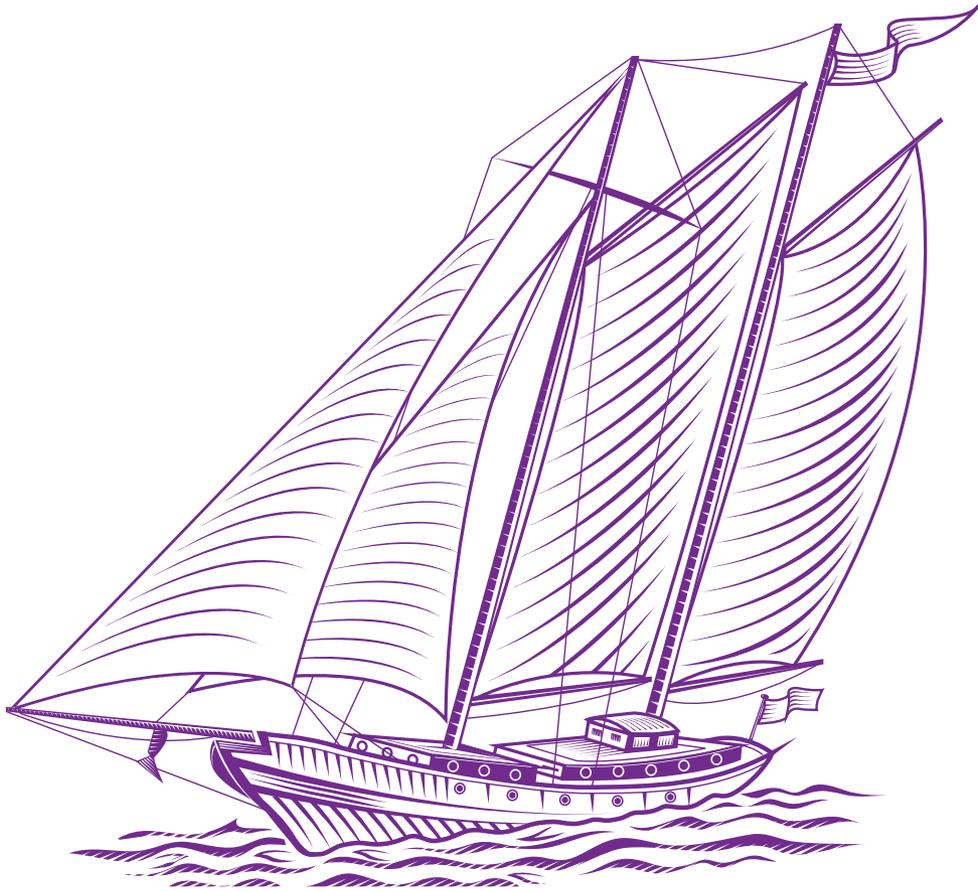




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## **BUSINESS STRATEGY, STRUCTURE AND ORGANIZATIONAL PERFORMANCE**

**CORINA GAVREA<sup>1</sup>, ROXANA STEGEREAN<sup>2</sup>, LIVIU ILIEȘ<sup>3</sup>**

**ABSTRACT.** Organizational structure and competitive strategy play an important role in gaining competitive advantage and improving organizational performance. The objective of this paper is to examine how organizational structure and strategy affects firm performance within a sample of 92 Romanian firms. The data used in this study was collected through a questionnaire used to quantify the three variables of interest: organizational performance, strategy and structure.

**Keywords:** *organizational structure, strategy, organizational performance*

**JEL Classification:** G30, M10

### **I. Introduction**

Organizational performance is one of the most important constructs in management research and without a doubt the most important indicator of the organizational success.

Organizations have a significant role in our lives and therefore, successful organizations represent a key ingredient for developing nations. Thus, many economists consider organizations and institutions similar to an engine in determining the social, political and economic progress. Precisely for this reason, in the last 22 years, there were 6 Nobel prizes awarded to researchers who have focused on the analysis of organizations and institutions.

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Although the concept of organizational performance is very common in the academic literature, its definition is difficult because of its many meanings. For this reason, there isn't a universally accepted definition of this concept.

In the '50s organizational performance was defined as the extent to which organizations, viewed as a social system fulfilled their objectives (Georgopoulos and Tannenbaum, 1957:535). Performance evaluation during that time was focused on work, people and organizational structure.

Later in the 60s and 70s, organizations have begun to explore new ways to evaluate their performance so performance was defined as an organization's ability to exploit its environment for accessing and using the limited resources (Yuchtman and Seashore, 1967:379).

The years 80s and 90s were marked by the realization that the identification of organizational objectives is more complex than initially considered. Managers began to understand that an organization is successful if it accomplishes its goals (effectiveness) using a minimum of resources (efficiency). Thus, organizational theories that followed supported the idea of an organization that achieves its performance objectives based on the constraints imposed by the limited resources (Lusthaus and Adrien, 1998 after Campbell, 1970). In this context, profit became one of the many indicators of performance.

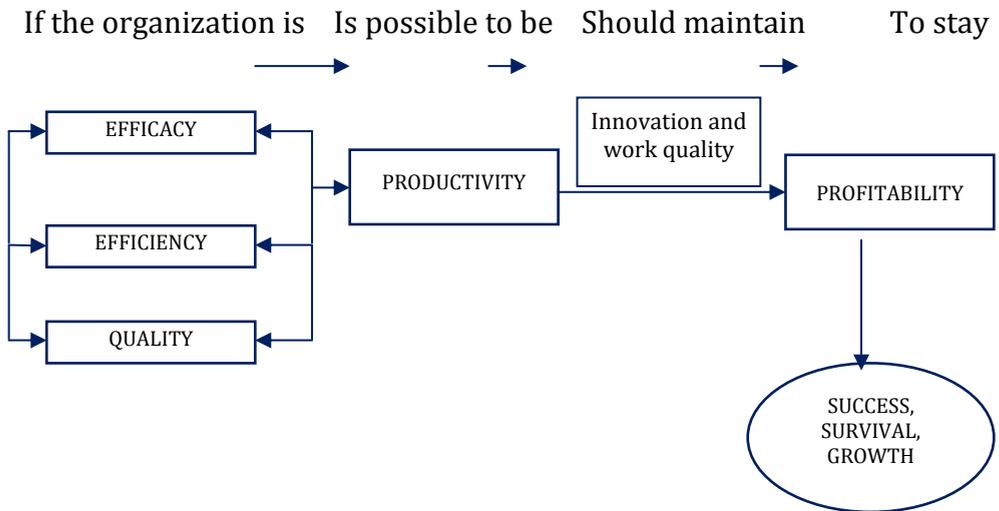
The paper is organized as follows: the second section presents a literature review meant to identify the criteria and determinants of organizational performance used a theoretical framework for our empirical study; the third section presents some general characteristics on two variables of interest: strategy and structure; the fourth section presents data collection and the results of our study and finally the last section presents the concluding remarks of the study based on the results obtained.

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

In order to be successful an organization should focus on effectiveness, efficiency and quality. If these criteria are met, the result will be a productive and profitable organization. The relationship between these three criteria of organizational performance is illustrated in Figure 1.

The quality of work and innovation can serve as moderators having a positive or negative impact on performance.

Organizational performance is a relative concept referring, in general terms, to an organization's ability to generate future results. Regardless of how or why this concept is defined, organizational performance depends on how the organization is managed. For this reason, organizational performance is a common theme in management research and arguably the most important way of measuring the organizational success.



**Figure 1. Relationship between organizational performance criteria**

*Source: Sink and Tuttle 1989: 32*

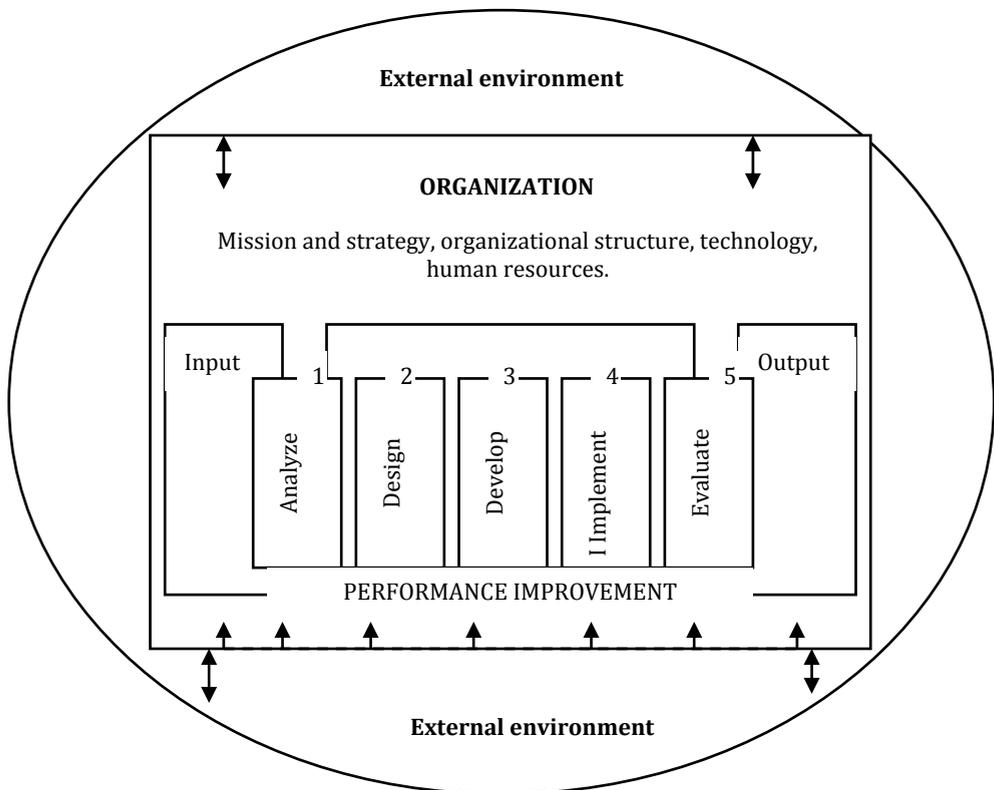
The vast majority of theorists and practitioners agree with the idea of the need for a systematic process to carry out efforts to improve organizational performance. They also believe that the overall performance improvement process should be composed of five phases: analysis, design, development, implementation and evaluation (Swanson, 1996).

Figure 2 illustrates the performance improvement process based on the major elements of the organizational system. In this graphical illustration the external environment is highlighted through the factors

that influence the manner in which an organization conducts business, the organization itself being illustrated by the mission and strategy, organizational structure, technology and human resources (Swanson, 1996 *after* Tichy, 1983).

Performance improvement is illustrated as a process that interacts with other processes taking place in the organization - marketing, production, distribution, research and development.

Analysis - is the first step in the process of improving organizational performance, considered by many authors as the most important one. The most important activity of this stage is, according to Swanson (1996), the diagnosis or the measurement of the current performance.



**Figure 2. Performance improvement model**

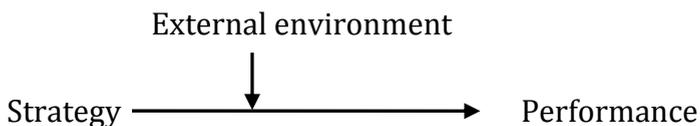
Source: Swanson, R: 1996: 20

In addition to the analysis phase, the process of performance improvement includes other steps such as: design, development, implementation and evaluation. The first stage defines the framework for the whole process of performance improvement. For this reason, this stage should be treated with the utmost care, its quality depending on the quality of the other four stages.

Based on this framework we will concentrate the rest of this paper on two factors assumed to have an impact on organizational performance, more specifically: strategy and structure.

### III. Strategy, structure and organizational performance

**Strategy.** The strategy is reflected as a separate variable in many organizational models (Waterman et al., 1980; Burke & Litwin, 2001; Kates & Galbraith, 2007). The empirical studies which have examined this dimension can be divided into two categories: studies that look at the impact of strategy on organizational performance and studies that analyze the relationship between strategy and business performance measurement in organizations. The former was analyzed by Prescott (1986) who examined the relationship between an organization's strategy and its performance. This study used a database that included 1,500 firms between the years 1978-1981. According to this study, business strategy significantly influenced performance, external environment having the role to mitigate the effects of strategy on performance.



We can observe that the external environment is acting as a moderating variable having an impact on the direction of influence or the significance of the relationship between the two variables: strategy and performance.

**Structure.** The variable structure is very common in organizational diagnostic models (Waterman et al, 1980; Nadler & Tushman, 1982; Burke & Litwin, 2001; Kates & Galbraith, 2007). Also, identifying the effects of organizational structure on organizational performance is among the fundamental questions of the strategy field and organization theory (Csaszar, 2012). This variable was reflected in our model through structural issues related to company size (number of employees), age (years) and through aspects meant to identify the organization of the firm, making reference to flexibility and adaptability of functions and positions. To quantify this dimension we used statements intended to reflect the variable structure from the Organizational Diagnostic Questionnaire developed by Preziosi in 1980.

#### **IV. Data collection and analysis**

##### **A. Data collection**

In order to collect our data and to quantify the variables used in our model we created a questionnaire that was distributed to manufacturing firms registered in the database created by the Chamber of Commerce and Industry: Pro Business Romania 2009. From this data base we selected only the manufacturing firms. Thus, we obtained a sample of 7437 firms. The sample thus formed was reduced by selecting those companies that have a valid e-mail address because questionnaires were sent electronically via e-mail. The number of manufacturing firms that have an e-mail address in this database is 2296. Of these, 272 companies have provided an invalid or inactive e-mail address. This reduced the target population to a number of 2024 companies. The number of companies that have completed the questionnaire totaled to 135 (representing a response rate of 6.6%). Of the 135 questionnaires received, only 92 were considered valid and therefore used in the study.

##### **B. Data analysis**

In a first phase, to ensure a standardization of the results we calculated for each company and each variable of the model an index with values between 0 and 100 (100 representing the highest level of

excellence of the firm for that variable). Based on this index we divided the organizations in two groups (Gavrea et al., 2011):

- successful organizations (the first 30% based on the value of the index);
- unsuccessful organizations (the last 30%).

The *strategy* dimension was reflected in the questionnaire with four statements designed to provide information on the importance of nine issues in developing the strategies. The first element of this dimension is represented by the strategic priorities of firms: price, quality, rapid delivery, flexibility, innovation, low-cost products, product availability, adapting products to customers and products with unique features. To obtain information on these nine strategic categories we used the Likert scale 1-5 (1 not important, 5-very important).

The results of this dimension are illustrated in Table 1.

**Table 1. Strategic priorities**

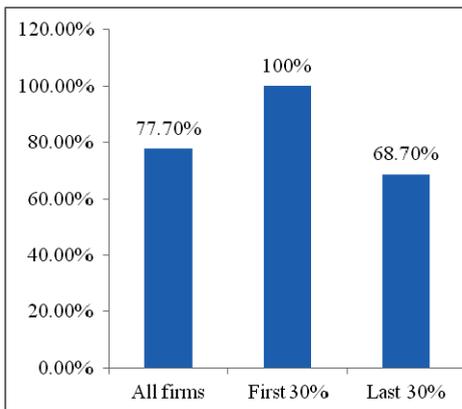
<i>Strategic priorities</i>	All firms (Mean)	First 30% (Mean)	Last 30% (Mean)
1. High quality of goods and services	4.05	4.00	3.81
2. The adaptation of goods and services to customers' requirements.	4.70	4.83	4.25
3. Fast delivery of goods and services.	4.47	4.75	3.88
4. Low production costs.	4.10	4.33	3.31
5. The price of the goods and services.	3.91	4.25	3.25
6. Product availability.	4.01	4.25	3.69
7. Flexibility and ability to change.	3.74	4.42	3.06
8. Innovation (improving production processes).	3.86	4.50	3.50
9. Offering products with unique features.	4.44	4.67	3.69

As shown in Table 1 each of the nine strategic priorities is considered more important by firms in the first category (ranked in the top 30%) compared with the companies in the second category (ranked in the last 30%). More specifically, one aspect that has an average score above 4, thus considered important in developing strategies for companies in the second category (less efficient) is to adapt products and services to

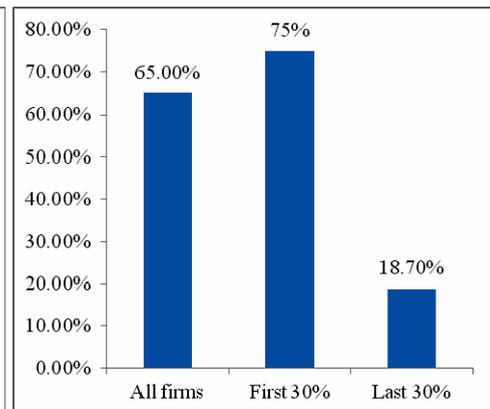
customers' requirements. In contrast, the more successful companies consider each of the 9 aspects illustrated above as important and very important in developing strategies, with an average score above 4.

