# INNOVATION AND SUSTAINABILITY: DISCLOSURE PRACTICES OF HUNGARIAN PHARMACEUTICAL COMPANIES

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**ABSTRACT**

Today, innovation and sustainability are issues that organizations need to address when they compose their strategies. Moreover, it is not enough to align these with organizational objectives, it is also necessary to inform the stakeholders about the firms' attitude towards R&D&I and its connection with sustainability. The tool for this communication – besides the narrative parts of traditional financial statements – is voluntary reporting. This paper presents an empirical research about the disclosure practices of dominant actors of the Hungarian pharmaceutical industry: the aim of the content analysis is to discover items related to innovation and sustainability in the mandatory and voluntary reports issued by companies. This is done in order to support planned future research aiming to compare the disclosure practices of different reporting environments. We concentrate on the Hungarian market at this initial phase because our first aim is to come up with a list of items to search for in financial statements. Results show that the reporting practices of the sample firms are determined by the requirements of the Hungarian Accounting Act. Voluntary reporting and voluntary disclosure were found only in case of the sole public entity in the sample,

which presented the highest scores. Another important finding is that the two areas of our interest were not interlinked in the statements, so companies did not report on the sustainability aspects of their research practices.

***Key words:*** *innovation, sustainability, disclosure practices, voluntary reporting*

## 1. INTRODUCTION

Pharmaceutical companies face multiple challenges regarding profitability and sustainability due to their special role. These companies are expected to produce medicines for the sake of the human kind in a way that does not harm the needs of future generations. On the other hand, achieving profitability and satisfying several groups of stakeholders – investors, creditors, states, authorities, the public etc. – are goals that must be met by the organizations. The sector has a two-tier structure: few large multinational research-based firms comprise the market with a larger number of smaller companies who do not have a significant role in bringing great innovations to the customers (Blum-Kusterer–Hussain 2001).

Large pharmaceutical entities operate in a highly intense competitive environment on the medicine market, where *research and innovation is a must* due to the above mentioned complex set of short-term and long-term objectives. Of course, protecting intellectual property rights with patents in this situation is very important in order to maintain and control the results of intense R&D expenditure.

From an ethical aspect, pharmaceutical companies should act fair towards society and improve their *corporate social responsibility* (CSR) involvement (Lee–Kohler 2010). CSR in general can be defined as a '*set of procedures and actions adopted by organizations to promote good practices in the management of economic, social and environmental aspects*' (AECA 2004; Gelbmann 2010 cited by Haro-de-Rosario et al 2016 p 176).

Thus there is a moral obligation for firms to report on such delicate issues which are not treated routinely in traditional accounting: environmental issues, human resource, innovation capacity and strategies. These topics have one very important feature in common: they would be classified in accounting as intangible assets or commitments, but usually they are not listed on the Balance Sheets due to strict recognition criteria in accounting regulations. So the task is to find out how to incorporate such important strategic questions into company-level communication which are traditionally not reported as part of annual statements.

As we can see in the literature there are plenty of examples for research related to "sustainability," "corporate and social responsibility" (CSR), "corporate

responsibility" (CR), and "triple bottom line" (TBL) (Idowu et al 2016 p 1.). The terms are sometimes used as if they were synonyms. Undoubtedly, new ways of reporting are emerging, and in the future integrated reporting is going to be in the centre of attention (Dumitru-Jinga 2015).

Moreover, the idea of sustainability may appear in other areas than CSR reporting. The idea of responsible research and innovation (RRI) is that social, ethical and environmental aspects should be taken into consideration during the implementation of research, development and innovation projects (Lukovics et al 2017). This also brings the issue of sustainability reporting to a new level, challenging the policy makers to set standards that lead to comparable reports providing the stakeholders information about the entities' attitudes toward such responsibilities.

