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# THE MANAGEMENT ACCOUNTING TOOLS AND THE INTEGRATED REPORTING

Empirical  
research

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## Keywords

Management accounting  
Tools  
Integrated reporting  
Case study

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## JEL Classification

M15, M41

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## Abstract

*During the recent years the stakeholders are asking for other pieces of information to be published along with the financial one, such as risk reporting, intangibles, social and environmental accounting. The type of corporate reporting which incorporates the elements enumerated above is the integrated reporting. In this article, we argue that the information disclosed in the integrated reports is prepared by the management accounting, not only by the financial accounting. Thus, we search for the management accounting tools which are used by the companies which prepare integrated reports. In order to do this, we analytically reviewed all the reports available on the website of a selected company. Our results show that the company is using most of the management accounting tools mentioned in the literature review part.*

## 1. Introduction

Today, the accounting information should address the needs of several types of stakeholders, such as the investors, the employees, the suppliers, the customers, the NGOs etc. It goes without saying that their requests are varied and are not covered entirely by the financial reporting. Thus, the companies had to adapt to the requests of the audience and include in the annual reports information such as: corporate governance, risk reporting, intangibles, social and environmental reporting. The form of reporting which covers all of these aspects is called integrated reporting. In 2010 the International Integrated Reporting Council (IIRC) was formed with the declared purpose to create a globally accepted International Integrated Reporting Framework (IIRF). The IIRC launched in 2012 a Pilot Programme Business Network in order to attract report preparers which could help the organization refine the IIRF. The first version of the IIRF was released in December, 2013. Yet, many things still need to be addressed. One of them refers to the tools which a company should use in order to prepare an integrated report. In this article we argue that, as the information published in the integrated report doesn't lie only within the reach of the financial reporting, companies might use management accounting tools as well. We do this, by analysing a company included in the IIRC's Pilot Programme, Takeda. The rest of this paper is structured as it follows: first, we present a typology of management accounting tools. Then, we introduce the research methodology. The results of the study follow. The paper ends with the discussion and conclusion.

## 2. The presentation of the typology of management accounting tools

Integrated reporting is an emerging phenomenon. Thus, it still lacks many things. One of them is the appropriate tools which can be used by a report preparer. Previous studies identify a few instruments which are used by integrated reports preparers, such as: the management commentary, the balanced scorecard, the Value Reporting Statement etc.

After analysing a set of integrated reports, we notice that they are strategically focused, and thus use management accounting concepts. Thus, we wondered whether they could use management accounting tools as well.

In general, management accounting tools are classified in three categories: costing tools, performance measurement tools and budgets. Previous studies (Bouten and Hoozee, 2013) present the following environmental management accounting (EMA) tools used by the companies: capital investment decision making, budgeting, performance measurement, incentive system, costing. Other authors (Burritt et al., 2002) classify

the EMA tools into monetary environmental management accounting (MEMA) and physical environmental management accounting (PEMA). The tools are past- or future-oriented, short- or long-term, ad-hoc or routinely generated. These tools are: environmental cost accounting; environmentally-induced capital expenditure and revenue; ex-post assessment of relevant environmental costing decisions; ex-post inventory assessment of projects (including life cycle costing – LCC); monetary environmental budgeting; environmental long-term financial planning; relevant environmental costing; monetary environmental investment appraisal; material and energy flow accounting; environmental capital impact accounting; ex-post assessment of short-term environmental impacts; ex-post inventory appraisal of physical environmental investments (including life cycle assessment – LCA); physical environmental budgeting; environmental long-term physical planning; tools designed to predict relevant environmental impacts; physical environmental investment appraisal.

## 3. Research methodology

Our research relies on the longitudinal analysis of the reports published by one Pharmaceuticals and Biotechnology company included in the IIRC Pilot Program Business Network: Takeda. We selected the Pharmaceutical and Biotechnology domain because the company that publishes the most rewarded integrated reports, Novo Nordisk (NN), activates in this domain.

We analysed all the reports published on the company' website. Thus, we analysed the reports presented in Table 1.

In terms of evidence of using the management accounting tools, we searched for the following items: investment decisions, budgets, costs, performance measurement (through ad-hoc; parallel, strategic or integrated indicators), incentives systems, balanced scorecard, life-cycle analysis. All the items were searched related to environmental and social aspects. We searched for quantitative indicators, as we consider that these can be generated by the management accounting.

## 4. Results of the study

After analysing the reports published by the company, we found evidence of using the management accounting tools presented in Table 2. The sustainability jolts and the reporting practices of the company are presented in Table 3. We further detail the profile of the company, its evolution in terms of sustainability and the specific evidence regarding the (environmental) management accounting that we encountered.

