



# Social responsibility as the dominant driver of the evolution of reporting from financial to non-financial: theory and methodology

Svetlana M. Bychkova<sup>1,\*</sup>, Svetlana N. Karelskaia<sup>2</sup>,  
Elena B. Abdalova<sup>3</sup>, Elena A. Zhidkova<sup>4</sup>

<sup>1</sup> Saint-Petersburg State Agrarian University<sup>ROR</sup>, St. Petersburg, Russia

<sup>2</sup> Saint-Petersburg State University<sup>ROR</sup>, St. Petersburg, Russia

<sup>3</sup> Saint-Petersburg State Economic University<sup>ROR</sup>, St. Petersburg, Russia

<sup>4</sup> LLC Audit-Consulting, Kemerovo, Russia

\* e-mail: [sbychkova@mail.ru](mailto:sbychkova@mail.ru)

Received January 10, 2021; Accepted in revised form March 25, 2021; Published online April 14, 2021

## Abstract:

**Introduction.** For over half a century, corporate social responsibility has been in the center of scientific discourse. Its basic concept has become part of strategic management, changing the content of financial reporting and leading to new forms of corporate reporting.

**Study objects and methods.** The article substantiated the importance of studying corporate social responsibility (CSR) concepts and national models. The study covered the CSR basic concept, targets and paradigms. The evolution of CSR was considered in terms of its impact on the formation of non-financial reporting.

**Results and discussion.** The authors identified two stages of non-financial reporting development and two directions for the convergence of financial and non-financial reporting. They proposed an assessment matrix to measure facts, actions, and resources in the past, present, and future. This matrix can help companies to generate information for integrated reporting by showing the impact of each type of capital (financial, production, human, intellectual, social, and environmental) on their value creation. Within a promising direction for developing non-financial reporting in conjunction with financial reporting, the authors set requirements to reflect the impact of climate risks on the company's activities in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures. The authors discussed both standardized and their own approaches to CSR indicators. Finally, they addressed the problem of reliability of non-financial reporting, discussed various forms of its verification (taking evidence from food industry enterprises), and set specific principles to control non-financial reporting indicators.

**Conclusion.** The authors identified further promising areas of research in the theory and practice of CSR. Their findings can be used in scientific debates on CSR and in the practice of corporate reporting.

**Keywords:** Measurement, indicators, corporate social responsibility, reporting, food industry, sustainable development

**Funding:** The reported study was funded by Russian Foundation for Basic Research (RFBR)<sup>ROR</sup>, project number №20-110-50042/20 "Social responsibility as the dominant driver of the evolution of reporting from financial to non-financial: a review of theory and methodology".

**Please cite this article in press as:** Bychkova SM, Karelskaia SN, Abdalova EB, Zhidkova EA. Social responsibility as the dominant driver of the evolution of reporting from financial to non-financial: theory and methodology. *Foods and Raw Materials*. 2021;9(1): 135–145. <https://doi.org/10.21603/2308-4057-2021-1-135-145>.

## INTRODUCTION

Corporate reporting is developing during the ongoing transformation of the economic paradigm under the influence of the concept of social responsibility. This concept underlies the shift of attention from financial to non-financial reporting. As a result, new indicators

are being constructed to assess the performance of economic entities. Today's increased interest in non-financial reporting is similar to that in financial reporting in the 20th century. At the same time, there is a reconsideration of the concept of financial accounting that defines its information boundaries.

This review aims to fill some gaps in scientific discourse as to how the concept of social responsibility affects the evolution of corporate reporting. It also raises awareness of methodological and theoretical approaches to corporate reporting and identifies recent trends in this area. Despite general interest in corporate responsibility and non-financial reporting, there is clearly a shortage of studies into the methodology of information support for economic decisions and assessment of socially oriented activities of food industry organizations.

Literature analysis focuses on two main areas – corporate social responsibility and corporate reporting. The latter is gradually moving towards an idea that companies need to disclose their results in three dimensions: economic, environmental, and social. Economic indicators reflect the company's financial position and performance. The environmental dimension takes into account its impact on the planet. Finally, the social aspect covers such issues as social justice and improving the quality of life.

The article presents a critical analysis of scientific publications on the topic and systematizes approaches to defining social responsibility and its role in the development of corporate governance and non-financial reporting, as evidenced by food industry enterprises. It gives a retrospective view of financial and non-financial reporting and offers directions for their further development in the form of an assessment matrix that takes into account changes of indicators over time.

## STUDY OBJECTS AND METHODS

### **Social responsibility: definition and evolution.**

Scientists define social responsibility as taking different forms (individual, collective, group), being of different types (moral, legal, civil, corporate, etc.), and relating to different subjects (individual, organization, state, world community) [1, 2].

Individual social responsibility concerns the actions of particular individuals and is studied by philosophy, ethics, and psychology [1]. Most researchers in this area analyze human behavior associated with providing assistance, i.e. actions motivated by empathy, compassion, and selflessness [1]. Group social responsibility tends to correlate with professional responsibility as a whole or with particular professions (doctor, auditor, lawyer, journalist, etc.) [3]. Collective social responsibility is usually defined as the activities of organizations [4, 5]. The focus of discussion in this area is on corporate responsibility of commercial organizations.

Social responsibility of the state is considered either in the narrow sense, as a relationship between authorities and society, or multidimensionally. The latter approach covers legislative support of a socially acceptable level of well-being for the main social groups; availability of the declared social benefits in health care, education, employment, etc.; creating favorable conditions for small

business and providing support to the economically active population, etc. [6, 7]. Discourse in this area has led to an assumption that there are national models of social responsibility focused on the relationship between the state and business [8].

The global context of social responsibility refers to solving problems of global importance. It is usually associated with such international organizations as the International Organization for Standardization (ISO), the International Finance Corporation (IFC), the United Nations (UN), as well as with the European Union (EU) and international standards that regulate organizational social responsibility and non-financial reporting [3, 9–11].

