on perceived enjoyment using smartphones.
- H3: Perceived behavioral control has a positive effect on perceived usefulness using smartphones.
- H4: Perceived behavioral control has a positive effect on perceived enjoyment using smartphones.
- H5: The perceived enjoyment in using a mobile phone is higher for a smartphone user than for the traditional mobile phone user.

H6: The perceived usefulness in using a mobile phone is higher for a smartphone user than for the traditional mobile phone user.

#### 3.3. Research model

Based on our hipotheses we propose the following research model.



Fig. 2. Proposed conceptual model based on Verkasalo et. al. (2010)

#### 4. Research methodology

The authors studied mobile phones using the behavior of teenagers from a Hungarian high school in 1st Macro-region in Romania as the primary information resource. The data was collected with online questionnaire based on convenience sample. The sample includes 1864 questionnaires completed at 19 high schools during 10.01.2011 - 01.28.2011. We mention that in the 2010-2011 academic year, 7111 (http://archivum.rmdsz.ro/oktatas/index.php?lang=hu) high school students were enrolled in the 31 Hungarian High Schools in the 1st Macro-region in Romania (http://www.rodir.ro/oktatas-es-adattarak/kozepiskolak).

#### 4.1. Questionnaire design and procedure

The questionnaire contains 16 questions regarding: the mobile phone using behavior; the scale for TAM and identification variables. Items in the questionnaire were derived from existing TAM literature based on Verkasalo et. al. (2010) model. A 5-point Likert-type scale was employed. The scale ranges from 1 (strongly disagree) to 5 (strongly agree). The TAM scale could be seen in Apendix No. 1.

#### 4.2. Descriptive statistics

The identification questions were regarding gender, classes and geographic region (county): 58% of the participants are female and 42% are male; 19% are in the 9<sup>th</sup> grade, 22% are in the 10<sup>th</sup> grade, 32% are in the 11<sup>th</sup> grade and 27% are in 12<sup>th</sup> grade. Regarding the geographic distribution, 16 counties were included (Alba, Arad, Bacau, Bihor, Bistrița Năsăud, Braşov, Cluj, Covasna, Hunedoara, Harghita, Maramureş, Mureş, Sibiu, Sălaj, Satu-Mare, Vâlcea). The cumulative percentage shows that 98% of the data was collected from 8 counties (Table No. 1). We consider that our sample's gender and the class distribution could be appropriate to the population distribution. The results should represent only Harghita, Covasna and Mureş counties not the entire 1st Macro-region in Romania.

Table No. 1. The geographic distribution of the sample

COUNTY	HARGHITA	COVASNA	MUREŞ	BRAŞOV	BIHOR	ALBA	CLUJ	SATU- MARE	OTHERS
%	23,8%	22,9%	20,3%	13,3%	8,3%	5,7%	2,5%	1,2%	2%

#### 4.3. Reliability and validity analysis

We have calculated Chronbach Alpha to study the reliability of the scale (Table No. 2). According to the literature chronbach alpha should be more than 0,6. The low reliability is caused by random errors. This could be explained by the different demographic characteristics of the sample. While Verkasalo et. al. (2010) studied mostly working man, between 20 and 40 years old, our sample contains students.

	MEAN	SD	ITEMS	CHRONBACH ALPHA
Perceived enjoyment	3,23	1,11	2	0,653
Perceived usefulness	2,99	1,01	3	0,594
Social norms	1,98	0,93	3	0,565
Behavioral control	3,73	0,96	3	0,473

Table No. 2. Reliability for scales

#### 5. Results

#### 5.1. Mobile phone using behaviour

From the 1864 questioned high school students, 98% have mobile phone. By studying mobile phone user behavior in our analysis, we take in consideration only 1825 subjects that have a mobile phone. Usually, children get their first mobile phone at the age of 10. The most popular brands are Nokia (42%), followed by Samsung (21%), Sony Ericcson (16%) and LG (11%).

According to our smartphone definition, 60% of the high school students have smartphones. This is a very high penetration rate compared to 30% of students segment (Alt, Herman 2010) and the 15% of adults segment in Romania (http://www.telecompaper.com/news/android-reaches-market-share-of-20-in-romania).

Generally, high school students have 1-2 years old mobile phones: 4% got their actual mobile phone at the beginning of 2011, 45% in 2010, 30% in 2009, 12% in 2008 and the other 9% have back number. Regarding the mobile phone service, 57% of high school students preferred prepay and 41% have a contract. The service is paid by their parents across 79% of the students, but 17% of them pay it themselves. At a five point Likert scale, on average high school students perceived 3,23 enjoyment, 2,99 usefulness, 1,98 social norms pressure and 3,73 control in using mobile phone (Table No. 3). We think that the low value for social norms pressure could be explained by the lack on honest ring. High school students have conversations several times per day and send SMS with their mobile phone; they listen to music and take a photo with their mobile phone several times a week. Less students play games and access the internet on their mobile phone. They almost do not use office applications on their mobile phones. Finally, 63% of high school students could not imagine their lives without mobile phones!

Scale statements	Ν	Mean	SD
Perceived enjoyment	1864	3,23	1,11
The service brings enjoyment and allows me to relax.	1825	2,86	1,16
I use the service to kill time.	1825	3,74	1,18
Perceived usefulness	1863	2,99	1,01
The service is useful in my work/Studies.	1825	2,83	1,23
The service improves my efficiency.	1825	2,69	1,25
Using the service saves time.	1825	3,66	1,26
Social norms	1863	1,98	0,93
I want to use the service because my friends do so,	1825	1,89	1,20
and I want to belong to the Group.			
Using the service also reflects my personality to other	1825	1,83	1,13
people.			
According to people who are important to me,	1825	2,37	1,36
I should use the service.			
Behavioural control	1863	3,73	0,96
I can use the service without help from others.	1825	4,10	1,04
I have the means and resources to use the service.	1825	3,68	1,26
I have the knowledge and skills to use the service.	1825	3,65	1,17

Table No. 3. TAM scale statistics

Using the Chi-Square test, we have studied the relationship between smartphone and traditional mobile phone users and nonparametric variables.

There is significant difference between users and the mobile phone brand preference. The smartphone users prefer first of all Samsung (no. 366), SonnyEricson (no. 278), Nokia (no. 235), LG (183) and finally iPhone (23). The traditional mobile phone users prefer first of all Nokia (no. 487), followed by Motorola (no. 22), Siemens (no. 15) and Sagem (11). While the adult users prefer Nokia 5230 and HTC Wildfire, according to Romanian Vodafone Marketing Department Chief (http://www.telecompaper.com/news/android-reaches-market-share-of-20-in-romania).

There is significant difference between users regarding the mobile phone service. Traditional users prefer prepaid card more (it is cheaper to buy a smartphone with a service contract than without). There is no significant difference between genders regarding the mobile phone usage.

#### 5.2. Determinants of perceived usefulness and perceived enjoyment at teenagers

In our analysis we test hypothesis H1, H2, H3, H4 calculating correlation between variables. We have differentiated the correlation between traditional phone (TPH) and smartphone (SPH) user.



Fig. 3. Structural model results for smartphone user

According to the results (Fig. 3) perceived usefulness is influenced both by social norms and behavioral control while perceived enjoyment is not. Probably the perceived enjoyment is influenced by other variables among teenagers.

The correlation between social norm and perceived usefulness respective behavioral control and perceived usefulness are low. Surprisingly in both cases the relation is a little bit higher among traditional mobile phone user than smartphone users. Hypotheses H1 and H3 are confirmed and hypotheses H2 and H4 are infirmed.

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Our results are different from Verkasalo (et. al. 2010) outcomes, whose model we partially take over. The difference could be explained by the different demographic characteristics of the sample and by the different research topics. Verkasalo (et. al. 2010) studied smartphone application used by grown-up people in Finland in 2007 while we have studied smartphone usage by teenagers in Romania 2011.

#### 5.3. Determinants of smartphone usage at teenagers

We have tested hypothesis H5 and H6 using independent samples T Test, at 95% confidence interval of the difference. The results are presented at Table No. 4 only for equal variances assumed.

	Ν	MEAN	SD	Т	DF	SIG. (2-TAILED)
Perceived enjoyment						
Smartphone user	1124	3,22	1,12	-1,135	1698	0,257
Traditional mobile phone user	576	3,28	1,05			
Perceived usefulness						
Smartphone user	1124	3,1	0,92	2,50	1698	0,012
Traditional mobile phone user	576	2,98	0,94			

Table No. 4. Smartphone vs. traditional mobile phone users

According to the results hypotheses 5 are confirmed, perceived usefulness is higher among smartphone user that traditional mobile phone user. While a hypothesis 6 is infirmed. It was surprising that there is no difference in perceiving enjoyment between smartphone users and traditional mobile phone users. We could conclude that teenagers use smartphones from an utilitarian necessity not a hedonic one.

#### 6. Managerial implication

The results should have an important implication for mobile phone producers in developing their marketing mix. High school students have specific technology adoption process. They represent a real market with specific needs for producers.

#### 7. Conclusion and further research

The high school students are an important market for mobile phone producers especially for new technology adaptation. In this segment, the smartphone penetration is 60% higher compared to other ages and educational groups. The smartphone users present different characteristics relative to traditional mobile phone users. They represent a new innovative generation, which should be called "a smartphone generation".

Regarding the Technological Acceptance Model we find that perceived usefulness is influenced both by social norms and behavioral control while perceived enjoyment is not. Teenagers use smartphone from an utilitarian necessity not a hedonic one. The proposed technological acceptance model is not perfectly suited for teenagers. In further research we should proposed a specific model for teenagers.

It would be interesting to extend the research to elementary schools and to compare the results with other countries.

Also, we should create a panel from this sample and we should repeat the research when they are going to be college students.

Finally, we outline our survey limitations. The sample is not representative for the studied population. The scale used for measuring perceived enjoyment, usefulness, social norms and behavioral control has low reliability for the last three concepts.

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#### Appendix No. 1

We have measured the variables with the following statements at 5 point Likert scale Verkasalo et. al. (2010):

#### Perceived enjoyment<sup>7</sup>

The service brings enjoyment and allows me to relax.

I use the service to kill time.

#### Perceived usefulness

The service is useful in my work/Studies. The service improves my efficiency. Using the service saves time.

#### Social norms

I want to use the service because my friends do so, and I want to belong to the Group. Using the service also reflects my personality to other people. According to people who are important to me, I should use the service.

#### **Behavioural control**

I can use the service without help from others.

I have the means and resources to use the service.

I have the knowledge and skills to use the service.

<sup>&</sup>lt;sup>7</sup> The original work Verkasalo et. al. (2010) contains one more statement for perceived enjoyment.

#### CORPORATE BOARD STRUCTURE AND ORGANIZATIONAL PERFORMANCE: EVIDENCE FROM ROMANIAN FIRMS

## CORINA GAVREA<sup>1</sup>, ROXANA STEGEREAN<sup>2</sup>, ANAMARIA MARIN<sup>3</sup>

**ABSTRACT.** Good corporate governance is an important ingredient of the image of an organization. This is one reason that led to the increase of the importance of this concept in the past years. This paper examines the impact of board characteristics (board size, CEO duality and board diversity) as a corporate governance variable on organizational performance. We decided to use these variables as a mean of cuantifing corporate governance because the effectiveness of the board of directors has become a global concern. Based on the existing literature we developed three hypotheses in order to analyze the relationship between board characteristics and organizational performance. Our results show a significant and negative impact of board size on firm performance which validates our first hypothesis. The second hypothesis is validated only when ROE is used as a performance measure. The third hypothesis is not validated for neighter of the two performance measures used in this study (ROA and ROE).

**Keywords:** *corporate governance, organizational performance, board characteristics, CEO duality, board size, board meetings.* 

JEL Classification: G30, M10

#### I. Introduction

Corporate governance has become an important topic in practice and academic literature in recent years. To ensure a competitive position, to attract capital, to ensure sustainability, and to combat corruption, companies from developing countries need to put in place good governance institutions.

According to Monks and Minow (2004) the importance of corporate governance has increased dramatically in 2002 when a series of events led to the bankruptcies of large U.S. companies and the loss of thousands of jobs. The way companies are governed

<sup>&</sup>lt;sup>1</sup> Junior Lecturer, PhD, Babeş-Bolyai University, Faculty of Economics and Business Administration, e-mail: corina.gavrea@econ.ubbcluj.ro

<sup>&</sup>lt;sup>2</sup> Associate Professor, PhD, Babeş-Bolyai University, Faculty of Economics and Business Administration, e-mail: roxana.stegerean@econ.ubbcluj.ro

<sup>&</sup>lt;sup>3</sup> Junior Lecturer, PhD student, Babeş-Bolyai University, Faculty of Economics and Business Administration, e-mail: anamaria.marin@econ.ubbcluj.ro

determines their fate as well as that of the economy in general. Failure to attract adequate levels of capital threatens the existence of firms which can have serious consequences for the entire economy. Firms that are unable to attract capital may remain outside of international markets entirely, while economies may not benefit from globalization. The investors are interested in those companies with good corporate governance because, according to OECD (1999), corporate governance specifies the distribution of rights and responsibilities among different participants in the company, such as managers, shareholders and other interested parties, specifying the rules and procedures for making decisions on company's affairs. In this way, it also provides the structure through which company's objectives are set, the means of attaining those objectives and monitoring performance. Thus deficiencies in corporate governance can have as consequences not only scandals and corporate liquidations but also financial crises and economic instability.

The Center for International Private Enterprise (2002) listed some of the main advantages of a strong corporate governance. These include:

- improved access to capital and financial markets;
- higher accountability and transparency;
- stimulation of performance;
- protection of shareholders and their investment;
- reduces the incidence of corruption;
- enhancement of marketability of goods and services

The list illustrated above gives a general image of the most important benefits of a good corporate governance. For developing countries, the problem of good corporate governance development becomes more complicated because of the underdeveloped institutional infrastructure. For this reason there is a need for a careful approach to governance restructuring.

A weak or absent corporate governance can have the following consequences:

- reduces the opportunities to attract sufficient capital, limits competitiveness and job creation;
- has a negative impact on employees' commitment;
- may lead to bankruptcy due to a lack of solid company strategy and leadership from the board of directors;
- allows company managers and directors to follow their own interests at the expense of shareholders, creditors, and other stakeholders;
- excessive regulation that impacts private sector growth (CIPE, 2002).

The remainder of this paper is organized as follows: section II includes a literature review with a special interest on board characteristics, section III presents the research methodology, section IV includes the data analysis and the last section includes the concluding remarks and future research opportunities.

The study is oriented toward answering the following research question: *What is the role of the board of directors?* 

We will try to answer this question by looking at the variations across boards and whether these variations explain the differences in the way firms perform. We consider that the results of this study would be useful not any for academia but also for practitioners because it provides evidence on the relationship between the structure of the board and the firm's financial performance.

#### **II. Review of the literature**

#### II.1 The concept of corporate governance

The literature on corporate governance is extremely broad. Only in recent years hundreds of articles and dozens of books have been oriented toward the concept of corporate governance. Even though *corporate governance* is very often used by academicians, media and practitioners, as we previously mentioned, there is no general agreement on the definition of this concept (Brickley and Zimmermann, 2010)

The concept of corporate governance began to take shape more clearly after 1997, in the European Union, when most countries have adopted codes of corporate governance. The impulse of adopting these codes has been the financial scandals related to the failure of British companies quoted on the stock market. On the other hand, the Asian economic crisis of 1978 and the withdrawal of investors from Asia and Russia had created problems for the international business community regarding the consequences of the investors' lack of trust in corporate management.

Corporate governance principles developed by the OECD (Organization for Economic Cooperation and Development) provide specific indications, meant to improve the legal regulations. They formulate practical proposals to the attention of stock market authorities, investors and other pillars that have intervened in the governance of the company. Adapting corporate governance principles for the purposes of ensuring transparency, accountability and fair treatment of shareholders has resulted in the development of the OECD Principles of Corporate Governance. The principles underlying corporate governance should ensure the strategic direction of the company.

The concept of corporate governance encountered many definitions. Depending on their perspective, different authors define this concept in different ways. Thus corporate governance definitions can be grouped in two categories: narrow and broad definitions. These two categories are illustrated below.

In a narrow sense, corporate governance can be defined as the relationship among various participants in determining the direction and performance of corporations. The primary participants are (1) the shareholders, (2) the management, and (3) the board of directors (Monks and Minow, 2004). A broader definition was given by Cadbury Committee Report, 1992. Thus corporate governance was defined as the system by which companies are directed and controlled.

An even broader definition belongs to Zingales (1998). According to this author, corporate governance is the complex set of constraints that shape the ex post bargaining over the quasi rents generated by the firm.

Many researchers consider that the corporate governance mechanisms fall into one of the two groups: those internal and those external to the firm. This aspect is illustrated in figure 1 which depicts a corporate governance framework.



Figure 1. Corporate governance framework. Source: Adapted from World Bank, Corporate Governance: Framework for Implementation, Overview, 1999: 4.

At the center of this system as an internal force, is the board of directors which is considered by many as the lynchpin of corporate governance (Gillan, 2006). Its overriding responsibility is to ensure the long-term viability of the firm and to provide oversight of management. In many countries the board is responsible for approving the company's major decisions and strategy and for hiring, monitoring and replacing the management (World Bank, 1999).

#### **II.2 Board characteristics and corporate financial performance**

Many researchers and policy makers very often are questioning the importance of the corporate board even though when things don't go as planned they are the ones to get all the blame (e.g. the big scandals of AIG, WorldCom, Enron, etc).

As mentioned earlier, the role of the Board of Directors is to provide strategic advice to the manager and to monitor management to prevent the excessive consumption of perquisites (Brick and Chidambaran, 2007 *after* Fama and Jensen, 1983). Another important study that tries to answer the question: what do directors do? belongs to Demb and Neubauer (1992) who interviewed 71 directors from 11 multinational companies. According to this survey the number one priority considered by 75% of the respondents was setting the strategy, corporate policy, overall direction, mission and vision.

In this section, we will review the existing literature on corporate board and its relation with company performance and formulate, based on previous studies, a number of research hypotheses.

#### **Board size**

A large amount of research on corporate governance was concentrated on board size because of the increased interest in identifying the appropriate board size that will ensure its effective functioning.

The vast majority of empirical studies oriented toward the relationship between board size and organizational performance suggest that larger boards are less effective than smaller boards because larger board size may create difficulty for the board members to use their knowledge and skills effectively because of the problems of coordinating the contributions (Dwivedi and Jain, 2005). Table 1 includes a list of papers that showed a negative linked between board size and organizational performance.

