

Ze współpracy z zagranicą / International cooperation

The historical development of sustainability reporting: a periodic approach

SONER GOKTEN *, YILDIZ OZERHAN **, PINAR OKAN GOKTEN ***

Abstract


History is the main backbone of understanding the reasons behind developments, and sustainability reporting is one of the most important developments in accounting. In this sense, the purpose of this study is to provide a chronology of the historical development of sustainability reporting. The historical research method with a periodic approach was applied. This paper divides the development history of sustainability reporting into three main periods: the pre-standardization period, between 1962 and 1998, the standardization (institutionalization) period, between 1999 and 2016, and the post-standardization period, which started after 2016. In addition, based on events, three sub-periods are defined for the pre-standardization period. This paper is one of the rare studies in the literature that identifies the chronological process of sustainability reporting's historical development.


Keywords: environmental accounting, GRI, sustainability accounting and reporting, history.


Streszczenie

Historia rozwoju sprawozdawczości w zakresie zrównoważonego rozwoju: podejście okresowe

Historia jest główną podstawą zrozumienia przyczyn rozwoju sprawy, a sprawozdawczość z zakresu zrównoważonego rozwoju jest jednym z najważniejszych etapów rozwojowych w rachunkowości. W tym kontekście celem artykułu jest przedstawienie chronologii historycznego rozwoju sprawozdawczości dotyczącej zrównoważonego rozwoju. Zastosowano metodę badań historycznych z podejściem okresowym. W artykule pokazano historię rozwoju sprawozdawczości dotyczącej zrównoważonego rozwoju w podziale na trzy główne okresy: okres przed normalizacją – lata 1962–1998; okres normalizacji (instytucjonalizacji) – lata 1999–2016 oraz okres po normalizacji, który rozpoczął się po 2016 roku. Ponadto dla okresu przed normalizacją określono trzy okresy cząstkowe na podstawie zdarzeń. Artykuł jest jednym

* Soner Gokten, Ph.D., associate professor, Baskent University, Department of Management, Ankara, Turkey,  <https://orcid.org/0000-0003-4213-1976>, sgokten@baskent.edu.tr

** Yıldız Ozerhan, Ph.D., professor, Ankara Hacı Bayram Veli University, International Trade Department, Ankara, Turkey,  <https://orcid.org/0000-0003-1293-4364>, yildiz.ozzerhan@hbv.edu.tr

*** Pinar Okan Gokten, Ph.D., associate professor, Ankara Hacı Bayram Veli University, International Trade Department, Ankara, Turkey,  <https://orcid.org/0000-0003-2037-0087>, pinar.okan@hbv.edu.tr

z nielicznych opracowań w literaturze przedmiotu, który ukazuje chronologicznie historię sprawozdawczości dotyczącej zrównoważonego rozwoju.

Słowa kluczowe: rachunkowość środowiskowa, GRI, rachunkowość i sprawozdawczość zrównoważonego rozwoju, historia.

Introduction

Sustainability reporting has led accounting to cover wide area instead of focusing only on financial information. Undoubtedly, today, stakeholders demand information on the environmental and social impacts of entities' operations; and this reality confirms Toffler's (1980) claim: *with the third wave, knowledge will become more important than ever*. Moreover, the need for such kinds of information has become more and more obvious today due to the Covid-19 epidemic. The increase in the level of the materiality of non-financial information has led to the relevance of financial accounting in decision-making processes being questioned (Gokten, Gokten, 2017). The integrated reporting approach, the conceptual framework of which was published in 2013 and which is expected to start the institutionalization process in the near future, is the most evident evidence of this change.

Both practitioners and academicians need to know that the historical development process of sustainability reporting is an important issue as today, practitioners, in particular, need to be aware of why they have to report non-financial information. If they are not aware, they cannot fully understand what they are trying to do with sustainability reporting nor for whom. Thus, history is the main backbone of understanding the reasons.

Accounting history is continuously gaining importance due to the increasing curiosity of past accounting approaches and methods. What kind of developments and events led to the improvement in accounting? How did they affect the development of accounting? Answering such questions constitute the aim of accounting history research. One of the important aspects of accounting history studies is that they reveal the historical processes and factors that played a role in the formation of accounting approaches and theories. In other words, accounting history studies shed light on the processes that led to the emergence of theories, approaches, and methods.

Although there are studies that focus on historical research in the related literature (e.g., Arena et al., 2015; Alrazi, 2015; Man, Boganu-Popa, 2020; Mauro et al., 2020), a limited number of studies provide a historical-chronological process of sustainability reporting. Lambertson (2005) stated that Gray's (1992, 1993, 1994, 2002) studies had a significant impact on how sustainability reporting evolved from environmental accounting. Ballou et al. (2006) reviewed past efforts on the rise of sustainability reporting, while Brown et al. (2009) investigated the success of the Global Reporting Initiative (GRI) as a case of institutional entrepreneurship with a historical view. Ortas and Moneva (2011) showed the evolution of sustainability reporting practices in the frame of relevant theoretical approaches, while Soderstrom (2013) tried to summarize the past

of sustainability reporting. Finally, Chang et al. (2017) offered a critical review of the history of the sustainability approach for renewable energy research.

Although these studies provide valuable information regarding the evolution of the sustainability reporting approach, they do not reveal the historical chronological process. These studies often address the history of sustainability reporting by focusing on a particular event or a particular approach. In addition, they generally examined the historical process from the early 1990s.