Takeda is the leading pharmaceutical company in Asia ("a world-class pharmaceutical company with Japanese origin" which "contributes to the health of

individuals worldwide”), whose history dates back to the year 1781. The company sold traditional Japanese and Chinese medicines at the beginning. In 1895, Takeda established its first pharmaceutical factory in Osaka, producing analgesics. After World War II the company was engaged in manufacturing vaccines. In 1940 the company formulated Nori: “making contributions to society is the most basic and important thing for corporate management having the public nature of business in mind.” In 1960 it enters the global market, by establishing a manufacturing and marketing company in Taiwan. The European market (1978) and the United States (1980s) followed. Their core therapeutic areas are: Cardiovascular & Metabolic; Oncology; Central nervous system (CNS) diseases; Respiratory & Immunology; General medicine (gastrointestinal & genitourinary); Vaccine (Annual Report, 2012). Its corporate philosophy is the Takeda-ism, meaning “producing medicine through integrity (fairness, honesty and perseverance).”

As a pharmaceutical company, the R&D is a core subject at Takeda. The R&D principles are: urgency; innovation; measurement; partnership.

The company sees the social action programs as “investment in society”, considering them one of the important company activities. “The concept is deeply entwined in our genes.” The landmarks in their sustainability activities and the sustainability jolts leading to them can be summarized as follows: Takeda is considering the environment in investment decisions. For instance, it declares purchasing hybrid cars for commercial use within the Tokyo metropolitan area since March 2008.

Regarding the budgets, they set targets until fiscal 2017.

Regarding the environmental reporting, it includes in the Highlights: total input energies, CO<sub>2</sub> emissions, fresh water used. As social reporting indicators, it includes in the Highlights the number of employees. In terms of quantitative indicators included in the section dedicated to the Environment in the last annual report it includes seven indicators: amount of water used and discharged of the group, CO<sub>2</sub> emissions of the group, SO<sub>x</sub> (sulphur oxide) emissions, NO<sub>x</sub> (nitrogen oxide) emissions, dust emissions, amount of waste generated, PRTR-designated substances released into the atmosphere (Japan). In the section dedicated to Labor in the last integrated report, the company is only presenting the women’s empowerment initiatives in figures. Also, regarding the Corporate Citizenship Activities, four quantitative indicators are presented: number of participants in the global leadership development program, Takeda Science Foundation research grants, Shoshisha Foundation scholarships, Institute for Fermentation, Osaka, research grants.

The company declares offering incentives to employees involved in volunteering activities, in the form of days off.

In 2007 it describes the environmental protection costs and it declares using environmental management accounting in the first reports. The environmental protection costs include business area costs (pollution prevention costs, global environmental protection costs, resource circulation costs), upstream/downstream costs, administration costs. They are presented in terms of investment and expenditure. The company has a strategy of enhancing the R&D pipeline through product life-cycle management.

The sustainability is included in its strategy, as in 2013 it states that the “plans include assessment and analysis of the environmental impact of Group products over their life cycle and a detailed approach to environmental accounting through utilization of LIME (Life-cycle Impact assessment Method based on Endpoint modelling) and other means.”

## 5. Conclusions

We selected this company for presentation in our article as it is activating in the Pharmaceuticals and Biotechnology domain. At the same time, we notice that its history in integrated reporting is longer than that of the international bodies involved in this new form of reporting (Takeda prepares it for 2006, while the IIRC is formed in 2010).

One of the contributions of our article is that we performed an analysis of integrated reports, including economic, social and environmental data. Previous articles were directed in general to one form of reporting, for instance environmental reports.

Our research question was to identify the (environmental) management accounting tools supporting the company when preparing the integrated reports. The first step was to prepare a list of tools encountered in previous research articles. Thus, we identified: investment decisions, budgets, costs, performance measurement, and incentives systems. When analysing the reports published by the company, we added to our list: balanced scorecard, social accounting, environmental accounting, management systems, life-cycle accounting. The company is using six tools.

We notice that the environmental costs are computed, but they include different items from one period to another.

Regarding the performance measurement, there is a decrease in the number of quantitative indicators reported by the company. There is an obvious tendency in the reports prepared for 2013, when the company was member of the IIRC Pilot Programme Business Network, to focus on the narrative part. For instance, regarding the

environmental KPIs, Takeda is disclosing ten quantitative environmental indicators in 2013. The GRI guidelines G4, for instance, request for 34 environmental KPIs, of which 25 quantitative indicators. The company is applying the GRI guidelines.

