MANAGEMENT

PRACTICE

R&D DISCLOSURES AS PART OF THE FINANCIAL STATEMENTS OF BULGARIAN INNOVATIVE COMPANIES

Assoc. Prof. Daniela Ventsislavova Georgieva, PhD1

Abstract: The object of analysis of this research paper is mandatory and voluntary R&D disclosures of Bulgarian innovative enterprises. The subject of research is published financial statements, as well as the notes accompanying them, including notes about significant accounting practices, activity reports and auditor reports. The aim is to study the practice of Bulgarian innovative companies in terms of R&D disclosures by making a comparative analysis of existing legal and theoretical requirements to these disclosures and the practical findings of the research we conducted. The research methods we employ are based on the logical, the deductive and the comparative method, in addition to content analysis and synthesis of new texts in related legislative framework and theoretical developments.

Key words: R&D, mandatory disclosure, voluntary disclosure.

JEL: M400, M480, M410.

Introduction

Economic literature advances the thesis that there is a relationship between profitability and the volume of R&D textual disclosures (Cheng, J. & J. Zhao, 2018, p. 406). The lack of such information about organisations engaged in R&D may be interpreted negatively in several ways, some of them being:

¹ International Business School, Botevgrad.

- 1) The enterprise is not a reliable partner or does not have any experience in the implementation of innovative projects;
- 2) The data presented in the financial statements are irrelevant to their financial and economic activity;
- 3) The enterprise employs the wrong set of methods for recognizing and reporting its R&D costs, which, in turn, results in wrong microand macroeconomic data about Bulgaria's innovative potential.

The major object of analysis in this research is mandatory and voluntary disclosures in the financial statements of Bulgarian innovative enterprises for the accounting recognition and reporting of their research and development activity. In addition to R&D disclosures, this research also deals with information about the fixed intangible assets, which innovative enterprises possess and use, and in particular, assets generated from their R&D activity. This is justified by the need to identify existing causal relationships and dependencies in terms of the innovative activity of enterprises, as well as the fact that some of those enterprises perceive R&D as an integral element of internally created fixed intangible assets. The subject of this research is published financial statements and supplementary notes to them, including significant accounting policies, activity reports, auditor reports, statements. The objective of the research is to study the practice of Bulgarian innovative companies in terms of mandatory and voluntary R&D disclosures. Another objective is to conduct a comparative analysis of adopted legal and theoretical requirements to R&D disclosures and the practical findings of this research. To accomplish this, we set the following research tasks:

- To analyse the availability of mandatory R&D disclosures based on the National Accounting Standards (AS) and the International Accounting Standards (IAS) applicable on the territory of Bulgaria;
- To study existing practices in terms of supplementary R&D disclosures;

The underlying hypothesis of this research is that Bulgarian innovative enterprises refrain from making R&D disclosures since they tend to underestimate the importance of such disclosures to innovative development

from a micro- and macroeconomic perspective and since their accounting personnel fails to understand the nature and essence of R&D disclosures. The research methods we adopt are based on the logical, deductive and comparative methods, as well as on the methods of analysis and synthesis of relevant texts that have been introduced into the legislative framework and into specialised literature.

1. Theoretical Review

The accounting policy of an enterprise is the document, which gives a comprehensive idea about the current and periodic accounting system that the entity has adopted and is implementing. For the purposes of this research, the term accounting policy is used to refer to 'the specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements' (IAS 8.5). In Bulgarian practice, the development and disclosure of significant accounting policies as a component of financial statements is approached as a legislative requirement rather than as an essential element of reporting. Significant accounting policies are a supplement and part of the non-financial information to be disclosed. Disclosures accompanying the financial statement of enterprises may provisionally be classified as mandatory and voluntary. Mandatory disclosures directly relate to the statutory requirements of the accounting standards, which are applied in a specific country.