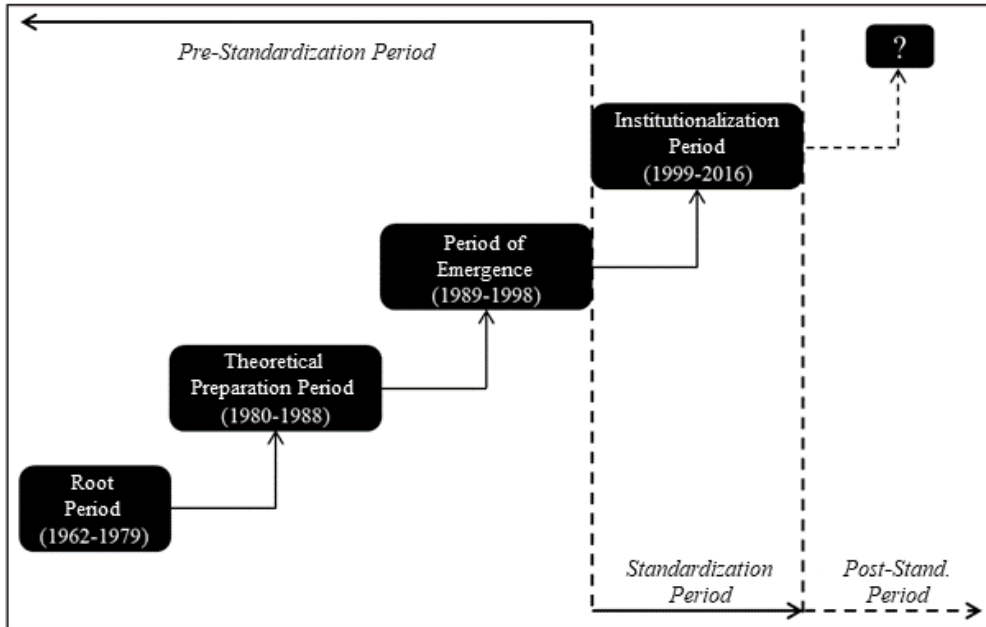
This study uses a chronological approach to deal with the historical development process of sustainability reporting until 2016, when the GRI Standards were published. The historical research method was used, and the events that are thought to have had an impact on the evolution of sustainability reporting were examined. Within the framework of the research methodology, the development process of sustainability reporting is divided into periods by demonstrating the cause and effect relationships between events. In other words, the historical development phases of sustainability reports are defined in the frame of a periodic approach. With these aspects, this is one of the rare studies in the literature that chronologically reveals the historical development process of sustainability reporting based on selected events through different periods.

This study has three limitations. First, the contribution of organizations or initiatives (e.g., SASB – the Sustainability Accounting Standards Board, or ISAR – the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting) other than the GRI to the sustainability reporting development process is beyond the scope of the research. For instance, ISAR called on UNCTAD (the United Nations Conference on Trade and Development) to conduct further work in collaboration with a Consultative Group on sustainable development goals (SDGs) reporting. That initiative proposed core indicators that aim to guide companies in attaining the goals of the 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015. However, this event was not included in the chronology presented in the study. Second, we examine the historical development process until 2016, when the GRI standard set was published. Subsequent events are not covered. The third limitation is that, in presenting the historical development of sustainability reporting, we only consider events that have had an impact on the private sector. Events affecting the public sector are excluded. For instance, the Prince of Wales' "Accounting for Sustainability – A4S" project, started in 2004, played an important role in creating awareness for sustainability reporting in the public sector. It aimed to use sustainability indicators effectively in both decision-making and reporting (Ball et al., 2014, p. 188). However, it is not included in this study.

Events play a vital role in defining the periods of the chronology. As far as possible, the study has investigated the events that emerged in the historical process and divided the historical development process into periods based on events that can be considered building blocks. Three periods are identified: the pre-standardization period, between 1962 and 1998, the standardization period, between 1999 and 2016, and the post-standardization period, which started after 2016. Figure 1 presents the historical breaks and the periods defined within the scope of the study.

The study is designed as follows: in the following part, the events that shaped the development of sustainability reporting are presented chronologically. In the next section, the institutionalization process of sustainability reporting is provided in the frame of the GRI. In the last section, the study concludes by showing the chronology of the historical development of sustainability reporting.

Figure 1. Periods of the Historical Development of Sustainability Reporting



Source: author's own elaboration.

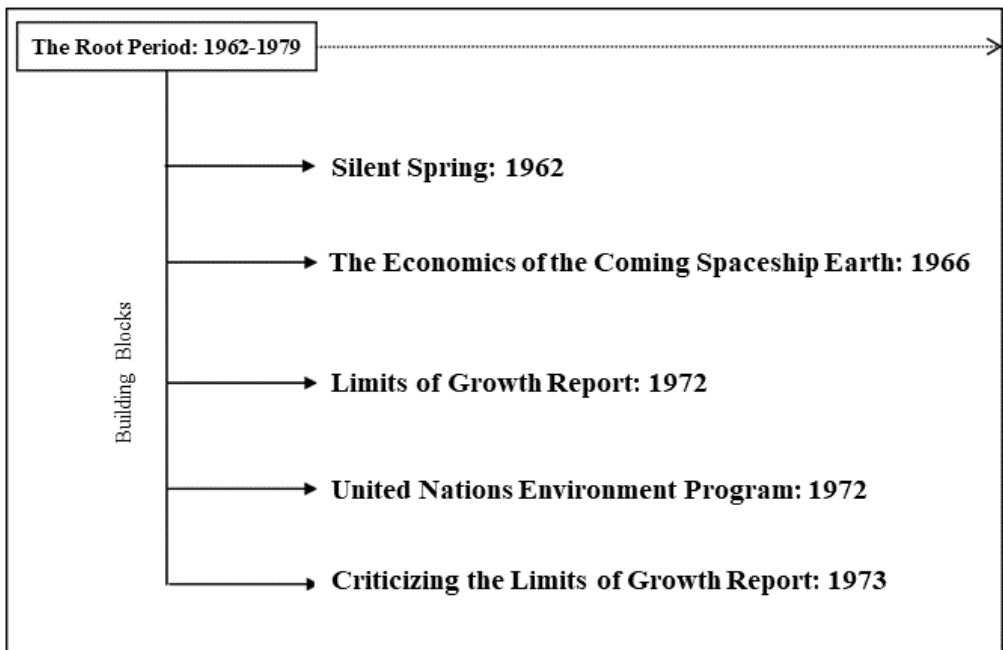
1. The Pre-Standardization Period: 1962–1998

Three sub-periods are defined under the pre-standardization period: the root period, between 1962 and 1979, the theoretical preparation period, between 1980 and 1988, and the period of emergence, between 1989 and 1998. The periods are determined by the authors based on the events examined. The social impact of each event in the historical process is the cause of other events. The root period includes events that created awareness of environmental issues. The 1980s played a vital role in the development of the theoretical approaches to finding solutions for environmental problems by constructing a relationship between the economy and nature. In the following decade, principal frameworks emerged on reporting the environmental impact of organizations' activities.