Author/s	Year	Country	Performance measure	Results: relationship between board size and firm performance
Yermac	1996	USA	- firm value (Tobin's Q) - ROA, ROE	"-" and significant with all performance variables
Conyon and Peck	1998	Denmark	- Tobin's Q - ROE	"-" negative and significant with ROE "-" negative and <i>not</i> significant with Tobin's Q
Eisenberg, Sundgren and Wells	1998	Findland	- Profitability	"-" negative and significant
Barnhart and Rosenstein	1998	USA	- Tobin's Q	"-" negative and significant in three of the four estimations

Table	1. Literature	review: boar	d size – compai	ny performanc	e relationship.
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Author/s	Year	Country	Performance measure	<b>Results:</b> relationship between board size and firm performance
Dalton et al.	1998	Meta-analysis of	-	"+" and significant relationship
		131 studies		between board size and performance
Bonn	2004	Japan	<ul> <li>firm value</li> </ul>	"-" negative and significant for the
		Australia		large size boards in Japan
				Australia – the smaller boards had
				no influence on firm performance
de Andres,	2005	10 OECD	- Tobin's Q	"-" negative and significant
Azofra and		countries	- Profitability	with Tobin's Q
Lopez				"+" and not significant
				with profitability
Guest	2009	UK	- Profitability	"-" negative and significant with
			- Tobin's Q	all performance variables
			- Share returns	-
O'Connell and	2010	Ireland	- ROA, RET	"-" negative and significant with
Cramer			- Financial Q	all performance variables

On the other hand there are also studies that show a positive association between board size and organizational performance (Daton et al., 1998; Pearce and Zahra, 1992; Kiel and Nicholson, 2003). According to these authors, larger boards are better because they have a large range of expertise to help make better decisions, have people with diverse backgrounds, who bring knowledge and intellect to the board.

The composition of the board of directors shows strong contrasts between countries. For example, Japanese companies are known for the large number of board members. These can consist of more than 50 members with few external ones to monitor the management activity and the strategic direction of the company.

The data gathered from German firms registered an average of board size of 10.6 members (based on firm reports, 2010). On the opposite side is Romania with an average of 4.9 members in the board of directors.

We will formulate the first hypothesis taking into consideration previous studies that show a negative ling between board size and performance.

**H1:** There is a negative relationship between board size and corporate financial performance.

#### **Chairman-CEO duality**

Chairman-CEO duality is referred in the literature as that situation when the same person shares the responsibilities as both the Chairman and the Chief Executive Officers (CEO). According to Cadbury Report (1992, p.21): The Chairman is primarily responsible for the working of the board, for its balance of membership subject to board and shareholders' approval, for ensuring that all relevant issues are on the agenda, and for ensuring that all directors, executive and non-executive alike, are enabled and encouraged to play their full part in its activities. Previous studies provide no definitive answer as to whether firms with split titles (CEO and chairman of the board) have better performance compared to firms with combined titles.

Fama and Jensen (1983) suggest that CEO duality may have a negative impact on board's ability to monitor management and thereby increase the agency cost. If the two roles are combined in

one person, it represents a considerable concentration of power within the decision making process.

Thus, splitting the titles of CEO and Chairman of the Board will increase the independence of the board which can have a positive impact on firm performance.

In contrast, Stoeberl and Sherony,1985; Boyd, 1995; Dalton, et al. 1998 argue that CEO duality provides clear-cut leadership in strategy formulation and implementation and will therefore lead to better firm performance. Splitting titles may create information sharing costs, conflicts between CEO and non-CEO chairman and inefficiency.

There are also many studies that found no significant relationship between these dual roles and performance. Here we can mention the study conducted by Chen, et al., 2008.

In our study we prefer the following hypothesis:

**H2:** There is a positive relationship between chairman-CEO duality and corporate performance.

#### **Gender diversity**

Gender diversity is another important variable considered in academic research and public debates. Many studies are concentrated on studying the relationship between gender diversity as a human resource variable and organizational performance (Osoian and Zaharie, 2010).

Among the first to support the idea of women on the board were the researchers from Catalyst (2004) after Marinova et al. (2010). This study showed that companies with a more diverse board of directors have better financial results. Considering these aspects there were actions taken to increase the number of women in the corporate boards. For example, in Norway starting with 2006, the female representation in corporate boards has be of at least 40%.

According to the European Professional Women's Network  $(2008)^4$ , Norway ranked first with an average of 44.2% female representation in the board of directors followed by Sweden with approximately 30%. On the other side, the last two places was held by Italy and Germany with an average of less than 5% female representation. In the sampled firms used in this study there is a 14% female board representation (based on firm reports, 2010).

<sup>&</sup>lt;sup>4</sup> http://www.europeanpwn.net/index.php?article\_id=561

Considering the aspects mentioned above our third research hypothesis can be formulated as follows:

**H3.** There is a positive relationship between gender diversity and corporate performance.

#### **III. Research methodology**

The sample of this research study is composed of the tier I, II and III listed companies on the Bucharest Stock Exchange (BSE). We excluded from our sample the financial companies due to the special regulatory environment in which they operate. This resulted in a sample of 46 firms.

The data sources - information relating to firm financial performance and board characteristics - were the annual reports from 2010 of the sampled firms collected for each firm individually from their web page or the database with the financial information available from the BSE.

#### The model

In order to test our three hypotheses we used a simple linear regression model as illustrated below:

 $CorpPerf = \beta 0 + \beta 1BrdSize + \beta 3CEOdual + \beta 4GenDiv + \beta 5SalesRev + \beta 6NrEmpl + e$ 

The first step is to decide on a measure for each variable included in our model.

As a dependent variable we used the performance of the firm. The studies that examine the impact of board characteristics on organizational performance used a variety of financial measures: Tobin's Q or its proxy (Weir et al., 2002; Kiel and Nicholson, 2003; Dwivedi and Jain, 2005), return on investment (Boyd, 1995; Adjaoud, et al., 2007), return on assets (Zajac & Westphal, 1996; Shrader, et al., 1997; Kiel & Nicholson, 2003; Carter et al., 2003), return on equity (Bhagat and Black, 1999; Adjaoud et al., 2007), stock returns (Bhagat and Black, 1999), earnings per share (Adjaoud et al., 2007) and economic value added (Adjaoud et al., 2007).

In our present study we used as performance measures of the firm two variables: ROA (return on assets) and ROE (return on equity). We decided to use ROA as one illustration of organizational performance for the following reasons:

- ROA is directly related to management's ability to efficiently utilise the assets, which ultimately belong to shareholders. A lower return on assets will indicate inefficiency.
- ROA is significant in explaining Tobin's Q and the firm value (Carter et al., 2003)

The list of the independent variables and their appropriate measures is included in table 1.

Independent variables	Measures
Explan	atory variables
Board size (BrdSize)	Number of directors within the board
Chairman-CEO duality (CEOdual)	Dummy variable with the value of 1 if the
	chairman of the board is also the CEO and
	0 otherwise
Gender diversity (GenDiv)	The number of women on the board.
Cont	rol variables
Firm size	Amount of sales revenue / year (SalesRev)
	Number of employees (NrEmpl)

 Table 2. The model – independent variables

#### IV. Data analysis

Table 3 presents the descriptive statistics of all the variables used in this study. As we can observe the number of directors on the board varies from a minimum of 3 to a maximum of 9. In 47% of the cases the CEO is also the board chair while 53% have different persons occupying the posts of chief executive and the board chair. The negative averages of both ROA and ROE can be attributed to the financial and economic crisis which had a significant negative impact on a firm's earnings.

	Ν	Minimum	Maximum	Mean	Std. Deviation
Independent variables					
BrdSize	46	3	9	4.8043	1.61410
CEOdual	46	0	1	.4783	.50505
GenDiv	46	0	3	.6739	.81797
Control variables	÷	-	· · · ·		
SalesRev	45	7878002	1.40E10	5.7287E8	2.10380E9
NrEmpl	45	26.00	25176.00	1373.0889	3767.85621
Dependent variables					
RÓA	46	33	.22	0061	.09794
ROE	46	-3.62	1.18	0920	.72070

**Table 3. Descriptive Statistics** 

For testing the three hypotheses and examining the impact of board characteristics of firm performance we used simple OLS regression. The results are illustrated in table 4.

Model 1	Model 2
ROA	ROE
-0.026	-0.138
(-2.60)**	(-2.35)**
0.031	0.321
(0.996)	(1.401)*
0.048	0.192
(2.14)**	(1.148)
0.005	0.175
(2.239)**	(2.29)**
0.019	-0.196
(0.851)	(-0.148)
0.329	0.308
	$\begin{array}{c} -0.026 \\ (-2.60)^{**} \\ 0.031 \\ (0.996) \\ 0.048 \\ (2.14)^{**} \\ 0.005 \\ (2.239)^{**} \\ 0.019 \\ (0.851) \end{array}$

#### **Table 4. Regression results**

\* and \*\*: significant at 10% and 5% level; t-statistic in brackets. We used nalural logarithm of BrdSize as in previous studies which show that the relarionship between board size and firm performance is convex rather than linear (Yermak, 1995; Guest, 2009). Natural logarithm is also used for SalesRev and NrEmpl to solve data asymetry.

Consistent with our first (H1) hypothesis, BrdSize is negatively and significant correlated with ROA and ROE which means that smaller boards are associated with higher organizational performance. These results are consistent with the vast majority of empirical studies oriented towards the relationship between board size and firm performance.

The second hypothesis is validated only for ROE as a dependent variable which provides support to stewardship perspective that unified board structure provides effective leadership to the organisation (Donaldson & Davis, 1991; Davis et al., 1997).

For ROA the presence of duality in the Romanian firms does not have a significant impact on firm performance.

The third hypothesis (H3) is not validated for neighter of the two models which means that gender diversity does not have a significant impact on the financial results.

#### **V.** Conclusions

The present study contributes to the understanding the link between the board characteristics and the organizational performance link by examining variables such as board size, CEO duality and gender diversity. Overall, the theoretical aspects and the findings of this paper are expected to stimulate further research to identify the conditions based on which the board characteristics and firm performance may be dependent.

#### Future work

This study can be extended in several ways. First of all we are interested in extending the model by adding more variables with a special interest in constructing an index of corporate governance used to illustrate the degree of conformity with the corporate governance principles. Also, the study can be extended by combining the cross sectional data with a time series data because a longer time horizon is more appropriate to demonstrate good corporate governance impact on performance.

#### Acknowledgements

This work was supported from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/1.5/S/59184 "Performance and excellence in postdoctoral research in Romanian economics science domain".

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#### THE PARTICULAR CASE OF SMES REGARDING FINANCIAL REPORTING AND ACCOUNTING FOR INVESTMENT PROPERTY

### CARMEN GIORGIANA BONACI<sup>1</sup>, ALIN IONEL IENCIU<sup>2</sup>, RĂZVAN V. MUSTAȚĂ<sup>3</sup>, DUMITRU MATIȘ<sup>4</sup>

**ABSTRACT.** The main objective of the present paper is to analyze the particular case of accounting for investment property when considering small and mediumsized entities. The first part of our study addresses the issue of SMEs financial reporting by synthesizing particularities being documented within research literature. The necessity of separate Romanian accounting regulations for SMEs is also discussed. Our paper further focuses on accounting for investment property. While the international accounting regulations approach this issue trough both a distinct standard, IAS 40 Investment Property, and through the IFRS for SMEs, the concept is not even defined within Romanian accounting regulations. The analysis is further developed on accounting regulations in order to discuss accounting for investment property at international level, as stipulated through both IAS 40 and the IFRS for SMEs, and at national level. We conclude our paper by arguing for the benefits of including investment property and their fair value measurement within Romanian accounting regulations.

*Keywords:* investment property, SMEs, IFRS for SMEs, IAS 40, Romanian accounting regulations

JEL classification: M41/M48.

#### **Introduction to SMEs particularities**

Sylvie Voghel (Chair of the Small and Medium Practices Committee) was commenting in a recent interview that a thriving SMEs sector is a vital part of job creation, social cohesion, innovation and economic growth. Her statement was clearly well grounded through the fact that in many – if not most – countries around the world, SMEs represent the vast majority of entities as well as the

<sup>&</sup>lt;sup>1</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, carmen.bonaci@econ.ubbcluj.ro

<sup>&</sup>lt;sup>2</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, alin.ienciu@econ.ubbcluj.ro

<sup>&</sup>lt;sup>3</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, razvan.mustata@econ.ubbcluj.ro

<sup>&</sup>lt;sup>4</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, dumitru.matis@econ.ubbcluj.ro
majority of private sector employment and Gross Domestic Product. She also ads that according to the Organization for Economic Co-operation and Development (OECD), SMEs account for over 95% of enterprises and 60–70% of employment in OECD countries.

From the perspective of the European Union development with the subsequent opportunities as well as obstacles, being more or less supported through economic policies, small and medium-sized enterprises (SMEs) can be considered as main players of the economic development process. One may argue that, at EU level, one of the main obstacles rising in front of SMEs development are generated by the differences in national legislations as well as in cultural, linguistic and technical norms being adopted by member states.

The transition to market economy also determined the development of SMEs in Central and Eastern Europe. The transition also imposed economic restructuring and the adoption of a new institutional and legislate framework that followed the new competitive environment within which entities need to struggle, new companies appearing each year, while some of the existent disappeared. SMEs bankruptcies actually signal a good state of a dynamic economy when they are inefficient enterprises that must disappear. In former communist countries of Central and Eastern Europe SMEs bankruptcies or slow development are usually due to an unfavorable economic climate. Therefore developing an efficient sector represents an essential in creating a profitable SMEs environment in developing countries. In Romania, itself a former communist country, the shift to a market economy and the development of SMEs sector happened through two main directions. On one hand state owned enterprises became part of the private sector and on the other new enterprises were created on the initiative of small entrepreneurs.

When trying to identify the strong points of a SME, we must mention flexibility and ability to adapt to new, together with dynamism. Such attributes give SMEs a significant role to play in economic development. The issue is more difficult when searching for a generally accepted definition for a SME. Trade literature notes that there is no generally accepted definition for small business (Nica et al., 1994), some authors even considering that small businesses are easier to describe than to define (Burns, 1989). The World Bank presented an analysis being developed on 75 countries by an Institute in Atlanta which documented 50 manners of defining SMEs. At national level we must make reference to the criteria being presented by the National Confederation of Small and Medium Sized Private Enterprises (ro. *Confederatia Natională a Întreprinderilor Private Mici şi Mijlocii*) in order to define SMEs. Based on these criteria, Nicolescu (2001) synthesizes different manners of defining SMEs based on two criteria as follows:

- coverage area: general (establishing the same criteria for defining SMEs in all industries) and differentiated (establishing different criteria for defining SMEs depending on their field of activity);

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- number of ratios being used: one-dimensional (defining SMEs dimensioning based on a single ratio, must often using the number of employees) and multidimensional (defining SMEs dimensioning based on a number of ratios, must often using the number of employees, turnover and subscribed and paid in capital).

We must also mention EU recommendation 2003/361/EC regarding SMEs' definition stating that an enterprise is small or medium sized in case it fulfils the following terms: it employs less than 250 persons and has an annual net turnover bellow 50 million Euros and/or own assets with a total value bellow 43 million Euros. Besides SMEs definition from EU's perspective there are a series of other particular documents overseeing their development such as the European Charter for Small Enterprises being adopted by the EU in 2000 (specifying the role being played by SMEs within the economy and recommending a series of actions that should lead to putting their potential into good use); the Lisbon Strategy (comprising the main actions to be taken for the 2000-2010 period; the Commission defined four main areas requiring action to be taken and offering significant support to SMEs was among them: special emphasize was given to creating a favorable business environment for SMEs' creation and development, to improving their competitive abilities and to facilitating their access to financing); and the Small Business Act adopted in 2008 (establishing a guiding framework proposed by the European Commission for SMEs in member states in order to establish clear principles and measures to improve SMEs environment so that they can access new markets and benefit from the singe market, have access to financing and innovation both at national level and within EU and transform environment's challenges into opportunities).

Unlike other communist countries where some private activities were to a certain extent allowed within the centralized economic system, in Romania private companies started to appear only in 1990. During their first five years of existence at national level SMEs recorded a spectacular evolution due to benefiting from a series of fiscal facilities during their first years of functioning and to relatively easy access to a series of resources from the state sector, especially from an informational point of view. The results being obtained by some successful initiatives determined the Romanian authorities to speed the demarches that were necessary for the development of the SMEs sector. This lead to a series of measures such as: offering Phare funds, financing projects through the Romanian Fund for Social Development (ro. *Fondul Român de Dezvoltare Socială*), offering loans with subsidized interest for SMEs that employed unemployed workers and developing the program for offering subsidized loans through the Romanian Development Agency (ro. *Agenției Române de Dezvoltare*) (Mitruț and Constantin, 2006).

Romania's intention of becoming a EU member state imposed its commitment to work on improving the strength of SMEs sector, to encourage the creation of new enterprises and to develop the entrepreneurial culture. Such objectives were promoted through the National Development Plan of 2003, Romania previously signing the Maribor Declaration in 2002 through which the commitment to harmonize national politics with the foresights of the European Charter for Small Enterprises. Further significant determinants of SMEs evolution at national level can be considered the EU membership and the recent financial crisis.

When talking about EU member states, the first advantage that comes to our mind is related to financial and technical support, funds being available to access by our country for the 2007-2013 period reaching approximately 800 billion Euros. Nicolescu and Ceptureanu (2009) also underline series of other benefits from being a EU member state such as: access to potential suppliers that offer higher quality and/or lower prices, to external markets, to new technologies, innovation and improved regulations. Of course that there are also shortcomings of the membership such as increased competition due to other SMEs in other member states. This emphasizes the fact that we need to work on increasing the ability to compete on the European market by improving efficiency and productivity.

SMEs need to face market turbulences that disturb their environment through innovation, research and well managed financing. Meanwhile, EU statistics mainly document that a significant number of SMEs still struggle with financing issues. Also, it seems that so far the number of SMEs successfully using innovation is significantly lower than that of large enterprises. We consider that the causes of this situation lay in some structural difficulties related to entrepreneurial culture and techniques, as well as lack of flexibility in terms of labor.