Accounting Standards are the accounting basis for Bulgarian enterprises. This does not apply to some companies specified by the law (which are primarily in the business of finance, pension insurance and investment), or to companies which have opted to apply the International Accounting Standards (Accountancy Act, Art. 34). Until 2002, the accounting treatment of research and development activity in Bulgaria was governed by AS 9 Accounting for Research and Development Costs. Presently, however, there is no special accounting standard which addresses R&D related issues. The

requirements to the accounting recognition and reporting of R&D activity, as well as that of internally generated intangible assets from R&D are set out in IAS 38 Intangible Assets and in AS 38 Intangible Assets. The legislative framework must meet the need of accurate accounting of innovative enterprises, which raises the question whether revoking a whole standard that regulates the accounting of R&D would contribute to the relevance of accounting theory and practice to contemporary economic developments and the needs of businesses. What is more, not only was AS 9 revoked instead of updated, but it was also integrated into the texts that set out the requirements to the provision of accounting information about internally generated intangible assets. One of the reasons for having the standards thus integrated is the process of standardization and harmonization of accounting that has been going on at a global level. As a result, the adopted approach in Bulgaria was that of selective capitalization, which focuses on the clear-cut distinction between activities at the research stage and activities that are part of the development stage. This distinction is also important for mandatory disclosures, in particular, the part referring to the approaches adopted for the recognition and initial reporting of internally generated fixed intangible assets (see table 1).

Voluntary disclosures may provisionally be defined as any information, beyond mandatory disclosures, which enterprises provide to their counterparties in addition to their financial statements. Managerial staff may use detailed R&D disclosures to build a positive image about the value and the good will of their company in front of outside entities, as well as to raise the market price of the stock of their company (Merkley, K., 2014; Jones, D., 2007; Nekhili M. et al., 2012). Hence, R&D may be associated with investment behaviour, which determines the subjective nature of disclosures and results in information asymmetry. Managers can adjust the contents of textual R&D disclosures in the financial statements based on the changes in reported revenues and costs for the period and the information needs of investors (Cheng, J. & J. Zhao, 2018, p. 405, p. 410). Using asymmetric information, however, is in most cases detrimental to investors' interests (Bankova, D., 2019, p.28).

Table 1.
Disclosures required by National Accounting Standard 38 and International Accounting Standard 38

7 100001111111	g Standard 30			
	AS 38 Intangible Assets	IAS 38 Intangible Assets		
R&D relevant disclosures	recognizing development costs as intangible assets; The approach adopted for the initial valuation of intangible assets; The total sum of research costs incurred during the current reporting period. The total sum of development costs incurred and accumulated during the current reporting period. The value of the intangible assets acquired from development (in result of research	 Information whether the useful lives of assets are indefinite or finite, and, if finite, the useful lives or the amortization rates used, as well as the employed amortization methods; The line item(s) of the statement of comprehensive income in which any amortization of intangible assets is included; The gross carrying amount and any accumulated amortization (aggregated with 		

Source: AS 38 Intangible Assets and IAS 38 Intangible Assets.

Some authors support the opposite idea, namely that, other things being equal, voluntary R&D disclosures do not increase the market value of enterprises. The volume of disclosures is affected by the approach adopted for reporting R&D costs, the assumption being that disclosed information is more detailed in case expenditures are fully capitalized (Nekhili, M. at al.,

2016). The opponents of detailed voluntary disclosures defend the thesis that those might result in sharing strategic information, which might be used against an enterprise by its competitors (Entwistle, G., 1999). In a situation of economic uncertainty, abstaining from detailed disclosures may prevent potential loss of confidence in the management of an organisation (Teoh, S. H. & C. Y. Hwang, 1991). R&D disclosures are nevertheless considered to be an important mechanism for reducing the conflicts between internal and external users of the information provided in financial statements (Patelli, L. & A. Prencipe, 2007) as well as for raising the ability of enterprises to face up to technological challenges and changes (Teixeira da Silva, S. at al., 2013, p. 409). Even less detailed R&D disclosures contribute to increasing the information in an environment of uncertainty and a high risk to obtaining future economic benefits from R&D activity. R&D disclosures thus promote innovations (Hsiao-Tang H. & H. Huichi, 2018) and enable investors to reliably assess the profitability of their potential investment (Teixeira da Silva, S. at al., 2013, p. 402).