The second statement of this dimension was designed to identify whether the surveyed firms evaluate on a regular basis the extent to which objectives have been met. The results in this case are positive, about 78% of the interviewed companies are constantly evaluating the extent to which objectives have been met. This statement also highlights the discrepancy between the two types of firms because all firms (100%) ranked in the top 30% constantly assess the extent to which objectives have been met compared to only 69% of firms from the second group. The results of this statement are illustrated in Figure 3.

The results of the last two statements, illustrated in Figures 4 and 5, are less satisfactory. Regarding the strategic planning process, only 65% of the questioned companies have strategies that have been developed as a result of a strategic planning process. This percentage is much lower (18.7%) for companies included in the last 30%.



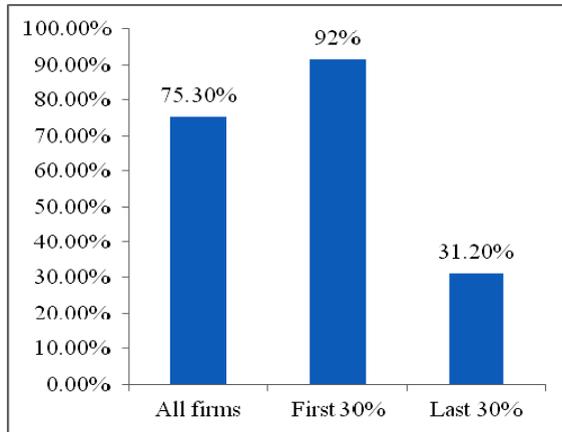
**Figure 3. The extent to which objectives have been met**



**Figure 4. Strategic planning process**

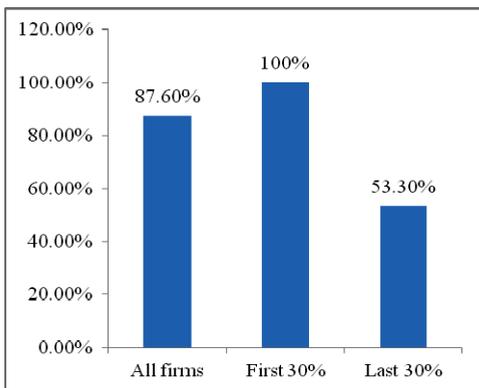
Figure 5 illustrates the answers to the question: Is there a clear strategy that guide the firm's programs and strategies in the context of its mission and vision? From the graphical representation we can observe

that 73.3% of all firms gave an affirmative answer to this question. This percentage is much higher (92%) for firms ranked in the first 30% compared to firms ranked in the last 30%.

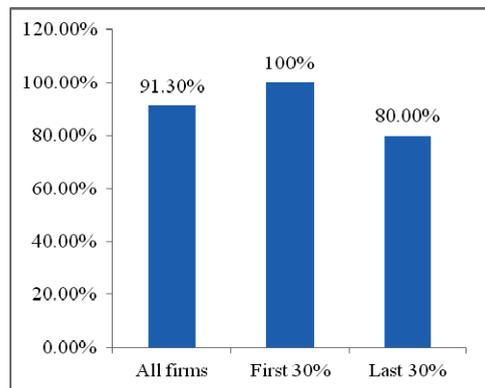


**Figure 5. Clear strategy that guide the firm’s programs and strategies in the context of its mission and vision**

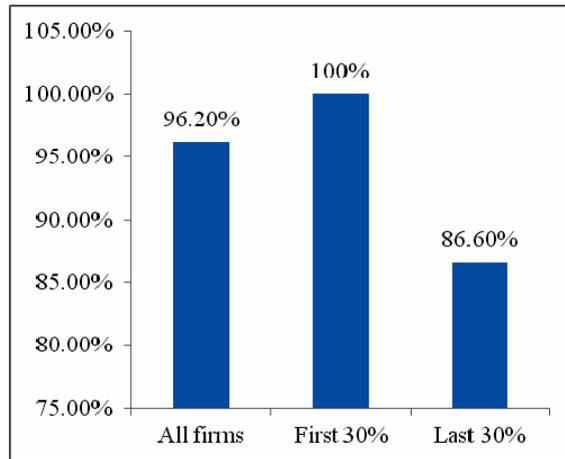
The *structure* dimension was reflected in the questionnaire with three statements: clarity in defining the authority and responsibility lines, the clarity and responsibility of tasks and the extent to which the distribution of tasks within the surveyed firms contribute to reaching the firm’s objectives. The results of this dimension are illustrated in Figures 6, 7 and 8.



**Figure 6. Clarity of the authority lines**



**Figure 7. Tasks clarity and flexibility**



**Figure 8. The extent to which the distribution of tasks contribute to reaching firm's objectives**

As shown in these graphical representations, the results are favorable not only overall but also for each category of firms. More specifically, the majority of the surveyed firms considered the tasks within the company to be flexible, clearly defined and assigned to contribute to reaching the objectives.

To illustrate the relationship between strategy, structure and organizational performance we conducted an analysis based on the simple OLS. The results are presented in Table 2. We used as control variables the size of the firm quantified by the number of employees and the age of the firm quantified by the number of years since the firm was born.

**Table 2. Regression results**

	<b>(Model 1)</b> Overall Performance	<b>(Model 2)</b> Financial performance	<b>(Model 3)</b> Nonfinancial performance
Size	1.22**	0.88*	2.42**
Age	0.11	0.172	0.75
Strategy	0.024**	0.135**	0.39**
Structure	-0.26	-0.139	0.67*
N	92	92	92

\* Correlation is significant at the level  $p < 0.05$ .

\*\* Correlation is significant at the level  $p < 0.01$ .

As shown in Table 2, the dimension structure has a significant and positive impact on the overall performance. The significance of this variable is maintained when the organizational performance is divided into the two components: financial and nonfinancial performance.

The structure has a significant impact only on the nonfinancial performance.

## **V. Conclusions**

Continuous performance is the objective of any organization because only through performance organizations can grow and progress.

The object of this paper was to identify the relationship between strategy, structure and organizational performance within a sample of 92 Romanian manufacturing firms. This work contributes to the vast literature on organizational performance by confirming the hypothesis that a competitive organizational strategy has a positive and significant impact on firm performance.

The subjective character of this study resulted from the use of opinion questionnaire is understandable considering the fact that organizational structure and competitive strategy cannot be measured using objective data.

## ***Acknowledgement***

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# COMPETITION POLICY IN THE EUROPEAN UNION: THE LIDL/ PLUS ACQUISITION CASE IN ROMANIA

NICOLAE MARINESCU<sup>1</sup>, GEORGE FLORIN VASILUTA<sup>2</sup>

**ABSTRACT.** In the context of a growing Romanian retail market in recent years, we analyse the acquisition of retail chain Plus by discounter Lidl, finalised in 2010. The subject is treated from the perspective of EU competition policy. We begin with a literature review on the main concepts used in competition policy and the major provisions of competition law in the EU. In section 2 we examine the involved parties in the concentration, namely Plus and Lidl. The starting hypothesis is that the concentration sets the stage for a potential dominant position able to distort effective competition in the EU and Romania. Section 3 comprises the detailed analysis of the case. First, we identify the dimension of concentration. Further, we calculate specific market concentration indicators, such as the concentration ratio and the Herfindahl-Hirschman index. We also determine the relevant market in product and geographical terms. Finally, we investigate the possible effects of the concentration on competitors, suppliers and consumers. We find that the acquisition of Plus by Lidl in Romania does not erect significant barriers to effective competition, by means of a dominant position. Also, the deal does not impede access to sources of supply and has no obvious detrimental effects on consumers.

**Keywords:** *competition policy, acquisition, relevant market, concentration ratio, Herfindahl index*

**JEL Classification:** L4, L81

## 1. Specific features of competition policy in the EU

Competition policy might be defined as the set of policies and laws which ensure that competition in the marketplace is not restricted in a way that is detrimental to society (Motta, 2008). In general, competition

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policy aims to promote competition and to control abuses of market power by firms. More specifically, competition policy may seek to increase efficiency, promote innovation, or improve consumer choice (Lipczynski et al., 2005).

Competition policy usually includes three types of actions: monopoly positions, mergers and restrictive practices. In the first case, authorities look after the firm in a monopoly position to not abuse its dominance, in the second case mergers and acquisitions are investigated that may lead to a dominant position and in the third case actions where doubts are raised about the correctness of the competitive behaviour of firms are analysed.

The competition regime of the EU can be both widely and narrowly defined. In the wider conception it would refer to all provisions dealing with private and public distortions of competition in the internal market. In a narrow conception, however, the removal of barriers via liberalisation and joint regulation is ignored and competition policy refers merely to the total set of provisions governing public and private behaviour affecting the competitive process in the internal market (Pelkmans, 2006).

The prime purpose of competition policy is to promote and maintain a process of effective competition so as to achieve a more efficient allocation of resources (Vickers and Hay, 1987). The objective of the competition policy of the EU is to prevent companies and national governments from distorting competition between the member states by use of restrictive agreements, cartels, abuse of market power and state aids (Harris and McDonald, 2004). As Motta (2008) observes, initially, competition was intended as a way to promote economic progress and the welfare of European citizens. Today, the main objectives of competition policy as enforced by the EU are most probably economic efficiency and European market integration.

Competition policy is based on the assumption that any action that reduces or restricts competition within the EU is potentially harmful. However, it is recognised that restrictions of competition that lead to benefits such as economies of scale, increased choice of goods and services or improvements in the technical competence of companies may be permitted, providing that the benefits are greater than the costs associated

with the decline in competition. The competition policy is based on a cost-benefit approach rather than a rules-based approach (Harris and McDonald, 2004).

This has led in time to several controversies as the European Commission investigates operations on a case-by-case basis according to the real or potential prejudices that are discovered. Interests of producers and consumers are both divergent and convergent though, thus the balance that has to be struck is very sensitive.

Even if competition policy in the EU has its roots in the US antitrust law, its scope is larger, encompassing the competitive behaviour of private companies as well as government intervention through subsidies or liberalisation of public utilities. However, given the purpose of this paper, we will focus on the part concerning private firms.

EU competition policy has developed with the rise of the Single Market to prevent illegal arrangements between companies or massively distorting governmental interventions. The necessity of common rules is meant to create and maintain a non-discriminatory base of the Single Market, so that policies applied should be consistent throughout the EU economy. Competition policy in the EU has not replaced specific policies of member states. It only regulates competition at Community level, while national policies are applied to actions between firms operating at national level, by means of a Competition Council.

In accordance with the principle of subsidiarity, the scope of competition laws is confined to firms based in EU member states that trade in other EU states. These articles do not apply to the activities of domestic firms trading within the domestic market (Lipczynski et al., 2005). The investigations of the European Commission may apply to companies from third countries though, if their respective actions may distort or influence negatively competition in the Single Market. As a consequence to a violation of competition policy, the amount of the fee charged is limited to maximum 10% of the turnover of the firm, but reductions from 10% to 100% are granted to those companies that supply essential information meant to solve the case.

The legal basis for EU competition policy directed towards private firms is set in Art. 81 and 82 from the Treaty of Amsterdam, prohibiting concerted practices and abuse of a dominant position respectively, and the Merger Regulation 139/2004. According to the scope of this paper we will stick to the last two norms.

Economic theory offers little guidance as to what is meant by a dominant position of a kind which could be of substantial help in framing a legal definition (Cini and McGowan, 1998). This is not a rigid concept and the Commission has used in this process two pillars. One is the relevant market and the second is market power, reflecting quantitatively and qualitatively the status of a firm which enables it alter the competitive game (Miron, 2004).

Essentially, dominant position means the power of a firm to restrict effective competition on the relevant market by acting independent of competitors and customers.

To determine if a firm finds itself in a dominant position, one has to identify the relevant market and evaluate the market power of the respective firm, which is done by analysing several indicators, most of them based on market share.

Competition laws in the EU prohibit only the abuse of a dominant position, not its creation, promoting firms to develop. Once a company has attained such a position, it becomes subject to restrictions. It can no longer engage in aggressive competitive practices, while smaller competitors can.

The Merger Regulation enables the EU to investigate, limit or even prohibit acquisitions, mergers and alliances that may harm competition in the EU. The criteria that have to be met for such a deal to have Community dimension instead of a national dimension are (Mercado et al., 2001):

- the combined turnover of all parties is in excess of EUR 5bn;
- the aggregate EU-wide turnover (of each of at least two of the companies) is in excess of EUR 250million;
- each of the companies concerned generates no more than two-thirds of its aggregate EU-wide turnover in one member state.

The European Commission approves a merger or acquisition on a simplified basis if cumulative market shares of the involved parties are below 15% in horizontal concentrations and below 25% in vertical concentrations.

By concentration we understand the increase in the size of a firm, of its capacity, of its resistance to external shocks and to competitive pressures, meaning essentially an increase in capital (Gavrilă and Gavrilă, 2008).

Starting with 1 May 2004, EU competition policy has been reformed to eliminate past administrative shortcomings and its rather inefficient way to tackle powerful cartels. Firms are not obliged anymore to notify their association arrangements prior to their action. Instead of notification, the European Commission may accuse companies for anti-competitive behaviour based on complaints sent by companies or following own investigations. Thus, the Commission can concentrate on the larger cases that violate EU competition rules, avoiding routine operations. The reform, which includes mergers, brings increased transparency and a better interaction between the Commission and the firms involved.

## **2. Methodology and description of the involved parties**

The methodology used for research is based on the primary and secondary legislation of the EU in terms of competition policy with a focus on the relevant articles from the Treaty of Amsterdam and Merger Regulation No. 139/2004.

Besides legal sources, data was gathered from primary and secondary sources of information, reports, studies, business press, European and Romanian practices in the competition area, involvement of the regulatory authorities (European Commission, Competition Council), as well as empirical observations of the participants in the competitive game.

In the analysis of the Lidl/Plus case, presented in the next section of our paper, we start from the hypothesis that the acquisition has created a concentration that has led to a potentially dominant position, with distorting effects on the competitive environment at EU and Romanian level.

The demonstration of such an outcome is a problematic task. Hence, the argumentation supposes in each case a detailed analysis of the concentration. In this process we identify first the involved parties, the dimension of the concentration and the particularities of the competitive context in which the acquisition of Plus by Lidl has taken place. For this matter we use instruments such as specific market concentration indicators (concentration ratio, Herfindahl index), calculated according to the practice of the European Commission and the Romanian Competition Council. Further, we determine the relevant market in product and geographical terms and we estimate the market power of the resulting company. This enables us to derive from the analysis the effects of the concentration on competition, on suppliers and on consumers.

We will start by describing the parties involved in the concentration, namely Plus and Lidl, revealing the major steps of their expansion to pinpoint the perspectives of the newly resulted company on the Romanian market.

Plus is a German retail chain, part of the Tengelmann Group, which owns 7,500 stores in 16 countries. Other divisions of the Group include OBI, A&P, kik, Kaiser's Tengelmann and Interfruct. The first Plus store opened 1972 in Duisburg, Germany. In 2009 Plus owned 4,100 stores in nine European countries. Plus entered the Romanian market in 2005 and expanded rapidly in most Romanian cities.

Lidl, having opened its first store in 1973, is a German retailer, part of the Schwarz Group, the 5th largest retailer in the world, with sales of \$82.4 billion in 2011. The discount supermarket chain operates more than 10,000 stores in over 20 European countries<sup>3</sup>. Lidl founded its first company in Romania 2003, but the Schwarz Group fuelled in the first years only the development of the Kaufland retail chain, also part of the Group.

In February 2010, Tengelmann sold the Plus chain in Romania with its 107 stores to the international Group Lidl&Schwarz, in a deal valued at approx. EUR 80million<sup>4</sup>. Thus, the name of the new entity became

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<sup>3</sup> <http://supermarketnews.com/archive/sns-top-25-worldwide-food-retailers-0>;

<sup>4</sup> [www.ebotosani.net/2011/01/20/magazinele-plus-devin-lidl-in-maxim-o-luna](http://www.ebotosani.net/2011/01/20/magazinele-plus-devin-lidl-in-maxim-o-luna);

Lidl Discount SRL. It took almost 10 months for the Competition Council to approve the deal.

The rebranding from Plus to Lidl started at the beginning of 2011, without closing the stores. All the employees were kept while inner design and parking lots were refreshed. The new logo and concept were displayed starting June 2011. Lidl continued the nationwide expansion, planning to reach 200 stores by 2012<sup>5</sup>.

### **3. The analysis of the Lidl/Plus acquisition**

In order to analyse the extent to which the expansion of Lidl (and the Schwarz Group) may generate a dominant position on the local market, thus potentially inclined to abuse its position and impede effective competition, it is necessary to determine the size of this concentration.

First of all, considering the financial results for 2009, the year prior to the deal, we will investigate if the acquisition of Plus by Lidl is compliant with the Single Market, according to the criteria of Merger Regulation No. 139/2004.

The global turnover of the two companies involved exceeds EUR 5bn. Lidl alone reported a total turnover of EUR 37.7bn in 2009<sup>6</sup>. Also, both companies generate sales of at least EUR 250million inside the EU: Lidl's European sales amounted to almost EUR 37bn. in 2009, while Plus reported sales in Romania of EUR 308.6million (Finmedia, 2010).