Almost all forms of social responsibility reported in scientific literature are related to organizations and their activities. They refer to corporate social responsibility (CSR) – the center of interaction between all economic agents that is closely connected with other forms of social responsibility. CSR is a focus of attention for economists discussing how responsible companies are in relation to their employees, consumers, and suppliers, as well as society and the planet as a whole [10, 12].

The theoretical concept of CSR goes back a long way. Blagov connects it with the theory of strategic corporate governance and identifies two stages in its development. The first stage (mid-1950s–mid-1990s) is associated with the formation of concepts, while the second stage (mid-1990s up to date) was when concepts developed on their own basis [4]. According to Blagov, the period until the 1990s saw a search for a paradigm to formulate and solve problems of interaction between business and society, based on the logic “principles – processes – results” [4]. This stage produced three basic concepts: 1) corporate social responsibility (CSR-1), which defines the moral principles of business and determines the reasons for its actions; 2) corporate social responsiveness (CSR-2) or the ability of a business to perceive social impact on management, which determines how the company operates; 3) corporate social performance (CSP), which combines CSR and CSP [4]. Thus, the first stage resulted in a transfer of CSR issues into a practice-oriented plane.

The second stage of CSR evolution gave rise to three alternative concepts: 1) the concept of stakeholders (CS), which specifies CSP as certain activities aimed at meeting the expectations of specific stakeholders; 2) the concept of corporate citizenship (CCC), which allows corporations to formulate their own program of becoming a “good corporate citizen”; and 3) the concept of corporate sustainability (CCS), which defines CSR principles as a unity of three types of responsibility (economic, social, and environmental) [4]. The latter concept is commonly referred to as the concept of sustainable development. This concept introduced a “triple bottom line” of sustainable development into

the theory and practice of business, covering economic, social, and environmental dimensions. According to Blagov, it was this concept that formed a basis for the international non-financial reporting standards of the GRI (Global Reporting Initiative) and the ISO 26000 Guidance on Social Responsibility [4].

Kanaeva looks at the theory of CSR through the key results of its development, namely: 1) conceptualization, i.e. defining the CSR problems and forms; 2) operationalization and instrumentalization, which led to a rethinking of the reasons (motives) for increasing CSR and incorporating CSP into strategic corporate governance; 3) professionalization, i.e. developing approaches to training specialists in implementing CSP; and 4) institutionalization, i.e. transplantation, formation and consolidation of relevant norms and restrictions, and incorporating CSR into the institutional environment of the new economic model [13].

According to Kanaeva, the key result of CSR conceptualization was a paradigmatic shift in the attitudes to this phenomenon. Previously understood as complementary, CSP was now recognized as a vital part of the company's development strategy, a prerequisite for its long-term competitive advantages and corporate sustainability [11]. This understanding gave rise to a new economic model and now we are witnessing the formation of a special CSR institution built into this model.

As early as 2010, Fedorov and Polyakov described CSR as a socio-economic institution involved in the regulation of the economy [5]. Kanaeva refined this approach by specifying CSR functions that contribute to the key principles of sustainable development [3]. Zavyalova offered another approach to CSR evolution [14]. The author defined CSR as a generalizing umbrella theory that covers various concepts described by Blagov (CCC, CCS, CSP, CSR-2, etc.). According to her approach, CSR developed through a succession of three theories: corporate selfishness, corporate altruism, and convergent collaboration. The theory of corporate selfishness defines the goal of a business as maximizing the profits of capital owners, which excludes the idea of social responsibility [14]. The theory of corporate altruism implies a voluntary participation of companies in CSR programs. Finally, the theory of convergent collaboration is a compromise that institutionalizes CSR. In this theory, CSR remains voluntary but is subject to assessment [14].

Thus, the above researchers unanimously agree that by the beginning of the 21st century, the evolution of CSR had resulted in a transformation of ideas about the role of business in society. Blagov and Kanaeva substantiated the new socio-economic paradigm in which businesses have to incorporate CSR into their corporate strategies in order to survive.

The practical implementation of CSR can be exemplified by two national models, American and European.

The American CSR model began to take shape at the turn of the 20th century, but it was not until the mid-20th century that it gained significant acceptance in practice, as reported by Danshina [8]. This model implies minimal government interference in business policies. The government can influence them indirectly by introducing tax benefits and various other concessions at the legislative level [6, 8].

The main CSP areas in the United States are corporate philanthropy, targeted programs, and corporate pension funds. Goal-oriented marketing strategies are common, which involve allocating part of company earnings for socially significant projects. Businesses and non-governmental organizations (NGOs) often form "social alliances" to solve socially significant problems together. American companies actively use their CSP results to attract public attention, so they make their activities transparent through non-financial reporting, among other means [8].

The European CSR model developed under the influence of trade unions and legislative norms [8, 10, 15]. There, CSP is regulated by legislation at the international, national and local levels [8]. European companies pay high taxes that the government uses to provide social welfare services to its citizens. However, many companies not only comply with the law and pay high taxes, but also implement their own environmental and social programs [9]. Most of them, like American companies, regularly prepare non-financial reports.

Thus, the CSR evolution has resulted in a regular voluntary practice of CSP and financial reporting by companies in different countries, despite significant differences in its implementation [16–18].

## RESULTS AND DISCUSSION

**Non-financial reporting.** Most researchers agree that European companies were the first to publish social reports in the 1990s [19, 20]. However, Pyatov *et al.* found that the first evidence of non-financial reporting dates back to the first half of the 19th century [21]. The practice of non-financial reporting became the subject of discussions about information disclosure, accountability format, and independent reviewing [16].

Companies began to prepare reports on social issues, corporate social responsibility and sustainable development, as well as standardized reports [16, 22]. The evolution of non-financial reporting was a progressive transition from social and environmental reports to reports on sustainable development, later to take an integrated form, as stated by Vakhrushina and Tolcheeva [23].