2. R&D Disclosures in the Financial Statements of Bulgarian Innovative Enterprises

2.1 Research Methodology

For the purposes of our research, we conducted an analysis of the financial statements of 197 enterprises in the period from 2008 to 2018. Since there is no developed market for innovative products or a single register of R&D organisations, we collected and analysed the financial statements of organisations whose activity or name might be associated with R&D and innovations. According to the sources of information about innovative companies, we could group the analysed financial statements as follows:

- Published financial statements of enterprises listed in the register of manufacturers and importers of medicinal products on the territory of the Republic of Bulgaria;

- Published financial statements of enterprises listed in the register of manufacturers, importers and wholesalers of active substances;
- Published financial statements of enterprises listed on the Bulgarian Stock Exchange (BSE) in the Professional Activities and Scientific Research Sector:
- Published financial statements of innovative Bulgarian enterprises which provide innovative products and services for large multinational companies or are partners in the ICT listed in the updated version of the Innovation Strategy for Smart Specialisation of the Republic of Bulgaria 2014-202;
- Published financial statements of innovative enterprises whose R&D project proposals have been approved for funding by the National Innovation Fund;
- Published financial statements of winners in the 2018 Innovative Enterprise of the Year Contest which is organized by the Applied Research and Communication Fund and Enterprise Europe Network, Bulgaria, with the support of the Directorate-General of the European Commission for Internal Market, Industry, Entrepreneurship and SME-s;
- Published financial statements in the Commercial Register and in the Register of Non-profit Legal Entities whose names do not contain the phrase 'scientific research';
- Published financial statements in the Commercial Register and in the Register of Non-profit Legal Entities whose names contain the word 'innovative'.

After conducting a primary data analysis, we excluded from the target groups enterprises for which there were no available data or published financial statements in the Commercial Register or the Register of Non-profit Legal Entities. The final sample thus included 143 financial statements. For the purposes of our research, we used contents analysis which is considered to be a reliable method for researching intangible assets and information disclosures in the financial statements of organisations (Teixeira da Silva, S. at al., 2013, p.403; Abeysekera, I., 2006; Beretta, S. & Bozzolan, S., 2008). The analysis includes figures from the Assets column in the balance sheets of researched enterprises, Section B 'Fixed (Long-term) Assets', Group 'Intangible Assets', as well as disclosures about the intangible fixed assets

and the R&D of reporting units in the attachments to their annual financial statements (including Activity reports, disclosed significant accounting policies, audit reports, statements).

2.2 Analysis of the Research Findings

A relatively high percentage (nearly 38%) of the analysed enterprises do not publish any notes to their financial statements with information about the recognition, classification or reporting of their accounting objects. According to the provisions of the Accountancy Act (Zakon za schetovodstvoto, 2019, Art. 29, Para. 4), the annual financial statements of micro-enterprises may well consist of a summary balance sheet and a summary income statement by section only. Nevertheless, 62% of the enterprises, which have not published any notes, are micro-enterprises; 22% of them are small enterprises, 9% are medium-sized ones and 7% are large enterprises. We should note that despite the lack of any legal requirements to publish notes to their financial statements, 43% of the researched microenterprises provide voluntary disclosures about their significant accounting policies. Nearly 13% of the 88 analysed organisations, which publish notes to their financial statements, disclose information about the accounting of their R&D activity. About 15% provide figures about the R&D products they have created in their balance sheets, yet only 57% of them disclose significant accounting policies in terms of R&D. 2% of the researched organisations publish statements which report R&D costs, yet they do not contain any detailed information about reported R&D activities.

All innovative enterprises are expected to comply with applicable national and international standards in terms of their mandatory R&D disclosures and reveal the same level of information (Teixeira da Silva, S. at al., 2013, p. 392). In terms of applicable accounting standards, 72.7% of the enterprises have selected to use the National Accounting Standards, while 27.3% of the companies use the International Accounting Standards. None of the researched enterprises, which publish R&D disclosures is subject to the mandatory legal requirement to prepare its financial statements by applying the International Accounting Standards. Therefore, selecting the IAS as an accounting basis is voluntary and aims to attract foreign investors.