As both conditions are fulfilled according to the competition policy of the EU, the deal is considered to have Community size. Thus, proper approval by the European Commission is needed. The proposed deal was notified to the Commission on 05.05.2010 under number „COMP/M.5790 – LIDL/PLUS ROMANIA”, on the basis of Merger Regulation No. 139/2004. The notification became effective on 22.09.2010.

Following a preliminary investigation, the Commission asserted that the acquisition might distort competition in the Romanian retail sector, but that the Romanian market „displays all characteristics of a

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<sup>5</sup> [www.retail-fmcg.ro/retail/retail-national/lidl-romania-preconizeaza-ca-va-ajunge-la-un-numar-de-200-de-magazine-in-acest-an.html](http://www.retail-fmcg.ro/retail/retail-national/lidl-romania-preconizeaza-ca-va-ajunge-la-un-numar-de-200-de-magazine-in-acest-an.html);

<sup>6</sup> [www.igd.com/index.asp?id=1&fid=1&sid=7&tid=26&cid=232](http://www.igd.com/index.asp?id=1&fid=1&sid=7&tid=26&cid=232).

distinct market and does not consist in a significant part of the Single Market” (Art 9(2)(b) of Merger Regulation). As such, the Commission transferred the deal for analysis and resolution to the Competition Council in Romania (see Consiliul Concurentei, 2010).

To analyse the potential adverse effects of a concentration, one needs to identify the relevant market, in product and geographical terms. The dominant position of the Schwarz Group could be created and abused by the fact that through the acquisition of the Plus chain, its position on the Romanian market is significantly consolidated when considering the other division owned by the Group, namely Kaufland.

As products are concerned, Lidl sells 70% own or exclusive products while 30% are branded products. The Kaufland hypermarkets sell a complex variety of products. From a total 15,000 goods on display, only about 1,000 are own brands<sup>7</sup>. Additionally, Kaufland hosts some specialized stores in the same building.

Geographically, discount stores such as Lidl are located inside the cities, while hypermarkets such as Kaufland are positioned in the outskirts of cities, customers getting access to them mainly by car.

On these grounds, we can identify the relevant product market as being essentially *the retail market for consumer goods by means of modern chain stores (supermarkets, hypermarkets and discounters) as well as traditional stores*.

This is consistent with the analysis of the European Commission prior to relocating the case to Romania, who found that the retail market in Romania should include groceries and neighbourhood stores to reflect real life accurately. Discounters are considered to compete with other forms of retail in the EU as well as in the Romanian regulations. The cash & carry format of trade is not included by the European Commission along the other forms of retail in the relevant market as it is mainly directed towards other firms, not towards final consumers.

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<sup>7</sup> [www.magazinulprogresiv.ro/articol/1101/Lidl\\_manual\\_de\\_utilizare.html](http://www.magazinulprogresiv.ro/articol/1101/Lidl_manual_de_utilizare.html);

By transferring the Lidl/Plus case to the Competition Council in Romania, the European Commission has established that the potentially endangered market is the local one, represented by the geographic territory of Romania.

In the working manner of the Competition Council the relevant geographic market for retail has been defined as *the area around the acquired stores that can be covered by car in maximum 30 minutes*. This definition is confirmed by the practice of the European Commission. The relevant market for mainly food products is essentially a local one, easily accessed by consumers.

The concentration has to be analysed considering the Romanian retail market for consumer goods. This stood at the end of 2010 at approx. EUR 16bn, but letting aside cash & carry chains, total sales on the relevant market reach EUR 11.36bn.<sup>8</sup>

To investigate the effects of the deal on the competitive environment, we will determine market shares and calculate some relevant indicators for the degree of competition on the Romanian retail market.

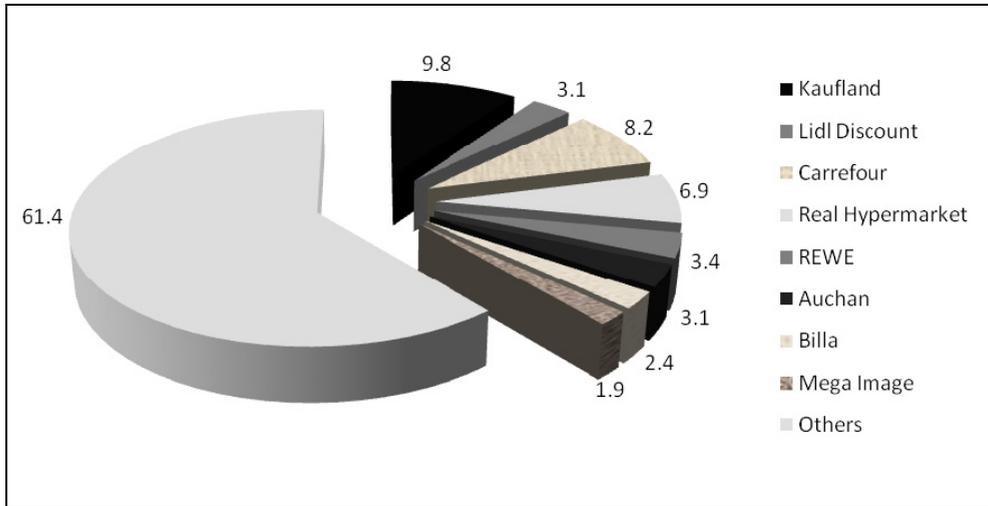
Market shares offer only some incomplete clues about the position of the Schwarz Group, after the acquisition of Plus stores. At EU level, the interpretation of market shares is done also considering the business environment, e.g. when the market is very dynamic. Thus, we will apply a simplified procedure for analysing the market shares that have resulted following the concentration, in order to seek a potential dominant position for the Schwarz Group.

Figure 1 presents the market shares of the eight largest retailers in Romania, excluding cash & carry chains (e.g. Metro, Selgros), as they were not included in the relevant market.

We observe that the cumulative market share of the Schwarz Group on the Romanian market through its Kaufland and Lidl divisions stands at 13%. This value is under the 15% mark taken into account by the competition policy of the EU.

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<sup>8</sup> [www.business24.ro/articole/fmcg](http://www.business24.ro/articole/fmcg).



**Figure 1: Market shares of the largest retailers in Romania, in 2010**

**Source:** The authors' compilation based on Finmedia data, 2011

Thus we can preliminary conclude that the horizontal acquisition deal of Plus by Lidl does not influence the market in a significant manner. It doesn't threaten to erect barriers to effective competition and may be presumed compliant with a fair competitive environment. However, the analysis of the position of the investigated companies must be completed though with information about market structure to identify accurately the possibility of engaging in a dominant behaviour.

To determine the degree of competition on the relevant market we will calculate two different indicators, based on market shares.

The standard tools of competition authorities to measure market concentration are the Herfindahl-Hirschman index (HHI) and the concentration ratios (CR<sub>n</sub>).

The concentration ratio is a measure of the total output produced in an industry by a given number of firms in the industry. The most common concentration ratios are the CR<sub>4</sub> and the CR<sub>8</sub>, which measure the percentage of market share held by the four and the eight largest firms in an industry. Concentration ratios are usually used to show the extent of market control

of the largest firms in the industry and to illustrate the degree to which an industry is oligopolistic. They do not use the market shares of all the firms in the industry and do not provide the distribution of firm size.<sup>9</sup>

The concentration ratio is calculated with the formula:

$$CR_n = \sum_{i=1}^n S_i$$

where  $n$  represents the number of companies and  $S_i$  the market share of the top  $i$  companies in the relevant market.

The most widely used concentration ratios are  $CR_4$  and  $CR_8$ . In our case, for 2010 the resulting concentration ratios are:  $CR_4 = 27.85\%$  and  $CR_8 = 38.61\%$ .

Thus, for the retail sector of consumer goods, taking into account the eight largest retailers, the ratio stands at  $CR = 38.61\%$ . Other traditional and modern retail stores make up the remaining 61.39% of the relevant market.

According to the European Commission, concentration ratios range from 0% to 100%. The levels reach from no, low or medium to high or even total concentration. No concentration (0%) means perfect competition. Low concentration (0% to 50%) ranges from perfect competition through monopolistic competition to oligopoly. Medium concentration (50% to 80%) is usually an oligopoly. High concentration (80% to 100%) is a concentrated oligopoly, if  $n > 1$  and a monopoly if  $n = 1$ .

Thus, we can assert that the relevant market has a low concentration. The value of the concentration ratio found in our case indicates that retail in Romania is still very fragmented, with  $RC_8 = 38.61\%$ , so that there is enough space for new entrants.

In comparison, in Eastern European countries such as Poland, Slovakia and the Czech Republic, the concentration level reaches 50-70% for the top ten retailers<sup>10</sup>.

The other indicator that we will determine is the Herfindahl-Hirschman index (HHI), which represents the sum of the squares of the market shares of all the companies within the relevant market. It gives

<sup>9</sup> [http://en.wikipedia.org/wiki/Concentration\\_ratio](http://en.wikipedia.org/wiki/Concentration_ratio).

<sup>10</sup> [www.revistabiz.ro/retailul-face-toti-banii-498.html](http://www.revistabiz.ro/retailul-face-toti-banii-498.html);

more weight to companies with a higher market share and provides a more complete picture of industry concentration than does the concentration ratio. It is a measure of the size of firms in relation to the industry and an indicator of the amount of competition among them.<sup>11</sup>

The HHI index is the most widely used indicator for market concentration by competition authorities.

The Herfindahl-Hirschman index is calculated with the formula:

$$HHI_n = \sum_{i=1}^n S_i^2 * 100$$

where  $n$  represents the number of companies and  $S_i$  is the market share of company  $i$  in the relevant market.

In our case, for 2010 the resulting HHI index for the 8 largest companies in the retail sector is:  $HHI = 249.2$ .

The HHI ranges from 0 to 10,000, moving from a large number of small companies to a single monopoly. Even though there are no clear and unanimously accepted levels for its separation on degrees of concentration, the European Commission considers three thresholds:  $HHI < 1000$  for low concentration,  $HHI$  between 1000 and 2000 for medium concentration and  $HHI > 2000$  for high concentration<sup>12</sup>.

The value found for the Romanian market displays a low concentration level. The small index indicates a competitive industry with no dominant players, and as such, the absence of worries of competitive nature.

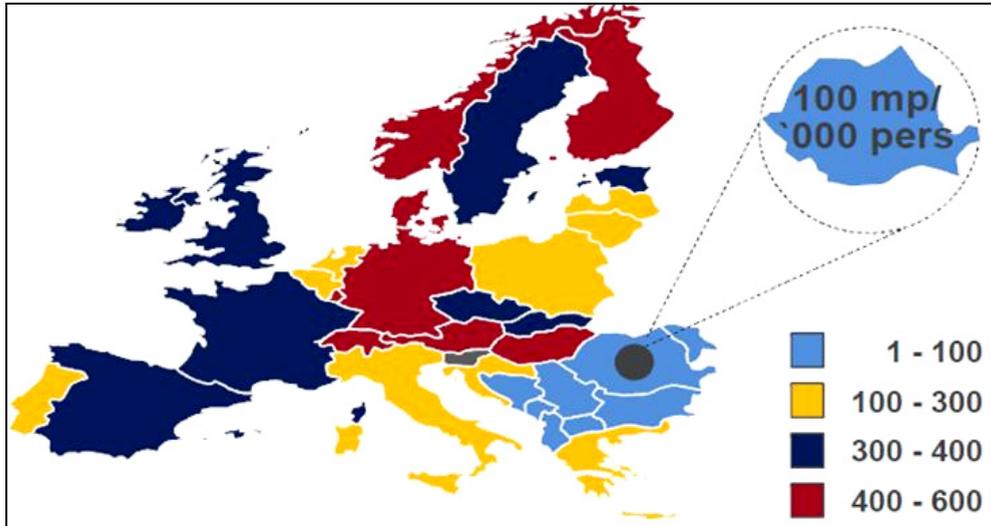
Both the concentration ratio and the Herfindahl-Hirschman index together with the high growth rate of Romanian retail in recent years demonstrate that the Romanian market is a dynamic one, far from being saturated.

Additionally, if we take into account the effective number of stores as well as the density of the sale space, one can observe a significant difference between the Western and the Eastern European markets (see Figure 2).

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<sup>11</sup> [http://en.wikipedia.org/wiki/Herfindahl\\_index](http://en.wikipedia.org/wiki/Herfindahl_index);

<sup>12</sup> [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004XC0205\(02\):EN:NOT](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004XC0205(02):EN:NOT).



**Figure 2: Sale space per capita in Romania and Europe, 2010**

**Source:** Contrast Management Consulting, 2011

Considering modern sale spaces, Romania lies well below the average of developed EU members, with a sale space per capita of less than 0.10 sqm (see also Figure 2). This offers a golden opportunity for a continuous geographical expansion in the retail sector.

These observations underline the idea that the distortion of competition through the acquisition of Plus by Lidl is highly unlikely. A fragmented market with a high growth potential such as the Romanian retail sector, makes the domination of a single retailer extremely difficult.

- *Effects on competition*

An important element to consider when investigating a concentration case is the degree to which the involved parties are positioned close to each other and to other competitors. Analysing the distribution chain of the investigated parties in comparison with that of the most important competitors, we will determine the efficiency of stores measured by turnover per sqm of sale space (see table 1).

**Table 1: Top 5 retailers in Romania ranked by turnover per sale space, 2010**

Rank	Company	Average sale space (sqm)	Number of stores	Total sale space (sqm)	Turnover (EUR million)	Turnover/total sale space (EUR/sqm)
1.	Rewe	625	142	88,750	384.44	4,332
2.	Real	7,500	24	180,000	779.13	4,329
3.	Kaufland	6,000	53	318,000	1,109.51	3,489
4.	Lidl	1,050	134	140,700	344.72	2,450
5.	Carrefour	8,000	48	384,000	930.86	2,424

**Source:** The authors, compiled from business press and Contrast Management Consulting, 2011

We observe that Kaufland and Lidl rank 3rd and 4th by sales per sqm, with two competitors faring better in this respect.

As mentioned in the previous chapter, Lidl and Kaufland, although they belong to the same Group, don't follow the same business model. Lidl (Plus included) operates as a discounter located close to the consumer, with a limited range of products (up to 1,500) and a relatively small sale space (800 – 1,300 sqm). Kaufland instead operates hypermarkets with a sale space of approx. 6,000 sqm, where up to 15,000 various items are offered. It also hosts specialized stores in the same building.

These facts lead us to conclude that the acquisition of Plus by Lidl has not helped the Schwarz Group to a top position in retail. Thus, the ability of the two entities to alter or even control the prices on the market via a dominant position in order to hinder effective competition is highly unlikely.

When investigating similar competition cases, the European Commission took notice, besides the market growth rate, of potential new entrants on the relevant market. Market shares of 45%-55% did not pose competition threats, due to low barriers to entry in the retail sector<sup>13</sup>. From this point of view, the relevant market in Romania has a wide degree of openness and the present development of the market shows

<sup>13</sup> EC Decision from 22.12.2005, Case M.3905: Tesco/Carrefour, in the Czech Republic and Slovakia;

an increase of modern retail in comparison to traditional retail. Barriers to entry are low, fact underlined by the expansion of competitors already present on the market.

Thus, we can assert that the proposed deal does not threaten to erect barriers to effective competition by inducing restrictions to potential entrants and does not lead to creating a dominant position.

- *Effects on suppliers*

Given the strong interdependence between distribution and supply in retail, we will analyse if the acquisition of Plus by Lidl distorts the supply market in any way.

Lidl data suggests that the two divisions of the Schwarz Group, the discounter Lidl and the hypermarket Kaufland operate completely separately. Competition between the two is even encouraged inside the Group.

Lidl has a centralized buying structure, independent from Kaufland. The buying process is coordinated by a central agency in Neckarsulm, Germany, or locally.

Thus, Lidl's entry on the Romanian market will not raise the negotiating power of the Group significantly in relation to suppliers. A strong pressure on suppliers would have appeared if the two companies coordinated their upstream actions. However, Lidl tries to create profit by reducing operational costs rather than boosting sales. This forces suppliers to be efficient.

At present, Lidl buys the majority of the products it offers at international level. Imported goods from the EU are purchased directly by the company, based on price and transport costs after an annual negotiation takes place, usually every autumn. Local products are bought solely for a minimum quantity or where large taste differences prevail and products have to be fresh.

By comparison, in a Kaufland store approximately 80% of products are Romanian, the remaining 20% being imported goods, especially non-food items<sup>14</sup>.

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<sup>14</sup> [http://www.magazinulprogresiv.ro/exclusiv\\_online/56/Marcile\\_proprii\\_intr\\_o\\_noua\\_etapa.html](http://www.magazinulprogresiv.ro/exclusiv_online/56/Marcile_proprii_intr_o_noua_etapa.html).

