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IT Industry and its Role in the Economic Development of Romania

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Abstract: The IT industry is currently one of the main engines of the Romanian economy, being undoubtedly the most attractive sector in terms of wages and other benefits. The Romanian IT industry is attractive to the world's major IT corporations due to the low cost of the workforce, and the high professional qualifications of employees, but also due to tax benefits offered by the Romanian state. It is very important that this sector of activity is not only developing in our country but also in other countries of the world. This study aims at an analysis of the IT industry in our country through which the author intends to better understand the factors that have led to its development. To achieve this goal, we will conduct various analyzes of the financial performance and position of enterprises in the IT industry, as well as the role in the development of the Romanian economy. The usefulness of the current study becomes more important as we look at the possible future measures that will lead to the development of this sector, but we will also try to present the risks that are likely to occur.

Keywords: Turnover; Net profit; Development; IT industry

JEL Classification: A10; L25; L86; M41

1. Introduction

This study aims to analyze the main factors that have led to the growth of this sector of activity to determine, on the basis of the main indicators, the financial performance and the position of enterprises in the IT industry. At the same time, we will determine what are the main opportunities for developing this sector of activity but also what are the main threats that are worthy of note. For this analysis, we took into account a sample of 65 companies, whose code of Classification of Activities in the National Economy (CAEN) is 6201 Custom Software Execution Activities (Customer-oriented Software) companies operating in all the historical regions of the country. The representative cities in which most companies operate are Bucharest, Cluj, Iasi and Timisoara. The IT industry in Romania has been the star of economic growth in recent years, currently accounting for about 5% of the Gross Domestic Product, which shows that of the total of 190 billion dollars as Romania's GDP, close to 20 billion dollars are given by the IT industry.

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2. Literature Review

In the literature, there are many approaches to analyzing the position and financial performance of economic entities, among which we can mention Professor Mironiuc Marilena (Mironiuc, 2006), Professor Petrescu Silvia (Petrescu, 2010), Professor Alexandru Gheorghiu (Gheorghiu, 2004) etc. The financial analysis tracks the behavior and changes of a whole, through the examination of each component. By analysis is understood the decomposition in several elements of some factors which adversely affects certain behaviors. Peter Druker, following research, has come to the conclusion that an effective manager, in order to get results, must allocate about 50% of his time to financial analysis. (Thibaut, 1989) Therefore, in light of the elements presented above, but also in accordance with International Standard IAS 1 Presentation of Financial Statements, the persons performing financial analyzes must take into account that the main objective of the financial statement analysis is to accurately present information about the position and performance of the entity. Also by carrying out these analyzes, is also being pursued the capacity of enterprises to adapt to environmental changes with the help of the available (active) economic resources, their financing structure (debt and equity) and financial indicators. (liquidity and solvency) (Moscviciov, 2011)

3. Analysis of Assets and Liabilities

Financial analysis is a science of interpretation, which is based on an information system to be collected, treated and processed. Financial analysts take over the raw information and turn it into another kind of information, which reflects their ability to understand, synthesize and interpret information as raw material using three types of information activities. (Feleagă & Feleagă, 2005) Given the increasing complexity of decision making, the financial analysis can be and is considered to be a complex assessment of the enterprise, namely as an approach of global diagnosis, which according to the literature can be described by the existence of some phases: a competitive position in the social environment in which it operates, a phase of assessing the company's potential, as well as a phase of evaluation of strategic options for future activities.

Financial analysis is the discipline by which the analytical tools are applied to financial statements and other information of this kind for the purpose of interpreting trends and relationships in a consistent and disciplined manner, in which the analyst has the role of dealing with data converting into information in order to accomplish the process of conducting research and forecasting information. (Tabără, 2015)