According to Malinovskaya, integrated reporting was brought about by the evolution of economic theories and the emergence of institutional investors in the late

1980s. In the 1990s, institutional investors adopted the principles of responsible investment, creating a demand for information on environmental and social activities of investment objects and their ability to create value over time in order to reduce investment risks [24]. The financial and non-financial reports existing at the time could hardly satisfy that demand. A response to that was an idea of integrated reporting that emerged in the early 2000s, later to become standardized [24].

The conceptual framework for integrated reporting is based on the principle that the company's main goal is to create value in the interests of all stakeholders by increasing the key types of its capital: financial, environmental and social, as reported by Melnik and Kogdenko [25]. Thus, the new type of reporting emerged from two basic concepts of social responsibility – the concept of stakeholders and the concept of corporate sustainability.

Today, the development vector of non-financial reporting is determined by the requirement for the company to disclose its climate risks. These risks have been developed by the Financial Stability Board's Task Force on Climate-Related Financial Disclosures (TCFD) since 2015. According to Efimova and Rozhnova, the guidelines issued by the TCFD in 2017 became the next, more qualitative, step in the development of non-financial reporting [26].

The most debatable issue of non-financial reporting has been how to measure CSR. Debates are held at the national, international and corporate levels in order to achieve data comparability.

The assessment of sustainable development is discussed at the national level using the indicator and integral approaches. The indicator approach became a basis for the Sustainable Development Goals designed by the UN for all countries to achieve by 2030 [3, 11, 27]. There are 17 goals that have 169 targets, each responsible for a number of indicators [11].

Integral indicators are a set of weighted indicators of sustainable development, which some researchers consider as analogues of GDP (gross domestic product) [28]. Two main integrated indicators today are the UN's Human Development Index and the World Bank's Adjusted Net Savings. The former reflects social aspects of sustainability and aggregates sub-indices of longevity, education and material well-being. The latter characterizes environmental and economic sustainability and takes into account economic losses from depletion of natural resources and damage from environmental pollution [11]. Noteworthy, food industry enterprises of all levels make a special contribution to the human development index.

The indicator and integral approaches to social responsibility assessment are applicable both at the sectoral or regional level and at the organizational level [7, 28, 29]. According to Barilenko *et al.*, the generally accepted integral indices of organizational

sustainable development include the Dow Jones Sustainability Index, Global 100 Index, and Blomberg ESC Index [30]. Modern scientists continue to search for alternative options. The Russian economist Sheremet (1929–2020) was among the first to propose a comprehensive approach to assessing organizational sustainable development [31]. Several recent approaches can be found in [28, 32–34]. Kuznetsova and Kuznetsov designed a system of sustainable development indicators for industrial enterprises and developed an integral indicator for a comprehensive assessment of economic, environmental and social factors [28]. Komendenko and Svetashova proposed to evaluate the company's integral efficiency adjusted for environmental and social risk factors [32].

The indicator approach also attracts a lot of scientific attention [35–38]. For example, Vertakova and Chulakova assess the impact of CSP on the growth of business value and propose indicators for the company's interaction with regional and municipal authorities, population and personnel, as well as for its contribution to the socio-economic development [36]. Noteworthy, it was Blagov who proposed to evaluate the company's relations with stakeholders to assess its sustainable development as early as 2004 [35]. Based on the concept of stakeholders, he developed a set of reputation indices that characterize the company's relations with the government, consumers, business partners, personnel, and shareholders. The indices were tried out using the data of food industry enterprises located in the North-West of Russia [35].

In addition to the indicator and integral approaches, Barilenko *et al.* identified another four approaches to assessing the company's sustainable development [30]. They are: 1) a system of indicators for standard reports set in accordance with the standards (e.g., GRI); 2) a matrix of key performance indicators (KPI) that reflects the achievement of sustainable development goals; 3) a system of indicators to assess the efficiency of a business model (resources, business processes and results); and 4) a project portfolio approach focused on the development of the company's strategy of sustainable development [30]. These four approaches have a different foundation compared to the indicator and integral approaches described above. They are based on the calculation of analytical indicators and integrators and on the development of reporting indicators for non-financial reporting.

Efimova and Moiseeva developed their own proposals based on the KPI matrix [39, 40]. In particular, Efimova created a method for monitoring and assessing the process of creating value using six types of capital (financial, production, human, intellectual, social, and environmental). This method also takes into account a company's business model reflected in its integrated reporting [39]. It can be used to analyze how the company forms and uses the six types of capital –



its key resources – in its business processes. For this, the indicators for each type of capital are classified into three groups: resources, business processes, and results [39].

Of special interest is the use of corporate social responsibility indicators in practice. For example, Danshina analyzed non-financial reporting of nine business organizations, leaders of the Dow Jones Sustainability Index in 2016. The researcher classified the reporting indicators disclosed by the US and European companies into five areas: environment, social work, CSR in relation to employees, handling suppliers, and corporate indicators [8]. The comparative analysis showed that all US companies and only one European (Nestle SA, a leader in the food industry) provided reports for all the sections [8]. The rest of the European companies did not disclose their corporate indicators.

Barilenko *et al.* analyzed GRI sustainability reports and found that the companies preferred to disclose those indicators which directly related to their business model and value, or profitability indicators for their investors [30]. The researchers also empathized that the companies' reports complied with relevant guidelines and standards. The same conclusion was made by Bobrova and Malaykina, who analyzed non-financial reports of Russian energy companies [41].

Thus, while scientists are looking for new integral indicators, systematizing CSR and reporting indicators, organizations are already using an established set of sustainable development indices to build their ratings and follow the recommended standards for integrated non-financial reporting. However, it is generally believed that companies often provide heterogeneous and incomparable data that require clarification.