To determine the degree in which the supply market can potentially be distorted by the Lidl/Plus deal, it is necessary to acknowledge the resulting power of Lidl. In this case, the Schwarz Group faces strong competitive pressures from large and experienced players in the market, with market shares at par or above the concentration deal. The analysis includes this time cash & carry chains as they purchase goods more or less from the same pool of suppliers, albeit foreign or local.

Even though it is difficult to find accurate data on the market shares for the purchasing process, as Lidl and Kaufland act independent from each other, it is estimated that they are well below the 25% mark considered by the EU a sign of warning for a vertical integration and potentially harmful for competition.

Thus, we can conclude that Lidl does not increase its negotiation power in relation to suppliers and the notified action does not display negative effects on the access of competitors to supply. There is no risk of closing the markets, as competitors may purchase from a variety of sources.

- *Effects on consumers*

Concerning the effects of the concentration on consumers, it is necessary to determine to what extent Lidl and Kaufland offer products considered preferred or exclusive by customers. In such a situation, the acquisition has the potential to generate a major increase of prices, distorting the competitive environment and inducing losses to consumers.

According to competition policy regulations, when there are few other suppliers beside the parties involved in the concentration and switchover costs are significant, customers are vulnerable to price increases.

In our case, the acquisition is unlikely to generate a significant increase of prices of consumer goods and to limit consumer choice between different formats of retail, albeit modern or traditional. Switchover costs are low and there are plenty real possibilities to choose from in the analysed geographical market.

Overall, these easy observations lead us to conclude that the acquisition of Plus by Lidl does not harm interests of consumers by an increase in prices. It may represent an additional alternative for part of

the consumers. Moreover, being a discounter, Lidl tries by definition to keep prices low. The acquisition may even result in a competition-generating move on the relevant market with beneficial effects for consumers from the point of view of price, quality, and variety of products and services.

#### **4. Conclusions**

This paper comprises an investigation of a concentration case in the Romanian retail sector, namely the acquisition of the German Plus chain by German discounter Lidl, belonging to the Schwarz Group, along with Kaufland hypermarkets.

In the first instance, we tried to identify the compliance of this deal with competition policy rules in the European Union and Romania.

Furthermore the analysis has revealed the effects of the deal on the economic environment in Romanian retail. We investigated in what ways Lidl Discount could develop an abusive behaviour to dominate the market. The impact has been treated separately in three possible directions: competitors, suppliers and consumers.

Firstly, we described the concentration deal in order to identify its size. Studying the financial results for 2009, the year before the acquisition, we established that the deal has Community status, falling under Merger Regulation EC No. 139/2004. Thus, the approval of the European Commission was needed. After a preliminary investigation, the Commission passed the case to the Romanian Competition Council, as the affected market was confined to Romanian borders.

We then proceeded to the identification of the relevant markets: the product itself and the geographical location. The relevant market is that of food and non-food consumer goods sold in hyper/supermarkets, discounters, and similar types of stores, confined to an area that can be covered by car in maximum 30 minutes.

Analysing the effects of the acquisition on the competitive environment based on market shares, we concluded that the deal does not affect the relevant market by horizontal integration, as through the acquisition of Plus, the Schwarz Group reached a market share below 15%, compliant with competition policy norms of the EU.

We also calculated specific indicators taking into account market conditions to identify a possible dominant behaviour. The concentration ratio of the market and the Herfindahl-Hirschman index indicate that the relevant market is very fragmented. To this we added that sale space in Romania is significantly below EU average and the deal has not generated barriers to the entry of other competitors. Thus, we concluded that the deal does not raise concerns for harming effective competition.

Concerning the supply side, the fact that Lidl does not enjoy the support of Kaufland from a logistic point of view led us to the conclusion that the Schwarz Group will not increase its negotiation power in relation to suppliers and it won't block access of competitors to sources of supply, nor will accelerate the risk of „closing” the market.

Analysing the effects of the concentration on the consumer side, we concluded that there is a variety of choices in the geographical market and switchover costs are not significant. Thus, the acquisition does not affect consumer interests through a major increase of prices or a limit on supply in consumer goods.

Despite these facts, we consider that competition authorities should still keep an eye on Lidl given the proven ability of the chain to expand aggressively, in Romania and elsewhere, which can lead to abusive behaviour.

The discount format is a typical European business. Western Europe leads with a 13.46% market share, while Eastern Europe is catching up, with a market share of 7.42% in 2010. Surprisingly, in parts of Eastern Europe there are even no discounters at all and the market share was a low 0.02% in 2010<sup>15</sup>. Thus, the growth potential of the Romanian market is high, but this represents an opportunity for other discounters to enter it as well. This should keep the heat up on Lidl from a competitive point of view.

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<sup>15</sup> <http://www.retail-fmcg.ro/studii-de-piata/romania-retail-summit-tendinte-in-piata-de-retail-provocari-si-opunitati.html>.

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# SUSTAINABLE PRACTICES IN TRANSYLVANIAN HOTELS

ARMELA-LINDA RAHOVAN<sup>1</sup>

**ABSTRACT.** In the century that brings to the fore the high-tech, mankind is changing. The hotel has ceased to be a simple building, it is a reflection of the time and space in which is situated, the image of the local culture and civilization and respect for the nature. Hospitality can be defined as an exchange of lifestyle characteristics between the host and the guest, designated to create a specific wellness, relaxation and pleasure. What are hoteliers doing for tomorrow's tourism, today when the human being became the victim of its own progress and the economic development clearly provides a better life for the present generation, but can it represent a constraint for the future?

**Keywords:** *hospitality, sustainability, development, hotel*

**JEL Classification:** Q56, L83

## 1. Introduction and review of literature

The sustainable development – a controversial subject – is being approached since 1972 when during the conference in Stockholm it became clear that the urge to find solutions to problems that lead to the environmental degradation (Breabăn, 2009). The International Union for Preservation of Nature will promote this concept with special focus on preservation. The World Commission on the Environment and Development released in 1987 the Brundtland Report that defines for the first time the sustainable development concept: “a development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (*The National Strategy for Sustainable Development*, 2008). The sustainability issue as a must in finding solutions to the environmental lack of balance will be largely debated during a series of

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notable conferences on this subject, such as the conference in Rio de Janeiro in 1992. At a global level it became obvious, as far back as 1997, the fact that embracing a sustainable thinking is a must in the tourism field as well. Hence, it has been published the Agenda 21 Tourism that emphasizes the importance of adopting several measures in view of a more efficient use of electricity, water resources and solid waste management, teaching programs, respectively awareness raising on the importance of sustainability and training the employees (*The National Strategy for Sustainable Development*, 2008). The accommodation establishments, as a whole, represent the greatest part in tourism with a remarkable impact on the environment. "According to estimations, an average hotel releases between 160 and 200 kg of CO<sub>2</sub> per square meter of room floor area per year, and water consumption per guest per night is between 170 and 440 liters in the average five-star hotel. On average, hotels produce 1 kg of waste per guest per night" (Sloan et al. 2009, pp.2). In the context of a continuous process that involves adopting and assimilating the new trends imposed on the hotel market, that also involves reconditioning and resizing them according to the tourist supply and demand, the aim is to reach the highest level of profit.

The tourist development policy, as strategy of optimization of the geographical area, aims on one hand to capitalize the natural and anthropic resources already existing in a certain area and on the other hand contributes to a balanced regional development through economical growth and stimulation of the sustainable development (Cianga and Dezsi, 2007). The main goal of the tourist development process aims not only to reach a complete and balanced integration of the tourist activities in the economical and social development of a certain territory, but also to an equitable relation between environment and communities (Cianga and Dezsi, 2007).

The hotels are significant consumers of water and energy, but they are also big producers of solid waste. Typical processes in the activity of a hotel such as heating, air ventilation, lighting, food refrigerating and cooking, chemical wash and cleaning, etc. require excessive electricity and water consumption. The substances used to maintain a high degree

of hygiene in such tourist establishments, but also the ones used for the building's periodical restoration activities can be toxic, therefore chemical pollutants are being released in the atmosphere and the soil. In order to keep up with the new trends on this competitive market, the hotels are equipped with spas, pools, conference rooms, etc.; this also results in an increase in electricity and water consumption. At the same time, the large amounts of solid waste produced especially by the housekeeping department and by the food and beverage department, and also constant waste of old equipments (furniture, home electronics) that cannot always be reused, have a serious negative impact on the environment. The sustainability in the hotel market has been defined as follows: "Hospitality industry, development and management that meets the need of today's guests, hoteliers and stakeholders without compromising the ability of future guests, hoteliers and stakeholders to enjoy the benefits from the same services, products and experiences" (Legrand and Sloan, 2010). The tourism industry is estimated to be responsible for 5% of the world's CO<sub>2</sub> gas emissions. The hotel sector represents 1% of all CO<sub>2</sub> gas emissions (Legrand and Sloan, 2011). A responsible attitude in the hospitality industry is defined by a balanced relation between resources, technological predilection and placing investments. In these conditions, the hotels must review their attitude and the way in which they develop their activity in relation to the physical, economic and social environment.

Hotels can contribute, through their positioning, through architecture and utility to embellish the landscape. But by adopting an inappropriate architecture and structure and by neglecting the façade, the same accommodation establishment can damage the area where it is situated. The tourist units that fulfill several criteria through which they show their concern for the environment and for the responsible management of the energy resources, led to the emergence of a new kind of establishment: the green hotel. This concept appeared thanks to the hotel operators' awareness to save the resources, and the impact that their improper management can have on their own lives. The concept of green hotel is placed somewhere between the responsibility and respect towards nature and the need of the hotel owner to save their business. The sustainability

in the hotels industry is assured by a responsible use of water and energy sources, by contributing to activities that help preserve the environment, by training the hotel staff so they understand the importance to preserve the environment and teach them how to adopt the proper behavior, but most of all by involving the local communities and using local materials. In Romania there are several programs for the certification of green hotels. These programs provide the hotels with the necessary assistance and offer solutions and counseling for cost control, water and energy consumption, adopting means to preserve and recycle, interior design and eco-friendly furniture, the services offered to the guests, training their staff, etc. In order to implement the green hotel concept within an accommodation unit it is absolutely necessary to optimize the building's energy performance (Romania Green Building Council, n.d.) by using the passive solar energy, the natural illumination, natural fanning, certain eco-friendly materials that register low emissions of volatile organic compounds, reducing the water consumption and collecting rainwater, separating the waste, storing and recycling materials, using the existing local materials and using A class energy electronics; the energy for the heating system can be produced by using solar panels or photovoltaic cells and the roofs can be covered with vegetation which helps improve the urban environment. This kind of roofs absorbs CO<sub>2</sub>, has a pleasant visual impact and keeps the air fresh. The cooling systems can be based on temperature conversion that will reduce the energy consumption up to 90%. The exterior walls have to be insulated with natural materials and the eco-friendly paint will also act as a thermal insulation increasing with up to 10% its efficiency (Romania Green Building Council, n.d.).

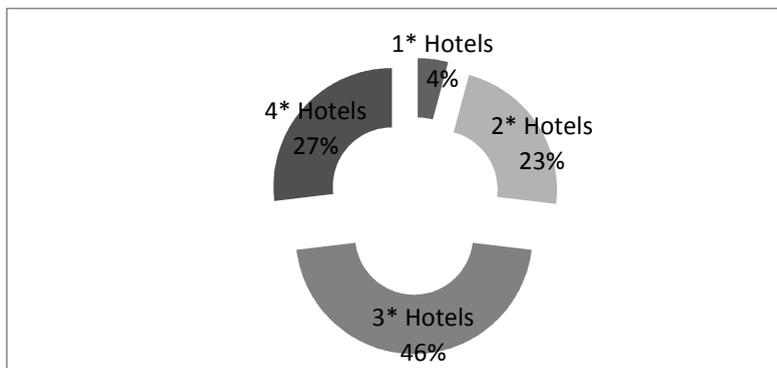
## **2. Material and methods**

The study aims to highlight sustainable practices employed by Transylvanian hotels to support the sustainable development and consider their investment plans on the sustainable practices. According to Ministry of Development and Tourism, there are 117 classified hotels in the Transylvanian region. The data was collected from December 2011 to January 2012. All the respondents were managers of the hotels under

study. Firstly, they were approached by phone in order to receive their acceptance to participate the study. A total of 74 hotels accepted to participate in the study. Then, the questionnaire was designed and e-mailed to hotel managers of the hotels under study. The questionnaire was structured in two parts. The first part consisted of general information about the hotels (11 open and closed ended questions) and the second part concerned with the activities through which the hotels support the sustainable development(16 multiple choice closed-ended questions).

### 3. Results and discussion

Out of the 74 accommodation establishments, only two hotels are affiliated to an international hotel chain, other two are associated to a national hotel chain and the other seventy hotels are independent units. It is also important to mention that from the studied hotels, the classification according to the comfort criterion shows (see Figure 1) that 4% is represented by the 1 star hotels, 23% by the 2 stars hotels, another 27% represents the 4 stars hotels and 46% the 3 stars hotels.



**Figure 1: The comfort category of the studied hotels from Transylvania**

*Source: Based on NIS data*

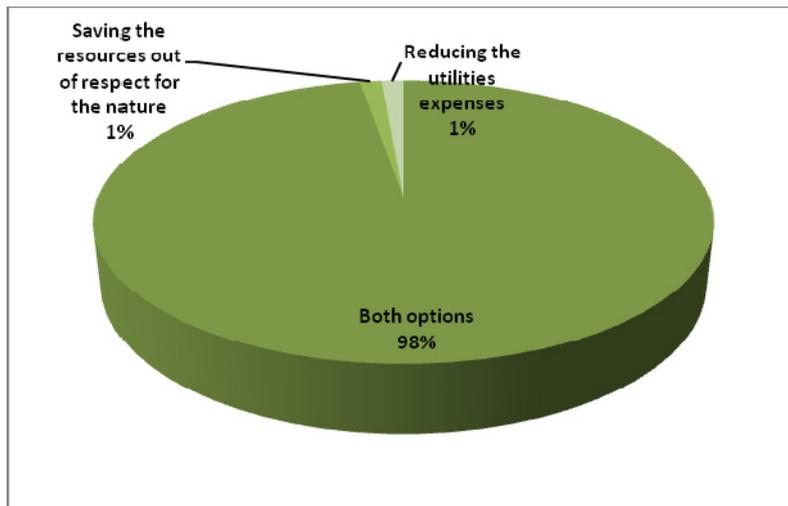
The objective of the study focuses on the importance to embrace the sustainable development practices according to the renewable resources potential in Transylvania.

In the case of the studied sample it is important to mention that 49 hotels perform maintenance works every year while 23 units are restored once every two to five years, one unit is restored once every six to ten years and another unit is restored once in every ten years. The main departments that benefit of maintenance works are: the accommodation department (in 72 hotels), the Food and Beverage Department (in 17 hotels), reception (in 10 hotels) and kitchen (in 1 hotel). The maintenance process means: painting (for 74 hotels), interior design (for 29 hotels), fixing and checking the electrical and sanitary installations (for 60 hotels), improving the interior and exterior insulation (for 4 hotels) and in one single hotel other kinds of works are also done, that were not specified. Checking the electrical and sanitary installations are conducted on a weekly basis in 43 hotels and once per month in 31 hotels out of the above mentioned total. The presented information emphasizes the fact that from the total number of the studied hotels, only 66% perform maintenance works yearly. The accommodation department represents a priority in what regards such works. Painting is the most popular way to recondition, while the interior and exterior insulation improving works are made in only 4 hotels out of 74 hotels. While 58% verifies the electrical and sanitary installations once a week, 42% does that only once a month.

There are few conditions that have to be fulfilled in order to adopt a sustainable development; one of the most important is the moderate use of natural resources: water, thermal and electrical energy, waste management and replacing the conventional resources by renewable ones. The moderate consumption aims to an economic, social and environmental efficiency so that not only the present generations can satisfy their needs, but also the future generations can be able to benefit from these resources. The European Union expressed its request concerning Romania – in 2008 through a package of directives by the European Commission, known as “Energy-Climate Change” – to increase up to 20% the energy efficiency, to reduce with 20% the GHG and reach a value of 20% in the use of renewable energy sources until 2020, considering 1990 as the reference the year (European Commission, 2008). It is imperative to adopt practices for the optimization of the limited energy resources consumption. Therefore,

not only there have to exist legal and political basis, but also energy management by investing in improving the equipment that function on energy and implementing various technologies for energy recovery.

The hotel managers interviewed within this study declared their equal interest in saving the energy consumption out of respect for nature but also in reducing their utilities costs (see Figure 2) that can reach a value between 10-35% of the hotel expenses per year.



**Figure 2: Supporting the sustainable development within the hotels in Transylvania.**

From the studied sample, none of the hotel units is eco certificated. Only 4 units of 74 applied so far an Environment Management System, 38 hotel owners intend to adopt such a system and 32 hotels have no intention to implement an Environment Management System.