As for the European pharmaceutical industry, the research and development expenditure in 2016 was 33,949 million € and 178 million € in Hungary (EFPIA 2018 p 7). The production of the Hungarian market for the same year was 3,050 million € (EFPIA 2018 p 12). The sector has been growing in the recent years: investments for increased 13 percent in 2017 mainly due to the most significant firms of the market (KSH 2017 p 7). The majority of performance of the Hungarian pharma sector is deriving from four massive actors each of which carries out research and development activities: Richter Gedeon Nyrt., Egis Nyrt., Teva and Sanofi Group. The volume R&D spending of these firms is outstanding even in a European perspective and includes all levels of research and product development (Sipos–Cseh 2014 p 143). This makes the Hungarian pharma sector a logical choice for exploring the financial and voluntary reporting practices for R&D aspects.

Our research aim is to find out how research-intensive participants of the Hungarian pharmaceutical industry communicate about their R&D&I efforts and sustainability issues. We concentrate on the Hungarian market at this initial phase of the research because our first aim is to come up with a list of items to search for in the financial statements. Firstly, it is necessary to frame an index that can be applied later during the course of future research extended to several European countries. Similarly to Bellora–Guenther (2013) we analysed the statements manually because we intended to rely on our understanding of the published data instead of computer software. The most logical way to do this is to read financial statements published in our country to avoid language barriers. Our final aim is to be able to compare the reporting culture of the Hungarian pharmaceutical sector with more developed countries in Europe.

We apply the methodology of annual statement content analysis. We design a list of the most important items based on previous literature (Ragini 2012) and search for the items in the mandatory and voluntary annual reports

of the sample entities in order to get information about the level of disclosure. The structure of this paper is as follows: after the introduction, the second part deals with sustainability reporting practices in the pharmaceutical sector. The third section presents the research methodology along with the sample and the main results. The last section contains the conclusions.

## 2. SUSTAINABILITY REPORTING PRACTICES

As accounting is a tool of communication with the stakeholders, it has a key role in providing necessary information to the proper groups of interested parties. In terms of reporting channels, there is financial accounting which results in systematic and standardized statements prepared for external stakeholders by firms based on local accounting standards. The content of these documents in not restricted to the mandatory elements, but evidence shows that in Hungary the intangible reporting culture of the largest companies is basically determined by the requirements of the regulations which state what kind of information has to be included in the narrative parts of the statements. Listed companies – which enclose the business report to the financial statements – are exceptions: in their case voluntarily disclosed information is also significant (Kovács 2015).

However, in the near past, there have been voices saying that supporting short-term decision making is not the only objective of financial reporting. Stakeholders also need information about whether the entity has been managed in a way that reflects their interests, which leads us to the issue of stewardship or accountability. The reasoning includes that even if a primary user is not currently considering a buy or sell decision, they could be interested is understanding the entity's strategy and value creation in the longer term (EFRAG et al 2013).

The European Union has recently put more emphasis on the issue of reporting information related to the firms' social and environmental responsibility. Directive 2013/34/EU already required entities to include issues related to environmental and social aspects in the management report. Later, directive 2014/95/EU amended the former regulation to enhance the disclosure of non-financial and diversity information by certain large undertakings and groups, leading all member states to incorporate these rules in their accounting regulations (in Hungary this lead to an amendment in the Hungarian Act on Accounting). The directive also mentions the aim of the development of such frameworks that serve as common basis for sustainability reporting, setting already existing ones as examples.

Besides mandatory reporting, another tool is voluntary disclosure, which is a much more flexible and non-standardized method of communication usu-

ally focusing on non-financial information. Sustainability issues have been dealt with for decades in dedicated statements focusing on the so called triple bottom line (i.e. social, environmental and economic) aspects. From the 1980's, annual statements began to incorporate the management commentary, environmental reporting and governance or remuneration reports as new tools to address multiple information needs of a broader audience (Dimitru–Jinga 2015). In the new millennium, sustainability reporting emerged and according to Blum-Kusterer–Hussain (2001) the pharmaceutical sector's contribution to the topic was linked to such issues as global warning, ozone depletion, reduction of emissions, the efficient use of resources, the disposal of unused products and packaging, biodiversity, animal ethics, genetic engineering and the impact of consumption. The authors study the process of eco-change in the pharmaceutical industry and define eco-innovation as 'changes to the production process that decrease the product's impact on the natural environment and/or increase intra-generational or inter-generational equity' (Blum-Kusterer–Hussain 2001, p 301).