**Financial reporting.** Many researchers believe that non-financial reporting is a natural result of the development of financial reporting [21]. Although financial reporting had established long before the first attempts at non-financial reporting, the rules of its formation were determined by the same developmental principles that were subsequently used to design national CSR models.

Financial reporting developed as a consequence of accounting practices that were determined by dominant factors differing from country to country. Sokolov (1938–2010) identified significant differences in the development of accounting in countries such as Italy, France, Germany, England, and America [42]. In different periods, these countries have had a significant impact on the evolution of accounting around the world. They clarified the purposes of accounting, making a transition from controlling those involved in the business process to controlling the company's management. Also, they changed the choice of sciences to determine accounting rules, making a transition from law to psychology. In the 20th century, they redefined the content of reporting forms, replacing a simple balance of rights and obligations with an equality

between resources and the amount of obligations and capital.

Modern financial statements have derived from the evolution of accounting. It was as early as 1673 that the French merchant Jacques Savary (1622–1690) designed the Commercial Code to regulate accounting practice in Europe [43]. The modern stage is generally associated with 2001, when most European countries recognized the need to bring national accounting conventions in compliance with the International Financial Reporting Standards (IFRS) based on the Anglo-American system of accounting [44]. In the context of economic globalization, the IFRS contributed to the comparability of companies' reports prepared in accordance with the national accounting conventions.

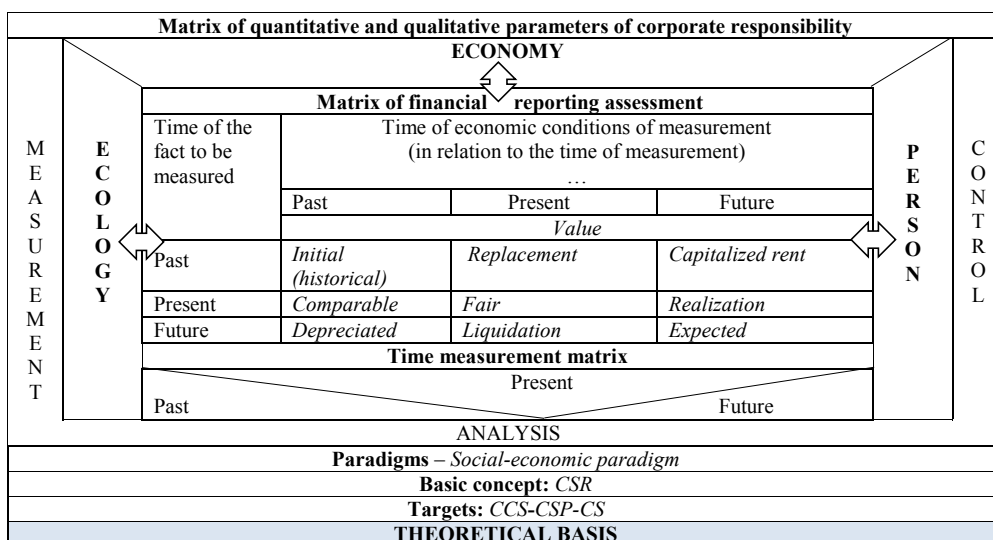
Modern accounting standards are based on the national accounting regulation models, two of which are especially important today – European and Anglo-American. The first model developed under strict state regulation, while the second one implied minimal government interference in business [45]. The main differences between these models are most visible when comparing two key aspects: the criteria for recognition and assessment of financial statement elements (assets, liabilities, capital, income and expenses). In the European model, the criteria are based on legal aspects, while in the Anglo-American model, on their economic content. The rules of assessment are different in all countries, depending on the object of assessment. They are established at the moment of their recognition and then change over the natural course of time: past-present-future [46].

Today, financial reporting is developing under the influence of CSR. The rethinking of business targets has expanded the boundaries of financial reporting. Experts are clarifying the rules for recognizing elements of financial reporting and adding new objects of assessment [47]. This is based on inquiries about the companies' CSP.

**Correlation between financial and non-financial reporting.** Current works on financial and non-financial reporting are focused on their relationship and interchangeability. Most authors justify the need for their combination and complementarity [23, 26]. At the same time, much attention is drawn to their information links, differences and similarities.

Melnik and Kogdenko associate their differences with the disclosure of differing goals in the company's reports. Traditional financial reports contain economic data to reflect the company's financial results. Non-financial reports inform about financial performance and business externalities, in particular environmental and social impacts. They show what financial and non-financial factors have affected the company's ability to create value and reflect the company's impact on the economic, natural and social environments [25].

The authors think that integrated reporting, like other types of non-financial reporting, is impossible to



**Figure 1** Matrix of quantitative and qualitative parameters of corporate responsibility (by the authors)

standardize since it covers a wide range of qualitative characteristics: the company’s business model and competitive advantages, segment information, interaction with stakeholders, as well as basic non-financial indicators of industry and business [25]. They insist on expanding the boundaries of integrated reporting, compared to financial reporting [25].

According to Getman, however, the boundaries of financial reporting match those of non-financial reporting [48]. The author insists on the need to standardize integrated reporting so that it better reflects a “motley” range of non-financial indicators [48]. To substantiate his position, Getman shows a relationship between integrated and financial reporting. Not only does he define the boundaries of reports, but he also suggests using aggregation and disaggregation of information in integrated reporting, taking into account the segment approach used in financial reporting. The author finds it important that integrated reporting covers controlled companies within the perimeter of consolidation for financial statements and that time frames should be set for short, medium and long terms, taking into account the operating and investment cycles used in financial accounting [48].

The evolution of non-financial reporting gives rise to new accounting directions, for example, business accounting, which is described in detail by Plotnikov and Plotnikova [49, 50]. The authors consider business accounting as a product of standards and guidelines for integrated reporting. Its goal is to provide stakeholders with information on the business model’s sustainable development and stages of value creation. Business accounting focuses on the organization’s business model structured by type of capital, life cycle, and value creation and transformation over time. Its main task is to synchronize the created value of business models and to collect information for integrated reporting to reflect changes in each type of capital [50].

