RESEARCH EXPENDITURES - AN FAILED EFFORT OF CREATION OR A PRODUCTIVE EFFORT?

PETRU ŞTEFEA[1], KRISTINA JANA DRIENOVSKI[1]
Faculty of Economics and Business Administration(FEAA),
West University of Timisoara(UVT), Romania,
email: petru.stefea@feaa.uvt.ro

Abstract: *This paper aims to highlight the difference between research expenditures and development expenditures in terms of their impact on economic and financial results of the company. Research expenditures were analyzed in parallel through the failed effort of creation where the company's loss was the time allotted to research activities and salaries and other expenses of this activity but also in terms of productive effort supported by information acquired by the enterprise during the course of this activity.*

Key words: *research expenditures; economic – financial analysis of enterprise*

INTRODUCTION

Research activities carried out at the enterprise level represent it's basis for innovation and progress. During times the entrepreneurs attitude on such expenses varied. In this regard, some considered them useful and argued that these support the company's progress while others considered them unnecessary and copied on the go the discovery of competition. Today, from tax point of view, research expenditures do not enjoy the same treatment as the development expenditures because they are not applicable. In this context arises a dilemma on research expenditures: they represent a productive effort or represent an failure of research - development department activities.

MATERIALS AND METHODS

This study was conducted through a mix of methods and techniques. Bibliographic documentation was first approached method and for this were studied both existing previous work on this topic as well as law sources. Were analyzed books, articles from newspapers and magazines, the country's legislation as it can be seen in the bibliography. Trough bibliographic documentation was followed the representation of existing knowledge in this area and also the analyze of researchers opinion. Another used method was the analyzing and comparison of emanating data from research - development department of the company. This analysis and comparison served as support for issuing judgments regarding the findings on research expenditures. Analysis was performed on the research - development department of the enterprise that we call for teaching purposes "Z". To complete this work ideas were arranged in a logical thread so at first we present the theoretical aspects of research expenditure, followed by fiscal approach and their reflection in the company so that at the end of the paper the conclusions regarding the position of research expenditures should be a clear and demonstrable and contribute to future knowledge of their role in the company.

The main objectives of the study

• establish the role of research expenditures compared to development expenditures in companies with own research - development department;

• highlight the impact of research expenditures as compared to the development expenditures in companies with own research - development department;

RESULTS AND DISCUTIONS

The dilemma research expenditures as a failed effort of creation or an productive effort is rooted in differentiated approach both in specialized literature and in law sources. The Order of Public Finance Ministry (OMFP) 1802/2014, International Finance Reporting Standard for SMEs and International Accounting Standard 38 oblige to a clear separation of research expenditures from the development expenditures. More OMPF 1802/2014 states that: "No intangible asset arising from research (or from the research phase of an internal project) should be recognized. Research expenditures (or those from the research phase of an internal project) should be recognized as an expense when incurred. In the research phase of an internal project, an entity cannot demonstrate that there is an intangible asset that will generate probable future economic benefits. Thus, these costs are recognized as an expense when incurred." Apart from this statement in the Tax Code are noted additional deductions for research - development activities with the condition that they lead to capitalized results of research. Instead development expenditure are recognized as intangible assets when:

(a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity;

(b) the cost or value of the asset can be measured (a) reliable;

(c) the asset does not result from expenditure incurred internally on an intangible asset."

Hence it is not sufficient for the enterprise to gain new knowledge and understanding whether scientific or technical that they can be considered intangible assets, but they must also meet the recognition criteria specified. These definitions and criteria leave room for the entrepreneur customized approaches based on short term objective pursued: income tax reduction as much as possible or beautifying balance sheet in order to increase the company's position in the eyes of external users. With strict reference to the benefits of research and development activity most Romanian companies think that this is a key element of economic competitiveness, however, throughout the whole country, investments in research - development represents only 0.49% of GDP, lowest rate in the 10 countries of Central Europe who participated in the study made by Deloitte Corporate R & D EC Report 2014. "Among the reasons for which the expenditure on research - development are so low are notable lack of government incentives which encourages investment and poor promoting of existing ones, too much bureaucracy encountered during the application process, and concerns regarding the way that tax authority interpret these expenses" said Ahmed Hassan, Country Managing Partner of Deloitte Romania. "It is encouraging however to see that over 80% of respondents expected to increase research - development expenditure in the next three to five years and that none of the companies surveyed does not anticipate a decrease in budgets in this direction."