We were also mentioning the recent financial crisis as being a determinant of SMEs evolution. Unfortunately, the impact of the crisis was felt by the entire national economy. Many enterprises were forced to diminish, postpone or even give up certain investments and investment projects, renegotiate their contracts and restructure their activity, in some cases this also involving employees being left without their jobs. Companies naturally faced cash-flow problems, lacking working capital, problems paying back their loans, national currency also loosing ground, and implicitly the reduction of their turnover, demand on the market also decreasing. All these significantly affected SMEs who proved to be even more sensitive to cyclical economic evolutions and macroeconomic unbalances. The OECD developed a series of analysis in order to identify the particular manner in which the financial crisis impacted the SMEs sector (studies developed in 2009 and 2010), as did also the National Bank of Romania (in 2009), both underlining the increased difficulty to access loans. This fact was explained by banks loosing interest in small clients, increased borrowing costs and higher requirements for loan applicants.

Despite the advantages SMEs theoretically present, many of them were not able to face and overcome the effects of the financial crisis. Year 2009 actually brought, for the first time after four years of continuous demographic development, a decrease in SMEs number at national level. As previously mentioned, SMEs sector is characterized through flexibility and dynamic evolution due to the ability to make use of new market opportunities and conditions, and to the ability to permanently adapt and follow customers needs and demand. Despite all these, and despite the fact that SMEs generally have a lower medium useful life, we must still emphasize the particularities of the evolutions taking place in SMEs sector in 2009 at national level, as seen from the following graph:



Graph 1: SMEs evolution for the 2007-2009 period

**Source:** (authors' projection based on Trade Register data)

We consider all the above presented aspects to document the complex dynamic of SMEs sector which we can analyze from different perspectives. And since SMEs are considered to represent the heart of European commerce we also consider that all possible perspectives are worth considering and closely analyzing. Our paper will further focus on a financial reporting perspective for which we argue, beside raising stakeholders diverse interests, by going back to financing aspects. And since the reliability of accounting information is a determinant to the cost of capital, we consider the financial reporting perspective on SMEs to implicitly be extremely important.

As Strouhal et al. (2010) notice, we are witnessing an international drive to simplify SMEs financial reporting. The International Accounting Standards Board (IASB) has already addressed the particularities of SMEs' financial reporting and has already issued the International Financial Reporting Standard (IFRS) for Small and Medium-sized Entities (SMEs). Meanwhile, national accounting regulations do not address the particular case of SMEs distinctly, but the accounting professional body (CECCAR - Corpul Experților Contabili și Contabililor Autorizați din România – the Body of Expert and Licensed Accountants of Romania) is nowadays working on a similar project to that of the IASB. The International Federation of Accountants (IFAC) supports accounting professionals developing their activity within SMEs through the Small and Medium Practices Committee. The Body of Expert and Licensed Accountants of the Small and Medium Practices and procedures that are necessary in order to receive IFAC's policies and of participating to a constructive dialogue with worldwide regulators.

Once documented the necessity of particular accounting regulations that address SMEs, which will be further discusses in the paper, we consider that developing such regulations also represents a complex task that requires careful management. Each financial reporting issue must be addressed and considered within the national context. In this regard our paper contributes by discussing accounting for investment property.

The remainder of our paper is organized as follows: the literature review section addresses the issue of SMEs financial reporting as well as the issue of accounting for investment property by synthesizing particularities being documented within research literature; the employed research methodology is also presented within a distinctive section; the following section considers accounting regulations in order to discuss accounting for investment property at international level, as stipulated through both IAS 40 and the IFRS for SMEs, and at national level; the final section of our paper synthesizes the main conclusions being reached through the developed comparative analysis on accounting regulations and discusses the perspectives of SMEs accounting for investment property at national level.

# Overview on accounting trade and research literature

Deaconu et al. (2008) were observing the two main trends when it comes to taking a stand in the discussion referring to the necessity of a project undertaking the development of a particular standard for SMEs. On one hand they were mentioning IASB and some other Anglo-Saxon standard setters having positive reactions to the IASB project, while on the other the European Union had significant reserves towards this project. Deaconu et al. (2008) were also underlining the EU member states having explicitly expressed their opposition to developing a future European standard for SMEs that would cover financial reporting for unlisted European companies. The EU approach was to rather simplify the existent provisions instead of developing a particular standard for SMEs.

The main reason that supports IASB's initiative of developing a particular IFRS for SMEs is the complexity of financial reporting under full IFRSs, US GAAP and other national regulations, IASB therefore arguing for the necessity of simplification. Among other reasons supporting IASB's project we must mention lowering the administrative burden for preparers of accounting information, the issue related to insuring the quality of accounting information, and of course comparability of accounting information which theoretically should be easier to reach when having clear regulations and technical guiding.

As previously mentioned, the EU took a different approach by proposing a simplification of accounting regulations that were to be applied by SMEs through amending the IV<sup>th</sup> and the VII<sup>th</sup> European Directives. The main argument and aim was to decrease administrative expenses related to filling SMEs financial statements. A similar approach was used in relation auditing SMEs financial statements. EU's approach certainly considered the significant number of SMEs in the member states that 40

were applying national accounting regulations compliant with the European Directives. Some significant incompatibilities could also be found between the foresights of the IASB project and the European Directives. These mainly referred to the mandatory publication of European entities financial statements and to focusing on certain stakeholders, European Directives addressing those entities which usually do not have external users, while the IASB project focusing on the needs of external users.

The IASB further published the IFRS for SMEs on 9 July 2009. Following the publication, the European Commission Services decided to seek the opinion of EU stakeholders on this Standard, the obtained results being published as the Summary report on the responses received to the Commission's Consultation on the International Financial Reporting Standard for Small and Medium-Sized Entities (EC, 2010). The four month consultation period offered stakeholders from EU member states and pan-European organisations the opportunity to express their opinion related to the IFRS for SMEs. The following graph reflects the demography of respondents offering their feedback on this particular EU consultation:





The results being obtained through this consultation will be further synthesized as expressing EU member states' opinion on having separate accounting regulations for SMEs and on to what extant does the IFRS for SMEs meet the expectations for such regulations.

Source: (EC, 2010)

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As expected, the opinions being expressed by respondents referring to the potential application of the IFRS for SMEs in Europe were divergent. Synthesizing the pros, supporters argued for comparability - increased ability to analyze and compare financial statements prepared in different jurisdictions, expanded cross-border trade, increased international growth of companies, more foreign merger and acquisition activity, a lowering of the cost of capital and a broadened capital base (EC, 2010). Companies with subsidiaries in different member states, companies seeking international finance, and companies either listed on non-regulated markets or considering a future listing were proved to offer considerable support for using the IFRS for SMEs.

A significant shortcoming of using the IFRS for SMEs being noticed by the respondents refers to burdening companies by duplicating reporting requirements due to the linkage between taxation and capital maintenance rules. Despite IASB's intention to reduce complexity of financial reporting for SMEs, opponents to the application of IFRS for SMEs in Europe stressed the complexity of the IFRS for SMEs, especially in the case of small companies. When referring to companies only acting locally, respondents seem to give little if not no importance to international comparability. Costs versus benefits also seem to represent an aspect that worries the respondents.

Some of the respondents expressed their preference for national accounting regulations when compared to the international referential. Meanwhile, a majority of respondents tended to argue for the European Accounting Directives which they considered should provide a set of general accounting principles applicable across the EU, even though they require a modernization and simplification process. It was also emphasized that the later process should also consider SMEs stakeholders needs while reducing the administrative burden, especially for small companies. Still, the obtained results also seem to document those respondents from a majority of member states considered that the IFRS for SMEs should be provided for in the EU accounting framework, in which case member state option being generally preferred to a company option (EC, 2010).

Besides probably contributing through pan-European organizations, we notice that only 2 out of the 200 responses being received came from Romania. The two respondents belonging to the accounting profession and respectively public authorities seem to also have divergent opinions related to the IFRS for SMES. The opinions being expressed through by the national respondents are as presented in the following table.

Considering the presented aspects within table 1, we may consider as adequate and opportune the initiative of our national accounting professional body in working on a similar project to that of the IASB, national accounting regulations currently not addressing the particular case of SMEs distinctly. Furthermore, Albu et al. (2011) develop a comparative analysis of national accounting regulations and the IFRS for SMEs from the perspective of the international accounting harmonization process, while their similitude degree is also documented by Bonaci et al. (2011).

Question	Accour an audi	d	Public authorities		
	YES	NO	YES	NO	
Do you think the IFRS for SMEs is suitable for widespread use					
within Europe?	1	0	0	1	
In particular, do you think increased international					
comparability of accounts prepared under the IFRS for	1	0	0	0	
SMEs will benefit your business?					
Does increased international comparability of accounts					
prepared under the IFRS for SMEs benefit users?	1	0	0	1	
Do you think adoption of the IFRS for SMEs should be					
provided for within the EU accounting legal framework?	1	0	1	0	
If yes, should such an option be limited to a Member State					
option (i.e. that each Member States would have a					
possibility but no obligation to accept IFRS for SME)?	0	1	1	0	
Is there a case for giving companies, at EU level, an option					
to adopt the IFRS for SMEs?	1	0	1	0	
In the light of the publication of the IFRS for SMEs, do					
you see a need for "rules-based" Accounting Directives in	0	1	1	0	
the future?					

**Table 1.** Opinions being expressed by national respondents

Source: (authors' projection based on EC, 2010)

Besides the above discussed aspects being approached within accounting trade literature, we must also consider studies being developed within accounting research literature and their main results. Therefore one of the main aspects that must be considered is that the international drive to simplify SMEs financial reporting imposes the identification and serious analysis of the SMEs specific use of information, as also documented by Strouhal et al. (2010). Allee and Yohn (2009) also examine the production and use of financial statements by privately held small business by considering the American environment. More precisely, they are searching for the factors associated with the production and use of financial statements for firms that have discretion in the preparation of financial statements and do not face the demands of public equity markets, most of the SMEs in the US not having to publish financial information. Based on the Securities and Exchange Commission's (SEC) guidelines, enterprises with greater than 500 shareholders and 10 million dollars in assets are potentially required to prepare financial statements. Besides documenting that firms have incentives to produce financial statements even in the absence of regulatory requirements to do so, Allee and Yohn (2009) also find that firms with audited financial statements benefit n the form of greater access to credit and firms with accrual-based financial statements benefit in the form of a lower cost of capital.

An interesting study on SMEs capital structure and financing is that developed by Cassar and Holmes (2003) by considering the Australian business environment. Analyzing the determinants of capital structure and use of financing for SMEs, they find that asset structure, profitability and growth are important determinants of capital structure and financing. Since reducing complexity is mainly enhancing the desire to develop separate accounting regulations for SMEs, we must also mention the study being developed by Miller (2010), examining the effects of financial reporting complexity on investors' trading behavior. The obtained results are quite surprising since Miller (2010) finds that more complex (longer and less readable) filings are associated with lower overall trading. Furthermore he documents that this relationship appears due to a reduction in small investors' trading activity. More complex filings are therefore documented to be too costly for some investors to process, such results encouraging the simplification of SMEs financial reporting requirements. Miller's (2010) results show that more complex filings are associated with reduced trading activity and lower consensus for small investors, but have only a limited impact on large investors.

We consider the accounting profession to represent a significant component in any developments taking place in the accounting arena. An interesting approach in this regard is that of Stone (2010) who looks at accountants' communications with small business. The obtained results document that higher readability and document content which informs small business managers' interests is evident when accountants are not compelled to author documents with reference to conventional accounting's rules and statutory requirements. Meanwhile, accounting documents composed according to these professional rules and legislation document low readability accentuated by potentially low reader interest.

Since financial reporting covers a series of topics, each requiring particular attention, we were previously mentioning that our paper aims to contribute to the SMEs regulatory debate by considering the specific area of investment property. The most controversial aspect in accounting for investment property is that of determining their fair value. When analyzing the reliability of mandatory annual fair value estimates for UK investment property, Dietrich et al. (2001) document that appraisal estimates understate actual selling prices and are considerably less biased and more accurate measures of selling price than respective historical costs. Furthermore they conclude that the reliability of these appraisals increases when monitored by external appraisers and the then Big 6 auditors. Despite the advantages of fair value measurement, potential manipulation of its assessment still represents one of its main shortcomings. Dietrich et al. (2001) also investigate managerial discretion over fair value reporting, documenting similar results with other studies in the literature. More precisely it seems that managers select among permissible accounting methods to report higher earnings, time asset sales to smooth reported earnings changes, smooth reported net asset changes and boost fair values prior to raising new debt (Dietrich et al., 2001). While accounting research literature mainly approaches accounting for investment property without focusing on the particular case of SMEs, our paper brings its contribution by filling this gap and discussing the issue from a theoretical point of view.

# **Research methodology**

The research methodology being employed in developing our study combines literature review methodology and content analysis of accounting regulations. The first objective of the paper is to use literature review methodology in order to develop a critical and evaluative account of what has been published within accounting trade and research literature on financial reporting for the particular case of SMEs, as well as the specific case of accounting for investment property. This allowed us to summarize, synthesize and analyze the arguments of studies being analyzed when it comes to having separate accounting regulations for SMEs, as well as to the IASB's IFRS for SMEs. Question formation, identification of the relevance, assessment of quality, evidence summarization and interpretation of findings was used in developing the overview on accounting literature.

The second objective of our paper is to contribute to the normative dialogue on SMEs financial reporting by developing a comparative analysis on accounting regulations in order to discuss accounting for investment property at international level, as stipulated through both IAS 40 and the IFRS for SMEs, and at national level. A deductive approach is therefore followed. Developing the comparative analysis on accounting regulations is based on content analysis.

# Comparative approach of accounting regulations' foresights

Following our purpose to contribute to the regulatory debate on accounting for investment property, we consider it necessary to approach the international accounting referential before analyzing the actual state of facts at national level. We consider the deductive approach to be offering the opportunity to draw from more complex accounting regulations, reflecting more complicated business environments, and further integrate the obtained data within the national context. Content analysis will therefore be further developed on accounting regulations addressing accounting for investment property at international level, as stipulated through both IAS 40 and the IFRS for SMEs, and at national level.

Starting with full IFRSs, the standard addressing accounting for investment property is IAS 40 *Investment property*. IAS 40 defines investment property as property (land or a building or part of a building or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both (IAS 40.5). Examples offered through the standards (IAS 40.8) include:

- land held for long-term capital appreciation;
- land held for undetermined future use;
- building leased out under an operating lease;
- vacant building held to be leased out under an operating lease;
- property that is being constructed or developed for future use as investment property.

The third example being presented above clears the case of the lessor in an operating lease, while IAS 40 (40.6) states that a property interest that is held by a lessee under an operating lease may be classified and accounted for as investment property provided that: the rest of the definition of investment property is met; the operating lease is accounted for as if it were a finance lease in accordance with IAS 17 *Leases, and* the lessee uses the fair value model set out in this Standard for the asset recognized. Furthermore, an entity may make the foregoing classification on a property-by-property basis.

The recognition criteria in IAS 40 (40. 16) are those usually being applied for assets, namely referring to the probability that the future economic benefits that are associated with the property will flow to the entity, and the cost of the property can be reliably measured. Initial measurement imposed the cost model, including transaction costs. IAS 40 (40.20 and 40.23) further stipulates that such cost should not include start-up costs, abnormal waste, or initial operating losses incurred before the investment property achieves the planned level of occupancy. In terms of subsequent measurement, IAS 40 (40.30) allows entities to choose between a fair value model and a cost model, but one method must be adopted for all of an entity's investment property. Changing the model is only accepted in case it would result in a more appropriate presentation, while it is also stipulated that a change from a fair value model to a cost model is highly unlikely. The later stipulation is also restated in IAS 40 (40.55) saying that where a property has previously been measured at fair value, it should continue to be measured at fair value until disposal, even if comparable market transactions become less frequent or market prices become less readily available.

Some guiding is offered in terms of fair value measurement through IAS 40 (40.38) stating that fair value should reflect the actual market state and circumstances as of the balance sheet date. It is considered that the best evidence of fair value is normally given by current prices on an active market for similar property in the same location and condition and subject to similar lease and other contracts (IAS 40.45). In cases when such information is not available, the entity may consider current prices for properties of a different nature or subject to different conditions, recent prices on less active markets with adjustments to reflect changes in economic conditions, and discounted cash flow projections based on reliable estimates of future cash flows (IAS 40.46).

As for the cost model, the standard makes reference to guiding in IAS 16 *Property, Plant and Equipment* (PPE), stipulating the use of – cost less accumulated depreciation and less accumulated impairment losses (IAS 40.56).

Derecognition of investment property appears on disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from its disposal.

The IFRS for SMEs still keeps the main part of the foresights of IAS 40, but brings a series of simplifications. It is Section 16 *Investment property* that addresses accounting for investment property within the IFRS for SMEs. The definition of property

investment in the IFRS for SMEs is the same as that in IAS 40, but emphasizes the meant use to earn rentals or for capital appreciation or both from use in the production or supply of goods or services or for administrative purposes, and sale in the ordinary course of business. A property interest that is held by a lessee under an operating lease may be classified and accounted for as investment property if, and only if, the property would otherwise meet the definition of an investment property and the lessee can measure the fair value of the property interest without undue cost or effort on an ongoing basis.

The IFRS for SMEs also stipulates investment property's initial recognition at cost including transaction costs as IAS 40, formulation it as purchase price and any directly attributable expenditure such as legal and brokerage fees, property transfer taxes and other transaction costs. It is also mentioned that in case payment is deferred beyond normal credit terms, the cost is the present value of all future payments (IFRS for SMEs, Section 16, 16.5). The significant difference appears in terms of subsequent measurement, the IFRS for SMEs only allowing for fair value if fair value can be measured reliably without undue cost or effort, while all other investment property will be measured as property, plant and equipment at cost less accumulated depreciation less impairment.

We therefore notice that, in accordance to Section 16 in the IFRS for SMEs, where fair value is no longer available without undue cost or effort, the property is deemed to be an item of property, plant and equipment and it's accounted for accordingly (CECCAR, 2010).