Although Plotnikov and Plotnikova set a fundamental task to assess changes in the business model (capital) over time and emphasized the need to assess the input-output system based on past, present and future events, they did not offer any method. A solution was proposed by Sokolov who developed a matrix of measuring financial reporting indicators that change over time (Fig. 1). This matrix reflects the impact of temporal factors on accounting.

According to Sokolov, assessments differ in two parameters – the moment of measurement to which the assessment criterion belongs and the moment for which the result is intended. Correlations between the two parameters form nine time estimates: past, present and future estimates of the past, present and future [46].

The matrix aims to assess the present against the past and the future, thus contributing to the assessment of value creation over time. Using the matrix in non-financial reporting will solve the main problem of business accounting – synchronization of the business model’s created value and measurement of the company’s impact on the three-fold result of sustainable development. Thus, the matrix can be used in both financial and non-financial reporting.

Considering the relationship between financial and non-financial reporting, we should draw special attention to the modern trend laid down by the TCFD. Unlike all previous guidelines and standards for non-financial reporting, the TCFD recommendations emphasize the need for disclosing information about climate risks in financial reporting. This marked the beginning of a new stage in the development of reporting based on mutual convergence of reporting information.

According to Efimova and Rozhnova, “the developers of reporting standards recognized the impairment of financial information prepared in isolation from non-financial information” [51]. The researchers stressed the need to harmonize financial and

non-financial reporting based on their common goals and principles. They believe that this will “improve the relevance, reliability (quality) and consistency of information for its users about the development of an enterprise in the context of climatic risks” [51]. As a result, this approach should increase the users’ trust in reporting by demonstrating the company’s understanding of financial and non-financial reporting as a strategic management tool and an important way of communicating with its users [48].

The theoretical basis for harmonizing financial and non-financial reporting, proposed by Efimova and Rozhnova, consists of the following principles: relevance, timeliness, multi-stage detailing, overall interconnectedness, strategic focus and orientation towards the future, scenario analysis, balanced judgement of materiality, responsibility, reasonableness, balance of power and responsibility, continuous improvement of the quality of information display and methods of data convertibility, and reasonable skepticism [51].

Thus, we distinguished two stages in the evolution of non-financial reporting. The first was a stage of substantiating a new reporting area – disclosure of information about CSR in non-financial reporting based on qualitative and quantitative indicators. The second was a stage of mutual enrichment and convergence of financial and non-financial reports based on critical analysis of their differences.

We identified two directions for convergence of financial and non-financial reporting. The first is to use a unified assessment matrix that reflects the influence of temporal factors on the assessment of past, present and future events. The second is to use the TCFD recommendations to assess the impact of climate risks on business and reflect it in the changes of financial indicators, performance results, and cash flows. This approach is based on the fact that non-financial information about climate change risks is only valuable when reported together with financial indicators. Of special relevance here are the recommendations of Efimova and Rozhnova on the harmonization of financial and non-financial reporting based on common principles and methods.

**Control of indicators.** The evolution of non-financial reporting has been accompanied by discussions about the need and methodology for external, independent verification of the quality and reliability of reporting information [16, 52, 53]. The need for verification of non-financial information led to the emergence of social audit as a measure of CSR. Kizilov and Bogataya believe that social audit originated in the United States in the 1940s as a result of compiling company social ratings [54].

However, social audit and its methods are still defined and interpreted differently [55–57]. For example, Kizilov and Bogataya define it as a confirmation of

social reporting (narrow sense) and as an analysis of the company’s social programs for effectiveness and compliance with relevant standards (broad sense) [54]. Saprykina and Krylova prefer the term “CSR audit” and define it as an independent verification of corporate reporting on CSR. The content of this process relates to the degree of detail of the information to be verified, while its result is an expression of opinion on the reliability of reporting [58].

Whether internal or external, social audit aims to check if the company’s CSR practice reflected in non-financial reporting complies with its goals. The analysis is based on the following criteria: the company’s understanding of CSR, its place in the company’s system of values, the nature and forms of the company’s interaction with stakeholders, key directions of social programs, changes in social activity indicators, as well as problems and directions for further development of CSR [59].

In addition to the auditor’s opinion, the external independent verification of non-financial reporting also includes public assurance, comments from third parties, and verification of compliance with the standard [60, 61]. In order to use many forms of independent verification of non-financial statements provided by the food industry enterprises under study, we need a simultaneous development of norms, standards and control practices. The same approach is also used to harmonize financial and non-financial reporting, as we noted above.

There are general and specific principles for verification of non-financial reporting. General principles include adequacy, objectivity, complexity, reliability, comparability, etc., while accessibility is regarded as a specific principle. The principle of accessibility is interpreted as a basis for assessing CSR data that are available in open sources and can be used by any interested party [62]. Alternatively, some principles are directly borrowed from auditing, such as professional ethics, professional skepticism, professional judgment, professional responsibility in collecting sufficient and appropriate evidence to reduce the audit risk, as well as assurance of the materiality and reliability of the company’s reporting [58].

## CONCLUSION

The directions for further development of the CSR theory and practice include:

- theoretical research and critical analysis of applying the CSR paradigm, basic concept and targets using a systems approach, including the historical method and the technology of foresight;
- temporal measurements of CSR information to develop reporting indicators, analysis and control procedures for measuring environmental, economic and social activities using financial and non-financial reporting methods (presented in Fig. 1 as a matrix of

quantitative and qualitative parameters of corporate responsibility).

Our critical analysis of scientific literature on CSR revealed the following:

1. The understanding of social responsibility may vary depending on the level (individual, corporate, national, global), but CSR is at the center of theoretical debate and practice, since it is at the corporate level that most CSP participants interact with each other.