The Deloitte survey findings include:

- Collaboration at R & Dlevel between companies and units that have the object of activity research is growing, which is a positive sign for business and for relationships with these institutions;
- More than one in five companies surveyed in the region (21%) has no R & D policy, but those who have are concerned with identifying sources of financing and adequate human resources;
- Policy of non-disclosure of information is the most common form of intellectual property protection / know-how in Central Europe; However, customized solutions

at company level or area of activity that involves more than one form of protection is recognized as the most effective.

Sandu (2010) states that "even if the private sector, especially SMEs, has no own research and development capacity, research at firm level is underdeveloped in Romania, this sector could benefit from research services offered by universities or specialized research institutes. From studies made in IEN resulted reserved or poor perception of business environment on the ability to harness in own advantage the benefits of the research - development. Evaluating the perception of the business environment in Romania on the attractiveness of RDI area reveals a negative perception compared to the EU average. Economic operators are reluctant both in terms of collaboration with research institutes and government support as well as in supporting the introduction of new technologies.

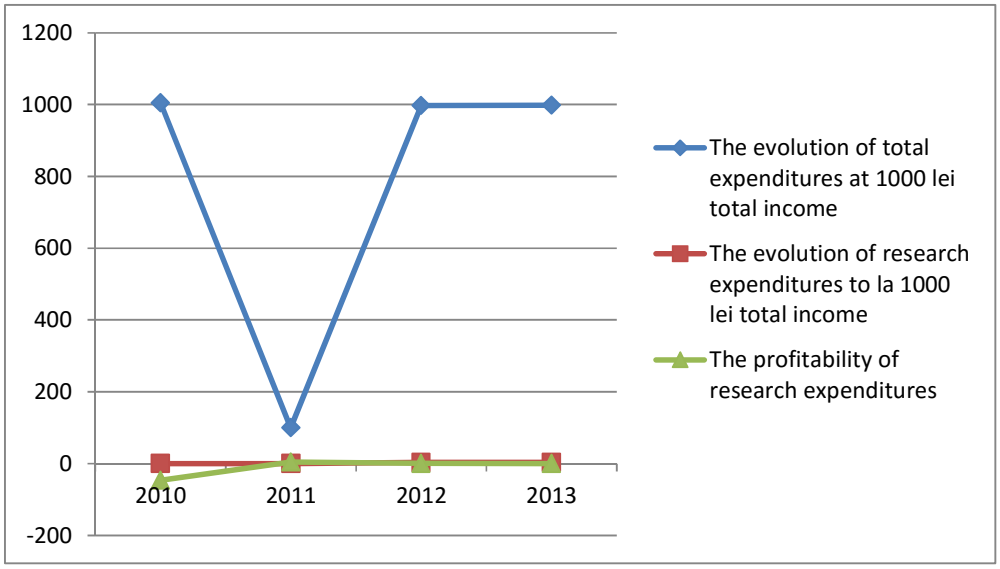
Finding an optimal share of GDP spent on R & D in Romania must be the result of collective thinking of all stakeholders (authorities, researchers, users of research results, financial institutions, etc.) to identify mixed policies that can support this approach."

The research and development activities include: basic research, applied research and technological development. The research and development activities are an integral part of innovation processes.

As note Cireașă (2014), although these tax incentives are promising, their application cannot be implemented because there is still no implementing rules and after a tax audit the risks would be very high. In this situation, tax deductions are practically given to development expenditures, unless the undertaken research expenditures during a period (year, quarter) led to capitalized results, these costs cannot be placed as development expenditure because the expenditure depending on recognition criteria must be recorded once.

Research expenditure control in an enterprise that has a separate research department is stricter than companies that do not have a separate department for research. Proving the reality of transactions and events accounted in the research activities not in terms of supporting documents but in terms of the act of creation itself is more difficult, this tax advantage can easily be used for unjustified income tax reduction.

In order to support the theory of productive effort respectively of failed effort of research activities has been undertaken economic and financial analysis of "Z" company. In this analysis the research expenditures and development expenditures has been separated and attention has been focused only on the research one. As can be seen from Table 2 of appendix the value of research expenditures in analyzed enterprise is increasing in every financial exercise while the level of research expenditures at 1,000 lei income has a convex evolution, an explanation is that this year research expenditures are reflected in the next year's income. In this regard it is noted that research expenditures have a positive impact on company revenues. During the analyzed period we find that the share of research expenditures in total expenditures is growing from the one financial exercise to another. The profit rate of research expenditures has a sinusoidal evolution, reaching both negative and positive values.



Graph 1 - Evolution of the main indicators related to research expenses
Source: Table 2 from appendix

Analyzing research expenditures through the point of view of a failed creation effort, the loss of the company is summarized in the time allocated to research activities and other expenses required by this activity. Analyzing the time and money composition supported by the company, it with the same amount of resources could outsource externally the subject (material or immaterial) desired, in this case the expenses where only for the result hence in this situation the risk of failure would be avoided. But in the same time not knowing the failure, it did not had the foundation for future success.