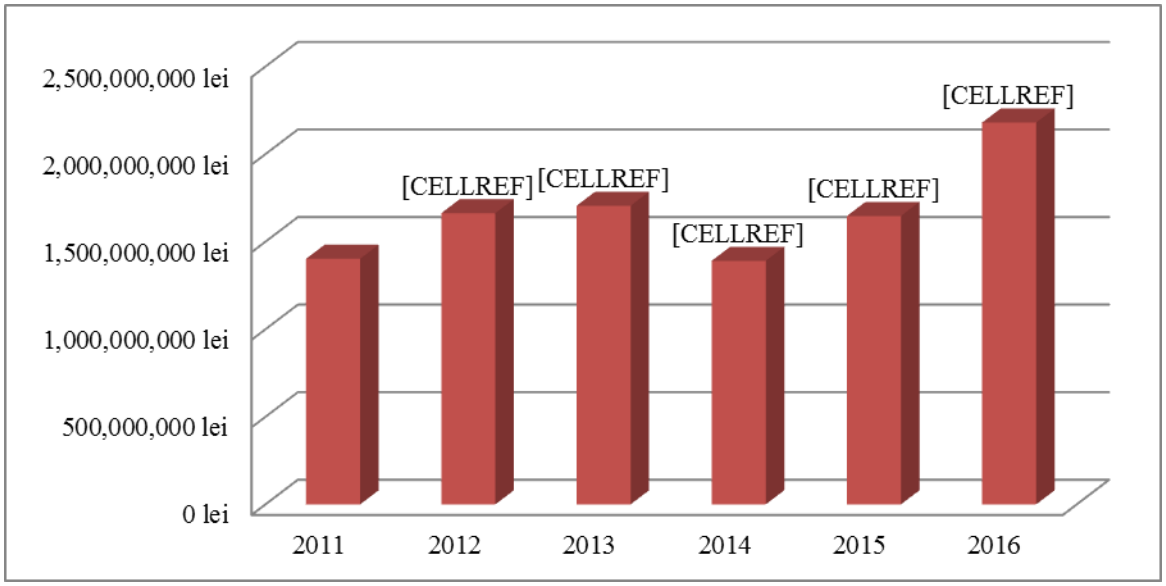

Figure 1. Evolution of total assets during (2011-2016) - 65 IT enterprises

Source: Own Illustration Based on Aggregate Financial Statements (2011 - 2016)

In Fig. no.1, there is a fluctuation in the evolution of the total assets during the analyzed period, indicates that the companies in the analysis have tried to strengthen their position on the market. There is an increase of 16% for the period 2011-2012, then a slight increase for the period 2012 - 2013, this increase being mainly due to the increase in receivables from clients. The increase in receivables is due to the fact that most companies have terms for collecting very large claims, for about 60 days. For the period 2013 - 2014, there is a significant drop, this being mainly the result of the decrease in receivables, by faster cashing out of billed amounts from customers. Starting with 2015, the total assets are up 16%, and later in the period 2015 to 2016, it increased by about 24%.

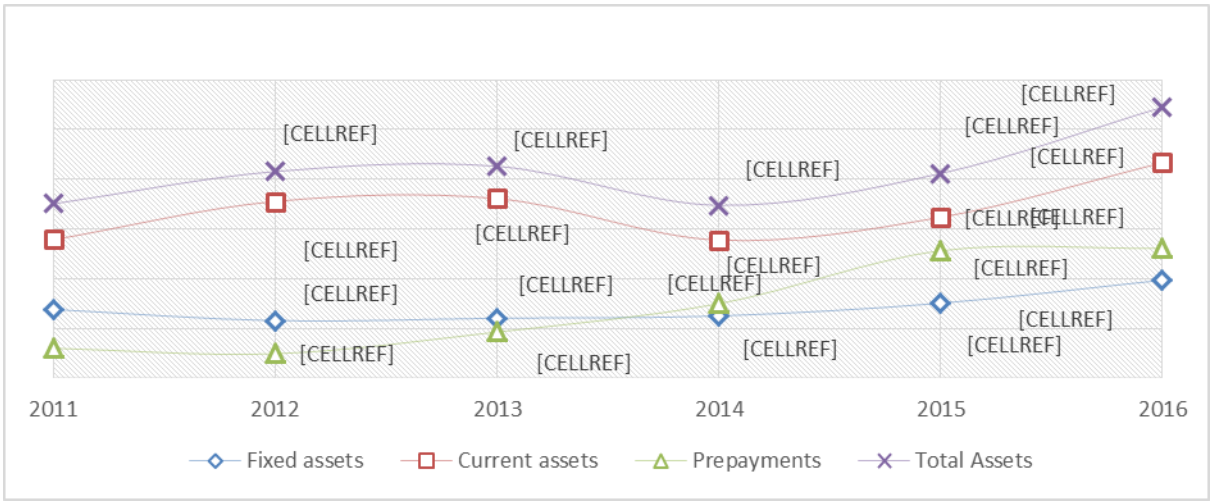

Figure 2. Structure of total assets for (2011 – 2016) - 65 IT enterprises

Source: Own Illustration Based on Aggregate Financial Statements (2011 - 2016)