2. The development of CSR replaced the economic paradigm with the socio-economic paradigm based on a new theoretical basis (concept and targets) determined by three key concepts: CCS, CSP, and CS. Changes in the strategy and quality of company management in the CSR context led to the development of non-financial reporting as a form of informing stakeholders about the company's social, economic, and environmental activities.

3. Non-financial reporting evolved in the following stages: 1) company-initiated preparation of non-financial reporting on certain aspects; 2) development of CSR reporting standards; 3) prioritizing integrated non-financial reporting (including a report on sustainable development).

4. The theoretical perspectives on non-financial reporting show the following:

4.1. Non-financial reporting is currently governed by the standards for preparing comprehensive reports, such as reports on sustainable development and integrated reports. However, their content has not yet been unified. Therefore, there is a need for further research into making reports on sustainable development for food industry enterprises.

4.2. Companies do not have a single approach to measuring sustainable development since there is no basis for unification. The recent trend is to formulate new requirements for disclosure of information on the impact of climate risks on the company's activities, which is a next stage in the development of non-financial and financial reporting.

4.3. Scientists hold fundamentally opposite opinions on the relationship between financial and non-financial reporting. One perspective is that non-financial reporting is only a supplement to financial reporting. Another view is that the content of non-financial reporting is completely different from that of financial

reporting. Finally, some researchers believe that the future of company reporting lies in the harmonization and mutual development of financial and non-financial reporting.

4.4. Scientists are still searching for forms and methods of verifying non-financial reporting to ensure its reliability.

One of the key benefits of the CSR concept is a rapid development of non-financial reporting that has a significant impact on the content of financial reporting. Another important result is the idea of combining financial and non-financial reporting on the basis of CSR. However, the content of non-financial reporting is still in its infancy and requires clarification in terms of the information perimeter, data measurement, analysis, and audit.

To conclude, we believe there is a need for unifying the existing rules for preparing CSR reports by adopting an integrated reporting model as the most comprehensive form of non-financial reporting among the models proposed so far. This type of reporting is based on the disclosure of the company's business model and capital flows. Its methodology assumes a plurality of capitals: financial, production, human, intellectual, social, and environmental. Monitoring the effectiveness of these capitals' creation, maintenance and use contributes to creating value and, ultimately, allows the company to implement CSR.

For this monitoring to work, we need to unify the content of integrated reporting as a CSP report that discloses information on the quantitative and qualitative parameters of CSR based on the modern approach to financial reporting represented by the temporal measurement matrix.

#### **CONTRIBUTION**

The authors were equally involved in writing the manuscript and are equally responsible for plagiarism.

#### **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

#### **ACKNOWLEDGEMENTS**

The authors are grateful to all of their colleagues who helped them with the research.

#### **REFERENCES**

1. Belov AV. *Sotsial'naya otvetstvennost': opyt filosofskogo issledovaniya* [Social responsibility: a philosophical study]. Volgograd: Volgograd State Agrarian University; 2012. 164 p. (In Russ.).
2. Nikiforova OA, Mitrofanova DO. Concepts of social responsibility of business: the initial ideas and classifications. *Vestnik of Saint Petersburg University. Sociology.* 2017;10(2):214–228. (In Russ.). <https://doi.org/10.21638/11701/spbu12.2017.206>.
3. Kanaeva OA. Social imperatives of sustainable development. *St Petersburg University Journal of Economic Studies.* 2018;34(1):26–58. (In Russ.). <https://doi.org/10.21638/11701/spbu05.2018.102>.