In our opinion, a plus can be brought to the integrated reports by the Balanced Scorecard. Even though it was designed for internal purposes, it can be used for external reporting as well. The Balanced Scorecard views “organizational performance from four perspectives: financial, customer, internal business processes and learning and growth” (Kaplan and Norton, 1992). It links these measures to the company’s strategy through three principles: (1) cause-and-effect relationships, (2) performance drivers (i.e. leading indicators), and (3) linkage to financials (Eccles and Krzus, 2010). During the last decade the Sustainability Balanced Scorecard was developed. The Balanced Scorecard can prove that the requirements of internal and external stakeholders are interconnected. The linkage between external and internal reports is made in some of the last standards issued by IASB (2013), too (for instance, in IFRS 8 “Operating segments”).

The most important change that sustainability should bring in a company is the one related to the improvement of the internal processes. The IIRC is referring to it as integrated thinking (IIRC, 2013). As we already know, in many countries management accounting is outpaced by financial accounting. At the same time, sustainability will only be considered in the companies if it does not jeopardize the economic results. Thus, reporting is not enough; managers can continue to skilfully manage especially what they report externally, including the infusion of rhetoric and disguise (Hopwood, 2009). However, the change of the internal processes is highly depending on the production and use of information. In the company analysed here we found evidence of the continuous improvement of the processes.

We consider that management accounting can pilot the changes in reporting. This offers opportunities to the management accountants, but they will have to face a heavy competition in this regard. Also, the integrated reporting will change the skills of the professional management accountants.

## 6. Acknowledgements

This paper was co-financed from the European Social Fund, through the Sectorial Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/138907 “Excellence in scientific interdisciplinary research, doctoral and postdoctoral, in the economic, social and medical fields – EXCELIS”, coordinator The Bucharest University of Economic Studies.

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Appendices

**Table No. 1.**

**Reports published by the selected company, available on its website**

<i>Company/Years</i>	<i>Report</i>
<i>Takeda</i>	
<i>2006 – 2008</i>	<i>Integrated Report</i>
<i>2009 – 2013</i>	<i>Integrated Report and CSR Data Book</i>

Source: compilation of the authors

**Table No. 2.**

**Management accounting tools used by the company, according to its annual reports**

<i>Company</i>	<i>Investment decisions</i>	<i>Budgets</i>	<i>Costs</i>	<i>Performance measurement</i>	<i>Incentives systems</i>	<i>Balanced scorecard</i>	<i>Life-cycle</i>
<i>Takeda</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>		<i>Yes</i>

Source: compilation of the authors

**Table No. 3.**

**Sustainability jolts and reporting practices at Takeda**

<i>Year</i>	<i>Sustainability jolts</i>	<i>Reporting evolution</i>
<i>1963</i>	<i>Society concern of social issues</i>	<i>Establishment of the Takeda Science Foundation</i>
<i>1974</i>	<i>Society concern of environmental issues</i>	<i>Energy Conservation Committee was established</i>
<i>1990 – 2000</i>	<ul style="list-style-type: none"> <li>• <i>Launch of the Japan Responsible Care Council</i></li> <li>• <i>Employees' human rights</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Takeda starts to implement responsible care activities</i></li> <li>• <i>Enacted "Takeda Code of Compliance Standards"</i></li> <li>• <i>Formulated "Basic Principles on the Environment"</i></li> <li>• <i>Promotes waste reduction since 1993</i></li> </ul>
<i>2000 – present</i>	<ul style="list-style-type: none"> <li>• <i>"To facilitate understanding of Takeda's activities in a comprehensive manner, through the provision of both financial and non-financial information, including CSR activities"</i></li> <li>• <i>Increasing recognition of "corporate social responsibilities"</i></li> <li>• <i>Participation in the UNGC (LEAD) Program</i></li> <li>• <i>Inclusion in SRI (Dow Jones Sustainability Asia Pacific Index, FTSE4Good etc.)</i></li> <li>• <i>Inclusion in the IIRC's Pilot Program</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Publication of integrated reports</i></li> <li>• <i>Launched the "Basic Policy on Social Contribution" and the CSR Promotion Committee led by the President.</i></li> <li>• <i>Formulated the Global Code of Conduct</i></li> <li>• <i>Launched Takeda Initiative</i></li> <li>• <i>In 2006 launched Takeda Women's Network</i></li> <li>• <i>Launched Takeda Total Human Safety net (THS)</i></li> <li>• <i>Uses the GRI G4, UNGC Advanced Level Criteria, ISO, AA1000</i></li> </ul>

Source: compilation of the authors