In order to analyze the foresights of our national accounting regulations we must make reference to Order no. 3055/2009 issued by the Ministry of Public Finances. The order is applicable starting January 1 2010 to all entities that are under the scope of the Accounting Law, except for the credit institutions, the insurance companies, the entities in the private pension system and entities supervised by the National Exchange Commission which have other specific accounting regulations (Albu et al. 2011). Another aspect that must be emphasized is that the order does not use the term small and medium sized enterprise, only using some size criteria in order to stipulate the mandatory components of financial statements. Therefore, legal persons complying with two out of the following three criteria at the balance sheet date: total assets: 3.650.000 euro, net turnover: 7.300.000 euro, and number of employees: 50, present financial statements comprising: balance sheet, profit and loss account, statement of changes in equity, statement of cash flows, notes to annual financial statements. Meanwhile, legal persons who at the date of the balance sheet do not exceed the limits of two of the three size criteria mentioned above present abridged financial statements containing: condensed balance sheet, profit and loss account and abridged notes to financial statements (CECCAR, 2010). They can still optionally present a statement of changes in equity and/or the statement of cash flows.

In terms of accounting for investment property, OMFP 3055 does not include any specific accounting policies, accounting policies specific to property, plant and equipment therefore being applied (OMFP 3055, art. 66). Furthermore a property interest that is held by a lessee under an operating lease cannot be recognized (CECCAR, 2010). The following table reflects the essence of the above developed comparative analysis.

Investment property accounting policies	IAS 40	IFRS for SMEs	OMFP 3055			
Definition	given	given	not given			
Initial recognition	transaction costs           Subsequent         fair value model		PPE accounting policies are applied - cost model, including transaction costs			
Subsequent recognition	(should reflect the	fair value model if it can be measured reliably without undue cost or effort, otherwise PPE accounting policies are applied - cost less accumulated depreciation less impairment (the cost model)	PPE accounting policies are applied - cost less accumulated depreciation and any impairment losses (the cost model)			

Table 2. Comparative analysis or	investment property	accounting policies
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Source: (authors' project based on accounting regulations content analysis)

We were previously mentioning Albu et al. (2011) developing a comparative analysis of national accounting regulations and the IFRS for SMEs, but the issue of investment property was not approached within their analysis.

Concluding upon the above developed analysis we notice that the international accounting referential comprises similar foresights within IAS 40 and the IFRS for SMEs. The main simplification brought by the IFRS for SMEs consists in only applying specific investment property accounting policies in case fair value can be measured reliably without undue cost or effort at subsequent measurement. Meanwhile, we identified a gap within national accounting regulations which do not formulate property investment specific accounting policies.

## **Concluding remarks**

The first part of our paper documented the arguments of both those arguing for the necessity of separate accounting regulations for SMEs and of those underlining the shortcomings of such an approach. The manner in which the IFRS for SMEs was assessed by EU stakeholders was also discussed based on the results being obtained through a consultation being developed by the EC. In terms of our paper's focus on accounting for investment property we will further synthesize the main conclusions being reached through the developed comparative analysis on accounting regulations and discuss the perspectives of SMEs accounting for investment property at national level.

The obtained results document that the IFRS for SMEs imposes investment property's subsequent measurement at fair value, with changes in fair value being recognized in profit or loss, while IAS 40 still allows for cost less accumulated depreciation less impairment. This is due to another significant difference, IFRS for SMEs only asking for investment property recognition in case the entity can measure the fair value of the property interest without undue cost or effort on an ongoing basis. Romanian accounting regulations do not define specific accounting policies for investment property, therefore the accounting policies specific to property, plant and equipment are currently being applied. In addition to the cost model, accounting regulations, also allow the revaluation model option. The revaluation model involves the use of revaluation reserves, while fair value measurement involves changes in fair value being recognized in profit or loss.

We conclude our paper by arguing for the benefits of including investment property and their fair value measurement within Romanian accounting regulations. We consider the IFRS for SMEs approach to accounting for investment property to be opportune through the fact that it allows fair value measurement without imposing undue cost or effort for the reporting entity. Despite some difficulties being encountered in determining fair value under certain difficult circumstances, we consider that national accounting regulations should also consider offering SMEs the opportunity of having specific accounting regulations for investment property. Our main argument consists in the fact that investment properties represent assets that are extremely exposed to price fluctuations. Considering their use as imposed through the definition itself, that is being held to earn rentals or for capital appreciation, we consider that subsequent measurement at fair value would be more suitable. Our suggestion is also sustained through results being obtained by empirical studies in accounting research literature such as Dietrich et al. (2001). By analyzing the reliability of fair value estimates for UK investment property, Dietrich et al. (2001) document that appraisal estimates are considerably less biased and more accurate measures of selling price than respective historical costs.

CARMEN GIORGIANA BONACI, ALIN IONEL IENCIU, RĂZVAN V. MUSTAȚĂ, DUMITRU MATIȘ

# Acknowledgements

This work was supported by CNMP, project number 92-121/2008, entitled "Studies regarding a competitive SMEs sector from the perspective of durable local and regional development through economic and financial policies (Studii de competitivitate ale sectorului întreprinderilor mici și mijlocii în perspectiva dezvoltării durabile locale și regionale prin politici economico-financiare)" and by CNMP, project number 92-085/2008, entitled "Developing a functional model for optimizing the national strategy regarding financial reporting within Romanian private sector entities".

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# SMEs AND STRATEGIC PLANNING PROCESS: THE CASE OF NORTH-WESTERN REGION OF ROMANIA

# OANA ADRIANA GICĂ<sup>1</sup>, ADINA LETIȚIA NEGRUȘA<sup>2</sup>

**ABSTRACT.** The purpose of our study was to investigate the nature of the strategic planning activities conducted by the SMEs from the North-Western Region of Romania and to identify which of the companies' characteristics (size, main field of activity and years of experience) influence these activities. The main contribution of our paper is that it's one of the few to analyze the following elements of the strategic process in Romanian companies: development of a mission statement and objectives, the analysis of the external and the internal environment, the selection of the strategic alternatives, the implementation, the control and evaluation of the strategies. Our research revealed both positive strategic management practices and aspects that should be improved in order to increase SMEs' chances of success.

Key words: strategic planning process, SMEs, North Western Region

JEL classification: L10, L21, L26, M00

## Introduction

Change, manifested in all spheres of life and human activity, often requires companies to reorganize, to continuously adapt to face the new challenges that occur in their internal or external environment. Companies' activities are strongly and permanently affected by change - change due to technical and scientific progress, intensified competition, changes in consumer demands - companies being required to continually adapt to meet new challenges both in their internal and external environment, in which they operate and to which they relate.

Strategic planning is an instrument for managing the environmental turbulence (Boyd, 1991 in Falshaw, Glaister, Tatoglu, 2006), aimed at ensuring long-term business survival in volatile environments (Smit and Cronje, 2002) which has been adopted by a wide range of organizations. This practice should lead to the better identification of opportunities and threats, and appropriate firm actions (Capo et al. 1994 in Falshaw, Glaister, Tatoglu, 2006).

<sup>&</sup>lt;sup>1</sup> Assistant Lecturer, PhD, Babes-Bolyai University Cluj-Napoca, Faculty of Business, oana.gica@tbs.ubbcluj.ro

<sup>&</sup>lt;sup>2</sup> Associate Professor, PhD, Babes-Bolyai University Cluj-Napoca, Faculty of Business, adina.negrusa@tbs.ubbcluj.ro

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According to the authors Roach and Allen (1983 in Kargar and Parnell, 1996) strategic planning process takes into account the future implications of current decisions, adjusts the action plans to the changing environments, manage the business analytically, creates links, directs and controls the complex businesses through a practical management system, playing a vital role in business performance.

Strategic planning is a set of basic processes designed to create or manipulate a situation in order to achieve better results and can also improve productivity if there is consensus on the mission and if most of the work procedures are based on technical or technological considerations (Taiwo, Idunnu, 2007). Capo et al. (1994, in Falshaw, Glaister, Tatoglu, 2006) argue that planners should outperform non-planners.

Facing a high level of uncertainty and change, organizations can no longer afford a unidirectional approach or a step-by-step process for strategy development which implies several steps - data collection, development of strategic options, evaluation, selection and implementation. It takes a dynamic approach in which strategy formulation and implementation are carried out simultaneously. This is an ongoing analysis of the competitive environment and the development of strategic options and their assessment (Feurer, Chaharbaghi, Wargin, 1995).



Fig. 1. A dynamic process of strategic planning (management)

In recent years the demand for a management concept aimed at creating value has expanded considerably. The objective is to increase long-term business value and to guarantee the continued satisfaction and enthusiasm of investors and other stakeholders. Those who wish to be successful in the long term need to recognize all the opportunities and risks that present themselves in the areas of the stakeholders' influence and to implement them by way of a creative strategy (Wittman, Reuter, 2008).

Therefore we propose a dynamic model of strategic planning/management, which involves four components:

1. *strategic analysis* involving internal and external environment analysis with the purpose of identifying the strategic factors that will influence the future of the company;

2. *strategy formulation* aimed at establishing the vision, mission, long-term objectives, generating and identifying strategic options to strengthen the competitive position of company;

3. *strategy implementation* that requires building an organization capable of successfully executing strategy, setting budgets, development of administrative support systems, building systems that reward performance, shaping organizational culture to fit strategy;

4. *strategic evaluation and control* - control aimed to highlight and generate solutions to correct deviations from standards and evaluation's role is assessing the overall effects of the strategy implementation and their compatibility with development objectives of the company.

Strategic management, i.e. strategy content and process (strategic planning) is widely considered to be one of the factors that contribute to small firm growth (Rue and Ibrahim, 1998; Kraus *et al*, 2008 in Kohtamäki et al, 2008). Osbourne (1995) maintained that only about one-third of start-up entrepreneurs create comprehensive marketing and financial plans and those who do so increase the probability of venture success. (in French, Kelly and Harrison, 2004)

Herter (1995, in French, Kelly and Harrison, 2004) opinions that every business, regardless of size, needs an effective, comprehensive business plan as the process of developing the plan forces the entrepreneur to think about the harsh "reality" of the business world, rather than the more common dream world. He believed that this is a necessary first step toward success and that it should have a well-defined format and parts. It should answer age-old questions such as where are you now, where do you want to be, and, most importantly, how are you going to get there?

According to Schwenk and Shrader (1993) strategic planning should be seriously considered by small firm managers. Regardless of whether planning is highly sophisticated (Bracker et al., 1988 in Schwenk and Shrader 1993), or facilitated by "outsiders" (Robinson, 1982 in Schwenk and Shrader 1993), or simply accomplished in spite of severe resource constraints (Mulford, Shrader, & Hansen, 1988 in Schwenk and Shrader 1993).

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Skrt and Antocic (2004, pg. 107) argue that the strategic planning (thinking) became mandatory for entrepreneurs in the context of global competition, technological change and market dynamics. Antocic and Hisrich (2004, p. 518) underline that strategic decisions are crucial to ensure heterogeneity of organizational behavior and the creation of value while being an important means to generate new value. Delmar and Shane (2003) argue, through an empirical study, that planning increases the chances of business survival, improving the product development process and also the organization of the newly created companies.

For decades research in strategic management have focused on developed economies, particularly U.S. and Europe (Welsh, Dragusin, 2009) and less on developing economies, in addition, in Romania, the studies (or their results) on the strategic activities of SMEs are lacking, limited or not known. We hope this study will contribute to filling, at least to some extent, of this void.

The purpose of our study was to investigate the components of the strategic planning process in the SMEs located in the North Western Region of Romania. We have also examined if the planning process is influenced by company size, main field of activity or years of experience.

## **Research methodology and sample characteristics**

We have conducted a questionnaire based survey with the entrepreneurs or managers of some SMEs form North Western Region of Romania that were involved in international activities. The sample comprises 200 SMEs from the following counties: Bihor, Bistrita-Năsăud, Cluj, Maramureş, Sălaj, Satu-Mare. The SMEs were active in the field of manufacturing, services and commerce. The data collection process was conducted via personal interviews done by operators. The questionnaire was accompanied by a letter explaining the project and assuring respondents of the confidentiality of their answers.

As our purpose was to identify the strategic management activities that the SMEs undertake we asked questions for the following components of the strategic management process: mission, objectives, external environment assessment, internal environment assessment, the selection of strategic alternatives, strategy implementation, and the evaluation/control of the strategy. Most of the questions implied responses measured on a six-point numerical scale with 1 - "Totally agree" and 6 – "Totally disagree". Besides these questions, a dichotomous response question assessed whether the firm had a mission statement, a closed question with multiple answers investigated the external environment influences considered in developing the strategic plans and a closed question with a single response was used to determine the frequency of revision of plans (with alternatives weekly, monthly, quarterly, yearly, never).

Regarding sample characteristics 44.5 % of them have an experience of less than 5 years, 23 % have between 6 and 10 years of experience, 25 % have an between 11 and 15 years of experience and 7.5% have an experience of over 15 years.

Of the 200 companies surveyed, a total of 55 (27.5%) of SMEs are active in production, 75 (37.5%) are service firms, and 70 (35%) are trade firms. 56

Regarding firm size, expressed as number of employees, 41% of companies fall into the category of micro (up to 9 employees), 41.5% in the category of small (10-49 employees) and 17.5% in the category of medium companies (50-249 employees).

Main field of	factivity	Me	dium numbe	er of employ	/ees
iviani nera o	luctivity	0-9	10-49	50-249	Total
Production	Number of firms	12	22	21	55
rrouuction	Percent	14.6%	26.5%	60.0%	27.5%
Service	Number of firms	39	30	6	75
Service	Percent	47.6%	36.1%	17.1%	37.5%
Trade	Number of firms	31	31	8	70
TTauc	Percent	37.8%	37.3%	22.9%	35.0%
Total	Number of firms	82	83	35	200
10141	Percent	100.0%	100.0%	100.0%	100.0%

**Table 1.** Sample structure based on main filed of activity and company size

# **Findings and discussion**

Regarding strategic planning specific activities undertaken by companies participating in the study, the first aspect analyzed was the formulation of a mission. Over 83% of SMEs surveyed responded affirmatively. Most companies that do not formulate a mission, are small companies, active in trade and with up to 10 years of activity. Formulation of a mission is not influenced by any one of the factors: firm size, main field of activity and firm experience, conclusion supported by  $\chi^2$  test results.

	The compa	The company has formualted a mission statement								
	Pearson $\chi^2$	df	Sig.	с						
Number of employees	2.577	2	.276	.114						
Firm' experience	3.133	3	.372	.124						
Main field of activity	2.496	2	.287	.111						

Table 2. Corelation between mission formulation and firm's characteristics

Study results indicate that the company mission (average 2.24) and firm values (average 2.415) are known by most employees, regardless of the main field of activity. Regarding the influence of values on the behavior of employees, the results indicate, in general, a partial agreement (average 2.65). ANOVA test results suggest that the main field of activity, firm size and firm experience do not affect knowledge of company mission and values or values' influence on the behavior of employees.

	Main field of activity			C	Compan size	ı <b>y</b>	Company experience			
	df	df F Sig.			ig. df F Sig.		df	F	Sig.	
Company's mission is known by the employees	2	0.02	0.98	2	0.78	0.46	3.00	0.10	0.96	
Employees know compay's values	2	2.11	0.12	2	0.21	0.81	3.00	2.13	0.10	
Company's value influence employees' behaviour	2	0.04	0.96	2	0.25	0.78	3.00	1.44	0.23	

**Table 3.** Correlation between firm's characteristics and level of knowledge of mission, of values and of the influence of values on employees' behaviour

Correlations identified by ANOVA test (F = 8.168, df = 5, sig = 0.000 < 0.05) and Spearman rank correlation coefficient (Rho = 0.474, p = 0.000 < 0.05) lead us to conclude that SMEs formulate mission statements that include company values, and communicate them effectively among employees, leading to influence the behavior of employees towards achieving business targets.

A second component of the strategic management process that has been investigated is *objectives*. Most companies (70%) stated that objectives are known and understood by employees.

Companies with less than 5 years experience (34%), active in trade (27%) or service (27%), small size (31%) are the most who have said that the objectives are known and understood employees. Most companies that have declared that their objectives are not known and understood by their employees have the following characteristics: have an experience between 6 and 10 years (4.5%) are active in production (4.5%) and services (4.5%) and have less than 9 employees (4.5%).

The results presented in the table show that between the main field of activity and the variable that measures the extent to which employees know and understand the business objectives there is no statistically significant correlation, however the size and experience of the company are factors that have an influence this variable.

	Μ	lain fiel activit		(	Compan size	ıy	Company experience			
	df	F	Sig.	df	F	Sig.	df	F	Sig.	
<i>Objectives are known and understood by employees</i>	2	4.764	0.10	2	3.719	0.026	3	2.726	0.045	

 

 Table 4. Correlation between firm's characteristics and level of knowledge and understanding of business objectives

The following aspects analyzed were relative to the internal environment. In general, surveyed SMEs have partly agreed (mean 2.745) with assessment of company strengths' and weaknesses' long-term impact. The characteristics of firms that were the most in stating that they assesses the impact of long-term strengths and weaknesses are: less than 5 years of experience (25.5%) are services companies (20.5%) and small by size (23%). Most companies that have declared they do not take into account the impact of long-term strengths and weaknesses are small (7.5%), working in production (6%) and have an experience of less than 5 years (6.5%).

Strengths and weaknesses are not determined entirely by reference to competition as shown by the responses' mean (2.79). Among the companies that have sustained they establish their strengths and weaknesses in relation to competition the most, have less than 5 years of experience (25%), are active in the services sector (21%), and are micro companies (23.5%). The opposite, most companies not establishing the strengths and weaknesses taking into account the competition are firms with up to five years experience (8%), are production companies (9%) and have less than 9 employees (8.5%).

We sought to identify a statistically significant link between the two aspects analyzed for internal environment analysis, on the one hand and the main field of activity, firm size and firm experience on the other side. Since the threshold values of statistical significance for ANOVA test, do not fall below 0.05, for any pair of variables, we can not speak of statistically significant correlations.

	Main field of activity			Company size			Company experience		
	df	F	Sig.	df	F	Sig.	df	F	Sig.
Our firm evaluates the long-term impact of organization's strenghts and weaknesses	2	1.266	0.629	2	0.14	0.87	3	4.649	0.162
Strengths and weaknesses of the company are determined by reference to competition	2	4.353	0.261	2	0.57	0.56	3	7.699	0.066

**Table 5.** Correlation between the apreciations of strenghts and weaknesses

 and firm's characteristics

Regarding the **external environment analysis**, we questioned the SMEs about the influences that they take into account in developing strategic plans. There are three influences that are taken into account by over 50% of firms: national economic trends (64%), household income (58.5%) and technological development (57.5%). Regardless of the criteria taken into account (company size, main field of activity or company experience) the factor least considered in developing strategic plans is the relationship between management and trade unions, a predictable fact given the small size of the firms surveyed.