As a consequence of the need for this kind of communication, new organizations emerged establishing frameworks for voluntary integrated reporting (e.g. International Integrated Reporting Council – IIRC). The advantages of creating such standards is that the users of companies' statements get information on the organizations' long-term non-financial goals and value creation which is standardized on some level. This also helps businesses to build trust with a wide range of stakeholders and create a favourable image. According to Rosario-de-Haro (2016), CSR disclosure has to be treated in the pharmaceutical sector as a strategic issue and the method of disseminating the information to stakeholders is also an important question to be considered. The authors analysed the information published by firms in the Spanish pharmaceutical industry provided in sustainability reports and CSR reports available online. The researchers found 50 such reports online from a preliminary sample of 315 companies chosen by sector and firm size, meaning that around 16% of the entities published them (Rosario-de-Haro 2016, p 180.). The authors also state that in order to get to the public, a new kind of approach is necessary and annual statements need to cover the leading topics of communication (e.g. corporate strategy, operational and financial reports along with CSR issues) in integrated reports.

As today, information technology is an area of constant development, internet plays a key role in the technical implementation of communication with the users of annual statements. In this way, transparency and interaction with the stakeholders can be brought to another level in the future, meaning that the once-in-a-year reporting will probably be replaced with day-to-day

communication and interaction. There is also a rationale for the companies to invest in internet financial reporting, since according to research, it can be a factor that affects financial performance for specific firms (see Pinto–Ng Picoto 2016).

## 3. RESEARCH METHODOLOGY AND RESULTS

Our chosen methodology is content analysis of financial statements and other published reports of the sample entities. The sample consists of those members of the Hungarian Association of Pharmaceutical Manufacturers[1] which are engaged in R&D and Innovation. Since according to the Hungarian Act of Accounting[2] entities must report the expenses related to research and development in the narrative section of the financial statements, these sections of the most recent statements were examined and out of the 35 members 10 firms were included in the sample as they disclosed R&D-related information for the year 2017. The sales revenues of the sample firms range between 3-1,300 million € which means that they all count as large entities in the Hungarian business environment. Out of the ten entities nine are private limited companies, and one is a public limited corporation. All of them compose the Hungarian form of the so called full annual financial statements (with no exemptions regarding content), which were collected and analysed for the purpose of this research.

In Hungarian regulations, the Business Report must be prepared and attached to the financial statements but the law does not require entities to make it available online except for public companies. As a consequence, these were not downloadable in case of nine of the sample companies but was available for the single public entity. Based on the law[3], as a public-interest entity, one of the corporations must prepare an additional Non-financial Statement as part of the Business Report in which the impact of their operations on environment and society are also disclosed. Besides financial statements, we also checked whether any of the sample companies publish other types of voluntary statements (CSR or Sustainability Statements, GRI[4] reports, etc.) on their websites. The sole public limited company published a so-called annual statement, which included dedicated chapter for financial data, information for shareholders, corporate governance, research and development, social responsibility and human resource among others.  For the rest of the sample companies no such reports were found online for the financial year 2017.

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[1]  https://www.magyosz.org/hu
[2]  Hungarian Act of Accounting: '2000. évi C. törvény', paragraph  92. § (4)
[3]  Hungarian Act of Accounting: '2000. évi C. törvény', paragraph  95. §
[4]  Global Reporting Initiative

After collecting the available statements, we comprised a list of the items based on which the content analysis was carried out. We defined 34 R&D-related items (see Table 1), most of which were included in Ragini's (2012) research. Items 1-20. comprise the R&D group in Ragini's research. To these, we added six other items based on what we found in the annual statements (21-26.). Items 27-34. were present in Ragini's group for Intellectual Property, and we decided to include them to have some information about those results of research and development which are protected by law and help to achieve competitive advantage on the market. The rest of the list (35-45.) are those pieces of information collected from Ragini's which give us an idea about the firms' attitude towards sustainability.