1.1. The Root Period: 1962–1979

The historical development of sustainability reporting goes back to 1962. In the root period, environmental threats emerged, and social-environmental awareness started to be developed. The relationship between economic development and the environment began to be discussed. Therefore, the years covered by the root period can be considered the early years of the process that led to sustainability reporting. In Figure 2, the building blocks that form the basis of the root period definition are presented: the publication of the book “Silent Spring” by Rachel Carson in 1962; the essay titled “The Economics of the Coming Spaceship Earth” written by Kenneth Boulding in 1966; the “Limits of Growth Report” published in 1972; the “United Nations Environment Program,” which became operational in 1972; and the study which criticized the “Limits of Growth Report” in 1973.

Figure 2. Building Blocks of the Root Period (1962–1979)



Source: author's own elaboration.

The relationship between economic development and environmental factors did not attract attention as a significant field of studies until the publication of Rachel Carson's book “Silent Spring” in 1962. Carson (1962) contributed to the creation of a social-environmental consciousness for the first time in the environmental science book, where she revealed the negative effects of chemical agriculture on living things. As a result, and despite intense opposition from the chemical companies operating in the

sector, the use of DDT, a very toxic and persistent insecticide, was banned in the United States due to community resistance. In other words, Rachel Carson's work created awareness, and for the first time, it led to a social-environmental movement that limits companies' economic activities due to their negative environmental impacts.

Perhaps the first study in which the theoretical relationship between economic development and environmental factors was questioned from a particular point of view is the essay titled "The Economics of the Coming Spaceship Earth" written by Kenneth Boulding in 1966. Boulding (1966) pointed out that continuous increases in production levels both reduce the limited resource stocks and cause environmental pollution. According to him, such an approach is an exploitative cowboy economy. In such an economy, the optimization of the quality of life, which is the criterion of success, is directly linked to increasing production levels as much as possible. Thus, the cowboy economy uses nature brutally but does not take account of the environmental impacts. However, the economic system should work as if it were a spaceship. In other words, the situation for people on Earth is similar to the situation for people on a spaceship: Both of them have a limited stock of resources and a limited area for waste. According to Boulding, the world will soon have to switch to space economics. In this respect, the space economics view put forward by Kenneth Boulding gained popularity in the literature as a preliminary study that theoretically framed economic development as unable to be handled independently of environmental factors.

In 1968, a team of economists, mathematicians, naturalists, and other researchers from different fields was established at the Massachusetts Institute of Technology (MIT) to evaluate the problems threatening humanity within the framework of economic development and environmental factors. The results of the "Club of Rome" project were published in 1972 in a report under the name "The Limits to Growth".

Meadows et al. (1972) developed fourteen global-scale models that differed from each other based on different assumptions to predict the effects of sustained exponential growth. The assumptions underlying the different models were based on population, agricultural activities, industrial activities, natural resource stock, and pollution factors. The basic assumption of the standard model is that the physical, economic, and social paradigm in the world will continue in its present form in the historical process. In other words, the standard model is designed to answer the question, "What will happen in the future if we continue like today?" It is assumed that the population and industrial activities, and hence pollution, will continue to grow exponentially, while food and non-renewable natural resources will remain constant. The standard model, as expected, predicted a complete collapse due to the depletion of non-renewable resources. In another model, collapse could not be prevented even if the population is kept constant. In another, even if the natural resource stock is increased, it was predicted that the rapid increase in pollution due to exceeding the waste capacity of nature would cause collapse.

The radical discourses of the report, which outlined an inevitable dark future in general, created awareness in both academic and social platforms and started a debate: Will the world surrender to misfortune, or can it find a way out?

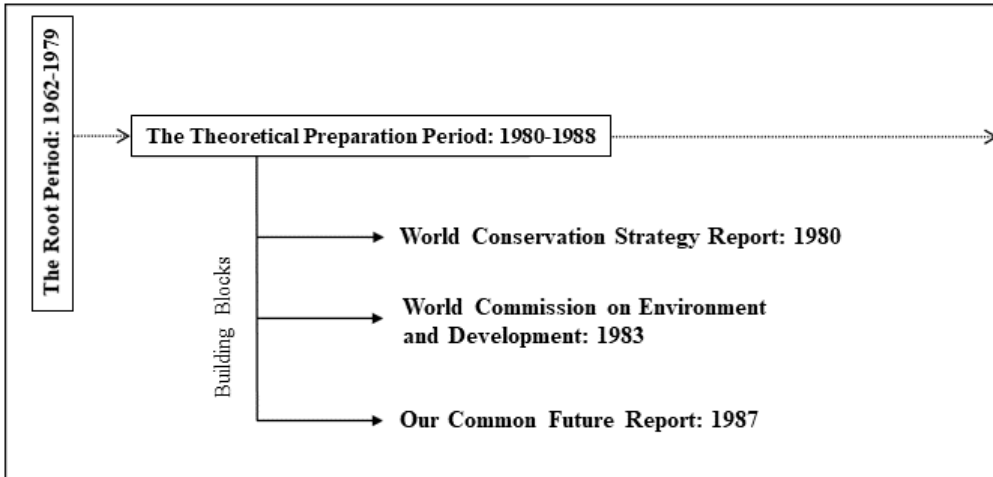
Perhaps one of the most important approaches that gave hope to the future and, at the same time, brought great criticism to “Limits to Growth,” was the University of Sussex’s Science Policy Research Unit. Cole et al. (1973) stated that the model assumptions in the report have a very narrow point of view and that the view that non-renewable natural resources are scarce is not appropriate. Therefore, as natural resources can also be exponentially increased through new discoveries and recycling, they updated the model and predicted a sustainable future in contrast to “Limits to Growth”.

The main reason why Meadows et al. (1972) and Cole et al. (1973) achieved different results is because technological progress is ignored in “Limits to Growth”. The reason for this is that, according to Lecomber (1975), optimists and pessimists differ in their view of human ability and creativity. While pessimists are already moving from obsolete and existing technological solutions, optimists rely on the potential of people to develop new solutions in the face of any problems that arise. Therefore, technological advances undoubtedly lead to more solutions in the future. Although these issues are considered philosophically by Lecomber (1975), this opinion has entered into the literature as one of the pioneering approaches that put forward the importance of human capital in addressing the relationship between economic development and environmental factors.