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 $\chi^2$  test results show that the main field of activity does not affect the general factors taken into account when developing strategic plans, with one exception, where technological developments factor is concerned. This factor is considered most by manufacturing companies and least by commerce companies. Company size only influences the consideration of the international political environment, in the case of medium sized firms (*Pearson*  $\chi^2 = 9.671$ , df = 2, sig=0.008 < 0.05, c = 0.465), most companies considering this factor being the manufacturing companies, while service firms are entirely neglecting this factor.

Firm experience does not influence the external factors taken into account in developing strategic plans, as shown by  $\chi 2$  test results.

We were interested to know whether SMEs take into account the long-term implications of opportunities and threats, responses indicating a partial agreement (mean 2.82). Most companies that are considering the implications of long-term opportunities and threaths are companies with up to 5 years of experience (22%), are service companies (20%) and are small in size (21.5%). Most companies that on the contrary, declared they did not take into account long-term implications are firms with up to 5 years experience (10%), active in trade (7.5%) or in services (7.5%) and small in size (9%).

Another aspect examined was the existence of formal procedures for evaluating opportunities and threats of the external environment, companies expressing a partial disagreement in this respect (mean 3.79). Most companies that evaluate opportunities and threats based on formal procedures have less than 5 years of experience (10%), are trading companies (20%) and are small in size (9.5%). The characteristics of most companies that have no formal procedures for this purpose are: have less than 5 years experience (18.5%), are service firms (14.5%) and in terms of size are micro- companies (19%).

Regarding the interest of companies in customer needs, the overall average is 1.62, this score indicating orientation toward the needs of SMEs' customers. According to companies surveyed not all customer needs are changing rapidly, with mean value of 3.66. The study results show that firms know only part of the strategic intentions of competing firms (mean 2.96), competitors' features are also only partially known (mean 2.615) by SMEs, but to a greater extent than their intentions. Companies surveyed said that the industry does not change rapidly (mean 5.005), which in our opinion, makes them vulnerable to environmental threats on the one hand, and on the other hand prevents them to notice and capitalize opportunities that arise.

Field of activity does not affect any of the issues relating to the external environment that have been analyzed, in turn it was identified a statistically significant link between firm size and the existence of formal procedures for evaluating opportunities and threats. The other issues discussed in relation to external environmental analysis are not influenced by firm size. There is a correlation between firm's experience and perceived dynamics of the industry as show the ANOVA test results. Experience does not affect other aspects analyzed.

	Main field of			Company			Company			
	activity			size			experience			
	df	F	Sig.	df	F	Sig.	df	F	Sig.	
Long term implications of opportunities and threats are considered	2	0.585	0.558	2	0.238	0.789	3	1.775	0.153	
Our firm has formal procedures for external opportunities and threats evaluation	2	0.565	0.569	2	3.616	0.029	3	0.519	0.670	
<i>Our firm is interested in our custormers' needs</i>	2	0.075	0.927	2	0.456	0.635	3	1.801	0.148	
Our company knows the strategic intentions of the compaetitors	2	0.247	0.781	2	0.353	0.703	3	0.927	0.429	
Our company knows the characteristics of the competitors	2	0.518	0.597	2	2.217	0.112	3	0.613	0.607	
The industry is rapidly changing	2	0.309	0.734	2	0.352	0.704	3	2.949	0.034	
<i>Customers' needs are changing rapidly</i>	2	0.618	0.540	2	0.129	0.879	3	0.404	0.750	

**Table 6.** Correlation between firm characteristics and evaluation of opportunities, threats, customers and competitors

The aspects analized relative to the selection of the strategy were the existence of a formal process for selecting strategies and the concerns for long-term implications. The responses of firms surveyed indicate that the formalization of the process of selecting strategies is low, with a mean value of 3.725 (partial disagrement). In general, long-term implications are only partially considered (mean 2545) when selecting strategy.

ANOVA test indicated that the two issues considered are not influenced by main field of activity, firm size or experice.

<b>Table 7.</b> Correlation between firm characteristics and the assessment of
strategy selection process

	Main field of activity			(	Company size			Company experience		
	df	F	Sig.	df	F	Sig.	df	F	Sig.	
Our company follows a formal process for strategy selection	2	0.339	0.713	2	0.242	0.786	3	1.702	0.168	
When selecting a strategy, our company considers the long-term implications	2	0.898	0.409	2	0.928	0.397	3	1.138	0.335	

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We were interested to know whether SMEs implement a strategy once selected. The responses indicate that not always strategy selection is followed by its implementation (mean 2665). A high percentage (57.5%) of companies said that once a strategy has been selected is implemented. The share of companies that do not implement the chosen strategy (19.5%) is not negligible.

An important aspect for the success of the implementation is the allocation of resources. SMEs surveyed said they did not always allocate adequate resources to meet company strategic plans (mean 3.005), less than half (43%) of firms allocate sufficient resources and the number (20%) who sustained that resources are not enough is not insignificant.

Good communication is essential for successful strategic planning process. Companies surveyed generally consider that there is good communication within the company (mean 1.86), most companies (77%) saying that there is good communication within their companies while only 5.5% believe that their companies are lacking good internal communication.

ANOVA test results indicate that neither the main field of activity nor firm size or experience significantly influence the existence of an implementation stage, the adequate resources allocation to implement the strategy or the existence of good communication within the company, the threshold for statistical significance for any pair of variables not having a value below 0.05.

	Main field of activity				Company size			Company experience			
	df	F	Sig.	df	F	Sig.	df	F	Sig.		
Once selected a strategy is implemented	2	0.292	0.747	2	0.231	0.794	3	2.158	0.094		
Our company allocates adequate resources for strategic plans implementation	2	0.026	0.974	2	1.502	0.225	3	1.565	0.199		
There is a good communication within the firm	2	0.194	0.824	2	0.014	0.987	3	1.331	0.266		

Table 8. Correlation between implementation processa and firm's characteristics

Last component of the strategic management process that has been investigated is strategy control / evaluation. Strategic planning is a continuous process making it necessary the revision and adaption of the plans. As the current economic environment is very dynamic, continuously changing, strategic plans should be updated as new information is obtained or some changes are required. Questioned on the frequency of review of plans, most companies surveyed said that their plans reviewed quarterly (31%) and monthly (27%).

Review of strategic plans	Frequency	Percent	Cumulative percent		
Weakly	9	4.5	4.5		
Monthly	54	27.0	31.5		
Quarterly	62	31.0	62.5		
Twice a year	25	12.5	75.0		
Once a year	34	17.0	92.0		
Never	16	8.0	100.0		
Total	200	100.0			

**Tabel 9.** Strategic plans' review frequency

Applied tests show that, in general, the frequency of review of strategic plans does not depend on the size of the company or field of activity or business experience.

	Frecvența de revizuire a planurilor strategice						
	Pearson χ <sup>2</sup>	df	Sig	с			
Number of employees	14.740	10	.142	.262			
Firm' experience	12.384	15	.650	.241			
Main field of activity	4.211	10	.937	.144			

Tabel 10. Correlation between frequency of review and firm's charateristics

Generally companies stated they only sometimes elaborate budgets for the strategic plans (mean 3.005). Half of companies surveyed said they develop budgets for strategic plans, but the number of companies that do not elaborate this budget is also significant (30%). SMEs surveyed stated that they review strategic plans but this process is not continuous having a certain frequency (mean 2.655), the percentage of firms conducting continuous evaluation and revision of plans is 55%.

As the ANOVA test results show the continuous process for evaluating and reviewing strategic plans is not correlated with main field of activity, firm size or experience. The main field of activity and firm experince do not influence the development of budgets for strategic plans while between firm size and development of budgets there is a link, the frequency of developing budgets increasing with firm size.

	Main field of activity		Company size		Company experience				
	df	F	Sig.	df	F	Sig.	df	F	Sig.
The evaluation and review of strategic plans is a continuous process	2	0.526	0.592	2	1.707	0.564	3	0.580	0.629
Budgets are elaborated for the strategic plans	2	2.522	0.083	2	6.783	0.001	3	0.808	0.491

**Table 11.** Correlation between the assessments regarding strategy evaluation and control process and firms' characteristics

A low intensity inversed link, as indicated by Spearman rank correlation coefficient (Rho = -0.246, p = 0.000), exists between firm size and development of budgets for the strategic plans, the frequency of bugets' development increases with firm size.

## Conclusions

Our study highlighted both positive aspects of strategic planning and practices and aspects that should be corrected to increase success chances of SMEs. Positive aspects of strategic planning activities that have resulted from the study are: relatively high level of formalization of plans, the frequences of plans' reviews, the use of SWOT analysis and pessimistic and optimistic scenarios (which indicates that there is an effort of strategic thinking in these firms), the formulation of a mission and its communication to employees, good communication within the company, the interest in customer needs.

Issues that can be improved in the context of effective strategic planning are assessment of strengths' and weaknesses' long-term impact, the consideration of opportunities' and threats' long-term implications, the concern for long-term implications of selected strategy, the existence of formal procedures for evaluating opportunities and threats, the ignorance of strategic intentions of competitors, adequate resources for implementing strategies and the very existence of the implementation phase of the selected strategy.

We consider a limitation of our study tha fact that it was conducted only among SMEs engaged in international activities from the North-Western Region of Romania. For this reason we consider appropriate to extend the research also among companies in this category having no direct contact with the international environment and to include companies from all Romanian Regions.

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# PARTICULARITIES OF ACCOUNTING FOR SHARE-BASED PAYMENT WITHIN ROMANIAN SMES

# PAULA RAMONA RĂCHIȘAN<sup>1</sup>, ADRIAN GROȘANU<sup>2</sup>, SORIN ROMULUS BERINDE<sup>3</sup>

**ABSTRACT.** Share-based Payment is one of the newest aspects within the financialaccounting practice, with benefits for all participants at these operations (entities, suppliers or employees). As a result of carrying out these procedures, the entity registers significant savings concerning the cash-flows when certain debts towards third parties (suppliers) are settled, and concerning the accounting profit, the influences are significant when the staff members are remunerated for this kind of activities. The employees' degree of involvement in the effective development of the company's activity is significant when they become shareholders within the respective entity.

*Keywords: SMEs, Share-based Payment, IFRS 2, IFRS for SMEs, Romanian accounting regulations.* 

JEL classification: M41/M48

# Introduction

The term Share-based payment as presented by IRFS and its implementation within Romanian financial-accounting practice represents a financial innovation both for the entire business sphere and especially for the financial-accounting field. Share-based payment is a new procedure of paying off the debts towards a third party. The term of "third party" embeds various types of suppliers (such as suppliers of professional services) and even the employees of a certain entity (directors, executives and other employees).

Share-based payment can be performed between the employer and the employees in the following situations (KPMG, 2009):

- the employee should have the option of buying the shares issued by the employer in exchange for the performed services;

- the share-based payment of the employees for their contribution at increasing the entity's performance, remuneration calculated according to the increase of the share's price on the market;

<sup>&</sup>lt;sup>1</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, ramona.rachisan@tbs.ubbcluj.ro

<sup>&</sup>lt;sup>2</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, adrian.grosanu@econ.ubbcluj.ro

<sup>&</sup>lt;sup>3</sup> Babeş-Bolyai University, Cluj-Napoca, Romania, sorin.berinde@tb.ubbcluj.ro

The share-based payment system can be implemented also in other situations than those in which there is an employment relation and implicitly employer-employee rapports:

- consulting services performed by an outside consultant (who is not an employee of the entity) remunerated by means of shares issued by the entity;

- payment of goods acquired from suppliers, by means of offsetting debts with shares issued by the debtor entity.

Not every settlement between the entity and third parties can be considered as a part of this kind of settlements regulated by IFRS 2. Therefore, one cannot consider share-based payments:

- the settlements which do not rely on the effective receipt of the goods or the actual performance of the services;

- the settlements in which the sum is not founded on the market value of the issued shares, or of the goods or services which are subjects of the transaction.

We consider that the Share-based Payment can have a double effect on the issuer's profitability:

Flowchart 1: Share-based Payment - double effect on the issuer's accounting profit



Source: Processing performed by the authors

The employees have a positive perception concerning this type of payment from the employer. They consider that the society grants them preferential treatment (employee or service providers) in comparison with other shareholders (investors). Therefore, they will have a shared interest in contributing to business prosperity, they will have advantages when the market price of the acquired shares increases and, implicitly, they will become investors. It is a frequently used method to retain employees, who tend to stay a certain number of years within the entity in order to benefit to a greater extent from these gratuities. This manner of reducing the wage costs ensures a certain tax burden optimization (the financial reasons frequently tip the balance in favor of using this payment system, because in most countries the taxation of wages is considered a tax burden), and it allows the reduction of costs and implicitly the increase of profits (this manner of payment is taken into consideration by the entities traded on the stock market which, by increasing their profits, draw investors and, therefore, they can ensure a low-cost financing by means of issuing shares).

On the other hand, the stimulating effect of the Share-based payment for managers (employees) can also have side effects: the implementation of creative accounting techniques resulting in revenue increase, cost reduction, or the implementation of certain accounting techniques which are on the edge of legality (which respect only the letter of the law, but not its spirit).

Another rather limitative effect of the Share-based payment is the dilution of the percentage owned by former shareholders within the entity's capital. They will be indirectly faced with investing (with subscribing new issued shares, possibly at a preferential price) in order to keep their percentage within the entity's capital and implicitly the rights that derive from it.

Also, if we take into account a net accounting profit which can be distributed as dividends, before and after a possible issuance of new shares, the indicators result per share and dividend per share will be significantly reduced. One can avoid these drawbacks by purchasing those certain shares from the capital market, avoiding, thus, an increase of the entity's capital.

In terms of accounting, the normalizers believe that not every bonus offered to the employees can be considered a share-based payment. The transaction falls within IFRS 2 only when the payment relies on an increase of the market price of that certain share. If the amount set as remuneration for employees is not related to the evolution of the share's market price, but to the profit increase or to the improvement of certain economic and financial indicators of the issuer, then these benefits are registered as other employee benefits, regulated by IAS 19 "Employee Benefits" (PWC, 2011).

According to the international regulations (IFRS), share-based payment requires an entity to reflect within its profit or its loss, and also within its financial position, the effects of the transactions with share-based payment. IFRS 2 sets out measurement and recognition principles for three types of share-based payment transactions:

- equity-settled share-based payment transactions, in which the entity in question receives goods or services from third parties as consideration for its equity instruments;

- **cash-settled share-based payment transactions**, when the entity acquires goods and services (the operation generates debts towards third parties concerning the value of shares or of other equity instruments of the entity);

- transactions in which the entity receives or acquires goods or services and the terms of the arrangement provide either the entity or the supplier of those goods or services with a choice of whether the entity settles the transaction in cash or by issuing equity instruments.

For equity-settled share-based payment transactions, the IFRS 2 requires an entity to measure the goods or services which are subject of the transaction, followed by an increase in equity at the fair value of the goods or services received, unless that fair value cannot be reliably determined. If the entity cannot reliably estimate the fair value of the goods or services received, the entity is required to determine their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted.

**For cash-settled share-based payment transactions**, the entity must measure the goods or services acquired and the liability incurred at its fair value. Until the liability is settled, the entity must revaluate the fair value of the liability at every reporting date and at the date of settlement, with any changes in value reflected within the profit or loss account (Tiron et al., 2005). Based on these theoretical aspects, the three categories of transactions can be classified as it follows (PWC, 2011):





Source: PricewaterhouseCoopers – A practical guide to share-based payments

The applicability of this concept at national level is covered by international regulations (IFRS), which tend to provide a unified treatment from the perspective of financial and accounting operations, but also by Romanian regulations (OPFM no. 3055/2009), which transpose in national sphere the provisions of international regulations. According to the national financial and accounting regulations, the provisions of IFRS concerning share-based payment can be implemented after the 1<sup>st</sup> of January 2005.

# Material and methods

The study aims to conduct a research based on the comparison method, the activity being carried out in two stages. The first stage involved a **comparison** between:

- IFRS 2 Share-based payment and IFRS for SMEs, Section 26 Share-based payment,

- IFRS for SMEs, Section 26 Share-based payment and OPFM no. 3055/2009

In the second stage, relying on the centralized data, we attempted to perform an analysis based on the comparative study in order to identify common elements, specific elements, but also to identify possible shortcomings between the three accounting regulations, our focal point being IFRS for SMEs, Section 26 Share-based payment.

# **Results and discussions**

# The comparison carried out between IFRS 2 Share-based payment and IFRS for SMEs, Section 26 Share-based Payment, revealed the following aspects:

a) Domain of implementation – in general, IFRS for SMEs, Section 26 Share-based Payment took over the provisions of IFRS 2 Share-based payment, but there are some differential elements:

- The first element of difference appears at pt. 26.1 let. (a), domain of implementation, where we can find the expression *equity-settled share-based payment transactions*, and within IFRS 2 Share-based payment, the expression from pt. 2 let. (a) is *share-settled share-based payment transactions*. Basically, it is just a terminological difference which does not affect the accounting treatment.

- Concerning the cash-settled share-based payment transactions, the expression from IFRS 2 Share-based payment is more accurate from the linguistic point of view than the expression given at pt. 26.1 let. (b) by IFRS for SMEs

- Pt. 26.2 from IFRS for SMEs sets out that share-based payment transactions also include share appreciation rights for employees as a part of their remuneration package, aspect which is not presented in such detail within IFRS 2
Share-based payment. Within IFRS 2 we can only anticipate that it comes to the share appreciation rights for employees as a part of their remuneration package. Moreover, the expression used is difficult to understand, while the expression given by IFRS for SMEs is more accurate.