CONCLUSIONS

The research expenses can be viewed from the point of view of a productive effort and can be considered a bridge between a state of ignorance of specific phenomena of the company and a state of knowledge and understanding of the phenomena deployed at the company level, and this state can lead indirectly to increase of revenues or a different approach of the activity concept applied to a better knowledge of the products sold, a different execution of the services or even a different customer approach.

We consider that depending of the long term research spending strategies of the companies is considered a failed effort or a productive effort. If the company desires a durable evolution, a difference in the sold products or services, it will consider research expenses as a productive effort, and so it will develop its own research department. In the case that the company doesn't want to develop its own research department, the research activities are not constant, they are implemented when something productive is felt, and their purpose is either reducing expenses on profit tax or to impress external users in case of company reorganization, then this represent a failed effort.

REFERENCES

1. **SANDU, STELIANA** (2010), „Rata optimă a cheltuielilor de cercetare – dezvoltare în PIB, între teorie și practică", în Analele Universităţii "Constantin Brâncuşi" din Târgu Jiu, Seria Economie, Nr.4
2. **ȘTEFEA, PETRU; PANTEA, IOAN, MARIUS**, Analiză economico – financiară, disponibil online: http://ro.scribd.com/doc/38578257/11/Metoda-scorurilor
3. Deloitte CE Corporate R&D Report 2014
4. OMFP 1802/2014
5. Standardele Internaționale de raportare contabilă pentru IMM-uri
6. IAS 38
7. Legea 571/2003 privind Codul Fiscal
8. http://www.zf.ro/opinii/stimularea-economiei-prin-imm-uri-11968462
9. http://www.romanialibera.ro/economie/finante-banci/cercetarea-si-dezvoltarea--stimulate-doar-pe-hartie-354805
10. http://legestart.ro/chei-de-control-aplicabile-inregistrarilor-contabile-referitoare-la-activele-de-natura-cheltuielilor-de-dezvoltare/
11. http://www.iquest.ro^log/2010/07/29/solutia-demanagementul-perfontiantei-pentru-companii-mediisi-mici-businessbalance/#.UOI4L791nK0.

APPENDIX

ANEXA

Table 2

Economical and financial analysis of research expenditures of "Z" company

Item/Indicator name	Financial exercise			
	2010	2011	2012	2013
Total income	94.896.287	1.024.666.122	126.913.349	124.592.859
Total expenditures	95.353.402	102.171.331	126.619.368	124.391.412
Analysis of Gross Expenditure at 1000 lei total income	1.004,82	99,71	997,68	998,38
The value of research expenditures	11.256	27.399	401.418	463.673
The analysis of research expenditures value to 1000 lei total income.	0,12	0,03	3,16	3,72
The share of research expenditures in total expenditures	0,12	0,27	3,17	3,73
Net profit	-520.626	123.576	168.177	47.810
The profit rate of research expenditures	-46,25	4,51	0,42	0,10
Operating income	92.608.896	99.609.111	123.044.345	121.159.999
The analysis on research expenditure on making 1000 lei operating income	0,12	0,28	3,26	3,83
Operating expenditures	90.971.660	97.924.321	121.515.118	119.556.931
The share of research expenditures in total of operating expenses	0,0001	0,0003	0,0033	0,0039
Operational result	1.637.236	1.684.790	1.529.227	1.603.068
The analysis of research expenses to 1000 lei operational result	6,88	16,26	262,50	289,24
Turnover	90.591.881	96.775.367	120.158.720	118.744.155

The analysis of research expenditures to making 1000 lei turnover	0,12	0,28	3,34	3,90
Personnel expenses	9.144.079	9.418.739	11.504.571	12.010.560
The share of research expenditures to personnel expenses	0,0012	0,0029	0,0349	0,0386
Relationship between research expenditures to average number of employees	44,31	103,39	1.329,20	1.615,59
The index of total expenditures value to 1000 lei total income	x	0,10	10,01	1,00
The index of research expenditures value to 1000 lei total income	x	0,23	118,29	1,18
The index of research expenditures value to 1000 lei operating income	x	2,26	11,86	1,17
The index of research expenditures value to 1000 lei operational profit	x	2,37	16,14	1,10
The index of research expenditures value in making 1000 lei turnover	x	2,28	11,80	1,17
The index of research expenditures value in relationship with employee expenditures	x	2,36	11,99	1,11
The index of research expenditures value to average employee number	x	2,33	12,86	1,22

Source: financial statements of enterprise