At the United Nations Conference on Human Environment in Stockholm in 1972, they proposed addressing environmental problems with global participation, and it was decided to establish an organization that would serve this purpose. The United Nations Environment Program (UNEP) was established by the United Nations General Assembly resolution 2997 of December 15, 1972. It was decided that the work of this organization, which includes 58 member countries, would be carried out by the UNEP Executive Council, which would be elected every four years. UNEP, which is an important building block for the institutionalization of social-environmental awareness, rapidly started to develop multilateral participatory contracts. “CITES – The Convention on International Trade in Endangered Species of Wild Fauna and Flora” was agreed upon in 1973, and “CMS – The Convention on the Conservation of Migratory Species of Wild Animals,” also known as the Bonn Convention, signed in 1979, can be given as examples of UNEP conventions developed in the root period.

1.2. The Theoretical Preparation Period: 1980–1988

The period that theoretically reveals the need for sustainability reporting is based on the principle of sustainable development that became evident between 1980 and 1988. The report “World Conservation Strategy” published in 1980, “World Commission on Environment and Development” which was formed in 1983, and the report “Our Common Future,” published in 1987, provided the theoretical framework and the general acceptance of the concept of sustainable development, as well as the need for sustainability reporting. In Figure 3, the building blocks that form the basis of the theoretical preparation period are presented.

Figure 3. Building Blocks of the Theoretical Preparation Period (1980–1988)

Source: author's own elaboration.

In the years immediately after the United Nations Conference on the Human Environment, despite studies on environmental threats such as pollution, acid rain, deforestation, and desertification, and evident negative signs of climate change, countries continued growth-oriented operations. Therefore, a need for a principle that would provide a consensus between economic development and environmental protection emerged. In other words, it was necessary to establish an economic development perspective that does not harm the environment.

In 1980, the International Union for Conservation of Nature (IUCN) published a report entitled “World Conservation Strategy” (WCS), developed jointly with UNEP. It stated that the capacity of natural resources to support life is limited, and therefore the needs of future generations should always be taken into consideration. Thus, within the framework of the relationship between the economy and the environment, economic development should be sustained by supporting all life on Earth and preserving natural resources. The World Conservation Strategy Report set out three main objectives for this. The first was to make sustainable the basic ecological processes and life support systems that are the basis for the survival of humanity. The second was to preserve genetic diversity, and the third was to preserve ecosystems. The report provided practical guidance and an intellectual framework to achieve the three objectives.

The World Conservation Strategy Report is a groundbreaking document for the historical development of sustainability reporting. For the first time in this report, the concept of sustainable development is mentioned, although in a very limited way. The global impact of the report remained extremely limited.

In 1983, Javier Pérez de Cuéllar, Secretary-General of the United Nations, asked former Norwegian Prime Minister Gro Harlem Brundtland to initiate an institutional effort to focus on the relationship between environment and development. Accordingly,

the 1983 General Assembly approved the formation of a commission with the theme of “Process of preparation of the Environmental Perspective to the Year 2000 and Beyond” in accordance with Resolution 38/161. This organization, whose official name is “World Commission on Environment and Development (WCED),” commonly referred to as the “Brundtland Commission” in the literature, was given the following tasks by the General Assembly to shed light on their work: develop long-term environmental strategies to ensure sustainable development in the 2000s, propose ways to improve cooperation between countries, and evaluate ways to deal with environmental threats at the international level.

The Brundtland Commission provided an alternative perspective on sustainable development. The Commission did not recognize the environment and the economy as separate elements. If the environment is the place where we live, and development is everything that we do to improve our community, these two cannot be separated. In short, the Brundtland Commission stated that the environment is a concept beyond physicality. In this context, development should be considered by all countries in terms of improving the world instead of separating countries into rich or poor. Thus, both the environment and development are basic issues for humanity.

As a result of the studies carried out based on the philosophy adopted by the Commission, the report titled “Our Common Future” was published in 1987 and adopted by General Assembly Resolution 42/187. The underlying idea of the report became clear under the umbrella of sustainable development, which was defined as “a development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. This goal is built on two basic elements: first, the basic needs of the poor should be given priority. The second is the limitations of the environment in meeting present and future needs. In this context, priority needs for sustainable development must be met, and environmental limitations should be taken into consideration in all activities. In this respect, three basic building blocks of sustainable development are mentioned: economic growth, environmental protection, and social equality.

The principle of sustainable development, which came to the agenda in 1987 by creating global acceptance, played a fundamental role in the clarification of a new paradigm that unified the environment and development. Undoubtedly, within the framework of this target, which aims to transfer the natural potentials to the next generations, all organizations in the world can have positive or negative effects on the sustainable development target within the framework of their activities and social relations. In other words, organizations are the key elements in achieving the goal of sustainable development.

1.3. The Period of Emergence: 1989–1998

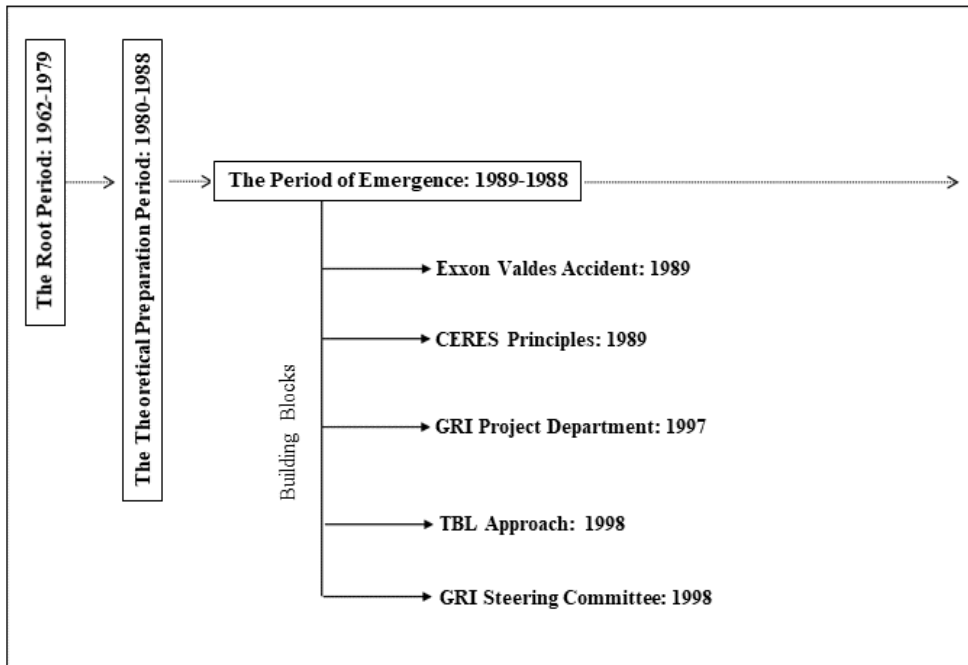
The first methodological tool that emerged in the idea of sustainability reporting is the concept of environmental accounting (Elkington, 1993). Environmental reporting, which communicates to stakeholders the impacts of an enterprise’s activities on the environment, became more important after the Exxon Valdez accident in 1989, especially