- Within IFRS 2 one makes additional specifications regarding the transactions with employees or third parties as owners of equity instruments of the entity, which is not included in the implementation sphere of the present standard. Also, IFRS 2 presents the situations in which the share-based payment transactions are covered by IAS 32 and IAS 39.

b) Concerning the recognition of share-based payment transactions, IFRS for SMEs took over the expression used by IFRS 2, which is accurate without further discussion. Though, within IFRS 2 one makes additional specifications regarding the recognition of goods and services granted or acquired by means of a share-based payment transaction as assets or costs. Also, IFRS for SMEs gives additional information concerning the recognition of share-based payments granted to employees.

c) Concerning the assessment of share-based payment transactions, IFRS 2 presents in detail this issue, and IFRS for SMEs took it over and it simplified it without affecting the content furnished by IFRS 2.

d) IFRS for SMEs brings a simplification regarding the fair value assessment of the shares and the goods or services granted in contrast to IFRS 2. The same approach is used when assessing stock options and equity-settled share appreciation rights, one using the exact same words as with the share assessment. Therefore, one could have established the title of the paragraph *Shares, stock options and equity-settled share appreciation rights*, without writing the same idea twice.

e) Regarding the modifications of the terms and conditions of granting equity instruments, the provisions from IFRS for SMEs include basically the same provisions as IFRS 2, but it is possible that, in certain situations, in order to better understand the provisions of IFRS for SMEs regarding this issue, one should also consult the IFRS 2, especially Annex B which provides additional guidelines.

f) Concerning the cash-settled share-based payment transactions, the provisions from IFRS for SMEs are very accurate and concise, being similar with those covered by IFRS 2.

g) Concerning the cash-equivalent share-based payment transactions, the provisions of IFRS for SMEs are not included within IFRS 2, which provides specifications regarding the share-based payment transactions with cash settlement as an alternative.

h) IFRS for SMEs provides additional specifications regarding *group plans* (share-based payment awards when the parent company grants shares to one or more subsidiaries from the group), and regarding the *plans authorized by the government* 

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(granting the employees certain equity instruments without them having to furnish goods or services specifically identifiable or with a value which is lower than the fair value of the equity instruments granted).

i) Information disclosure asked by IFRS for SMEs is taken over in a simplified manner from IFRS 2 with small nuances. For example, IFRS 2 uses the expression [...] option groups: (i) early maturity [...]; (vi) late maturity, while IFRS for SMEs uses the expression [...] option groups: (i) early existences [...]; (vi) late existences. We consider that the expression used by IFRS for SMEs is more accurate and it does not leave room for interpretation.

# Concerning the comparison carried out between IFRS for SMEs, Section 26 Share-based payment and OPFM no. 3055/2009, it revealed the following aspects:

a) OPFM no. 3055/ 2009 concerning the share-based payment transactions refers within point 195 align.(1) only to the benefits represented by the entity's own shares (or other equity instruments), granted to the employees and the accounts within which one should register this type of transaction.

b) Recognizing the costs related to the work performed by the employees occurs when it is performed. There are no specifications regarding the criteria one should take into account in order to grant these benefits, or their value, as the shareholders are in charge with this issue.

c) Concerning the granted equity instruments, they are immediately utilizable, so when the benefits are granted, the employees are not asked to have already finished a specified period of services before they can unconditionally use those equity instruments, and in the absence of evidence that proves the contrary, the entity will consider that the services performed in exchange of the equity instruments have already been granted. In this case, the related costs are being entered in full, at the time, in counterparty with the equity accounts.

d) For the granted equity instruments, which can be used only after the employees have already finished a specified period of services, the related costs are registered as the services are performed, during the period needed in order to meet the conditions of getting in rights, in counterparty with the equity accounts. The amount registered as costs will take into consideration the estimative number of equity instruments that will get in rights and this estimation must be revised if further information indicates the fact that the expected number of equity instruments is different from previous estimations. Therefore, at the date they get in rights that certain estimation must be equal with the number of equity instruments that get in rights. Within IFRS for SMEs at pt. 26.6 concerning this aspect one can observe the same approach.

e) According to OPFM no. 3055/2009, the explanatory notes must include information concerning the operations that have affected the entity's equity instruments, but it does not provide any clear references regarding the specific information that must be presented according to IFRS for SMEs.

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### Conclusions

In conclusion, the comparison between IFRS 2 *Share-based payment* and IFRS for SMEs *Section 26 Share-based payment* reveals the fact that IFRS for SMEs brings simplifications concerning this issue by means of presentation, which makes it easier to understand, the measurement and recognition principles are the same and the concepts used are slightly different (small nuances which sometimes are welcomed). We consider that share-based payment transactions with cash equivalents should be better presented within IFRS for SMEs.

IFRS for SMEs is much more complex than OPFM no. 3055/2009. Moreover, within OPFM no. 3055/2009 we cannot identify shared-based payment transactions as they are presented in IFRS for SMEs or in IFRS 2. OPFM no. 3055/2009 presents only the situation of the benefits granted to employees by means of equity instruments, but even this aspect in a briefly manner.

### Acknowledgements

This work was supported from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 "Performance and excellence in postdoctoral research in Romanian economics science domain".

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# THE DEVELOPMENT OF ROMANIAN SMES SINCE THE BEGINNING OF THE 20<sup>TH</sup> CENTURY

# MONICA MARIA COROȘ<sup>1</sup>

**ABSTRACT.** An indicator for a nation's and its people's wealth is provided by the dimensions of its middle-class. As SMEs constitute the spinal bone of the modern economic system, this paper's purpose is to present the development of the Romanian SMEs throughout the 20<sup>th</sup> Century: from the flourishing times before the Second World War, during the darkness and gloominess of the communist ruling, to the times of change and transition, respectively to today's world economic crisis. The main purpose of this analysis is to try to aim at pointing out the links established among a friendly political environment, a healthy economic system, a set of strong and clear ethic values of the managers and the well-being of the people. It becomes clear that there can be identified a strong connection between the willingness of managers and entrepreneurs to assume responsibilities and the dimension of private property. The main assumption of this paper is that the half-century of communist ruling has managed to sweep away the sense of responsibility that is driven by private proprietorship and which is essential for the development of the business environment.

*Keywords: SMEs, development,*  $20^{th}$  *Century, sense of responsibility, private proprietorship, Romania.* 

JEL Classification: L26, M10, P31, R12.

### 1. Introduction

The role of SMEs for a country's economy is very suggestively presented in the quote selected by professor Ovidiu Nicolescu from Winston Churchill's sayings: "Some regard private enterprise as if it were a predatory tiger to be shot. Others look upon it as a cow that they can milk. Only a handful see it for what it really is – the strong horse that pulls the whole cart". This is clearly the case of the Romanian SMEs.

Expressions like "Romania used to be an attractive business destination", "Romania used to be an important actor on the agricultural market", "Romania was one of the most important oil producers of Europe" or "Romania used to have a

<sup>&</sup>lt;sup>1</sup> Assistant Lecturer, PhD Candidate, Universitatea Babeş-Bolyai din Cluj-Napoca, Faculty of Business, <u>monica.coros@tbs.ubbcluj.ro</u>.

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healthy economy" etc., etc. suggest only some of the ways in which the country's prosperity could be measured many decades ago. One cannot but wonder how long it would take the people to regain the values and, why not, the well-being of this nation. As time passes by it becomes more and more clear that the half-century of communist dictatorship has caused painful and deep damages, beginning with the brutal destruction of the intellectual elite and of the Christian values, with the massive industrialization and the forcing of the peasants to guit their beloved agricultural activities for the sake of "building the socialist community", continuing with the propaganda in favor of the "labor class" and against the intellectuals and the values of education, and ending with the loss of identity in a society dominated by "common", respectively, state proprietorship - where, in fact, no one owned anything and therefore everybody seemed to guit assuming responsibilities. A poor understanding and a misinterpretation of the concepts of "common good" and "cooperation" has lead, during a half-century of communism, to the development of a society that lacked civic values, that was kept quiet by the means of an oppressive system that perpetuated poverty and scarceness and that struggled to survive in a dark-grey environment. Obviously, the so much desired political shift of December 1989 has opened a new page for Romania, revealing a people willing to move forward but also very vulnerable to the influences of its new environment: that of the market economy. The difficulties faced during the transition years have proven that the society in its ensemble has practically lost its course, on one hand there was to be noticed the fact that the people tended to expect to be guided, by being told what and how to do and on the other hand, most of the economic system, based on a planned economy and mainly on industrial production, proved to be uncompetitive and unable to adjust to the new conditions of the market.

In this respect, it is considered useful to cite what the analyst Tom Gallagher [2004: 42] states: "During the last part of Carol the 1<sup>st</sup>'s reign Romania used to have an impressive rate of economic growth. Before the beginning of the First World War, when Romania exported huge quantities of oil, the growth of its industry used to be of 6-8 % per year (a lot over the European average). Between 1910 and 1920, Romania occupied the fourth place in the world for granary exports and the third for corn exports. Bucharest became the biggest city in the South-East of Europe, acting as a central point of the whole region". It becomes obvious that Romania used to have a very favorable image at the beginning of the 20<sup>th</sup> century but, unfortunately, things have afterwards radically changed.

Moreover, in order to create a slight impression concerning the depth of the scars left by communism at the level of Romania's social face, it makes sense to refer once again to another of Gallagher's [2004: 17] statements: "Romania has never<sup>2</sup> built its own elite meant to combine the defense of its own position with an

<sup>&</sup>lt;sup>2</sup> In this case "never" ought to be interpreted as "during the past half-century", because, obviously, Romania used to have a highly appreciated elite between the two great wars.

authentic and sustained effort to improve the situation and the people's perspectives." One can only assume that such a situation can be changed by the means of a healthy business environment that would inevitably contribute to the development of the educational and social systems, thus rebuilding the lost elite.

# 2. Material and Method

Figures, facts and data provided by secondary sources are analyzed throughout the entire paper. Figures referring to the structure of the Romanian economy and to the development of its business sector have been gathered from the collection of Romania's National Statistic Yearbooks beginning with 1930 and ending with those of today. Another valuable source of data for this research is granted by the White Charter of SMEs of the Romanian National Council for SMEs, a yearly publishing since 2004. Two aspects ought to be mentioned. Data concerning the business environment between the two great wars are rather limited and can be mainly found in other sources than in the statistic yearbooks, sources such as books containing private researches of different persons. Regarding the business environment during the communist ruling, statistics seem to be less reliable since they were, as most of the specialists admit, influenced by the false data that were reported at that point. Still, one can agree that what is relevant for those times is the disappearing of private businesses.

# 3. Results and Discussions

For a better understanding of the factors that have influenced the development of Romania's small and medium enterprises throughout the 20<sup>th</sup> century, this section of the paper is structured into three parts: the years before the Second World War, the communist ruling, the years of the transition to market economy and today's Romanian SMEs.

# Romania's Economy until the Second World War

According to the retrieved statistical data, by  $1930^3$  there were 273,227 enterprises that functioned in Romania; these were evenly distributed (Figure N<sup>o</sup> 1) among Romania's regions (Figure N<sup>o</sup> 2):

• Transylvania, which comprises the historic provinces of Transylvania, Banat, Crişana and Maramureş, accounted for a total of 96,611 enterprises, that means 35 % of the total;

<sup>&</sup>lt;sup>3</sup> The only statistical yearbook that presents data until 1930 is the one that was published for the years 1939-1940. The beginning of the Second World War diminished the interest concerning statistical data collection and the yearbooks published after 1945 began to present distorted figures, being used as propagandistic tools.

• Moldova, including its historic provinces: Moldova, Bucovina, Herța and Basarabia, had a total number of 90,171 enterprises, respectively 33 %; and

• Muntenia and the region of Bucharest, including the provinces: Muntenia, Oltenia and Dobrogea, added up to 86,445 enterprises, meaning 32 % of Romania's total number.



Figure  $N^{\rm o}$  1. Romania's Enterprises by Region, by 1930

Source: ASR, 1939-1940.





Sources: <u>http://ro.wikipedia.org/wiki/Regiuni\_istorice\_ale\_Rom%C3%A2niei</u> and <u>http://ro.wikipedia.org/wiki/Fi%C8%99ier:Greater\_Romania.svg</u>.

It is worth to point out that of all regions, two provinces had major contributions in the number of the Romanian enterprises; it is the case of Transylvania, with a 20 % share and of Muntenia (which includes Bucharest), with a quota of 22 %. While the situation in Muntenia can be easily explained by the existence of the country's capital city, Bucharest, that one, registered in Transylvania, suggests a higher development of the region's entrepreneurship during those times. Quotas have not changed too much over times.

Several aspects ought to be mentioned concerning the Romanian enterprises until and by 1930. According to the main areas of activity, these were mainly split between the two major sectors of the country's economy: the industrial sector (~52 %) and the trade or commerce and credit sector (~43 %); other sectors, including agriculture, only accounted for nearly 3 % of the companies. One may easily notice (Table N° 1) that a fairly large majority of the companies were established after 1918, when Romania re-united; still it is interesting to observe that almost a half of the industrial companies were founded before the end of the First World War; this situation is obviously consistent with the fact that wars generally stimulate the development of the industrial research and of this sector. Still, despite the very small number of enterprises acting in other sectors, agriculture (which beginning with 1921 underwent major reforms) and sylviculture accounted by 1929 for almost 50 % of Romania's national income [Asandului, 2001: 25].

Activity Sector	Enterprises				
	Total	Of which founded between 1919-1930			
ROMANIA (natl. level)	273,227	61.7 %			
Industry	140,948	57.9 %			
Trade & Credit	124,308	65.7 %			
Other (unspecified)	7,971	65.9 %			

Table Nº 1. The Structure of Romania's Economy until 1930

Source: ASR, 1939-1940.

When it comes to the structure of Romania's enterprises according to the employees' qualification, one may notice that unskilled workers has a significant quota of around 25 % of the total employed population; obviously, a higher percentage of unskilled workers (one third of the total unskilled labor force) can be found within industrial companies. Actually, the industrial sector accounted for two thirds of all employees.

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The fact that the leading and management staff gathered a share of almost 40 % of the total employees is highly consistent with the quite high spirit of entrepreneurship that can be observed in the figures presented in Table N<sup>o</sup> 3 from below: close to 45 % of all enterprises having only one employee, who was clearly the manager of the business; moreover, nearly 49 % of all business had between 2 and 5 employees, fact which offers a clear explanation for the high quota of the management and leading staff in the total number of the Romanian employees.

	Т	otal	Categories							
	Total	Of which Foreign- ers	Leading Staff	Office & Commer- cial Clerks	Skilled Staff	II II				
ROMANIA (natl. level)	947,739	16,500	<u>356,606</u>	78,240	151,645	112,402	248,846			
Industry	616,743	10,951	166,308	26,489	26,489	132,114	77,391			
Trade & Credit	300,328	5,127	180,765	50,239	13,173	25,267	30,884			
Other (unspecified)	30,668	422	9,533	1,512	6,358	9,744	3,521			

Table Nº 2. The Structure of Romania's Employees until 1930

Source: ASR, 1939-1940.

A brief analysis of the Romanian enterprises by the numbers of their employees reveals a clear prevalence of the SMEs with a strong domination of microenterprises, which had a total share of almost 99 % of all enterprises; the entire  $SMEs^4$  sector reached around 99.9 % of the total number of enterprises. This situation is practically valid for all economic sectors.

<sup>&</sup>lt;sup>4</sup> Although today the SMEs sector includes companies that have up to 250 employees, given the fact that the statistics present the interwar companies by the number of employees in categories such as "101 to 200 employees", respectively "201 to 500 employees" and given the fact that a very large majority of enterprises used to have, in fact, less than 50 employees, we have decided to consider companies with more than 200 employees to belong to the category of large companies, rather than medium-sized ones. We have opt for this classification in order to make it easier to correlate the figures of those times with those of today, despite the fact that some authors, such as Virgil Madgearu, Gromoslav Mladenatz and I.V. Tartă [Asandului, 2001: 54] included all companies with more than 50 employees in the category of large enterprises.

Activity Sector	Total No of Enterprises	Manager- Entrepre– neur (1)	2-5	6-20	21-50	51- 100	101- 200	201- 500	501+
ROMANIA (national level)	273,227	121,767	133,757	14,572	1,788	641	340	259	103
Industry	140,948	69,308	61,125	8,120	1,253	500	297	244	101
Trade & Credit	124,308	50,241	67,641	5,818	467	103	26	10	2
Other (unspecified)	7,971	2,218	4,991	634	68	38	17	5	0

Table Nº 3. Romania's Enterprises by the Number of Their Employees until 1930

Source: ASR, 1939-1940.

Regarding their capacity to create jobs and to absorb the labor force, SMEs and especially microenterprises prove to be the main employers, accounting for nearly 50 % of all of the nation's employees, while the entire sector of SMEs (including middle-sized companies) was responsible for close to 79 % of all employments.

Based on the data presented until now, one may dare conclude that one of the main features of the interwar small and medium-sized enterprises was driven from the fact that they were either family businesses or businesses established by small groups of friends or acquaintances.

Table Nº 4. The Structure of Romania's Employees by Company Size until 1930

Activity Sector	Total No of Employees	Manager- Entrepre– neur (1)	2-5	6-20	21-50	51-100	101-200	201-500	501+
ROMANIA (national level)	947,739	121,767	348,630	128,750	55,967	45,500	47,654	82,055	117,416
Industry	616,743	69,308	164,853	72,479	39,562	35,798	41,736	77,264	115,743
Trade & Credit	300,328	50,241	169,477	50,702	14,258	6,993	3,545	3,439	1,673
Other (unspecified)	30,668	2,218	14,300	5,569	2,147	2,709	2,373	1,352	0

Source: ASR, 1939-1940.

Regarding the managerial aspects of the interwar enterprises it would be useful to refer to Virgil Madgearu's definition of enterprise management as "the process of driving certain activities towards the accomplishment of a specific goal" [Asandului, 2001: 95 apud Madgearu, 1944: 19]; "in this respect, the role of the management was that of selecting and balancing the adequate production forces, of

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driving production and of creating the link between the production and the market". [Asandului, 2001: 95 apud Tarță, 1940: 118] Madgearu was one of the first specialists who raised the problem of the necessity to implement a scientific type of management in Romanian enterprises, too, because of the fact that the increasing competitiveness of the European economic environment imposed upon Romanian business the need to shift from empiric towards scientific management. Basically, in the 1930's the functions of management could be resumed to: planning; anticipating; organizing; deciding; coordinating; and controlling. [Asandului, 2001: 96-99]

Another characteristic feature of the Romanian interwar enterprises was the lack of qualified local personnel who would be able to properly manage the business. In fact, between 1926 and 1928 in Romanian enterprises there worked about 60,000 foreigners, of which 45,000 were employees and 15,000 entrepreneurs. Given the restrictions regarding the employment of foreign labor force, the number of foreigners who worked in Romania decreased to 40,000 persons in 1930, reaching by 1932 a number of 29,793 persons, respectively by 1934 a total of 26,000 people [Asandului, 2001: 133] It was considered that the Romanian interests were not properly represented, therefore, in 1934<sup>5</sup> there was issued la law which stated the following obligations for the private, commercial and civil enterprises:

• to employ at least 80 % Romanian personnel for each staff category;

• to have at least 50 % Romanians among the members of the boards of executives, boards of directors and censors; and

• to have a Romanian CEO.