**Table 1.** List of the searched items

| 1. | R & D Facilities | 16. | Technical know-How | 31. | Patent Ranking |
|---|---|---|---|---|---|
| 2. | R & D Activities* | 17. | New Technologies | 32. | Intellectual Property Cycle |
| 3. | R & D Personnel | 18. | Details Regarding Funding of R&D* | 33. | Intellectual Property Activities |
| 4. | R & D Focus Areas | 19. | Information Technology Initiatives | 34. | Intellectual Property Management |
| 5. | R & D Centres/ Bases | 20. | Information Related to Software Cost | 35. | Corporate Ethics/Code of Conduct |
| 6. | R & D Structure | 21. | Capitalized R&D in the Balance Sheet* | 36. | Environmental Activities* |
| 7. | R & D Efforts/Initiatives | 22. | Depreciation method of Capitalized R&D* | 37. | Environmental Philosophy* |
| 8. | R & D Results/Achievements | 23. | Depreciated Amount of Capitalized R&D* | 38. | Environmental Programmes/Policies* |
| 9. | R & D Expenditure* | 24. | R&D Income | 39. | Environmental Initiatives |
| 10. | R & D Expenditure as % of Sales | 25. | R&D Risks | 40. | Environmental Commitments* |
| 11. | Growth Rate of R&D Expenditure | 26. | R&D Quality Management | 41. | Environmental Management Framework |
| 12. | Reason for the Increase or Decrease in Expenditure | 27. | No. of Patents | 42. | Environmental Matters* |
| 13. | Information on Accounting Treatment of R&D Expenditure* | 28. | No. of Patents (area-wise) | 43. | Environmental Expenditure* |
| 14. | In-process Research and Development | 29. | Value of Patents | 44. | Products/Technologies Contributing to Environment* |
| 15. | Technology and Innovation | 30. | Value of Acquired Patents | 45. | Corporate Social Responsibility |

*Note: marked items are compulsory to disclose if relevant.*
*Source: own construction based on Ragini (2012)*

The entities are required to disclose some of the listed items based on our accounting regulation *if these are relevant* (14 marked items in Table 1). It is important to state that an if an entity does not include these items can simply mean that the item is nor relevant (for example there are no capitalized development costs in the balance sheet, so items 21-23 will not be disclosed). What we can say that if these items are in the financial statements, then this is not voluntary disclosure but a mandatory one. The other 31 which are not marked are voluntary to communicate.

Our results are concordant with earlier research stating that the disclosure practices of Hungarian companies are deeply determined by the accounting regulations, and voluntary disclosure is very limited. Table 2. presents the number of the items included in the annual statements by companies.

**Table 2.**  Disclosure scores of the ten sample companies

| Sample companies (1-10.) | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| R&D&I | Mandatory | 3 | 4 | 7 | 7 | 6 | 3 | 3 | 3 | 2 | 1 |
| | Voluntary | 1 | 0 | 0 | 15 | 3 | 1 | 0 | 0 | 0 | 1 |
| | **Total** | **4** | **4** | **7** | **22** | **9** | **4** | **3** | **3** | **2** | **2** |
| Sustainability | Mandatory | 1 | 3 | 2 | 6 | 5 | 0 | 3 | 1 | 0 | 0 |
| | Voluntary | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Total** | **1** | **3** | **2** | **10** | **5** | **0** | **3** | **1** | **0** | **0** |

*Source: own construction*

Overall, the ten companies present on average 3.9 mandatory R&D&I elements and 2.1 voluntary items. On sustainability, the average number of reported mandatory items is 2.1, and the average of voluntary disclosed elements, is 0.4. However, it is obvious from the results that there is one outstanding company which is not surprisingly the public company with the available business report and the non-financial statement integrated into the above mentioned annual report. If we remove this one company from the sample, the averages drop significantly – around zero – in the voluntary sections. Except for the mandatory items where it is 3.6 and 1.7.