for the investors. The Exxon Valdez oil spill in 1989 can be regarded as the turning point when stakeholders began to request information about the environmental impacts of companies' operations. In other words, this event can be regarded as the starting point of the period of emergence.

In the early 1990s, the issue of sustainability reporting was dealt with in the context of environmental accounting and reporting focused on the environmental impacts of business operations. The TBL-triple bottom line approach, which was introduced in 1998, described businesses as social and environmental entities in addition to their economic character. In fact, in 1998, the GRI steering committee emphasized the need for a reporting framework to be developed that included economic, environmental, and social impacts. In this sense, 1998 can be regarded as the year in which environmental accounting transformed into sustainability accounting. Therefore, the emergence of sustainability reporting took place during the period 1989–1998. In Figure 4, the building blocks that form the basis of the period of emergence are presented.

As a result of an accident on March 24, 1989, eleven million gallons of crude oil leaked onto the coast of Alaska from the Exxon Valdez, an oil tanker owned by the Exxon Transport Company. The accident, recorded as the greatest environmental disaster the US has faced, caused an oil spill along 1,300 miles of coastline, killing thousands of living things. Natural life ended in the region. Exxon employees, federal officials, and more than 11,000 Alaskans worked to clear the oil spill.

Figure 4. Building Blocks of the Period of Emergence (1989–1998)



Source: author's own elaboration.

In addition to the negative environmental impacts, high costs arose that investors had not previously considered. Exxon had to pay about \$ 2billion for cleaning and compensation, and about \$1.8 billion for the restoration of the area. The Exxon Valdez accident made it clear that the environmental impact of business activities can have significant financial consequences, especially for investors. In other words, this accident highlighted the importance of sustainability reporting for stakeholders.

In response to the conclusions of the Exxon Valdez Accident, a non-profit organization, “The Coalition for Environmentally Responsible Economies” (CERES), was established in 1989 by a group of environmentalists and investors. CERES pointed out the need for businesses to reassess their roles and responsibilities as an economic, environmental, and social entity, and in the autumn of 1989, published the Valdez Principles. These principles, also called the CERES Principles, can be considered the first comprehensive guide in history that aimed to establish ethical environmental behavior in business activities. The ten basic principles published by CERES are biosphere conservation, the sustainable use of natural resources, waste reduction and disposal, energy conversion, risk reduction, safe products and services, environmental restoration, public disclosure, management commitment, and audit-reporting.

The acceleration in establishing legal frameworks also positively influenced the demand for information on the impacts of the entities’ operations on the environment. For instance, immediately after the Exxon Valdez accident, the Oil Pollution Act, which significantly increased the penalties that companies might face and required that all oil tankers operating in the US be double-hulled, was approved by the US Congress in 1990. In this context, investors and creditors began to focus on the costs that may arise due to the environmental legal incompatibilities in oil enterprises after the Exxon Valdez accident.

In 1992, the United Nations Conference on Environment and Development was held in Rio de Janeiro. This conference aimed to provide a common interaction between developed and developing countries and between governments and society at a global level. As a result of the conference, a consensus was reached on the formation of a commission to encourage, support, and monitor governments and all related economic and social organizations in line with the objective of sustainable development. The Sustainable Development Commission, which was established under the United Nations, has focused on efforts to measure sustainability.

Following the establishment of the Commission, the “Triple Bottom Line” (TBL) approach was introduced by Elkington (1998, 1999), the leading sustainability expert, and founder of the Sustain Ability agency. The approach expresses the need for a three-dimensional perspective to measure development: people, planet, and profit. Therefore, in the literature, the TBL approach is also called the 3P measurement system. The human, planetary, and profit dimensions refer to the social, environmental, and economic impacts of development, respectively. Thus, only a measurement of earnings is not sufficient to assess sustainable development because, within the TBL approach, organizations are also a social and environmental entity in addition to their economic characteristics.

Within the TBL approach, it is a prerequisite for organizations to carry out their activities in line with the principle of sustainable development. Therefore, society expects and demands organizations to report on their role in sustainable development. Undoubtedly, this expectation is a right for stakeholders within the framework of accountability.

The concept of accountability is based on the activity of simply presenting data to stakeholders when viewed from a traditional perspective. There is no doubt that the transmitted data should be expected to be clearly understood, interpretable, and used as input in decision-making processes. Financial reports, which are developed as a communication tool based on financial accounting, came into prominence as a basic building block of accountability until the early 2000s. The information transmitted to stakeholders by financial reporting can be classified as compulsory information, voluntary information, or information that is outside the scope of financial reporting (Larrinaga et al., 2002). Mandatory information includes items that contain direct financial information, such as assets, costs, or P&L. Voluntary information, on the other hand, is essentially the details of costs or investments that can be subject to footnotes today. However, issues such as the ecological aspects of an organization's activities are included in the documents presented separately from the financial reports, such as activity reports.

The 1990s was when initiatives were undertaken to develop a new reporting methodology for stakeholders based on the principle of sustainable development. The rapidly increasing need for non-financial information created a reporting methodology requirement. Under the leadership of Dr. Robert Massie, who was previously the executive director of CERES, studies began to establish a conceptual framework on how the environmental impacts of enterprises' activities should be reported. The main objective was to establish a reporting framework to monitor whether the activities of enterprises comply with the CERES Principles.