In Fig. no. 2 a breakdown can be observed regarding the evolution of the total asset, as well as the composition of its structure which acts directly on its evolution. We see that for the entire analyzed

period, the greatest influence on the net asset growth is given by circulating assets, these being representative due to the specificity of the activity. Below we will show you what is the evolution of the current assets structure, in Figure 3.

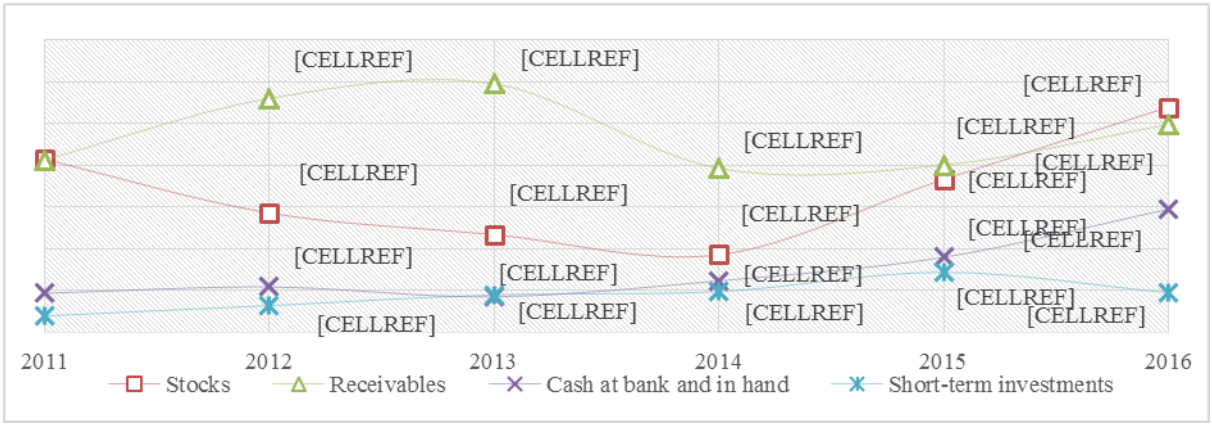

Figure 3. Structure of current assets for (2011-2016) - 65 IT enterprises

Source: Own Illustration Based on Aggregate Financial Statements (2011 - 2016)

Receivables show high values for the entire analyzed period, with a significant decrease for the period 2013-2014, but this is, as I said earlier, reflected in the reduction in the collection of receivables from customers. As for stocks, they also show fluctuating values for the period under review, characterized by a significant decrease in the first analyzed period.