It is important to notice that the National Strategy for Sustainable Development was elaborated in Romania in 2008 as an obligation as the country became an EU member starting with the 1<sup>st</sup> of January, 2007. The sustainable development became one of the EU political goals starting in 1997 when it was stipulated in the Maastricht Treaty (*The National Strategy for Sustainable Development, 2008*). At national and regional level there emerged non-governmental organizations, political parties

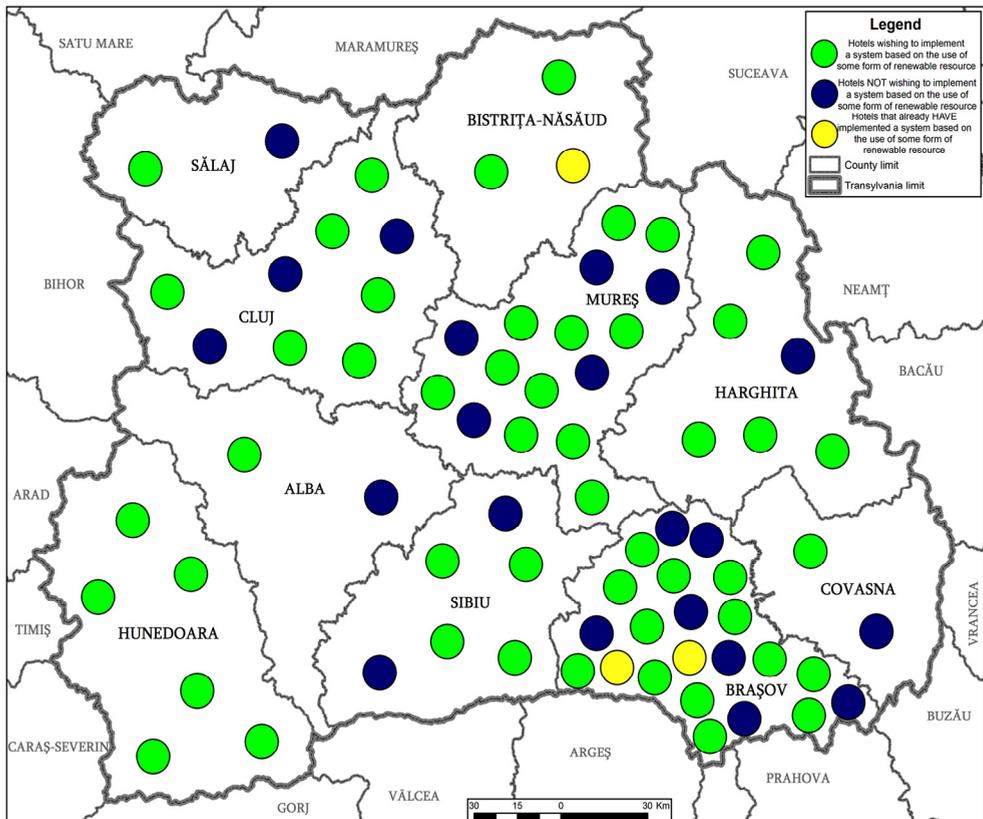
concerned with ecological matters, environmental institutions such as the Ministry of Environment in 1990, Parliamentary Committees, but also the first legislative documents on this matter – Act no.137/ 1995 and Act no.220/ 2008 (updated through O.G. no.29/ 2010 and O.G. no.88/ 2011) – that sustain energy production from renewable energy sources.

Between 2011 and 2021 when the Green Certificates are to be implemented, Romania will have to pay an amount of 41.5 billion Lei for the “green energy” (Magureanu and Zaharia, 2011). The Green Certificate represents securities with a value between 27 and 55 Euro per Mwh produced through the five types of green energy: wind energy, solar energy, hydropower, geothermal energy and biomass energy (Magureanu and Zaharia, 2011). The Green Certificates as a subvention from the Government not only contribute to promote the sustainable development, but also contribute to change the companies’ attitude, so that the transition to a sustainable development economy becomes a reality. The solution lies in employing the renewable resources that were probably the first energy used by man. The renewable energy is sustainable thanks to the fact that it reduces CO<sub>2</sub> emissions and therefore limits the climate change, but also entails no risk of pollution for the future.

Romania holds a great potential of renewable energy resources as it has valuable climate conditions. Until now, a total of 370 million Euros worth investment has been done for the wind energy (Zaharia, 2011). Besides the wind energy potential, the solar energy is a valuable source, taking in consideration that Romania is situated in the B European area, with little solar radiation dissimilarities between its geographical areas.

The region of Transylvania is situated in the yellow area which represents a potential of 1300-1450 Kwh/m<sup>2</sup>/year (Pavnutescu, 2011). Nevertheless, the information gathered from the hotel managers in this area reveals that only 3 hotel units rely already on a system based on electric energy coming from renewable resources – solar energy in this case – while the other 71 use exclusively conventional energy resources; while 49 hotel owners are willing to invest in a solar energy system, 22 hotels never considered this option.

Figure 3 shows that 50 out of 74 hotels plan to invest in a system based on a renewable resource, while 21 hotels having no intention in this direction. Just 3 hotels use a solar energy system. The idea of investing in a renewable energy system is more popular in Brasov and Mures counties. According to the Transylvanian hotel managers, 60 hotels plan to make this investment within the next five years and only 14 hotel managers are considering it within the next six to ten years.

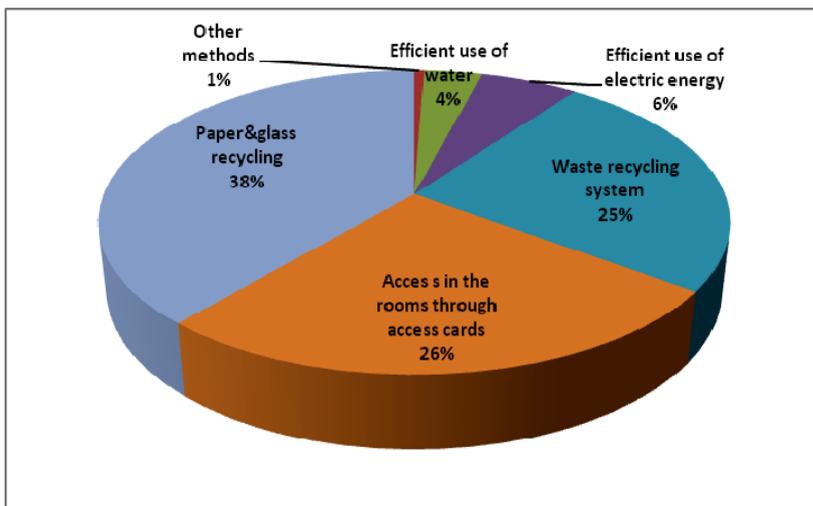


**Figure 3: Transylvanian hotels situation regarding the implementation of a system based on energy obtained out of renewable resources.**

A sustainable behavior is based on a moderate consumption. Considering the tourist expects the highest quality services, it might happen that he neglects the water and electrical consumption by wasting

these resources. One of the reasons that determine the tourist to travel is to find a completely novel ambiance different from the one he is used to and that is why the hotels must be imposing from both functional and panoramic points of view and to be completely different from the area where tourists come from. The hotel managers from Transylvania became aware of how important it is to embrace a sustainable behavior within the hotel arrangements and also understood the importance of the training programs for their personnel. Hence, in 92% of the studied accommodation units the staff is being periodically trained in this direction.

According to the analysis of the means so to adopt a sustainable development by the hotels in Transylvania (see Figure 4) 38% of the 74 hotels collect for recycling paper and glass, only 26% make the access in the rooms through access cards, 25% employ domestic waste recycling systems. Further, while 6% of the hotels are employing methods for a more efficient use of electric energy, only 4% increased the efficiency of water consumption and 1% applies other methods than the ones mentioned above.



**Figure 4: Methods through which the hotels from Transylvania support the sustainable development.**

#### 4. Conclusions

The most important elements when it comes to tourism development are supply and demand, government, local authorities, investors, but also the employees in the tourism field. A sustainable development of the hotel sector assumes first of all a fair and complete evaluation of the hotel offer, but also of the actual and potential demand and establishing equilibrium between the four systems of focus: economical, human, environmental and technological. Saving the non-renewable resources out of responsibility for the environment and for the future generations should not damage the quality of the services that the hotel provides. The main benefits for the hotels that promote the sustainable development are:

- reduced expenses as a consequence of a limited consumption of water and electricity;
- the positive appreciation of the clients due to the care that the hotel managers show to significant details and at the same time for the concern towards their clients future;
- gaining the staff's devotion through awareness raising regarding the organizational responsibility;
- a step ahead of the competition.

An energy policy is essential in order to overcome the climate change that endangers our lives. Therefore, replacing the 220/2008 act by the 139/2010 act means creating the legislative context in granting subventions for the ones that wish to invest in systems that employ renewable energy sources.

Adopting sustainable strategies in the hotel sector requires getting communities informed about the importance of the rational use of resources. Further, capitalizing the changing social and ecological potential of the economy is necessary to assure the success of the strategies and to protect the environment.

#### ***Acknowledgement***

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# INTERNET MOBILE USERS FROM ROMANIA AND MOBILE APPS

MIHAELA TUTUNEA<sup>1</sup>

**ABSTRACT.** The development of mobile technologies triggered also the development of the software industry for mobile devices. Any mobile phone, depending on its features, has preinstalled basic applications, which make it functional. Along these, the user can install more applications according to his needs. Must be noticed the current trend: companies developing and offering their own mobile applications, which can be downloaded directly from the mobile websites. The present study tries to identify the preferences of Romanian users of mobile Internet services, taking into account their online activities, used mobile applications and their attitude towards free mobile property apps (provided by the companies). The results of the study might have implications both on companies, which are developing in mobile business environment and on the mobile Internet users, through the provided information on users' preferences.

**Keywords:** Internet Mobile, Mobile Apps, Internet Mobile users

**JEL Classification:** L86, L96

## 1. Introduction

The industry of mobile technologies, through the rapid development of its products and services, has brought with it an increased mobility that we all feel we currently need when considering human intercommunication and also within the rapid development of business environment.

The increase in number of mobile devices used worldwide, through mobile Internet services, provided people with a particular mobility in

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carrying out many activities independent of the geographical area of destination or of physical or temporal location.

During the past two decades, all of us have witnessed the expansion of the business environment from its traditional form, offline, to e-business and further to m-business. The expansion of Internet use on mobile phones has highly increased the applicability of these services in the development of m-commerce and m-business solutions.

The trend regarding the use mobile technologies in the development of web platforms of mobile-business, as well as in the expansion of distribution channels for usage on mobile devices is becoming more and more obvious and visible. The inclusion of software solutions based on the usage of mobile Internet services thus, becomes an important objective for all business entities of the business from all activity fields.

Following the expansion process of the mobile Internet services, any company can assess the number of mobile devices that use mobile Internet services, thus being able to identify the future potential segment of mobile-commerce consumers, and also the companies can design specific strategies for the expansion of the activities in a mobile environment, incorporating modern and tailored IT&C infrastructural solutions, which allow them to launch specific mobile services.

It is well known that recently, during the past several years, the telecommunication corporations have tried to expand the mobile Internet service and have provided access to Internet using telecommunications technologies, such as WAP (Wireless Application Protocol), GPRS (General Packet Radio Service), 3G, and 4G.

As a consequence, all the companies had the possibility to adapt their offer and to provide their customers' with direct access to their services and products on the mobile devices. Consumers, using their mobile phones, can obtain information regarding the types of products and services desired, can make reservations, and order online purchases etc. regardless the time or location.

The trend in service optimization, based on the usage of mobile devices, aims to the customization of the provided services in concordance with the location of the consumers (location-based). The service customization

for mobile users may be considered as a certain added value of the services provided services. An important number of applications intended for the usage on mobile devices/terminals have been developed specifically for particular geographic locations.

The development of mobile technology has also brought the development of the software industry for mobile phones. Currently, any terminal, depending on its features, has preinstalled basic applications that make it functional. Along these, the user can install more utility applications depending on his or her needs. However, it must not be forgotten that mobile Internet providers offer application sets which can be used inside the provider's network.

However, from the companies' viewpoint, one most important aspect is the way they manage to reach the final consumer, and the way they can adapt to customer preferences.

The current study has its roots in tracking the current market trend, taking into account the offer (provider companies) versus the demand (consumers).

By analyzing the offer, three stages can be identified concerning the development of companies: *the first one*, named stage E, implies the transposition of activities from the traditional environment to the digital one; it has started with the creation of some web presences in the online business environment. In recent years a generalized trend of activities' expansion in the digital environment became visible, along with the existence of some online, commercial viable, effective and efficient presences. *The second stage* (called the M stage) has been triggered by the increasing number of mobile Internet services users. This phenomenon imposed on companies a transformation of their e-presences into mobile-presence, namely the transformation or the adaptation of companies' websites in order to be visualized on mobile devices. *The third stage* (called the AM stage) is the one where the optimization through customization of mobile presences takes place. This phenomenon is accompanied by the creation of company's own mobile applications, offered freely to consumers. Within this stage, a trend is developing: an increased number of companies that develop of their own free mobile applications, for customers (free mobile apps).

From this perspective, the present study has been initiated with the intent to identify the preferences of the Romanian users of mobile Internet services, regarding their online activities, mobile applications they use, and their attitude towards free property mobile apps (of the companies).

## **2. Literature review**

### *Mobile applications (mobile apps)*

For the mobile applications, numerous definitions, derived from various fields of activity, starting from ITC industry, providers of hardware and software technologies designed for mobile devices and business consulting, have been formulated.

The simplest definition is provided by the PC Magazine encyclopedia [1], according to which the mobile applications are software applications that run on any type of mobile device.

Mobile applications, are usually small, individual software applications, with limited functionalities, being similar to other applications that run on PCs. This category of software has been launched by Apple Inc., which initiated the supply of a wide and varied range of applications for iPhone, iPad, and iPod. However, since 2010, the applications for Android have surpassed in number and complexity the Apple applications. It must be mentioned that the mobile applications are created differently for various mobile devices, having specific features for different mobile operating systems. There are also various options to download mobile applications free of charge or for a fee.

Gartner [2], world leader in IT research, defines mobile applications as web applications that run on mobile devices. For their implementation are used tools and technologies such as HTML5, Ajax, Flash, JavaFX, Silverlight, etc. The mobile web applications differ from the native mobile application through the fact that they use web technologies, without being limited to a basic platform for implementation.

### *Classification of mobile applications*

Mobile applications have received a number of classifications depending on their destination and recipients. Thus, from the perspective of corporate users, the mobile application includes (Ciurea, 2010): applications for dissemination of general information of the companies, mobile applications of search (identification) of information, transaction applications, operational applications and collaboration (communication) applications.

Another classification of mobile applications (Ivan et al., 2011), groups the applications depending on the intended use: applications designed for search/ identification of general information (forecast, horoscope, exchange rate, etc.), customized applications, which require secure access through username and password in the areas of the already existing information, communication applications, economic applications designed for individual or corporate users and entertainment applications (games, music, multimedia, etc.).

From the technical perspective, the mobile applications have been classified in [5]: mobile browser-based applications (designed specifically for mobile, mini browsers), preinstalled mobile applications (own applications of the mobile device manufacturer) and applications that can be installed (which can be downloaded individually from the application store, such as Appstore or from the providers' websites, and are specific to some work platforms; these can be upgraded, or installed/uninstalled, transferred, etc.).

### *Use of mobile applications*

In 2011, from 5.6 billion mobile phone users, 835 million were Internet users, but this number of Internet users, is expected to double by 2015, due to the use of mobile Internet services [6].

Some studies have shown that 64% of the time spent on mobile phones is intended for the usage of applications. Thus, 13.4% of the time is assigned to the text messages, 11.1% to browsing, 5.5% to the use of specific applications of social networking, 5.4% to voice communication, 5.3% to e-mail, 2.3% to mobile messaging (IM), 1.1% to entertainment/multimedia, and 55.9% to other mobile applications [7].

Gartner [8] has identified a classification of the mobile applications that are preferred by the users in 2012, which includes and brings in spotlight: money transfer applications by SMS, local-based (LBS) applications, mobile searching, mobile surfing, mobile health monitoring, mobile payments, applications specific to Near Field Communication (NFC) services, mobile advertising, mobile messaging (IM), and entertainment applications (music, multimedia).

#### *Mobile applications vs. mobile-website*

Nielsen (2011) considers that a mobile application is preferable to a mobile-website, due to a research results which revealed that 76% of users prefer mobile applications, while only 64% prefer mobile-website. However, the same author also draws attention to the higher cost of a mobile application implementation, in comparison with the implementation of a mobile-website.

According to the same source, from the cost-benefit perspective, the current trend of development of a software market for mobile phones reflects a preponderant use of mobile applications. However, it is expected that the future will bring a change, triggering a rapid development of mobile-websites against the mobile applications, whose cost will rise inevitably (Nielsen, 2012).

#### *Mobile Internet users and their preferences for mobile applications*

The mobile Internet users' profile is extremely important for the identification of their preferences and for determining the usage trends of a mobile Internet service, and of mobile applications. Nevertheless, the currently available studies are few and outdated.