Publicly listed companies usually disclose more information on a voluntary basis, which is true for our sample as well. Since these companies tend to put more emphasis on transparency and communication with the stakeholders, the voluntary items appear a lot more frequently. But as in Hungary the number of publicly listed companies at present is around 40, this is a very

small minority from all operating entities. As a consequence of this, the most frequently appearing items in the sample statements were among the compulsory ones: *R&D activities, R&D expenditure, Details regarding the funding of R&D, Environmental matters* were reported by at least six entities. There were many items from the list that were not found in any of the statements, for example those related to Intellectual Property (32-34.).

Another important finding is that there were no examples in the financial statements for the companies to link the areas of R&D&I *with* sustainability. This does not mean that their strategies or policies lack the sustainability considerations when it comes to research or innovation, but they certainly do not find it important to inform the stakeholders about such initiatives.

## 4. CONCLUSION

The aim of this research was to explore the corporate reporting culture of Hungarian pharmaceutical firms and examine how they communicate about sustainability and R&D&I with the stakeholders. We applied a methodology that aims to find information related to the chosen topics in the mandatory and voluntary annual statements of firms. The main contribution of this phase to our planned research is that we were able to frame the list of 45 items by taking elements from earlier research and supplementing the list based on our experiences. We applied manual content analysis based on a list and checked the reports of ten companies which are engaged in R&D. The results show that the reporting practices of the sample firms are determined by the requirements of the Hungarian Accounting Act. Voluntary reporting and voluntary disclosure were found only in case of the sole public entity in the sample, which presented the highest scores. Another important finding is that the two areas of our interest were not interlinked in the statements, so companies did not report on the sustainability aspects of their research practices. Of course, sample size is a significant limitation of the research which also impedes comparison with the results of different studies at this point. In the future, additional results could be obtained by enlarging the sample which would make it possible to find variables (e.g. profitability, firm size, ownership structure) that might explain the differences in disclosure scores. Another way of continuing the research could be the application other methods: qualitative research could definitely be useful for discovering the motivations and barriers behind the reporting culture.

## 5. ACKNOWLEDGEMENT

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# INOVACIJA I ODRŽIVOST: JAVNA OBJAVA U FARMACEUTSKIM TVRTKAMA MAĐARSKE

## SAŽETAK RADA:

U današnje vrijeme inovacija i održivost su teme kojima se tvrtke trebaju baviti prilikom stvaranja svoje strategije. Štoviše, nije ih dovoljno prikazati kao ciljeve unutar organizacije, već je potrebno informirati udioničare o stavu tvrtke prema istraživačkim, razvojnim i informacijskim aktivnostima, kao i njihovoj vezi s održivošću. Alat za takvu komunikaciju – uz narativne dijelove tradicionalnih financijskih izvješća – predstavlja dobrovoljno izvješćivanje. Ovaj rad predstavlja empirijsko istraživanje o praksi javnih objava vodećih farmaceutskih tvrtki u Mađarskoj. Cilj analize sadržaja je otkriti stavke koje su vezane za inovaciju i održivost i obaveznim i neobaveznim izvješćima tvrtki. Na taj način se podupiru buduća istraživanja koja imaju za cilj usporediti praksu javne objave različitih okruženja. Članak se bavi tržištem u Mađarskoj u ovoj početnoj fazi jer je cilj prikazati popis stavki koje se trebaju istražiti u financijskim izvješćima. Rezultati pokazuju da se praksa izvješćivanja na slučajnom uzorku tvrtki bazira na zahtjevima određenim u Zakonu o računovodstvu Mađarske. Neobavezno izvješćivanje i javna objava nađeni su samo kod javnog tijela u uzorku, što je predstavljalo i najviši rezultat. Drugi važan rezultat je da dva područja našeg interesa nisu bila međusobno povezana u izvješćima, što znači da tvrtke nisu prezentirale aspekte održivosti u svojoj istraživačkoj praksi.

**Ključne riječi:** *inovacija, održivost, praksa objave, dobrovoljno izvješćivanje*