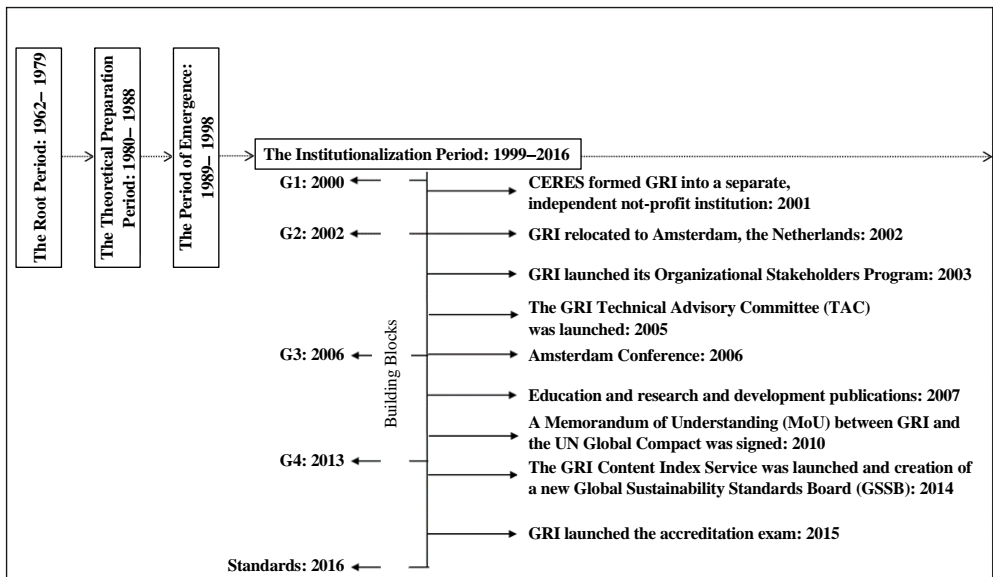
In 1997, a project department, the Global Reporting Initiative (GRI), was established by CERES and the Tellus Institute to develop an environmental reporting framework with the support of UNEP. This step was the cornerstone of sustainability reporting's institutionalization adventure (White, 1999).

In 1998, a steering committee was established under the GRI, composed of many different stakeholders, whose main task was to determine the scope of the guideline to be developed. As mentioned in the GRI's corporate statement, the committee took into account more issues than just the environment. It recommended that the proposed reporting framework should be improved to include economic and social impacts in addition to environmental issues. This recommendation led the GRI to be positioned as a guideline for more than just environmental reporting, and it updated the aim of the studies to improve the sustainability reporting framework. In other words, in 1998, environmental reporting (accounting) became sustainability reporting (accounting).

2. The Standardization Period: 1999– 2016

Institutions are humanly devised rules, procedures, and norms to constrain the behavior of individuals in maximizing the wealth or utility of principles (North, 1981, 1990). They are classified as formal or informal. If they are written down in a rule book, for instance, a legal text, they are called formal institutions. Unwritten ones, such as morals, norms, traditions, etc., are called informal institutions (Dobler, 2011). The standardization period includes events that directly focus on the development of (especially formal) institutions of sustainability reporting. Fourteen key issues can be considered building blocks until 2016, when GRI-specific standards were issued. In Figure 5, the building blocks that formed the basis of the standardization (institutionalization) period are presented.

Figure 5. Building Blocks of the Institutionalization Period (1999–2016)



Source: author’s own elaboration.

The GRI was transformed into an independent entity following the publication of the G1, and in 2002 it moved its headquarters to Amsterdam, the Netherlands. The GRI officially launched its headquarters under the auspices of UNEP, and thus highlighted itself as an organization dedicated to sustainability reporting. The establishment of an expert committee for the preparation of sustainability reporting guidelines, and the introduction of G3 at an international conference, paved the way for increased awareness of sustainability reporting. In 2006, the training documentation and sectoral application guidelines were published. With this, sustainability reporting was accepted as an area requiring special knowledge and experience. In addition, it eliminated the deficiencies in learning and implementation needed to disseminate sustainability reporting.

In 2010, the United Nations recognized the GRI guidelines as the basis for sustainability reporting. In 2013, G4, the outcome of the framework development process, was published. It then became possible to move to the last stage of the standardization process, and as such, in 2014, the GRI moved to the final stage of the standardization process by publishing its content index and setting up the Global Sustainability Standards Board. In 2015, the GRI launched certification (accreditation) exams intended to transform sustainability reporting into a field requiring professional expertise. In 2016, the GRI published its first sustainability reporting standard set.

Therefore, the years between 1999 and 2016 can be defined as a period of institutionalization that realized the standardization process of sustainability reporting in the frame of the GRI. Details of the building blocks of the period are described in chronological order below.

In 1999, a test group consisting of multinational companies such as Bayer, GM, and Shell was formed, and the first draft guideline on how to report on sustainability was prepared. One year after the discussion of this conceptual framework, the GRI published the first global framework that embraced the principles that will serve as the basis for sustainability reporting. In 2001, upon the recommendation of the steering committee, CERES made the GRI project department an independent and non-profit organization.

In 2002, the GRI moved its headquarters to Amsterdam, the Netherlands, and officially opened its headquarters as an organization in cooperation with UNEP in front of the UN Secretary General. In the same year, the second edition of the conceptual framework guidelines, G2, was introduced to the public at the World Summit on Sustainable Development in Johannesburg. At this summit, the GRI ensured its international legitimacy by showing itself as a publisher of sustainability standards.

In line with its growth and expansion targets, the GRI launched the Organizational Stakeholders Program in 2003. Within the framework of this program, the organizations selected by the GRI were identified as supporters. It is aimed to gain expertise, participation in management, and financial contributions from the organizations. Through this program, the GRI became a platform for international cooperation with civil society, business, academia, public institutions, and governments.