A study carried out for Taiwan (Srinuam et al,2011) has identified, at the level of analyzed sample, that only 11.17% of the respondents were mobile Internet users, the women being represented by a higher percentage than men. The best represented age group was 30-39 years, followed by the 20-29 years group. The highest percentage of mobile Internet users is represented by those possessing a higher level of education and the preferred mobile applications were: mobile searching, E-mail and mobile social networking.

On the other hand, the study carried out by Localytics [12], points out that only one application out of four launched, succeeds in capturing the users. At the beginning of this year (2012), Localytics, analyzed the data regarding the way in which thousands of Android, iPhone, iPad, BlackBerry and Windows Phone 7 applications were used. The study pointed out that 26% of all these downloaded applications are used only once, after those are never used again.

### *Romania*

In Romania, the situation of such studies is the same as it is worldwide, information regarding the results of such researches being scarce and outdated.

The studies offered by the consulting company in mobile marketing, Syscom Digital [13], have pointed out that the Romanian users download an average of 4-5 applications for usage on a mobile device, whereas the Americans use 23 mobile applications, and the Japanese 45.

From the perspective of the mobile applications, the Romanian market can be considered still in its early stages, due to the fact that more than 90% of the users prefer to download only free applications. However, currently, in Appstore, Apple's application store, there are over 400 Romanian applications and there is a similar number for Android platforms. It is estimated that by the end of the year, the mobile application stores will offer five times more Romanian application than nowadays.

Syscom Digital [14], presents the situation of the most widely used mobile applications in Romania. According to Syscom Digital on the first place are the social networking applications, followed by the utility applications, and by information and entertainment applications.

The classification of the mobile applications that are most run by the young Romanian users is leaded by Facebook, followed by YouTube and Yahoo!Messenger. Foursquare, an LBS application, and Instagram, a multimedia application for editing/ posting on different social networking, are also ranked among the preference of mobile users [15].

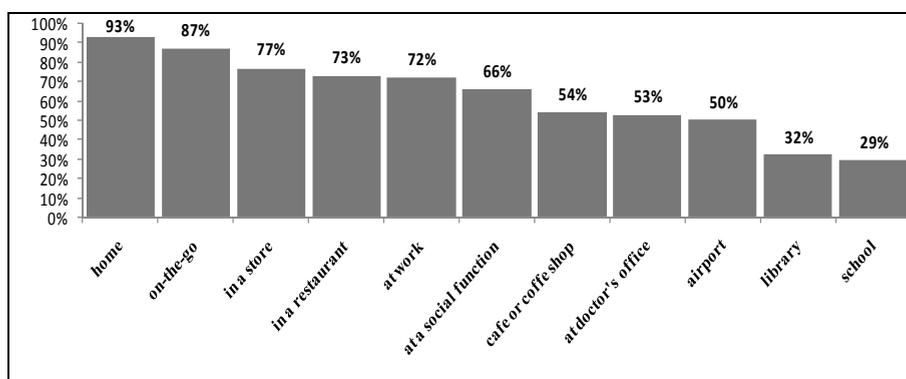
### 3. Materials and method

#### 1. Mobile Internet users - statistic image

In order to have an image of the segment's size of mobile Internet users, we start from the ITU<sup>2</sup> statistics, according to which the number of subscribers to mobile phone services was of 6 billion subscriptions in 2011 [16].

In 2011, more than 85% of Internet users have accessed mobile-webs, and nowadays in USA and Western Europe, 90 % of mobile phone subscribers have Internet-ready phones. [17].

Google, in its own paper [18], shows that mobile phones are used: from home (93%), in movement (87%), from work 72%, and to the lowest degree from libraries (32%) and school rooms (29%).



**Figure 1: Location of usage of the mobile phones**

Source: [http://www.gstatic.com/ads/research/en/2011\\_TheMobileMovement.pdf](http://www.gstatic.com/ads/research/en/2011_TheMobileMovement.pdf), page 7

The same source reveals the main types of activities using the mobile phones: Internet browsing (81%), followed by online search (77%), use of mobile applications (68%), and videos (48%).

From the perspective of the mobile applications industry, according to the forecasts made by International Data Corporation (IDC) [19], the mobile applications' market will increase in number of downloaded applications from 10.9 billion worldwide in 2010 to 76.9 billion in 2014.

<sup>2</sup> ITU (International Telecommunication Union),  
<http://www.itu.int/en/Pages/default.aspx>

Mobyaffiliates<sup>3</sup>, has identified more than 70 app stores, classified by software platforms in cross-platform (26), Android (13), iOS (5); BlackBerry (3), manufacturer-operated (7), carrier-operated (16).

Currently, most of the mobile applications are downloaded from app stores, from the profile shops of mobile software platform providers or of mobile phones manufacturers. ABI Research Data [20] has statistically confirmed that last year were downloaded from app stores, approximately 2.4 billion mobile applications and the rate of these downloads continues to grow, so that by 2013 it could reach 7 billion. From the same study, Apple's app store continues to lead the classification of downloaded applications.

In 2010 among the most downloaded and used mobile applications, in USA, according to Nielsen [17], were Facebook, Google Maps, and among other most popular categories were game, news, maps, social networking, and music.

Based on the World Bank data survey, mobile cellular subscriptions (per 100 people) in Romania, registered for 2007-2010 an increase trend from 94 to 118 subscribers, while during the first quarter of 2011 a decrease to 115 was registered [21].

According to IE Market Research Corp., inside Romania Mobile Operator Forecast for the period 2011 - 2015, is expected that our country will have 27.4 million mobile subscriber connections in 2015, Vodafone Mobile operator concentrating 32.2% market share [22].

In 2010, over 20% of Romanians had access the Internet while on the move (via mobile networks, public access points) [23].

The mobile operator Vodafone announced for 2011 an increase of 77% in mobile Internet users from Romania, while the overall number of clients dropped, due to the deactivation of inactive prepaid users [24].

Romanian mobile Internet users' preferences are led by Mobile Apps & Add-ons, followed by Mobile & Wireless, Email & Messaging, Urban & Hip-Hop, Olympics and Fashion & Style [25].

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<sup>3</sup> <http://www.mobyaffiliates.com/blog/mobile-app-stores-list/>

## *2. The usage mobile apps preferences in Romania*

### *2.1. Problem formulation*

Starting from a general statistical viewpoint on the number of users of mobile Internet services and the mobile applications in use, we tried to study the preferences of Romanian mobile Internet users in comparison with the proprietary mobile applications. It must be specified that within the current study only the proprietary mobile applications created and offered by companies through their own mobile websites, for download and use, to the visitors and the consumers are considered.

### *2.2. Methodology for studying*

In the present study we have used both offline and online mobile tools. We must highlight the difficulty of leading a study that involves subjects contacted through digital tools and the use of web-based survey tools.

Due to the fact that the digital environment and its users cannot be geographically defined, we have tried to select the groups and the study tools in order to provide a more accurate delimitation. A more rigorous identification of the population has been attempted in order to obtain compelling results.

#### *a. Purpose of the research*

The recent years have brought with them an explosion in the number of mobile Internet consumers. Thus, it seems that this phenomenon generated an intense focus on the hardware aspects of this development, namely development of mobile devices, mobile networks, software platforms, operating systems, while the attention for the user needs shifted to a secondary plan. For this reason, the purpose of the current study was to identify the preferences of mobile Internet users, the type of activities they accomplish on mobile environment, the mobile applications they use, their attitude regarding searching, downloading and using some proprietary applications of visited websites.

We consider that the obtained results are useful for the companies in order to establish a development strategy for mobile-presence and also a strategy to identify a growing segment of consumers. One must not ignore the aspect of awareness of the mobile Internet users, of the surveyed consumers, who easily find out that there are companies which offer these proprietary applications, with the purpose of promotion, of building consumer loyalty, and which can be used as support in browsing and working on the proprietary websites.

*b. Choosing the sources of information*

The sources of information used in this study were primary, resulted from administering a questionnaire. They were accompanied by secondary sources: statistical data and other available studies.

*c. Defining the Sampling Frame*

The study focused on Romanian mobile Internet users, considered as demand side for mobile proprietary applications of the companies.

*d. Data Collecting*

The questionnaire was carried out in a web-based format, and for the dissemination of the website hyperlink that was managing the questionnaire were used email services, IM and social networks including on mobile.

*e. Elaborating the questionnaire*

Given the subject of this study and the fact that the use of mobile Internet services requires a higher level of training both in terms of ITC skills and in terms of English language knowledge, the questionnaire was elaborated in English. Another reason for this choice of language was the intention to cover a larger segment of respondents, mainly foreigners living in Romania and/ or Romanians (at the second or third generation) who live in another country.

The questionnaire contained 13 closed questions, structured modularly:

- the first module was dedicated to the respondents' data: age, sex, education, country of origin, country of residence, if employed;
- the second module was dedicated to the availability of a mobile phone with mobile Internet connection, the use of an alternative Internet connection also on PC, mobile software platform/ operating system used;
- the last module was dedicated to the type of online activity, type of used mobile applications, search on the visited mobile-websites, and the attitude towards proprietary mobile applications.

*f. The Sample*

The sample for our research was selected by simple random sampling.

*g. Methods used*

The participants who were part of the sample were invited to participate to our study, by e-mail and SMS. Alternatively, there were used mobile communication tools, IM and announcements placed on social networks.

*h. Establishing the size and the structure of the sample*

In order to ensure the representatives the whole population under study was of 1028 subjects which were interviewed. A number of 681 subjects responded, representing a satisfactory rate for online answers of 66.25%.

#### **4. Results and discussions**

First, the socio-demographic profile of the interviewees was identified. The distribution of the subjects by gender shows a great closeness between the percentage of women (48.21%) and of men (51.79%). Distribution by age group, ranks on first place the age segment of 35-44 years (35.33%), followed by the 25-34 year segment (28.98%), and by 18-24 year segment (18.12%), while the categories 45-54 years and 55 -64 years are less than 10%, and the category 65+ years was not represented at all.

From the educational level perspective, the subjects with a university degree are dominant (52.22%), followed by high school graduates (32.87%).

An important fact for the current study is represented by a high 62.89% of employed subjects. This aspect could be considered in a possible segmentation of users in future analysis regarding individual and corporate users.

Delimitation by country of origin and provenience highlight that the majority of respondents are users born in Romania (98.24%), of which 86.23% live in the country and 13.77%, live abroad.

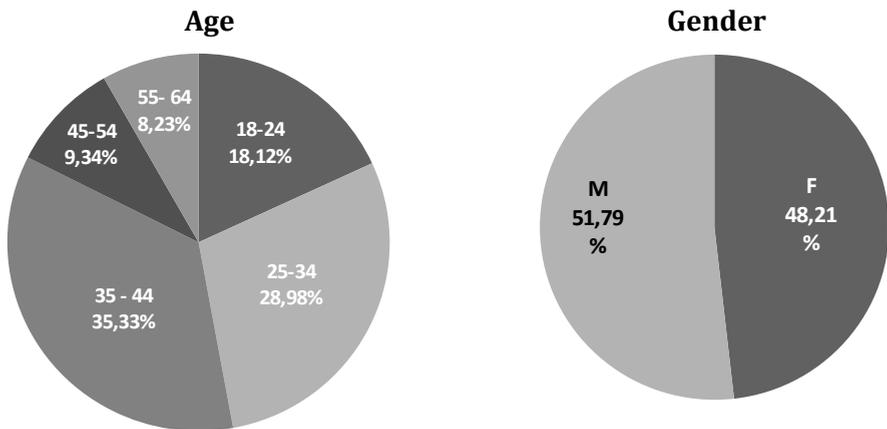


Figure 2. Socio-demographical view (age, gender)

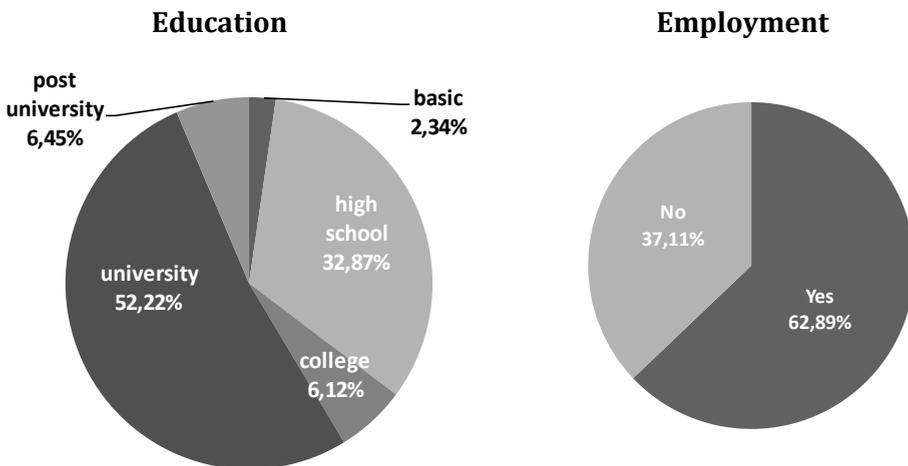


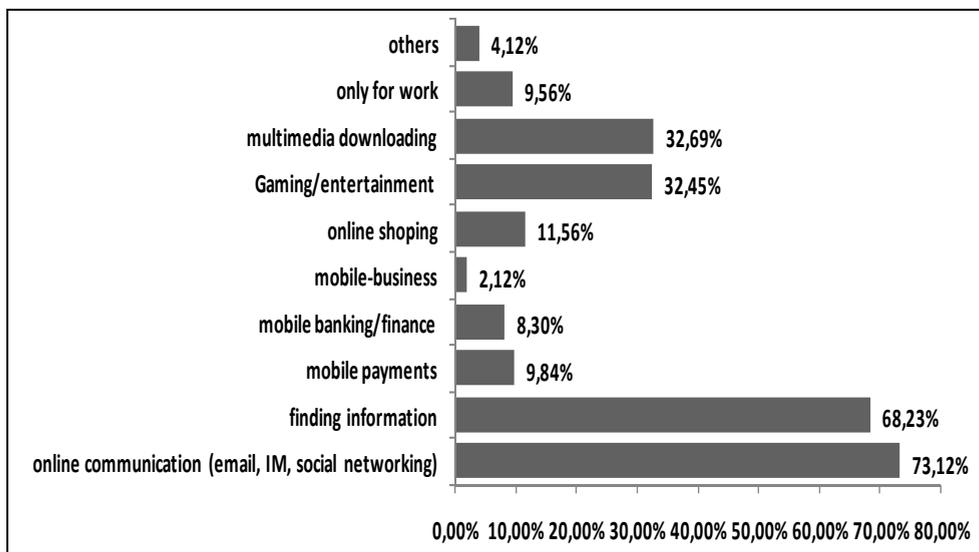
Figure 3. Socio-demographical view (education, employee)

The section of questions regarding to mobile Internet services and applications highlights the following aspects: more than 87.98% of the subjects use a mobile phone, and 73.28% connect to the Internet only from mobile phones, while 26.72% have a PC connection.

The identification of the type of software platform (operating system) put Android in first place (31.64%), followed by the iOs (26.12%) and Blackberry and Windows Mobile, with similar percentage.

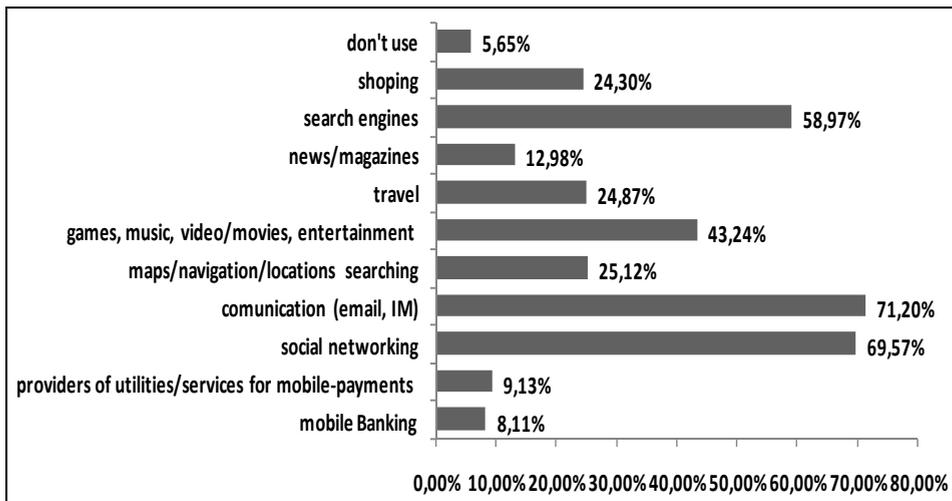
The final block of questions related to the type of activities carried out online, applications used and attitude towards proprietary mobile applications shows the following:

- The online communication (e-mail, IM, social networking) is the preferred activity in usage of mobile Internet (73.12%), followed by the information searching (68.23%), gaming, entertainment and multimedia downloading almost on a par; those who use mobile Internet just for work represent (9.56%); online shopping (11.56%), mobile payments (9.84%), mobile banking/ finance (8.30%), are also indicated by the respondents.