Some exceptions were admitted in 1935 for the industrial enterprises with less than 20 employees: to have a maximum share of 50 % of foreign employees for all positions from top management to skilled labor force. [Asandului, 2001: 32]

During this time-span there were undertaken serious efforts to develop higher education institutions that would provide highly qualified personnel (in fields like polytechnics, agricultural studies and commercial studies, as well) who would be able to properly manage the local businesses.

# The Communist Rupture and Romania's Socialist Economy

There are several significances that can be attributed to the date of the 30<sup>th</sup> of December 1947, when King Mihai I was forced to abdicate and when the People's Republic was proclaimed. From the perspective of the current analysis, this date signifies the beginning of the disintegration of a prosperous economic system and the disappearance of private property by the means of nationalization. Of course, the same date also signifies the start of the extermination of the intellectual elites of Romania. For the peasants it means the beginning of the collectivization process (the nationalization of the lands and of the cattle). It also means the beginning of

<sup>&</sup>lt;sup>5</sup> The first time when such a position was adopted was in 1912, when the government, aiming to stimulate the development of the Romanian industry, offered certain advantages to companies that had among their employees a quota of Romanians representing at least 75 % of the number of all employees. [Asandului 2001: 133]

the era of "building the socialist ideal", of massive industrialization, and, consequently, a half century of lost identities for very many persons – beginning with the peasant, who from an agricultural worker was transformed over night into an industrial worker, and who was determined to move away from the countryside into the city... and ending with the intellectuals, who ended up fearing even their own shadows... Obviously, a new class "the working class" was to be established, based on the "principle" "work, don't think!"... Briefly, this date signifies the dissolution of a flourishing society, with clear principles and the appearance of a new one, based on the so-called "new man" – the prototype of the socialist individual. The spirit of competiveness was also destroyed by the instauration of the single-party dictatorship.

In 1948 there were nationalized all industrial enterprises, all banks and all means of transportation. Between 1949 and 1962 there was enforced a massive collectivization of agriculture. The only purpose of the leading political class was to quickly establish a massive industrialization of a Stalinist-type. Regarding the management of the businesses there must be pointed out several aspects:

• most of the former managers were incarcerated;

• all management structures were replaced with politically appointed staff (very few of the new directors were actually qualified for the positions they occupied);

• all persons who occupied leading positions had to be members of the Communist Party;

• the management of the businesses was based on five-year plans that had to be achieved with high performances, even higher than those that were planned – this has lead to the situation when the figures reported exceeded by far the ones that were planned.

		State	Private		
Years	Total N <sup>o</sup> of units	Total	State	Cooperative	Trade
1948	108,357	10,411	1,952	8,459	97,946
1950	65,795	27,567	7,762	19,805	38,228
1960	50,789	50,189	23,535	26,654	600
1970	61,556	61,556	30,682	30,874	0
1980	78,746	78,746	40,582	38,164	0
1985	82,707	82,707	43,165	39,542	0
1989	82,035	82,035	41,876	40,159	0

Table Nº 5. Romania's Trade and HoReCa Businesses by Their Ownership

Source: ASR, 1990.

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One may observe that it took the communists less than 20 years to practically sweep away any type of private enterprise. The little number of private businesses that survived during the 1950's, were actually either small merchants of sweets or craft-persons such as tailors, shoemakers or owners of other similar business.

Years	Total No of Employees		Public Alimentation		Stat	te Trade	Cooperative Trade		
1 cars	Total	of which: workers	Total	of which: workers	Total	of which: workers	Total	of which: workers	
1950	141.7	72	33.1	21.5	82.1	49.6	59.6	22.4	
1960	248.6	192.1	62.9	58.3	172.7	144.7	75.9	47.4	
1970	332	279.5	101.4	94.6	240.9	200.5	91.1	79	
1980	448	418.6	162	154.3	353.3	330	94.7	88.6	
1985	457.8	428.2	174.7	166.4	361.3	338.9	96.5	89.3	
1989	465.2	434.1	184.0	175.1	369.7	346.3	95.5	87.8	

Table Nº 6. Average Number of Employees in Commercial and Public Alimentation Units
(Thousand Persons)

Source: ASR, 1990.

The data presented in the table above reveal a significant increase in the number of workers and the continuous diminishment of the share of skilled and highly-qualified personnel in commercial and HoReCa businesses. The permanent decrease of the highly skilled labor force is a deep scar that has not yet healed on the face of Romania's business environment.

# **Modern Romania**

Today's Romania is divided into 41 counties, plus Bucharest, the capital city. These counties constitute eight regions of development, which, in their turn, build a number of four macroregions of development. The last two structures are not genuine administrative structures, being established in the spirit of the European Union with the purpose of diminishing local disparities.



Figure Nº 3. Romania's Regions of Development

The early days of democracy encouraged the development of new private business but most of them were small boutiques with a discrete contribution both to the economic development and to the job-creation process, as seen in the table below. These first years of the 1990's were associated with al largely debated and contested both political and economic transition, which was also contemporary with the loss of some of the country's major markets for its industrial products. To the poor economic development of Romania there also contributed the late start of the privatization process, which had two major consequences: huge financial drainouts caused by the inefficient and unproductive large plants built by the communists and by the fact that despite its claimed orientation towards a democratic system, Romania failed to adapt to the requirements of the competitive market economy and, nevertheless it failed to attract the so much needed foreign investments.

Years	1989	1990	1991	1992
<b>Nº</b> of Enterprises	8,252	109,887	240,716	406,386
Private	0	99,460	227,445	396,208
State	3,960	4,560	6,105	6,560
Cooperative	4,292	5,867	7,156	3,618

 Table Nº 7. The Romanian Private Sector 1989-1992

Source: Hardt and Kaufman, 1995.

Source: http://ro.wikipedia.org/wiki/Fi%C5%9Fier:Rom%C3%A2nia\_regiuni\_dezvoltare.svg.

The transition towards market economy ant the prevailing of private ownership can be achieved by taking both of the two paths:

- the stimulation of **free initiative**; and
- privatization,

which inevitably lead to the establishment and development of the SMEs' sector. Between 1990 and 2001 the number of SMEs increased by approximately 5 times but only had a reduced economic power, the market being still dominated by the public limited companies; next to the SMEs, there also began to develop the authorized persons and the family associations as types of businesses. Between 1996 and 2004 there was registered a constant increase in the ratio of the creation of new SMEs. New companies were resulted in various ways:

- 97.1% newly created companies;
- 0.2% from the privatization of already existing companies;
- 2.7% were established by other means. [OECD, 2004]



Figure Nº 4. Privatized Companies in Romania 1993-2003

Source: OECD, Romania, 2004; www.books.google.com.

The figures in the table below reveal the steady pace of the increase of the SMEs' importance in Romania's economy throughout the past 20 years. By 2009, SMEs accounted for more than 66 % of the total employment and had a contribution of a little over 60 % to the overall turnover of the Romanian enterprises. Despite the global economic crisis and the unfriendly measures adopted by the local governmental officials, the number of Romanian SMEs has continued to grow; still, the number of the ones who manage to be highly performing diminishes day by day.

Years	Number of SMEs	Weight of staff in SMEs (%)	Weight of SMEs' turnover total enterprises' turnover (%)
1992	126,549	12.3	30.9
1993	214,349	17.8	33.8
1994	283,697	20.1	41.3
1995	301,781	23.9	46.7
1996	309,454	29.1	48.3
1997	314,183	32.9	45.2
1998	315,970	37.8	52.8
1999	316,593	42.5	54.0
2000	306,073	46.9	55.9
2001	309,303	48.5	57.2
2002	313,159	50.7	55.9
2003	347,064	54.4	57.4
2004	392,544	58.2	57.5
2005	431,135	60.7	57.6
2006	459,972	63.2	58.7
2007	498,014	64.9	60.8
2008	532,688	65.8	61.0
2009	517,870	66.3	60.3
2010	~600,000	n.a.	n.a
2011	n.a.	n.a.	n.a

Table Nº 8. The Evolution of the Romanian SMEs

Sources: ASR 1999-2010, CNPIMMR.

By comparing the figures reported for the year of 2007 to those of 2009 regarding the local / regional active enterprises, one may notice various aspects. For example, it is not surprising to notice that the number of employees mainly decreased in the cases of the small, medium and large enterprises; the microenterprises seem to have been less affected by the economic crisis.

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Macroregion & Region of Development		of which: by size, according to the number of employees						
of Development		0-9	10-49	50-249	250 & over			
TOTAL	510,140	447,445	50,019	10,640	2,036			
MACROREGION 1	134,762	117,590	13,849	2,821	502			
North - West	71,745	62,913	7,257	1,347	228			
Center	63,017	54,677	6,592	1,474	274			
MACROREGION 2	115,982	101,716	11,454	2,379	433			
North - East	56,199	49,043	5,798	1,148	210			
South - East	59,783	52,673	5,656	1,231	223			
MACROREGION 3	174,146	153,364	16,443	3,622	717			
Bucharest - Ilfov	120,814	106,836	11,114	2,399	465			
South - Muntenia	53,332	46,528	5,329	1,223	252			
MACROREGION 4	85,250	74,775	8,273	1,818	384			
South - West Oltenia	36,790	32,469	3,434	713	174			
West	48,460	42,306	4,839	1,105	210			

Table Nº 9. Active Enterprises, by Region of Development and by Size Class, by 2007

Source: ASR 2008.

Table Nº 10. Active Enterprises, by Region of Development and by Size Class, by 2009

Macroregion & Region of		of which: by size, according to the number of employees						
Development		0-9	10-49	50-249	250 & over			
TOTAL	532,873	473,565	481,37	9,450	1,721			
MACROREGION 1	139,892	123,873	13,147	2,466	406			
North - West	74,871	66,600	6,920	1,164	187			
Center	65,021	57,273	6,227	1,302	219			
MACROREGION 2	120,502	107,320	10,798	2,046	338			
North - East	58,170	51,723	5,317	969	161			
South - East	62,332	55,597	5,481	1,077	177			
MACROREGION 3	184,162	163,769	16,382	3,377	634			
Bucharest - Ilfov	127,357	113,615	11,060	2,255	427			
South - Muntenia	56,805	50,154	5,322	1,122	207			
MACROREGION 4	88,317	78,603	7,810	1,561	343			
South - West Oltenia	38,269	34,215	3,294	608	152			
West	50048	44388	4516	953	191			

Source: ASR 2010.

# THE DEVELOPMENT OF ROMANIAN SMES SINCE THE BEGINNING OF THE 20<sup>TH</sup> CENTURY

When it comes to the figures regarding the SMEs' performances measured in their overall turnovers, the statistics are once again surprising: the overall turnover increased during the first year of the acknowledged crisis; this increase was mainly generated by the SMEs, while large companies registered decreases in terms of their turnovers.

Macroregion & Region of Development		of wh	of which: by size, according to the number of employees						
of Development		0-9	10-49	50-249	250 & over				
TOTAL	772,262	144,662	185,345	197,787	244,468				
MACROREGION 1	159,168	32,138	42,244	41,426	43,360				
North - West	78,103	17,378	23,287	19,897	17,541				
Center	81,065	14,760	18,957	21,529	25,819				
MACROREGION 2	135,561	26,313	35,588	30,933	42,727				
North - East	56,108	12,304	17,167	14,692	11,945				
South - East	79,453	14,009	18,421	16,241	30,782				
MACROREGION 3	368,391	66,647	83,642	98,649	119,453				
Bucharest - Ilfov	278,275	51,019	66,300	81,049	79,907				
South - Muntenia	90,116	15,628	17,342	17,600	39,546				
MACROREGION 4	109,142	19,564	23,871	26,779	38,928				
South - West Oltenia	48,426	8,289	9,816	11,060	19,261				
West	60,716	11,275	14,055	15,719	19,667				

Table Nº 11. Turnover of the Enterprises, by Region of Development and By Size Class	5,
by 2007 (Million Lei current prices)	

Source: ASR 2008.

Table $N^0$ 12. Turnover of the Enterprises, by Region of Development and
By Size Class, by 2009 (Million Lei current prices)

Macroregion & Region of		of which: by size, according to the number of employees					
Development		0-9	10-49	50-249	250 & over		
TOTAL	850,843	172,783	209,784	226,239	242,028		
MACROREGION 1	173,926	36,919	45,575	44,614	46,818		
North - West	85,673	20,636	24,424	20,891	19,722		
Center	88,253	16,283	21,151	23,723	27,096		

Macroregion & Region of		of which: by size, according to the number of employees					
Development		0-9	10-49	50-249	250 & over		
MACROREGION 2	147,357	31,410	41,495	37,356	37,096		
North - East	60,414	14,286	19,404	16,555	10,169		
South - East	86,943	17,124	22,091	20,801	26,927		
MACROREGION 3	414,049	80,339	96,383	115,606	121,721		
Bucharest - Ilfov	316,201	63,302	76,583	93,080	83,236		
South - Muntenia	97,848	17,037	19,800	22,526	38,485		
MACROREGION 4	115,502	24,115	26,331	28,663	36,393		
South - West Oltenia	49,527	10,397	10,690	12,289	16,151		
West	65,975	13,718	15,641	16,374	20,242		

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Source: ASR 2010.

Another interesting aspect concerning the local SMEs derives from the main financing sources used by the managers of these companies. Unsurprisingly, the smaller the company, the higher is the use of the entrepreneur's private financial resources. Obviously, the present times marked by the economic crisis diminish even more the probability of taking bank loans.

 Table Nº 13. Financing Sources of the Romanian SMEs (%)

Sources	Micro	Small	Medium
Exclusively the entrepreneur's/ Business resources	70.27	49.29	28.35
Mainly the entrepreneur's/ Business resources (> 85%)	17.78	17.77	14.95
Entrepreneur/ Business resources and bank loans/ Other financial support in equal proportions	10.10	27.49	52.06
More than 50% bank credits/ Other offers	1.28	4.27	3.61
Other sources	0.57	1.18	1.03

Source: CNIPMMR.

A brief overview of the Romanian SMEs under the sign of the economic crisis can be presented based on the figures provided by the National Trade Registry of Romania by the end of the month of May in 2008, 2009, 2010 and 2011 (about 99 % of all active enterprises are SMEs, and of these, around 88 % are microenterprises):

		of which:					Degistra
Romania	Total operations	Registra- tions	Development of Registra- tions	Observa- tions	Close- downs	Develop- ment of Close- downs	Registra- tions – Closs- Downs
2007	8,281,986	1,618,600	-	6,171,744	491,642	-	-
2008	9,179,219	1,769,162	+ 150,562	6,875,129	534,928	+ 43,286	+ 107,276
2009	11,863,493	1,901,373	+ 132,211	9,381,352	580,768	+ 45,840	+ 86,371
2010	13,887,796	2,013,992	+ 112,619	11,160,375	713,429	+ 132,661	- 20,042
2011	14,914,076	2,142,670	+ 128,678	11,931,988	839,418	+ 125,989	- 2,689

 Table Nº 14. Operations Registered by the National Trade Registry of Romania between December 1990 and May 2007, 2008, 2009, 2010 and 2011

Source: <u>http://www.onrc.ro/romana/statistici.php#op\_2011\_5</u>.

Until 2009 the pace of enterprise creation was higher than that of their destruction but it registered a steep diminishing trend.

The first seven fields of activity of the active SMEs are: wholesale, retail; constructions; commerce, car services; business-to-business services; food & beverage industry; and transportation; these account for approximately 70 % of the whole turnover.

According to the evaluations realized by the Council for SMEs and Romanian Entrepreneurs, in May 2009 the interviewed managers appreciated the SMEs sector as having an unsatisfactory evolution; the same managers estimated the impact of the global and local economic crises upon the SMEs' sector as: great to terrible (50 %), average (36 %) and low (12 %); they also expressed their beliefs that 95 % of the SMEs required governmental assistance and aids. Their responses can hardly be expected to be different today.

# Conclusions

As mentioned a little before, it took the communists less than 20 years to totally change the Romanian business scenery. Today, almost 22 years after the fall of communism, Romania, although developed and modernized from many points of view, seems to still undergo a process of transition towards a very much desired genuine market economy. The decades of communist darkness have taken away those features that made Romania once flourish:

• the intellectual elite;

• the spirit of true entrepreneurship based on principles and values such as the "gentlemen agreement";

• the spirit of reciprocal trusting, in general;

• the desire to achieve a higher position by hard-work (intellectual efforts here included) and based on competence, and not by other means such as political criteria or acquaintances;

• the spirit of private property and the respect for private property, respectively the responsibilities driven from this granted right;

• the capability to assume ones achievements and/or failures; etc.

The main problems identified by the Romanian managers, and acknowledged by basically everybody are: the decrease of internal demand; the excessive fiscal burden; the bureaucracy; the corruption; the limited access to financial resources and high costs of crediting; the delays of invoice cashing; the excessive controls; the increase of wage-costs; the increase of VAT; the employment, the training and the retention of the personnel; the relative instability of the national currency; the increased competitiveness of foreign products; the poor quality of the infrastructure; the delays in the case of the debts owed by the state; the decrease of the external demand; the access to training and consultancy; the European acquis; etc.

It is clear that in order to truly build a reliable economic system the people must understand that they need a moral reform that would consequently reposition their own values, and simultaneously, the state needs to interfere by supporting the development of the private small and medium-sized businesses, by adopting more liberal policies, meant to release the burden placed upon the shoulders of the SMEs. Of course, entrepreneurs must also turn towards the educational system and learn from the historic lesson, that decisions must be taken scientifically and not by the ear.

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# ASSESSING AND COMPARING LEAN DEVELOPMENT

# LASZLO BARNA<sup>1</sup>

**ABSTRACT.** The aim of my paper is to highlight the importance of assessing and comparing the lean development of companies. In order to survive in today's hypercompetitive environment many companies are adopting lean techniques; the goal is to delight the customers and make a profit through the relentless elimination of waste from the operations. Lean thinking is the key not only for large companies but also in terms of SMEs.

Introducing a lean management system is an unquestionable key for the companies to survive market competition. Today, I think, lean is not only a tool in order to gain competitive advantage; it is an obligation now, especially in the field of manufacturing companies.

Due to the rapidly increasing number of the lean using companies, a comparison with lean assessment tools among these organizations would be very useful. The focus of this comparison is to create a system which takes into consideration a huge amount of characteristics about lean using companies.