In 2005, the GRI Technical Advisory Committee was established. It played a crucial role in getting sustainability reporting accepted as a specialty area. The committee contributed to the creation of synergy by involving more than three thousand experts from business, civil society, and academic circles. These experts were actively involved in the publication of the G3, which covered the third generation guidelines in 2006. The G3 was shared with the public at a conference in Amsterdam. The conference was attended by 1150 participants from 65 countries representing business, financial markets, auditors, civil society, governments, and municipalities. As a result of the conference, awareness of the guidelines published by the GRI began to expand.

In 2007, the GRI started to publish training documents on how to conduct sustainability reporting based on its guidelines. In 2008, it published the first sectoral implementation guide in the context of sustainability reporting practices. The guidance published for

the Financial Services Sector made sustainability reporting widespread among financial sector enterprises. As a strategic action, preferring the funding providers as leading practitioners increased the attention of non-financial sector players on sustainability reporting.

A memorandum of understanding between the GRI and the United Nations was signed in 2010. Under this agreement, the GRI Guidelines were accepted as a recommended reporting framework for businesses' sustainability reporting by the United Nations Global Compact (UNGC).

Starting in 2011, the GRI increased the number of sectoral guidelines. These are financial services, food, mining and metals, non-governmental organizations, airport operators, construction, and real estate. Also, a campaign entitled "Report and Explain" was launched by the GRI. As a result of this campaign, a gathering space was created for all those wanting to increase the importance of sustainability disclosures as an accountability tool. Since 2011, the GRI's Sustainability Disclosure Database has cataloged all GRI-based and non-GRI-based sustainability reports that the GRI is aware of. The number of reports has increased rapidly in the last few years. Nowadays, it numbers more than 24,000.

The United Nations Sustainable Development Conference (Rio+20) was organized in 2012. At this conference, the GRI attended to Green Economy Coalition and the Corporate Sustainability Reporting Coalition, and it was accepted as an organization that supported UNEP in improving sustainability reporting. By 2012, the GRI had increased the sectoral guidelines to eight.

In 2013, the GRI published the fourth generation G4 Guide, which included Reporting Principles, Standard Disclosures, and the Implementation Handbook for use while preparing sustainability reports by organizations of any size or sector. The GRI also joined forces with the United Nations Global Compact (UNGC) and the World Business Council for Sustainable Development (WBCSD) in order to establish private sector guidance. This guidance is intended to support and help organizations develop their sustainability management and reporting in the frame of global sustainability development goals.

Related to the disclosures of non-financial and diversity information of some large companies, an EU Directive increased the demand for the GRI reporting framework. Firstly, the GRI Content Index Service was launched in order to provide a verification service for the accuracy and alignment of the Content Index of G4-based reports. After that, the latest version of Taxonomy, which covers the G4, G3.1, and G3 Guidelines, was launched. The content index ensures basic classification criteria in order to improve the development of standards set. Also, within the organization, a new "Global Sustainability Standards Board" and "Due Process Oversight Committee" were established. As a result, the standard development and publishing process became much more transparent and was separated from other activities of the organization.

In 2015, the GRI launched the sustainability reporting expertise exam to identify individuals who have the ability and capacity to conduct sustainability reporting based on G4. This move is an important step in the transformation of sustainability reporting into a licensing-based profession. The exam is currently administered in more than

70 countries, and the names of those who have successfully passed the certificate are published on the GRI website.

In October 2016, the GRI published the first set of global standards for sustainability reporting. These Standards, developed by the “Global Sustainability Standards Board,” will create a reporting application that should be present in order to present the final positive or negative impacts of organizations on the sustainable development target to the stakeholders in a transparent and public manner. In this way, organizations have the opportunity to explain their significant impact on the economy, environment, and society based on generally accepted standards at a global level.

The GRI Standards have created a common language for sustainability reporting for both organizations and stakeholders. In other words, through these standards, organizations can present the economic, environmental, and social impacts of their activities to their stakeholders. In this sense, the GRI standards provide a sustainability reporting framework that will enable global comparability, ensure the quality of information on the impacts addressed within the reporting framework, and thus enable organizations to meet their high level of transparency and accountability obligations.

Conclusion

Financial reports provide stakeholders with information about an entity's financial position, operating results, and cash flows. Although this information is necessary for decision-making processes, it cannot be said that they are sufficient to make effective decisions today. Stakeholders continuously demand more information on the environmental, social and economic impacts of entities' activities. After completing the standardization process in 2016, sustainability reporting ensures transparent and accountable non-financial information to stakeholders.

This study provides a chronology of the historical development of sustainability reporting with three limitations: the investigation of institutionalization in the frame of the GRI, examining the past until 2016, and considering only events that have an impact on the private sector. This paper divides the development history of sustainability reporting into three main periods: the pre-standardization period, between 1962 and 1998, the standardization (institutionalization) period, between 1999 and 2016, and the post-standardization period, which started after 2016. The pre-standardization process of sustainability reporting can be classified under three sub-periods: the root period, between 1962 and 1979, the theoretical preparation period, between 1980 and 1988, and the period of emergence, between 1989 and 1998. Table 1 shows the chronology of the historical development of sustainability reporting, which is the main finding of this study.

It is predicted that the post-2016 process will evolve in the way that the International Accounting Standards Board has embarked on its institutionalization adventure. In other words, it is estimated that the Global Sustainability Standards Board, established in 2014 within the GRI, will soon gain independent status as an international authority.

Table 1. Chronology of sustainability reporting

Periods	Years	Main Feature	Events	Year
PRE-STANDARDIZATION PERIOD	Root Period 1962-1979	Includes events that created awareness of environmental issues	Silent Spring	1962
			The Economics of the Coming Spaceship Earth	1966
			Limits of Growth Report	1972
			United Nations Environment Program	
			Criticizing the Limits of Growth Report	1973
	Theoretical Preparation Period 1980-1988	Played a vital role in the development of theoretical approaches to finding solutions for environmental problems by constructing relationships between the economy and nature	World Conservation Strategy Report	1980
			World Commission on Environment and Development	1983
			Our Common Future Report	1987
	Emergence Period 1989-1998	Principal frameworks emerged on reporting the environmental impact of organizations' activities	Exxon Valdez Accident	1989
			CERES Principles	
			GRI Project Department	1997
			TBL Approach	1998
			GRI Steering Committee	
	STANDARDIZATION (INSTITUTIONALIZATION) PERIOD 1999-2016	Includes events directly focused on the development of (especially formal) institutions of sustainability reporting	G1	2000
			Forming of GRI as an independent organization	2001
G2			2002	
GRI Technical Advisory Committee			2005	
G3			2006	
MoU between GRI and UN			2010	
G4			2013	
Establishment of Global Sustainability Standards Board			2014	
Launching of GRI's accreditation exam			2015	
GRI Standards			2016	

Source: author's own elaboration.