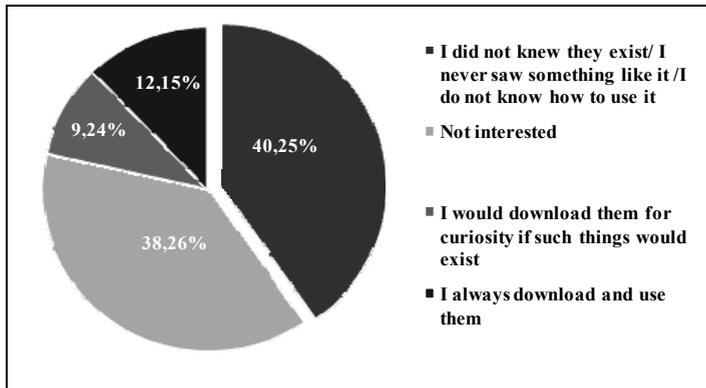
**Figure 4. Internet mobile activities**

- Among the most used mobile applications can be found: online communication (e-mail, IM) (71.20 %), social networking (69.57 %), search engines (58.97 %), games, music, video/movies, entertainment (43.24 %), maps/ navigation/ locations searching (25.12 %), travel (24.87 %), shopping (24.3 %), remaining activities are represented by less than 10%; also appears a percentage of non-users of mobile applications, 5.65%.



**Figure 5. Mobile Applications**

- In mobile websites searches, 89.12% of the subjects search exactly the information they need, while only 10.88% search and download mobile applications for using them;
- In terms of attitude towards existing proprietary mobile applications on the websites visited, more than 40% of the surveyed users do not know that there is/ have not seen anything like this/ they do not know what they are used for. More than 38% are not interested in these applications, while only 12.15% know about their existence and download and use them.



**Figure 6. Users attitude towards mobile applications on the websites visited**

Finally, it is useful to *outline a Romanian user profile of mobile Internet services and of his/ her preferences*: it seems that gender no longer should be considered as an element of differentiation, in contrast, an individual between 35-44 years, with a university degree, who has a job, who uses for Internet connection only the mobile phone with Android operating system. He/ she uses mobile communication and information search environment and the mobile applications in use are also in the same category: communication, social networking and search engines. On mobile-websites he/ she search exactly the needed information and he/ she is not aware of the existence or he/ she is not interested in proprietary mobile applications and in their downloading and use.

## 5. Conclusions

The results of the study identify the preferences of the Romanian users of mobile Internet services in online activities and in use of mobile applications, and also their attitude towards proprietary mobile applications of the mobile-websites that offer products and services.

For the companies, the following aspects can be highlighted:

- Due to the preference of the activities indicated by (Romanian) mobile Internet users, the providers of online communication products/ services, applications from the category of games/

entertainment/ multimedia category and mobile banking/ finance/ payments, must intensify the development strategies of mobile websites as well as the mobile marketing ones;

- From the perspective of preferred mobile applications, it is extremely useful that the providers of mobile-web market update their presence by placing the mobile applications, from the categories of the most preferred by the users, on the mobile websites;
- It is easy to remark a clear trend of (Romanian) mobile Internet users toward the exclusive use of the mobile websites during their online activities and almost to ignore the existence and the role of proprietary mobile applications placed on mobile websites by the providers. This aspect may become an extremely important element in the reorganization of mobile websites and in repositioning the free mobile applications in more visible areas; may also be useful the addition of details and information about installation, the usefulness and benefits of their downloading;
- Three special segments of users must be considered, namely:
  - the employees who use mobile Internet only for work and for whom mobile applications can be customized;
  - those who use exclusively the mobile phones for Internet connection and who may represent an important target segment in mobile marketing actions;
  - those who do not use mobile applications, but who can be directly converted into users of proprietary mobile applications;
- The fact that among the respondents have been users also from outside of Romania's geographical area may draw the attention of the provider companies that all applications made and all their mobile presences must comply with the characteristics of internationalization and globalization of digital market.

From the perspective of the mobile Internet users, the results of the study may serve to the awareness of the existence of proprietary mobile

applications, of the fact that they are generally free apps, presented on the websites of providers for consumers and that these may be used for a faster Internet surfing and browsing for specific information.

The present study can be considered one of the few carried out in Romania and may be used either as starting point for more extensive studies having the same topic, or for comparative studies carried out in other countries.

The limits of the present study arise from the difficulty of achieving a statistical representative regarding the populations in the digital environment and from the difficulty of covering the infrastructural and communication variety of mobile internet users.

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# TAXATION, INTERNATIONALIZATION AND FISCAL HARMONIZATION

IOAN POP<sup>1</sup>

**ABSTRACT.** Taxation does not take into account the principle of true and fair view of the patrimonial situation, for its purpose is to collect financial resources for the state budget and to act as an economic and financial lever to stimulate or, on the contrary, to inhibit certain economic activities/areas. Thus, taxation plays an important role in a country's economic life because it can allocate financial resources to areas considered of primordial value. The taxation system of the European Union member states is currently not fully harmonized, although important steps have been made in this respect, a fact that creates problems both for tax administrations and companies. The companies will have the tendency to create new subsidiaries in those countries with a more favorable fiscal system.

**Key Words:** *accounting-taxation relationship, continental model, Anglo-Saxon model, financial harmonization, financial result*

**JEL classification:** M41, M48

## 1. Introduction

The European Union (EU) formation triggered the dissolution of customs barriers, and the alignment of the member states' financial systems. Due to our country's accession to the EU, a gradual harmonization of Romania's financial system with the financial systems of the member states is required.

Tax harmonization process in each country, which is already an EU member or aspires to become one, aims to shape different financial systems in accordance with the European fiscal and economic policy.

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Financial harmonization aims to create favorable conditions for integration and economic growth. The differences between the financial systems of different countries can affect commercial and service trade flows, capital movements, labor migration, the companies' decision to establish residency. It is necessary that the business conducted between states relies on financial neutrality.

The production system, the specialization on a certain production, the flows of merchandise and services should be the same with or without tax influence. These optimal conditions can be created by adopting the principle of international trade based on taxation at destination and on the principle of tax residency for the custom duties flows.

Financial harmonization must rely on these principles. The general objective of the harmonization of all financial systems was to create an area of financial neutrality with equal treatment for internal production and imports for each member state.

The European Union defines the financial harmonization as a process by which the financial systems of the member states are aligned so that financial issues would not influence merchandise flows between states and the inputs within the community. The harmonization of financial systems within the EU has 3 objectives: to allow competition on equal terms between EU partners; to initiate the financial borders' dissolution; and to speed the process of market integration and unification.

In order to harmonize the financial systems, steps have been made for aligning the tax rates of the member states. However, differences still exist, in certain sensitive cases, between the member states, both in terms of financial burden and structure of revenues from taxes.

Taxes are financial instruments used by governments to achieve financial, social and economic policy. In order to meet these objectives, the financial system must fulfill the following conditions: to collect revenues obtained from taxes; to abide equitability in the distribution of tax burden.

When pursuing the financial harmonization, the changes made in the tax area affect the citizens' life conditions. The harmonization might affect the revenues obtained from taxes which are destined to the state budget and also local budgets and it might lead to the changes in public

outflow level. It may change the distribution of tax burdens among different classes of population incomes and affect the conditions for production efficiency.

Financial harmonization is multidimensional, influencing all elements of the financial system: tax regulation, revenue distribution, state budget balancing, economic settlement and growth, cash flow.

An important area of financial harmonization is represented by indirect taxes which are included in merchandise prices, in the rates charged for the execution of works and service delivery, making the more expensive. Indirect taxes are borne by the final consumers. The main forms of indirect taxes are: the value added tax, the excises, and the custom duties.

However, a ratio of taxation in relative terms is not relevant without a correlation with the approach in material, real terms. The taxation rate in Romania, although comparable to the tax rate of other EU countries, cannot be established without taking into account that, in Romania, the GDP per capita is lower than the one achieved in other EU countries; for example, the ratio is of 1 to 12 as compared to the one in Great Britain (a country with a average taxation of 35.9% which is below the average EU25 registered between 1995-2005 of 40.6%). Therefore, the sustaining force of taxation and the effects in real terms of promoting a particular taxation rate are at least 12 times higher in these countries than in Romania.

Secondly, in Romania, in the early years of the transition period, the taxation has not been conducted with a settled purpose, or for each financial mechanism one must know what to pursue in order not to inhibit the natural elution of market relations and also ensure a certain size of consumption. Therefore, a natural question arises in the debate regarding the analysis of tax burden in Romania during transition: how far can tax burden increase? Are there any limitations in the way of taxation or not?

Everyone knows that all over the world, when the "economic development" issue was raised, the governments have oriented towards reforms intended to weaken the tax burden. Such was the case, for example, with the first reform of Ronald Reagan in 1981, and the American

example was followed later also by the British. This aspiration of reducing the tax burden is extremely common nowadays in Romania. The government changes have meant as many changes regarding the taxation policy: new guidelines, new objectives, new directions to achieve taxation policy measures, and thus, as many reasons for disorienting the taxpayers, who are often in the impossibility of entirely knowing the Romanian tax legislation which is constantly changing. However, some trends may be drawn. Thus, during 1991-2000, the fiscal reform and the economic crisis, due to the transition to a market economy, have left their mark on the structure of the state budget revenues. The state budget revenues registered a continuous decrease as a share of the GDP, from 22% in 1991 to 17% in 2000. The years 2001-2004 mark an increase of the Romanian taxation determined by the increased need of supplying the public funds with resources in order to meet the EU integration requirements. The years 2005 and 2006 have marked the reduction of the Romanian tax burden indicator.

## **2. Review of literature**

Connecting accounting to taxation raises the issue of conciliating the rapport between accounting and fiscal principles. The organization and management of the financial accounting within the enterprise aims to correctly reflect the patrimony, the financial situation and the result, based on rules regarding terminology, assessment, consistency, prudence, and comparability in time and space of patrimonial elements (Morariu, 2005).

Taxes represent a financial category with historical character whose emergence is closely related to the state and money. The concepts regarding the necessity and role of taxes are based on theories about the state and criteria that must be taken into account for dimensioning the tax burden. Thus, the theories about the state highlight that the state is either the result of a social contract between individuals (theory submitted by JJ Rousseau), or it is a product of social and national solidarity of individuals. According to the theory of social contract, one claims that

the right to introduce taxes is recognized by the citizens to the state through the social contract itself that created the state.

Regarding the tax burden dimensioning criteria there were formulated three theories: the first is the theory of equivalence, where its advocates Sismondi de Sismondi, P.J. Proudhon, Adolph Wagner, Emil Sax and others, believe that taxes are a counterperformance that citizens owe to the state for the services it provides them with; the second theory, the theory of security, endorsed by Emile de Girardin, Mc.Culloch and others, states that taxes must be considered as insurance premiums for the citizens' life and property; the third theory is the theory of sacrifice, with its three versions - namely the equal sacrifice theory, the proportional sacrifice theory and the minimum sacrifice theory, theory improved by John Stuart Mill, John Locke, Alfred Marshall and others, which affirms that the state is a necessary product of historical development and taxes represent a necessary product of the relationship between power and subjects.

Within the present context, one considers relevant the experts' reviews which claim that "taxes ceased to be the grain of sand to discomfort the market mechanism, as it was considered during the period of pre-monopoly capitalism, becoming one of the regulators and motors of this mechanism. As a result, taxes have both the role of supplier of the state's budget with funds, and also of a balancing factor in economy", (Ardant and Mendes-France, 1955). In the same idea, one highlights that "taxes can be used to encourage or discourage certain economic activity. Without ceasing to be a means of covering public spending, tax revenue has become a means of intervention in the economic and social areas." (Lalumiere, 1989). Referring to the impact of taxation on the economy L.H. Kimmel (Vacarel, 1981) mentions that "excessive taxes exert a negative influence on the national economy, as it undermines the entrepreneurs' initiative and incentive, forestalling production growth." Hence the assessment that high taxes applied to entrepreneurs are unfair, because it undermines them from the reward they deserve for not consuming the profit and assets.

Synthesizing the mentioned opinions and many others that exist in the literature, we believe that taxes represent a form of forced procurement on behalf of the state, without any direct counterperformance and irrecoverable, of a part of the income or property of individuals and/ or legal entities in order to cover certain public necessities. Due to the fact that taxes do not imply a direct and immediate action from the state, they are distinct from duties/fees, in which case there is a direct reward ratio.

The dimensioning, placement and collection of taxes, as well as the social and economic objectives pursued through taxation policy, are essential elements of the fiscal system, based on specific requirements which provide rationality to that certain fiscal system. These requirements take into account the political side of imposition, and they are known in the theory of public finances as principles of imposition. They were originally formulated by the English economist, Adam Smith, as maxims or fundamental principles of imposition, with reference to: the justice maxim, the certitude maxim, the comfort maxim and the economy and tax yield maxim. The justice maxim refers to fiscal fairness, the certitude maxim concerns the legality of imposition, the comfort maxim involves collecting the taxes from the citizens at the dates and in the manners most convenient for the taxpayers, the economy and tax yield maxim intends to set some taxes which are the least burdensome possible for the taxpayers and to ensure their collection with a minimum cost.

Adam Smith's maxims (from his masterpiece "The Wealth of Nation") can be found in the principles crystallized in the science of public finances: tax equity principles, principles of financial politics, principles of economic politics, and social and political principles.

The affiliation to the European single market also involves, without discussion, certain practices of harmonization in several areas of interest, among which the fiscal domain. Generally, fiscal harmonization is induced by the necessity that the national fiscal systems do not affect the four freedoms submitted in the Treaty on the creation of the European Community: the free movement of goods, the free movement of services, the free movement of persons and the free movement of capital.

Among the specialists, when it comes to fiscal harmonization, one talks about indirect taxes. There are, though, a few things to say also in the area of indirect taxes. If indirect taxation often distorts the free movement of goods and the freedom to provide services, which requires a high degree of harmonization, not the same thing happens with direct taxation.

Direct taxation is not needed to be harmonized to the fullest extent, as it is strictly applicable within each member state of the European Union. Therefore, most of the provisions regarding direct taxation are left entirely at the discretion of each state as they represent an attribute of their sovereignty.

The *acquis communautaire* in the field of direct taxation is mainly targeting the income tax (for companies) and capital tax, and less the taxes on the incomes of individuals (Tulai & Serbu, 2005).

The first directive in the field of direct taxation was “Directive no. 90/434/CEE regarding a common taxation system applicable to mergers, divisions, transfers of assets and exchanges of shares between companies from different EU member states”, also known as the „Mergers Directive“.

In the preamble of the Directive, one justifies the necessity of adopting, from the desire of ensuring a fair taxation, the operations of merger, division, transfer of assets and transfer of shares, whether such operations take place within a single member state or between two member states.

In Romania, the provisions regarding mergers were implemented by means of Law no. 571/2003, with subsequent modifications and completions, art. 27 “Reorganization, liquidation and other transfers of assets and equity “.

The second Directive in the field of direct taxation was “Directive 90/435/CEE regarding a common taxation system applicable to parent companies and subsidiaries”. Known as the “Directive regarding subsidiaries”, it suffered a single modification in 2003. The Directive is applied in every member state when distributing the profits received from the companies in that certain state, originating from their subsidiaries settled in other member states, and also when the companies from that certain state, as subsidiaries, distribute the profits towards companies from other member states.

This Directive does not preclude the application of domestic legislation or agreement-based provisions required in order to prevent fraud or abuse; its aim is to completely eliminate the double taxation in case of distribution of profits from a subsidiary to the parent company.

On June 3<sup>rd</sup> 2003 a new Directive was adopted in the field of direct taxation, namely the “Directive 2003/49/ CE regarding a common taxation system applicable to the payment of interest and dividends between affiliated companies belonging to different member states.

The aim is to ensure that the interest and the dividends paid between affiliated companies are taxed only once in a member state, the basic idea being to eliminate taxation at source of interest and dividends payments made between affiliated companies. Romania was authorized not to apply the provisions of Article 1 from the Directive 2003/49/CE until December 31<sup>st</sup> 2010.

A recent study conducted by KPMG International shows that most of the companies in the European Union desire a unique formula for calculating the income tax. This study included CFOs, directors and managers from the fiscal area belonging to more than 400 companies including several of the largest companies from all 27 EU member states, and Switzerland.