A more detailed analysis indicates that all innovative companies, which employ the international accounting standards, disclose the R&D information required by IAS 38 (see table 1). In terms of supplementary (voluntary) disclosures, 75% of the companies publish data about the recognition criteria for intangible assets generated through R&D, and nearly 35% disclose the specific activities in the scope of R&D (see Table 2). Nearly 88% of the enterprises disclose their approach for the initial evaluation of R&D products, while 38% also disclose the approach they employ for the subsequent evaluation of their resources. The share of enterprises, which disclose further data about the accounting approaches they employ to report their subsequent expenses; the impairment and the depreciation of their R&D generated assets is approximately the same (38%). Nearly 13% of the researched enterprises provide voluntary disclosures with data about their R&D personnel, the results of their activity, projected future investment in R&D and their source of funding. 25% of the enterprises, which employ the IAS also publish additional information about their R&D projects, mainly about their objectives, results and partner institutions.

Table. 2. Voluntary R&D disclosures published by Bulgarian innovative enterprises

	National accounting standards	International accounting standards
Additional textual R&D disclosures in the financial statements of researched innovative enterprises	Implemented R&D projects; Depreciation policy employed for intangible assets generated through R&D Adopted approach for the subsequent evaluation and reporting of the subsequent costs related to an internally generated intangible asset.	 Data about the recognition criteria for intangible assets generated through R&D Different activities within the scope of the R&D stage; Approaches adopted for the initial evaluation of R&D products; The approach employed for the subsequent evaluation of resources; Accounting standards applied to reporting the subsequent costs, the depreciation and the amortization policy related to the asset; Data about the R&D staff, the results of their activity, expected future investment in R&D and the source of their funding; Data about R&D projects, primarily about the objectives of the projects, their results and the partner institutions.

Source: Based on the analysis of 143 financial statements which the author of the paper conducted.

Only 20% of the organisations applying the national accounting standards make all the mandatory R&D disclosures, which AS 38 requires. In terms of the data that are subject to mandatory disclosure (see table 1), 60% of the organisations publish the approach they have adopted for the initial evaluation of intangible assets generated from R&D. The adopted approach for recognizing development costs as an intangible asset is disclosed by 40% of the enterprises, the total sum of R&D costs is disclosed by 30% of the entities, and the total sum of development costs is disclosed by 20% of the organisations. The value of the intangible assets acquired in result of R&D over the reporting period is disclosed by 40% of the enterprises. We should note that of all enterprises applying the national accounting standards, three have made voluntary disclosures that they are implementing R&D projects without publishing any supplementary financial or non-financial information about the accounting recognition or the reporting of their costs (see Table 2). Three of the enterprises disclose figures about reported research costs, yet, they publish no information about the type, the purpose, the recognition or the reporting of those costs. Four of the organisations, which provided R&D disclosures voluntarily published additional data, and three of them gave more information about the research projects they implemented and the depreciation policy they employed for the intangible assets generated through their R&D activity. Two of the enterprises disclosed the approach they employed to the subsequent evaluation and reporting of subsequent costs of internally generated intangible assets.

Conclusion

A more comprehensive analysis of the financial statements of enterprises confirms the findings of previously conducted research which established that the level of R&D disclosures in the financial statements of Bulgarian innovative companies applying the national accounting standards is low (Petrova, P., 2014). There is a similar trend not to publish disclosures to the financial statements in other economic sectors in Bulgaria, as well (Georgieva, D., 2018).

The analysis of the financial statements published by innovative enterprises also indicates that those companies tend to disclose the voluntary data at the expense of the mandatory information required by applicable standards. The reluctance of innovative enterprises to publish mandatory information about their R&D activity may cast doubt on the truthfulness of the data presented in their financial statements. This is in conflict with the requirement that disclosures must provide assurance that the information provided in their financial statements shall be reliable, prudent, neutral, impartial, complete in all material aspects, and, above all, necessary for making sound economic decisions. We should note that the budgets of Bulgarian enterprises for developing and introducing innovative solutions are primarily formed from their own funds and from foreign investment. Creditor confidence in small and medium enterprises in the country is low, which results in a further decrease in the funds for implementing R&D projects. Creditor confidence is directly affected by the accounting, financial and non-financial data disclosed in the financial statements. Underestimating the importance of such disclosures as a mechanism ensuring sustainability and development, therefore is a prerequisite for the outflow of investment from and weak government support for innovations.

Such negative trends raise the question why Bulgarian innovative companies choose not to publish any disclosures with their financial statements. The answer might be the attitude of the persons preparing the financial statements towards R&D disclosures, as well as their awareness and understanding about the nature and the importance of such activities.

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