References

- Alrazi B. De Villiers C. Van Staden C.J. (2015), *A comprehensive literature review on, and the construction of a framework for, environmental legitimacy, accountability and proactivity*, "Journal of Cleaner Production", 102, pp. 44–57.
- Arena C., Bozzolan S., Michelon G. (2015), *Environmental reporting: Transparency to stakeholders or stakeholder manipulation? An analysis of disclosure tone and the role of the board of directors*, "Corporate Social Responsibility and Environmental Management", 22 (6), pp. 346–361.
- Ball A., Grubnic S., Birchall J. (2014), *Sustainability accounting and accountability in the public sector*, [in:] J. Bebbington, J. Unerman, B. O'Dwyer, *Sustainability accounting and accountability*, Routledge, London–New York, pp. 176–195.
- Ballou B., Heitger D., Landes C. (2006), *The rise of corporate sustainability reporting: A rapidly growing assurance opportunity*, "Journal of Accountancy", 202 (6), pp. 65–74.
- Boulding K.E. (1966). *The economics of the coming spaceship Earth*, [in:] H. Jarrett (ed.), *Environmental Quality in a Growing Economy*, Johns Hopkins University Press, Baltimore, pp. 3–14.
- Brown H.S., de Jong M., Lessidrenska T. (2009), *The rise of the Global Reporting Initiative: a case of institutional entrepreneurship*, "Environmental politics", 18 (2), pp. 182–200.
- Carson R. (1962). *Silent Spring*, Penguin Books, London.
- Chang R.D., Zuo J., Zhao Z.Y., Zillante G., Gan X.L., Soebarto V. (2017), *Evolving theories of sustainability and firms: History, future directions and implications for renewable energy research*, "Renewable and Sustainable Energy Reviews", 72, pp. 48–56.
- Cole H.S.D., Freeman C., Jahoda M., Pavitt, KLR (eds) (1973), *Thinking About the Future: A Critique of the Limits to Growth*, Chatto and Windus for Sussex University Press, London.
- Dobler C. (2011). *The impact of formal and informal institutions on economic growth: A case study on the MENA region*, Peter Lang International Academic Publishers, Frankfurt am Main.
- Elkington J. (1993), *Coming clean: The rise and rise of the corporate environmental report*, "Business Strategy and the Environment", 2 (2), pp. 42–44.
- Elkington J. (1998), *Cannibals with forks: The triple bottom line of sustainability*, New Society Publishers, Gabriola Island.
- Elkington J. (1999). *Triple bottom-line reporting: Looking for balance*, "Australian CPA", (March), pp. 19–21.
- Georgescu-Roegen N. (1973). *The entropy law and the economic problem*, [in:] H.E. Daly (ed.), *Toward a Steady-State Economy*, W.H. Freeman, San Francisco, pp. 1–32.
- Georgescu-Roegen N. (1976), *Energy and Economic Myths: Institutional and Analytical Economic Essays*, Pergamon Press, New York.
- Gokten S., Gokten P.O. (2017), *Value Creation Reporting: Answering the Question „Value to Whom” according to the International Integrated Reporting Framework*, "Zeszyty Teoretyczne Rachunkowości", 91 (147), pp. 145–169.
- Gray R. (1992), *Accounting and environmentalism: An exploration of the challenge of gently accounting for accountability, transparency and sustainability*, "Accounting, Organizations and Society", 17 (5), pp. 399–425.
- Gray R. (1993). *Accounting for the environment*, Paul Chapman, London.
- Gray R. (1994), *Corporate reporting for sustainable development: Accounting for sustainability in 2000 AD*, "Environmental Values", pp. 17–45.
- Gray R. (2002). *The social accounting project and accounting organizations and society. Privileging engagement, imaginings, new accountings and pragmatism over critique?*, "Accounting, Organizations and Society", 27, pp. 687–708.
- Lamberton G. (2005), *Sustainability accounting—a brief history and conceptual framework*, "Accounting Forum", 29 (1), pp. 7–26.
- Larrinaga C., Moneva J.M., Llena F., Carrasco F., Correa C. (2002), *Regulación contable de la información medioambiental*, Normativa española e internacional. Aeca, Madrid.
- Lecomber R. (1975), *Economic Growth Versus the Environment*, MacMillan, London.

- Man M., Bogueanu-Popa M.M. (2020), *Impact of Non-Financial Information on Sustainable Reporting of Organisations' Performance: Case study on the Companies Listed on the Bucharest Stock Exchange*, "Sustainability", 12 (6), pp. 21–79.
- Mauro S.G., Cinquini L., Simonini E., Tenucci A. (2020), *Moving from Social and Sustainability Reporting to Integrated Reporting: Exploring the Potential of Italian Public-Funded Universities' Reports*, "Sustainability", 12 (8), pp. 31–72.
- Meadows D.H., Meadows D.L., Randers J., Behrens W.W. (1972), *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, Universe Books, New York.
- North D. C. (1981), *Structure and Change in Economic History*, W.W. Norton & Co, New York–London. DOI: <https://doi.org/10.1177/003232928201100416>.
- North D.C. (1990), *Institutions, Institutional Change, and Economic Performance*, Cambridge University Press, New York.
- Ortas E., and Moneva J.M. (2011). *Origins and development of sustainability reporting: Analysis of the Latin American context*, "Journal of Globalization, Competitiveness & Governability", 5 (2), pp. 16–37.
- Soderstrom N. (2013), *Sustainability reporting: past, present, and trends for the future*, "Insights Melbourne Business and Economics", 13, pp. 31–37.
- Toffler A. (1980), *The Third Wave*, William Morrow and Company, Inc., New York
- White A.L. (1999), *Sustainability and the accountable corporation*, "Environment", 41 (8), pp. 3–43.