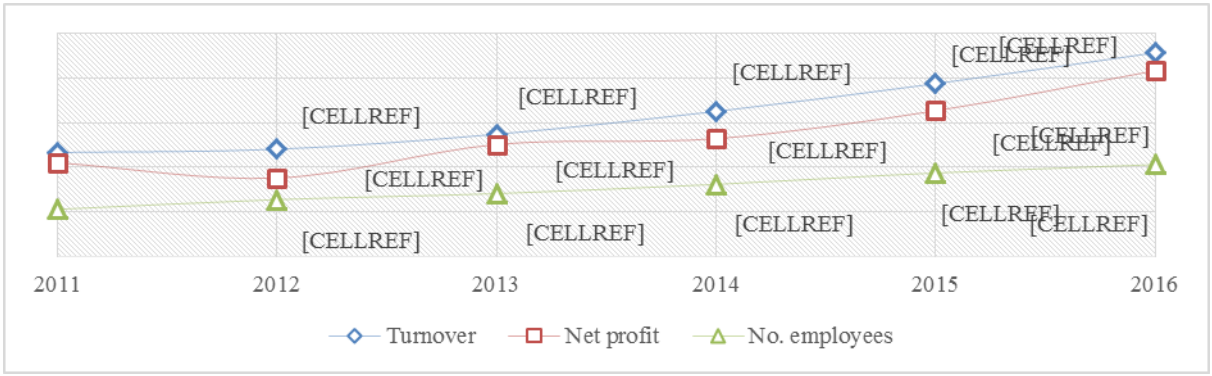

Figure 4. Structure of current assets for (2011 – 2016) - 65 IT enterprises

Source: Own Illustration Based on Aggregate Financial Statements (2011 - 2016)

The IT industry has helped to mitigate the current account deficit over time, by the fact that most of our existing companies are largely owned by non-resident companies, or those residing mostly work for external customers, so they are more export-oriented. According to a study by the Romanian Software Industry Employers Association, in 2016, approximately 73% of IT & C revenues were made up of companies owned by non-residents and only 27% of revenues were receipts from the domestic market. This proportion increases in 2017, where it reaches about 77% of the revenues of the export companies and only 23% of the sales revenue on the domestic market, resulting in an increase in the positive balance of the net export balance (Software & IT Services in Romania - 2017 Edition).

Table 1. Contributions to GDP formation

	Contributions to GDP formation - %					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**
Agriculture, forestry and fishing	6.50%	4.70%	5.40%	4.70%	4.20%	3.90%
Industry	28.80%	24.40%	25.20%	24.00%	23.20%	23.10%
Construction	8.10%	8.50%	7.00%	6.30%	7.40%	6.00%
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; hotels and restaurants	11.30%	17.30%	14.70%	15.80%	15.80%	18.10%
Information and communications	**3.40%**	**4.50%**	**4.90%**	**6.00%**	**5.70%**	**5.60%**
Financial intermediation and insurance	2.50%	3.00%	3.90%	2.90%	3.50%	3.70%
Real estate transactions	8.40%	8.00%	8.00%	9.40%	8.00%	8.20%
Professional, scientific and technical activities; administrative service activities and support service activities	5.60%	5.00%	6.40%	7.10%	7.30%	7.40%
Public administration and defense; social security in the public system, education, health and social assistance	10.00%	9.50%	10.00%	9.30%	10.20%	10.20%
Activities of cultural and recreational performances, repair of household products and other services	2.90%	2.90%	2.50%	3.00%	2.60%	3.30%
Net taxes on product	12.50%	12.20%	12.00%	11.50%	12.10%	10.50%
GROSS GDP	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: National Institute of Statistics, Source: Author's calculations

Making an analysis, as can be seen in Figure no. 4, the turnover shows an upward trend over the entire analyzed period, with constant growth.