This lean assessment essentially has two purposes. The first is to enable the user to take an inventory of those lean manufacturing practices that could be missing from their lean management system, what should be upgraded, developed or planted. The second is to give a wider picture about the appliance of the lean management principles, techniques and tools.

My plan is to assess and compare the level of lean management in the field of manufacturing, in the Hungarian or in the Eastern European region using lean assessment techniques.

With lean assessment I try to examine all fields of the lean management in order to get a realistic picture about the level of each company's lean performance.

In my paper I introduce the research method through a comparison of two Hungarian companies; I show the criteria system and what I am expecting from the research. The results of the research show each lean field in case of the examined companies and through the radar diagram it becomes clear which fields requires development.

Keywords: Lean, research methodology, assessment, manufacturing firms

JEL classification: L60

<sup>&</sup>lt;sup>1</sup> PhD Student, University of Miskole, Innovation management Cooperation Research Centre, *kkkbarna@uni-miskolc.hu* 

#### Introduction and review of literature

In order to survive in today's hypercompetitive environment many companies are adopting lean techniques; the goal is to delight the customers and make a profit through the relentless elimination of waste from the operations. Unfortunately, that's easier said than done. Few companies have achieved the kind of sustained success that Toyota has; benefitting from its legendary lean production system. While many companies have implemented islands of lean what's often lacking is a comprehensive system.

The basic ideas behind the lean manufacturing system, which have been practiced for many years in Japan, are waste elimination, cost reduction, and employee empowerment. The Japanese philosophy of doing business is totally different than the philosophy that has been long prevalent in the US. The traditional belief in the west used to be that the only way to make profit is to add it to the manufacturing cost in order to come up with a desired selling price (Ohno, 1997; Monden, 1998). On the contrary, the Japanese approach believes that customers are the generator of the selling price. The more quality one builds into the product and the more service one offers, the more the price that customers will pay. The difference between the cost of the product and this price is what determines the profit (Ohno, 1997; Monden, 1998). The lean manufacturing discipline is to work in every facet of the value stream by eliminating waste in order to reduce cost, generate capital, bring in more sales, and remain competitive in a growing global market. The value stream is defined as "the specific activities within a supply chain required to design, order and provide a specific product or value" (Hines and Taylor, 2000).

The term "lean", as Womack and his colleagues define it, denotes a system that utilizes less, in term of all inputs, to create the same outputs as those created by a traditional mass production system, while contributing increased varieties for the end customer (Panizzolo, 1998).

This business philosophy goes by different names. Agile manufacturing, just-in-time manufacturing, synchronous manufacturing, world-class manufacturing, and continuous flow are all terms that are used in parallel with lean manufacturing. So the resounding principle of lean manufacturing is to reduce cost through continuous improvement that will eventually reduce the cost of services and products, thus growing more profits.

"Lean" focuses on abolishing or reducing wastes (or "muda", the Japanese word for waste) and on maximizing or fully utilizing activities that add value from the customer's perspective. From the customer's perspective, value is equivalent to anything that the customer is willing to pay for in a product or the service that follows. So the elimination of waste is the basic principle of lean manufacturing.

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The findings obtained by the International Motor Vehicle Program (IMVP) in Massachusetts Institute of Technology (MIT) show that lean production combines the best features of both mass production and craft production. It possesses the ability to reduce costs per unit and dramatically improve quality while at the same time it provides a wider range of products (Womack et al., 1990). It is a manufacturing system that provides the flexibility required to satisfy the rapidly changing demands of customers. Whoever operates by the cost reduction principle, meets quality cost and delivery requirements, and wants to eliminate all waste from the customer's value stream surely needs to learn about lean to succeed in the market (Tapping et al., 2002).

Lean production is an integrated socio-technical system (Shah and Ward, 2007), which consists of the social aspects (people and society) and technical aspects (machine and technology). It is viewed as a philosophy that requires both technical and cultural aspects (Bhasin and Burcher, 2006). Many of the lean practices are techniques that help to eliminate waste in the production floor. Implementation of lean manufacturing was generally tool focused. As a result, the effects of lean manufacturing were only confined in a small area and did not achieve its intended impact on the overall system's performance (Hines et al., 2004). Knowing that, lean has now been embraced in a wider scope that includes human aspects and requires changes in management and organizational culture.

# A Lean manufacturing facility is characterized by:

• Integrated single piece production (i.e. a continuous flow of work) with minimal inventories at each stage of the production process.

• Small batch production capability that is synchronized to shipping schedules.

• Defect prevention rather than inspection and rework by building quality in the process and implementing real time quality feedback procedures.

• Production planning that is driven by customer demand or "pull" and not to suit machine loading or inflexible work flows.

• Team based work organizations with multi-skilled operators empowered to make decisions and improve operations with few indirect staff.

• Active involvement by workers in trouble shooting and problem solving to improve quality and eliminate

• Close integration of the whole value stream from raw material to finished product through partnership oriented relations with suppliers and distributors.

Though lean covers wide areas, the company's approach is to start things which are in control and do things step by step. It is also understandable that to implement lean manufacturing, support and commitment from top management is crucial. Managers not only have to believe in lean manufacturing but they also need to coach and guide in order to drive and lead the change in the company. A

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more formalized structure that focuses on lean is needed. In order to make lean sustainable, it is important for everyone to constantly talk about good and bad behaviors, and spend more time to have direct observations, understand the problem, find the root cause and then improve it. It is suggested that companies which want to start their lean journey should understand the 10 factors given by Flinchbaugh (2004) before embarking on it. The 10 factors are:

- 1. Rome was not built in a day.
- 2. This is not a part-time job.
- 3. Lean is more than just tools.
- 4. Lean is a journey that never ends.
- 5. Be prepared for resistance.
- 6. You need leaders to take on this challenge, not managers.
- 7. Be prepared for the investment both people and time.
- 8. Lean is not just about the shop floor.
- 9. There is no recipe, but there is a roadmap.
- 10. Do not just copy the answers.

# Lean assessment

A number of tools have been developed to help organizational leaders assess their progress toward becoming a lean enterprise. I have found and examined six different assessment instruments. Surveys have also been used by researchers in previous research studies focused on linking lean practices with organizational performance, but I am focusing on assessment instruments because my aim is to compare the different companies based on their lean activities. *Table 1* summarizes the industrial assessment tools reviewed.

The seven industrial assessment tools reviewed included many different lean practices, but were inconsistent in the practices included as well in the mechanism for evaluating the level of implementation. As a result of this review, a list of practices and a modified approach for assessing the level of implementation of each practice were developed.

<b>Survey Identification</b>	Description and Lean Aspects Included
Jordan and Michel (2001),	This tool is a 36-question survey used to assess a company's
Survey of Perceptions of a	leanness. Different versions of the survey are available for various
Company's Leanness	stakeholders (executives, employees, investors, suppliers, and customers). The combined set of surveys addresses topics such as waste identification and reduction, continuous improvement, value stream management, flow, and human resource topics such as employee development and leadership.

 Table 1. Industrial lean assessment tools

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<b>Survey Identification</b>	Description and Lean Aspects Included
Lean Enterprise	This assessment tool is used to evaluate the level of
Implementation Group	implementation of policies, process management, lean tools
(1999), The 360 o Lean	and techniques, and supply chain integration activities. Lean
Audit	tools and techniques included in the assessment are workplace
	organization, waste, flow, pull, quality, standards, PDCA,
	equipment effectiveness and reliability, and leveled production.
Lean Learning Center	This benchmarking survey requests information on
(2003), The Lean	performance changes attributable to lean or continuous
<b>Company Survey</b>	improvement efforts, infrastructure details (who is responsible
	for lean efforts), functional involvement in lean, and
	implementation details (types of lean tools implemented).
Northwest High	This self-assessment tool allows organizations to
Performance Enterprise	establish a baseline measurement of their lean progress. The
Consortium (2002),	tool includes a range of management and lean practices, such
HPEC Assessment	as lean education, training, statistical process control, JIT,
	kaizen, heijunka, 5S, SMED, poka-yoke, waste, workforce
	flexibility, performance measures, and QFD.
Wisconsin Manufacturing	This self-assessment tool is used to help organizations
Extension Partnership	identify and prioritize improvement activities. The tool
(2002), Lean Business	addresses 10 lean principles and a range of lean practices,
Assessment	including flow production, leveled mixed-model production,
	quick changeover, automation with a human touch, pull
	systems, autonomous maintenance, and kaizen reporting.
Wisconsin Manufacturing	This short salf assessment tool is designed to help
Extension Partnership	This short self-assessment tool is designed to help
(2001), How Lean is Your	managers identify cultural factors that can support or inhibit
Culture?	the sustainability of lean manufacturing initiatives.

I have chosen the Lean Business Assessment made by Wisconsin Manufacturing Extension Partnership as a cornerstone of my research. I have used the ten main categories of this assessment tool and I have formulated my questions on this basis.

This lean assessment tool essentially has two purposes. The first is to enable the user to take an inventory of those lean manufacturing best practices that are applied and how prevalently these practices are found throughout the plant. The second is to provide the user with an awareness of those lean manufacturing best practices that are not used or are not prevalently applied, and hence, should be considered for implementation.

In the future it can also be used to detect the development of the lean management system by each company. Since if the assessment tool is used e.g. every year, it is easy to compare each year's results, activity and the development using a radar chart.

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This lean assessment tool contains ten attribute worksheets describing the lean best practices that constitute the following attributes of lean manufacturing:

- Cultural Awareness
- Workplace Organization (5 S's) & Visual Management
- Standardized Work
- Flexible Operations
- Continuous Improvement
- Error Proofing
- Quick Changeover Capability
- Total Productive Maintenance
- Material Control
- Level Production

# Steps of the assessment

Each attribute worksheet needs be completed as part of a review of the actual situation to ensure the accuracy and applicability of the results.

1. During an interview the best practice descriptions on each lean attribute worksheet are asked from the relevant persons. There are six to eight best practices described for each lean attribute.

2. For each lean best practice described, assess how prevalently the practice is applied.

3. Indicate the prevalence of each lean manufacturing best practice by selecting a "score" between 0 and 4 that best reflects the observations using the following scale.

- 0 The practice is not found; 0% occurrence.
- 1 The practice is only seen in some areas; 25% occurrence.

• 2 - The practice is commonly found but not the majority of cases; 50% occurrence.

- 3 The practice is very typical with some exceptions; 75% occurrence.
- 4 The practice is everywhere in the plant, no exceptions; 100% occurrence.

4. Sum the scores of the best practice observations for each lean attribute. The total of these scores is divided by the total possible score for that lean attribute to arrive at the lean attribute score.

5. Plot the Lean attribute score for all attributes on the radar chart, this summarizes the output by graphically depicting the plant's adherence to lean best practices. The radar display is useful for showing strengths and weaknesses relative to each lean attribute.

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6. The scores for each lean attribute are also compiled to yield an overall lean manufacturing rating for the facility. This rating reflects the level of lean manufacturing concepts and principles present in the plant at the time the assessment was taken. This overall rating is based on a weighed total score where the score for each category is calculated, multiplied by its weight factor and summed.

## Details of the examined companies

I have examined two Hungarian manufacturing companies. Both of them do their business in the automotive industry in Hungary. They are not SMEs, but I used the same methodology as I would like to use in my research. I think this methodology works in case of every kind company that applies lean thinking. Generally, it was found that each of the companies was in the intermediate stage of lean manufacturing implementation. Many lean tools and techniques have been applied and they were wisely selected based on the problems and expected results. The companies put emphasis on their people and provided training to their employees in order to cultivate them to think in a lean way. This was done in order to have a behavioural and cultural change in the companies. Although hard tools and techniques can improve an operation significantly, soft aspects such as people and culture are equally important in lean manufacturing. Since continuous improvement is the central tenet of lean manufacturing, all the companies admitted that there are still many rooms for improvement.

#### Company A

This company is producing alternators and starter motors for the automotive industry. The company is a part of US based parent company, which is the leading manufacturer of starter motors and generators for automotive industry. The main profile of the examined subsidiary is remanufacturing heavy duty starters & DC motors for vehicle and engine manufacturers, as well as supplying products for the automotive aftermarket.

Thus this company produces hundreds of different types of product; the philosophy and methods of lean management can be adopted in a limited way. Nevertheless this limitation of numerous kinds of lean techniques can be applied in this situation and this company already uses a wide range of lean methods.

Since lean manufacturing was a customer driven initiative, the company is really committed to implement it. There is a lean engineer to organize the lean activities and drive the changes. Structured workshops were the main approach to educate the employees on lean using the modules that have been developed. Operators in production lines were also given training to perform simple improvement at work stations. Points were given to those who gave suggestions and they could exchange the points with small gifts as rewards. However, the company demanded profit sharing when the cost was reduced. Company A also welcomed its suppliers to visit its factory so they could observe and discuss how lean manufacturing works.

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Productivity charts, maintenance records, quality charts etc. were posted on walls to allow the employees to visually understand the current state by just a glance. Lean tools such as 5S, quick changeover, poka-yoke etc. were used to support the company's production system principles and in terms of quality, a few tools such as 5 whys, and jidoka, were used to reduce defects with the purpose to produce good quality products for customers. Operators were empowered to stop the line with lights when there were quality issues. Methods such as Failure Modes and Effects Analysis (FMEA) and Design for Manufacturing (DFM) were also employed in product design. Audits were performed from time to time to gauge the effectiveness of implementing the lean tools and techniques. It was noticed that the company has an improvement of approximately 5% in terms of quality and an increment of 10% in productivity, as compared to the previous year.

#### Company B

Company B is in the electricity load interrupter switcher business. Company B also has a parent company in the United States. This plant produces only few types of products, so mass production characterizes the way of manufacturing. This is the reason why lean philosophy and methods can be really successfully adopted there.

The company is committed to launch lean due to the market call. One part of the reason is that lean manufacturing has been a hot topic since 2000. The company's aim is to produce optimum outputs with minimum resources to improve profits by optimizing humans, machines, and materials. In addition, Company B also desires to have a cultural change that is able to contribute to continuous improvement with lean manufacturing implementation.

The awareness of waste was given great emphasis in order to eliminate the major waste across the organization. The company also asked help from a sensei in Japan. The 1st day visit of the sense gave a good impact to the company as he showed the employees what waste was and where the hidden waste was located. The management team noted down all the findings and started to find ways to improve the situation gradually. Since then, the results were starting to show positive trends. Lean was adopted in areas such as operation, supply chain and office management. The main attention was given to the manufacturing operation which is on electronics assembly processes to achieve high flexibility with optimum outputs. The prerequisite to initiate any program always begins with training to educate the employees. Initially, a few key people were trained by the consultants on the lean subject. The trained personnel then developed their own in-house training program for other personnel. The training started from the director's level and continued layer by layer till the technician level. The company adopted a strong approach that is to push its employees to believe in lean and make improvements. The General Managers and Operation Directors play an active role in lean as they act as the kaizen leaders. It is believed that when top hierarchy managers lead a project, their subordinates will have to follow the orders and instructions given by them.

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Many lean tools and techniques have been put into practice such as load leveling, standardized work, supermarket, poka-yoke, andon, quick changeover etc. Manufacturing lines were arranged in a modular form to increase flexibility. In addition, setup time was reduced by quick changeover. The assembly operation applied the single piece flow concept to decrease the inventory level and maintain the quality of products. Basically, industrial engineering tools were widely used in the operation and the focus was to find the waste and eliminate it. A significant change that occurred was production scheduling is now based on a schedule board at the production floor.

This is done in a single piece flow line where the operators proceed from machine to machine, taking a component from one machine and load it into the next. In other words, the operators are required to work in multiple stations in one line, thus less manpower is needed. Other than that, materials were delivered straight to the point of use in small lots through kanban cards.

#### **Results and discussion**

Lean manufacturing has been implemented between 4 and 6 years in the case companies. Generally, they started lean manufacturing as it was a top down directive mainly to reduce cost in order to stay competitive and survive in the market. Since there is no standard way to implement lean manufacturing in Hungary, different companies adopted it in distinctive ways.

The top managers of the companies are committed to and serious in adopting lean manufacturing. They place particular emphasis on making lean a company-wide culture and do not take it just as a program of the season. They also play an active role in lean activities. Trainings and workshops are necessary in order to spread lean across the organizations. Employees need to understand the fundamentals and concepts of lean manufacturing. Trainings were given according to their needs and responsibilities in order to train them to be more aware of wastes. It is learnt that in order to be successful in lean, the key factors are the employees. There is a company which applied a persuasive approach while there is also another company that used forceful approaches to get everybody in the organization to participate in lean projects.

There were obstacles during the lean implementation process. People's mindsets were the major obstacle as they were inclined to resist changes. They appeared to backslide to the old working methods. For that reason, simulation games were introduced to the employees during the training workshops in order to promote a better understanding of lean manufacturing. When the pilot run is successful, employees can learn the difference between lean and non lean systems. As they notice the benefits and are convinced that lean manufacturing can help them, they will start to develop enthusiasm to achieve it. In order to move forward, commitment from top level managers is crucial. They have to drive the initiative and conduct trainings so that the thinking of the employees could be changed.

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Figure 1. The results of the lean assessment in case of Company A and Company B

Lean manufacturing requires huge investments in time and discipline. It takes tremendous effort to implement various tools. For a starter, a good mentor that could guide and coach the lean team is desirable as he could share his experience and understanding of lean. It is advisable to start with a pilot run on a product line or similar product family to observe the drawback when implementing lean. Team members and managers should go to the production floor to observe the real situation and address the problems through discussion. Standardized work is a must, followed by review to assess the progress and effort to continuously improve the whole value stream.

Commitment and strong willingness from the board of directors to take part directly in the activities such as giving suggestions and support on the shop floor are crucial. They also need to motivate and challenge the employees to change for the better. A common metric should be created for all departments to measure the progress of lean manufacturing implementation. I think it can be seen that both of these companies are on the lean journey but with improving their processes using the lean methodology, they can be even better.

### Conclusions

Assessing and comparing the level of the applied lean management could be a very useful way in terms of the continuous improvement. To study best practices and development processes is always a good way to move forward. In my future research I would like compare as many manufacturing companies as I can, and using this methods I think it is possible. Naturally I wouldn't like to just compare the companies but my plan is to assess their development in case of companies where it is possible. If I can do this assessment in every 4-6-8 months for one or two years I could follow the lean development of the examined companies. The radar diagrams clearly show which areas are performing quiet good, and which areas need treatment and development; I would like to show how much lean philosophy and methods are implemented in the industrial sectors and a make comparison in each sector.

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