4. Blagov YuE. Evolution of CSR concept and the strategic management. *Vestnik of Saint Petersburg University. Management.* 2011;(1):3–26. (In Russ.).
5. Fyodorov MV, Polyakova AG. Institutional bases of corporate social responsibility. *Journal of the Ural State University of Economics.* 2010;32(6):5–10. (In Russ.).
6. Belousov KYu. Corporate social responsibility as a socio-economic institute (Russia, St. Petersburg). *Problems of Modern Economics.* 2015;56(4):87–90. (In Russ.).
7. Pyzhev AI, Syrtsova EA, Pyzheva YuI, Zander EV. Enhancement of sustainable development statistics for the Russian regions. *Voprosy statistiki.* 2019;26(5):33–42. (In Russ.). <https://doi.org/10.34023/2313-6383-2019-26-5-33-42>.
8. Danshina VV. Foreign realization experience of social liability of business. *Tomsk State University Journal of Economics.* 2017;(40):152–170. (In Russ.). <https://doi.org/10.17223/19988648/40/13>.
9. Abad-Segura E, Cortés-García FJ, Belmonte-Ureña LJ. The sustainable approach to corporate social responsibility: A global analysis and future trends. *Sustainability.* 2019;11(19). <https://doi.org/10.3390/su11195382>.
10. Matuszak Ł, Róžańska E. CSR disclosure in Polish-listed companies in the light of directive 2014/95/EU requirements: Empirical evidence. *Sustainability.* 2017;9(12). <https://doi.org/10.3390/su9122304>.
11. Bobylev SN. Sustainable development: A new vision of the future? *Problems in Political Economy.* 2020;21(1):67–83. (In Russ.). <https://doi.org/10.5281/zenodo.3753332>.
12. Blasi S, Caporin M, Fontini F. A multidimensional analysis of the relationship between corporate social responsibility and firms' economic performance. *Ecological Economics.* 2018;147:218–229. <https://doi.org/10.1016/j.ecolecon.2018.01.014>
13. Kanayeva OA. Corporate social responsibility: Evolution of theoretical views. *St Petersburg University Journal of Economic Studies.* 2013;(2):130–145. (In Russ.).
14. Zavyalova EB. Corporate social responsibility: Evolution of approaches and ideas. *Financial Business.* 2018;193(2): 26–31. (In Russ.).
15. Sarakhanova NS, Golubkova NA. Formation and evolution if the concept of corporate social responsibility. *Vestnik fakul'teta upravleniya SPbGEHU [Bulletin of the Faculty of Management of St. Petersburg State University of Economics].* 2017;(1–2):393–399. (In Russ.).
16. Manes-Rossi F, Tiron-Tudor A, Nicolò G, Zanellato G. Ensuring more sustainable reporting in europe using non-financial disclosure-de facto and de jure evidence. *Sustainability.* 2018;10(4). <https://doi.org/10.3390/su10041162>.
17. Izmailova MA. The evolution of institutional environment of corporate social responsibility in Russia. *Humanities and Social Sciences. Bulletin of the Financial University.* 2019;9(3)(39):82–88. (In Russ.). <https://doi.org/10.26794/2226-7867-2019-9-3-82-88>.
18. Belyaeva IYu, Danilova OV, Bataeva BS, Psareva NYu, Kharchilava KhP, Moshkova LE, et al. *Sovremennye korporativnye strategii i tekhnologii v Rossii [Modern corporate strategies and technologies in Russia].* Moscow: Finance University under the Government of the Russian Federation; 2018. 458 p. (In Russ.).
19. Selezneva AV. Interrelation of the evolution of accounting paradigms and the origin and development of non-financial reporting. *Izvestiâ Sankt-Peterburgskogo gosudarstvennogo èkonomičeskogo universiteta.* 2015;93(3):140–143. (In Russ.).
20. Vorobieva OA. Historical background: The concept of corporate social responsibility as the theoretical basis for non-financial reporting. *Russian Journal of Entrepreneurship.* 2015;16(8):1111–1120. (In Russ.).
21. Pyatov ML, Solovey TN, Sorokina AS, Gusnieva AA. Non-financial reporting in the economy: History of 19th – early 21st century. *St Petersburg University Journal of Economic Studies.* 2018;34(3):465–492. (In Russ.). <https://doi.org/10.21638/spbu05.2018.306>.
22. Makarov AS, Loginova AA. Corporate social responsibility, non-financial reporting and social responsible investment analysis method development. *Innovative Development of Economy.* 2017;39(3):146–157. (In Russ.).
23. Vakhrushina MA, Tolcheeva AA. Corporate reporting as the result of reports evolution of a company. *Perm University Herald. Economy.* 2017;12(2):297–310. (In Russ.). <https://doi.org/10.17072/1994-9960-2017-2-297-310>.
24. Malinovskaya NV. Integrated reporting: A historical aspect. *International Accounting.* 2015;374(32):41–50.(In Russ.).
25. Kogdenko VG, Mel'nik MV. Integrated reporting: Formation and analysis issues. *International Accounting.* 2014;304(10):2–15. (In Russ.).
26. Efimova OV, Rozhnova OV. The strategy for harmonizing financial and non-financial reporting on climate risk disclosures. Part 1. *Accounting. Analysis. Auditing.* 2020;7(3):18–25. (In Russ.). <https://doi.org/10.26794/2408-9303-2020-7-3-18-25>.


27. Blagov YuE, Petrova-Savchenko AA. The transformation of corporate sustainability model in the context of achieving the UN SDGs: evidence from the leading Russian companies. *Corporate Governance (Bingley)*. 2020. <https://doi.org/10.1108/CG-01-2020-0047>.
28. Kuznetsova EYu, Kuznetsov SV. Method for assessing the sustainable development of an industrial enterprise. *Bulletin of Ural Federal University. Series Economics and Management*. 2019;18(2):186–209. (In Russ.). <https://doi.org/10.15826/vestnik.2019.18.2.010>.
29. Bychkova SM, Zhidkova EA, Eliashev DV. Informational support as an element of state control of agriculture. *Foods and Raw Materials*. 2018;6(2):467–473. (In Russ.). <http://doi.org/10.21603/2308-4057-2018-2-467-473>.
30. Barilenko VI, Sergeeva GV, Nikiforova EV, Iznova TS, Batyrova NS, Volkov MA, et al. Informatsionno-analiticheskoe obespechenie ustoychivogo razvitiya ehkonomicheskikh sub"ektov [Information and analytical support for sustainable development of economic entities]. Moscow: Rusayns; 2015. 160 p. (In Russ.).
31. Sheremet AD. A complex analysis of sustainable development indicators of an enterprise. *Economic Analysis: Theory and Practice*. 2014;396(45):2–10. (In Russ.).
32. Komendenko SN, Svetashova YuV. Achievement of the sustainability goals: Assessment of the efficiency. *Modern Economics: Problems and Solutions*. 2019;119(11):73–87. (In Russ.). <https://doi.org/10.17308/meps.2019.11/2254>.
33. Kornilova AV. Ecological and socio-economic indicators of corporate responsibility: Methodology. *News of the Tula state university. Economic and legal sciences*. 2018;(3–1):47–67. (In Russ.).
34. Steblyanskaya AN, Wang Zhen, Bragina ZV. Financial sustainable growth theory as a result of interaction with energy, environmental and social processes (evidence from oil and gas industry). *Finance: Theory and Practice*. 2019;23(2) (110):134–152. (In Russ.). <https://doi.org/10.26794/2587-5671-2019-23-2-134-152>.
35. Blagov YuE. The concept of corporate social responsibility and strategic management. *Russian Management Journal*. 2004;2(3):17–34. (In Russ.).
36. Vertakova YuV, Cholakova AL. System management corporate social responsibility city-forming enterprises. *Proceedings of the Southwest State University*. 2014;53(2):35–46. (In Russ.).
37. Ponomarenko TV, Marinina OA, Panchenko IP. Integration of corporate responsibility concepts and project approach in mining companies. *News of the Tula state university. Sciences of Earth*. 2018;(4):213–224. (In Russ.).
38. Zamyshlyayeva EL, Parushina NV. Information transparency and analysis of big data on the business system based on regulators of proper financial reporting. *Central Russian Journal of Social Sciences*. 2020;15(1):162–185. (In Russ.).
39. Efimova OV. Matrix approach to formation and information disclosure of resources in integrated reporting. *Auditorskie vedomosti [Audit statements]*. 2017;(3):23–34. (In Russ.).
40. Moiseeva EN. Experience in generating non-financial reports in enterprises. *Accounting. Analysis. Auditing*. 2019;6(6):76–86. (In Russ.). <https://doi.org/10.26794/2408-9303-2019-6-6-76-86>.
41. Bobrova OS, Malaykina IV. Sustainable development: how power generating companies understand IT. *Bulletin of the South Ural State University. Series: Economics and Management*. 2018;12(1):63–79. (In Russ.). <https://doi.org/10.14529/em180109>.
42. Sokolov YaV. *Bukhgalterskiy uchet: ot istokov do nashikh dney [Accounting: from the onset to the present day]*. Moscow: Audit; 1996. 638 p. (In Russ.).
43. Nazarov DV, Sidorova MI. The role of accounting in society: the historical aspect. *Management of Economic Systems. Scientific Electronic Journal*. 2018;75(3). (In Russ.).
44. Sigidov YI, Rybyantseva MS, Yasmenko GN, Oksanich EA. Expansion of information base of reporting indicators as management efficiency increase basis. Moscow: INFRA-M; 2015. 236 p. (In Russ.).
45. Kovalev VV, Kovalev VV. Conceptual framework of accounting: Logic of evolution. *St Petersburg University Journal of Economic Studies*. 2015;(4):117–152. (In Russ.).
46. Sokolov YaV. *Bukhgalterskiy uchet kak summa faktov khozyaystvennoy zhizni [Accounting as a sum of facts of economic life]*. Moscow: Magistr; 2010. 224 p. (In Russ.).
47. Ibragimova AKh. Transformation of management accounting results to non-financial and financial information in geological exploration. *Vestnik of the Kazan State Agrarian University*. 2019;14(4–2)(56):100–106. (In Russ.). <https://doi.org/10.12737/2073-0462-2020-100-106>.
48. Get'man VG. The conceptual framework and the structure of international standard on integrated reporting. *International Accounting*. 2014;338(44):2–15. (In Russ.).
49. Suprunova EA. Transformation of new types accounting in the context of globalization and digitalization of the economy. *International Accounting*. 2018;21(8)(446):870–886. (In Russ.). <https://doi.org/10.24891/ia.21.8.870>.