**Table 1. Supporting the idea of tax harmonization at European level by industry sector (%)**

Economic sector	Answer (%)		
	Yes	No	I don't Know
Services for businesses	73	25	2
Services for consumers	81	15	4
Financial services	79	12	7
Industrial production	67	25	8
IT	73	15	12
Manufacturing	81	10	9
Mining/utilities	76	21	3
Real estate/ transport	77	23	-
Other	78%	16%	6%

**Source:** KPMG International, [www.kpmg.com](http://www.kpmg.com)

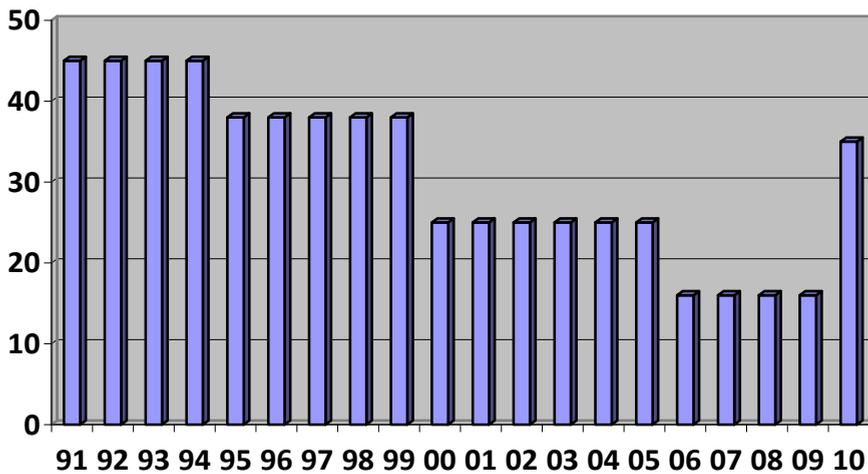
The system proposed by the Commission, known as the Common Consolidated Corporate Tax Base – CCCTB, is to be applied alongside existing methods of calculation in each member state. Therefore, companies can choose to adopt the Pan-European system or can continue to apply national rules. The vast majority of the participants at the survey see the date of implementation in 2015. The idea is being supported by the tax experts in Romania, of which 90% have seconded the proposal made by the European Commission, in comparison with 78% from the total of EU experts.

In Italy 96% were in favor, while in Greece, Luxembourg, Poland, Slovenia, and Sweden, a support of 90% has been registered. The proposal has been supported by 84% of the respondents in Germany and by 80% in Austria, Finland, Hungary, and Portugal. Among the most skeptical countries we can mention Great Britain, with only 62% in favor of the Commission's system, while in Ireland and Slovakia 50% of the respondents were against.

When referring to the Romanian fiscal system, it worked in the first years after the revolution from December 1989, mainly as a means of procuring the necessary resources for the state in order to cover public expenditure. The developments registered within fiscal policy (in the context of the complex reform process conducted throughout all Romanian economy and society) increased the role of taxation in Romania, which besides collecting public revenues, it serves to achieve the economic and social policy of public power.

The chart below shows Romania's fiscal pressure between 1991 and 2010 by means of the tax rate indicator. By analyzing this chart, some conclusions seem extremely easy: firstly, fiscal pressure reveals, at a first glance, relatively low values in comparison with the EU, which for the same time span has registered an average of 40.6%. Or, in Romania, the fiscal pressure is included within the following limits: the lower limit is represented in 2001 (25.32%) and the upper limit can be observed in 2004 (37%). Therefore, one can say that the fiscal pressure in our country has registered values which were far below the EU25 average for the same period (with about ten percent). So, at a first interpretation

of figures, we can say that in Romania, the level of taxation is at the lower limit of taxation applied by member countries. The Romanian average of the global taxation indicator would place our country on the first position among EU countries regarding low fiscal pressures; only Lithuania, which registers a 30% annual average, is coming close to Romania.



**Figure 1. Evolution of income tax rates (%) in Romania**

*Source: Author's compilations based on available public information*

In Romanian literature one can come across different reviews concerning accounting issues preceding fiscal issues, especially regarding accounting internationalization (Fekete, 2009).

According to Ryan (2002), although accounting has existed for centuries, practically the origins of the Anglo-Saxon financial accounting can be drawn during the Industrial Revolution (1750-1850). The first theory of accounting appeared between 1920-1930 as a result of the publications of Paton and Littleton, and it was known as the true income model/ theory.

Meanwhile, researchers from continental Europe, deeply anchored in the logic of written law, focused on the regulation of the "entire" financial accounting, hence not only on reporting problems, but also on

keeping the accounts, regulation which occurred at macroeconomic level. In this way the (*national*) *accounting plans* arose, the most representative being the French and German plans, which approach normalization in a deductive manner, from theory to norms/practice. Regarding the research made in the area of conceptual foundations of accounting norms, in continental Europe, the research has subscribed to a legal approach of the patrimony (Matis, 2003), giving birth to the so-called balance sheet static theories.

In 1959, was created the Accounting Principles Board (APB), which sought to “keep order” in the practices applied by the companies. In this respect, APB made efforts to formulate a conceptualization of financial reporting. Thus, in the ‘70s a new approach arose, in terms of decision usefulness (of the accounting information) (the decision-usefulness approach), the result of these researches materializing in various forms of the user decision-making model.

In continental Europe the researches continued in strong correlation with the Anglo-Saxon world, Europe being the land where a unique experiment for that time was conducted, experiment which was considered “a unique episode in the history of accounting” (Feleaga & Ionascu, 1998): the harmonization of national accounting regulations in order to ensure the free movement of capital set within the Treaty of Rome in 1957.

Although the concept regarding accounting normalization (through the accounting plan) continued to persist both in France and Germany – these countries spread their accounting model in several European countries, including Romania and Hungary, due to the joint research made with other states of Anglo-Saxon influence (Great Britain, Netherlands) in developing the European directives, both the concept of normalization and the accounting standards of these countries have reached new dimensions. The Romanian literature already has papers to present these approaches: on directive elaborating (Feleaga and Ionascu, 1998), the French accounting system (Feleaga, 1997), the French system vs. the Anglo-Saxon system in terms of the Romanian accounting development (Neag, 2000).

Therefore, the continental accounting system connected to the taxation system provides accounting and fiscal information for the main user: state institutions. On the other hand, the Anglo-Saxon accounting system is oriented to mainly provide information to preferential users: investors. However, one must observe certain reservations regarding the reliability of accounting information, which concerns the managers and the trends of increasing the accounting result by using techniques of creative accounting, action that leads to the investors' difficulty of assessing the real value of a company (Berinde, Rachisan, Grosanu, 2012). These difficulties occur at the level of certain indicators, relevant for assessing the performances of an entity: tendencies of maximizing profit and earnings per share, increasing liquidity and reducing costs and indebtedness ratio (Grosanu, Rachisan, Berinde, 2012). Nistor (Nistor, 2010) also talks about the difficulties of assessing the real value of indicators especially when forecasting is needed, since the discount rate captures also a rate of "time preference".

The current stage of development regarding accounting and accounting research is a part of the international perimeter. International accounting is that branch of accounting which studies various accounting (national) systems; it is applied by the multinational entities (multinational enterprise, MNE) and the information provided is usually intended to international users.

Concerning the international accounting normalization the academic and professional literature converge; thus, we can consider real research papers the exposure drafts (ED) of IASB or other regulatory bodies. There are also many studies that analyze certain structures of financial situations or operations; we considered relevant for the present article only the papers concerning the accounting treatment of financial instruments, the intellectual capital and intangible assets, consolidation, usage of transfer pricing, environmental protection, and social responsibility.

### **3. Results and discussions**

#### *The National Fiscal Harmonization*

We will further synthesize the results of analyses regarding the concrete manner through which accounting and taxation are connected.

At first, the relationship between accounting and taxation must be seen in terms of symmetries or similarities in the recognition and assessment of assets and liabilities, incomes and expenses. According to the General Framework for the Preparation and Presentation of Financial Statements, the financial situations present the financial results of transactions and other events, grouping them into broad categories called “structures of financial statements”. The balance-sheet structures which are directly related to the assessment of the financial position are the assets, liabilities and equity. The assets and liabilities can be sub classified by their nature and function within the entity, in order to present the information in the most accurate and comprehensible manner. Therefore, the information meets the qualitative features which provide to the users an economic justification for their decisions. The layouts of the profit and loss account directly related to the performance assessment are incomes and expenses. In order to establish when an element corresponds to the definition of assets, liabilities or equity, one must analyze their substance and economic reality, not only the legal form, in the light of the person who obtains economic benefits by using the good. The balance-sheet, through its structures, firstly provides information regarding the financial position of the company. In order to be reliable, the information provided by the balance-sheet must faithfully represent the transactions and other events which are reflected in the assets, liabilities and equity of the company at the reporting date and which, in order to be recognized as structures of the balance-sheet, they must meet certain recognition criteria. The recognition criteria of an element within the structures of financial statements is the probability that any future associated economic benefit to enter or to leave the entity and the element to have a cost or a value that can be reliably measured. The accounting regulations in accordance with Directive IV of the European Economic Community and approved by the Ministry of Public Finances through Order no. 3055/2009, have borrowed the definitions of assets, liabilities, equity, income and expenses, and also their recognition criteria from the General Framework for the Preparation and Presentation of Financial Statements. Regarding the evaluation of the balance-sheet structures and those of the profit

and loss account, it represents the process through which one determines values (set by the International Valuation Standards, International Financial Reporting Standards, and national legislation) at which the structures of financial situations are recognized in the „Balance-Sheet” and the “Profit and Loss Account”, through which are reflected the similarities in recognizing the assets, liabilities, income and expenses.

Afterwards, the disconnection of taxation from accounting should be seen in terms of asymmetries or discrepancies in recognizing and evaluating the assets, liabilities, expenses and income. The separate disclosure of assets and liabilities in the balance-sheet is in accordance with the professional reasoning by the assets’ nature and liquidity, the function and value of the assets within the company, and debt exigibility. Assessing the company’s liquidity and solvency, the exploitation, financial and extraordinary cycles specific to the company’s economic and financial life, the events subsequent to the balance-sheet date, the definitions of assets and liabilities in fiscal and/or accounting areas, are some important factors that shape the asymmetries generated by disconnecting accounting from taxation. The differences between the accounting and fiscal balance-sheet, between the accounting and fiscal account regarding the company’s financial performance through the “Income Tax Declaration” come to emphasize the necessity of disconnecting accounting from taxation in the countries which have “embraced” the continental accounting model, but to raise controversial questions regarding the true and fair view in the countries which have applied the Anglo-Saxon accounting model.

As a particularity, manipulating the fiscal result by means of transfer pricing has amplified with the increasing transactions performed between affiliates. The way of calculating transfer prices are viable tools for the reconciling the interests of fiscal administration and multinational companies. The interest of fiscal administrations is to collect the taxes they are entitled to, and the companies have the interest to perform transactions at fair prices, in order to calculate the efficiency for each subsidiary in each country. The advance pricing agreements represent another manner in which multinational companies are managing financial risk. Same as the anticipated individual fiscal solution, the advance pricing agreement represent binding fiscal administrative documents.

There are integrated reports of connection and of employment, which are determined by the intersection between the fiscal and accounting interest. In these reports might appear discrepancies between fiscal and accounting principles, and consequently, they must be reconciled or harmonized. In the sphere of these reports one can submit three problems: profit taxation, property depreciation and the accounting evaluation of the patrimony.

The problem of depreciation is subjected to profit taxation. As it is well known, depreciation altogether with net result defines the self-financing ability of the company and any movement of the depreciation level has opposite effects on profit taxation. It is known the fact that the fiscal rule establishes expenses which are deducted from income in order to calculation base for profit taxation. In the countries where accounting is connected to taxation, primarily deductible are the depreciation expenses, which correspond to real depreciation, justified from the economic point of view, being required by the accounting rules.

Taxation is used in order to incite economic agents to productive investments, as a result of the economic policy. In this situation, the companies have the possibility of adding up the paying off liquidation which does not correspond to a justified economic depreciation of fixed capital, as current assets. Thus, the accounting investigation by means of the fiscal rule has a double inconvenient. Thus, we assist, on one hand to an undervaluation of net income of the material investment in rapport with its usage, and on the other hand to an oversize of the expenses with amortization for operating activities. The implications of fiscal rules lead to obtaining some unrealistic intermediate balances, which come in contradiction with the objective of the true and fair view of the annual financial situations.

### *The International Fiscal Harmonization*

At least for the time being, we cannot talk about a harmonization of fiscal regulations at an international level. Finding themselves in a continuous search for investors and direct investments (which refers to money placements in economy), the states of the world show a competitive

behavior, rather than one based on collaboration. Consequently, as opposed to the accounting field, they show no interest in achieving a global harmonization of the fiscal systems.

Nevertheless, it is still worth questioning if the finance science has undergone any harmonization process. The answer is affirmative. A conceptual convergence has already taken place. As a consequence, the fiscal theories are recognized by scholars, the concepts used are largely accepted in the branch, certain techniques and fiscal methods have already been harmonized (e.g. the direct tax system).

In the complex circumstances of the competitive market mechanisms, and in direct relation to the attempts made by modern states to use taxes as a means of intervention in the economy, the contemporary financial practice lays a specific emphasis on the role taxes play in economy. In these circumstances, thanks to their clear settlement and perception, taxes are used as a means of economic policy. Consequently, taxes can be used as either stimuli or inhibitors of certain economic activities and fields, as well as of the consumption level of certain goods and/or services. At the same time, taxes can either boost or inhibit the external commercial relations as a whole, or with specific countries only.

The financial equity principles highlight the necessity of imposing taxes on incomes and assets in a differentiated manner, in agreement with the following set of requirements:

- Establishing a non-taxable threshold;
- Establishing the absolute and relative tax burden of each tax payer in agreement with their contribution power;
- Establishing the tax burden of a given social category, at a given contribution power, in relation to the tax burden of some other social category;
- Imposing the taxes at a general level.

The financial policy principles include the requirements that need to be met by any tax which is newly introduced into practice, referring to a high fiscal efficiency, and to an acceptable stability and elasticity.

Moreover, the type and number of the taxes levied by the state in order to collect its budget need to be taken into consideration.

The economic policy principles aim at the usage of the taxes by the state not only as a means of creating the public budget, but also as a means of influencing the extension or the limitation of the activity in certain fields, branches or economic zones, in order stimulate the production and/or the consumption rates of certain categories of goods, in order to extend or limit the external international relations for certain goods and services.

The socio-political principles of imposing taxes refer to the fact that, through their fiscal policy, the contemporary states aim at meeting certain socio-political objectives as well. By meeting these objectives, the governments are trying to maintain the population's trust in the policies they promote, as well as the influence they exert on certain social categories. In these circumstances, they promote a series of fiscal facilities in favor of low income tax payers.

#### **4. Conclusions**

Finally, we can conclude that between accounting and fiscal practices there should be only neutral relations, while the bookkeeping records generated by accounting should not be subjected to fiscal interference.

These bookkeeping records should be useful to all the interested parties, including the state, while more complex accounting information could be detailed at extra-accounting level.

Taxation does not take into account the true and fair view principle, its aim being collecting financial resources for the national budget and acting as an economic financial means of either stimulating or inhibiting different economic fields/ activities.

Taxation is (should be) used in order to encourage economic agents to make productive investments, as a consequence of the economic policy. In this situation, the companies have the opportunity of adding up the amortizations which do not correspond to an economically justified

depreciation of the fixed capital, as non-current asset. Accordingly, using the taxation rule in accounting presents a two-fold inconvenient. On the one hand, we experience an under-evaluation of the accounting book value of the material investment in relation to its usage, and on the other hand at an over-evaluation of the expenses generated by the amortization of the exploitation activity.

The implications of the fiscal rule generate some unreal intermediate balance levels, which conflict with the true and fair view principle of the annual accounting reports.

At least for the time being, we cannot talk about a harmonization of the fiscal regulations at an international level. Being in a continuous search for investors and direct investments (which refers to money placements in economy), the states of the world show a competitive behavior, rather than one based on collaboration. Consequently, as opposed to the accounting field, they show no interest in achieving a global harmonization of the fiscal systems. However, in the European Union the indirect taxes and a part of the direct taxes have already been harmonized.

Nevertheless, in spite of this reality, the economic agents and the population feel the aggressiveness of taxation. Relying on this contradiction between the moderate level of taxation and it being perceived as acute by tax-payers, we need to make the following observations. First of all, there are no fixed levels or thresholds for the taxation index. In the EU member states, the taxation levels agreed upon in agreement with the nature of taxes, irrespective of their names, represent 20-50% of the GDP, while in the OCDE countries the average of this indicator is as high as 39%. In Romania, the tax burden, which has fluctuated during the transition, falls into the above-mentioned values, reaching reasonable levels in relation to both UE and OCDE member states.

As a consequence, while in accounting the harmonization/convergence process happened in a deliberate manner, being conducted by an international board (IASB), in the fiscal field there is, currently, no clear interest for the process and no human capacity allocated toward the international fiscal harmonization. Moreover, the states compete using their fiscal system, in order to attract investors.

Nevertheless, we can conclude that, the introduction of a unique income taxation quota at the EU level would generate heated debate and would probably face a serious disapproval by the public from many EU member states. The implementation of a unique income taxation quota would also be difficult to implement from a political point of view. A unique income taxation quota would also have serious negative implications on many of the new EU member states, including Romania, which have a more relaxed taxation system at the level of companies (of 16%), which attracts foreign investments. The fiscal harmonization with the other EU member states would be translated into a significant growth of the taxation quota, and a possible re-emergence of a progressive system, which would generate a strong opposition by the government and the investors. Consequently, the introduction of a unique income taxation quota at the level of the EU member states is, at least within the current framework, not viable.

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