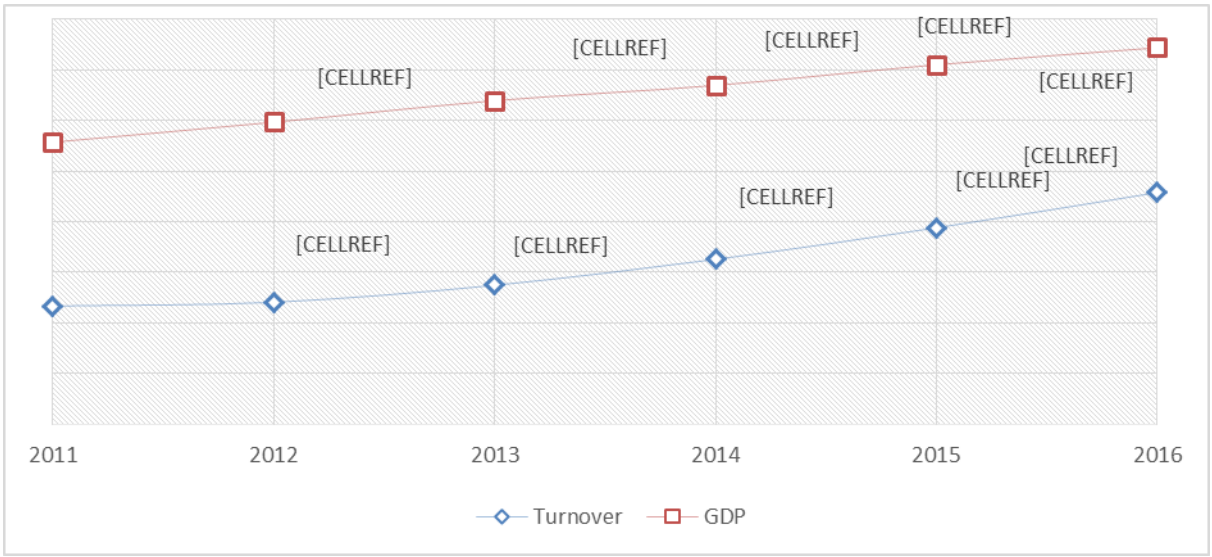

Figure 5. GDP growth vs. Turnover for 2011 - 2016 - 65 IT enterprises

Source: Own Illustration Based on Aggregate Financial Statements (2011 - 2016)

It is possible that the turnover increase is much higher, at least for the period 2015-2016, but there are many entities that have their main clients outside the European Union to pay US dollar (USD) services, so we can talk about a more modest increase in turnover in this area, and that due to the influence of the exchange rate. However, the same figure shows a similar increase in Gross Domestic Product, so as a first conclusion we can say that the IT sector has contributed to maintaining an accentuated trend of GDP, the gross added value that is used in this sector is quite representative.

4. Invoices of Influence

The IT sector in Romania is one of the most growing emerging markets in recent years with constant growth and managed, in hard times, for the country's economy, to keep the flag up. The number of companies operating in this sector is growing, and the number of people working in this sector is also growing, with over 120,000 people working in this area now. Among the opportunities, first of all, can be noticed people who work in this field, people who are very well trained, who can easily match the requirements of the buyer. Another factor that has led the orientation of big corporations was also the low labor cost they found here. This cost has been and is relatively small compared to other European countries directly competing and as a result of government policies not to tax people who work directly in this field. However, all the policies adopted by the government have made, with the introduction of the transfer of contributions from the employer to the employee, the labor cost to grow by about 6.55%, which has led, for part of the companies, to divide this cost with employees, taking measures to reduce wages.

As the main threats, besides the previously presented is also the fact that our system of schooling does not cover the job offer demanded by employers. It is known that this sector of activity is experiencing a deficit of approximately 20,000 people, which should be offset by an increase in the number of places in the relevant universities. Another threat is represented by other countries with potential, whose main threat is the low cost of labor, given that international companies have not made big investments here so that they can determine them to stay in the long run.

5. Conclusions

So the IT industry in Romania is currently one of the most prosperous industries, managing to stay for years in the forefront of the Romanian economy. I think it is very important to maintain the current growth rate by adopting some measures that will further stimulate its development. First of all, we need to see what are the main factors to help expand this industry and then apply the best solutions. At present, much of the IT industry in Romania is based on outsourcing services, is it provides various services to entities that have outsourced their services. This is not even beneficial because at some point there is a risk that the wage level required by the employees will exceed the budget of the outsourcing entities, this leading them to turn to other cheaper markets. From my point of view, in order to be able to stay in the top, IT industry in Romania needs to develop more of its own products, to focus more on designing and developing own programs.

Bibliography

Feleagă, L. & Feleagă, N. (2005). *Contabilitate financiară: o abordare europeană și internațională.* Bucharest.

Gheorghiu, Al. (2004). *Analiză economico-financiară la nivel macroeconomic*. Bucharest: Editura Economică.

Mironiuc, M. (2009). *Analiza economico-financiară.* Iasi.

Mironiuc, M., (2006). *Analiza economic-financiara, Elemente teroretico-metodologice si aplicatii*. Iași.

Moscviciov, A. (2011). *Ratingul întreprinderilor romanești din industria IT*. Cluj Napoca.

Petrescu, S. (2010). *Analiză și diagnostic financiar contabil. Ghid teoretico-aplicativ*. Bucharest.

Tabără, N. (2015). *Sisteme contabile comparate*. Iași.

National Institute of Statistics, www.insse.ro.