50. Plotnikov VS, Plotnikova OV. Business accounting and integrated reporting. *International Accounting*. 2014;307(13):25–34. (In Russ.).
51. Efimova OV, Rozhnova OV. The strategy for harmonizing financial and non-financial reporting on climate risk disclosures. Part 2. *Accounting. Analysis. Auditing*. 2020;7(4):6–17. (In Russ.). <https://doi.org/10.26794/2408-9303-2020-7-4-6-17>.
52. Endovitskii DA, Nikitina LM, Borzakov DV. Evaluation of the corporate social responsibility of Russian companies on the basis of comprehensive analysis of non-financial reporting. *Economic Analysis: Theory and Practice*. 2014;359(8):2–10. (In Russ.).
53. Korneeva TA, Potasheva ON, Tatarovskaya TEu, Shatunova GA. Integrated reporting as a new approach to the system characteristics of the business subject. *Vestnik of Samara State University of Economics*. 2018;170(12):48–58. (In Russ.).
54. Kizilov AN, Bogataya IN. Studying the economic substance of social audit and its place within the framework of audit and consulting services. *International Accounting*. 2016;408(18):43–60. (In Russ.).
55. Galiev GT, Toneva DS, Toneva KP, Kaloferov HP. The emergence and development of social audit. *Bulletin USPTU. Science, education, economy. Series economy*. 2017;19(1):138–144. (In Russ.).
56. Kolosova RP, Ondar A-KE-O. Social audit in the system of corporate social responsibility. *Audit*. 2020;(5):27–30. (In Russ.).
57. Aletkin PA, Astrakhantseva EA. Audit of integrated reporting. *Science Review: Theory and Practice*. 2019;9(7) (63):1073–1085. (In Russ.). <https://doi.org/10.35679/2226-0226-2019-9-7-1073-1085>.
58. Saprykina OA, Krylova TD. Methodological approaches to auditing of corporate reporting to confirm reliable estimates of corporate social responsibility. *Siberian Financial School*. 2014;106(5):108–116. (In Russ.).
59. Tate WL, Bals L. Achieving shared triple bottom line (TBL) value creation: Toward a social resource-based view (SRBV) of the firm. *Journal of Business Ethics*. 2018;152(3):803–826. <https://doi.org/10.1007/s10551-016-3344-y>.
60. Stolowy H, Paugam L. The expansion of non-financial reporting: an exploratory study. *Accounting and Business Research*. 2018;48(5):525–548. <https://doi.org/10.1080/00014788.2018.1470141>.
61. de Villiers C, Venter ER, Hsiao P-CK. Integrated reporting: background, measurement issues, approaches and an agenda for future research. *Accounting and Finance*. 2017;57(4):937–959. <https://doi.org/10.1111/acfi.12246>.
62. Beck C, Dumay J, Frost G. In pursuit of a “single source of truth”: from threatened legitimacy to integrated reporting. *Journal of Business Ethics*. 2017;141(1):191–205. <https://doi.org/10.1007/s10551-014-2423-1>.

#### **ORCID IDs**

Svetlana M. Bychkova  <https://orcid.org/0000-0001-7684-9025>

Svetlana N. Karelskaia  <https://orcid.org/0000-0002-6721-3401>

Elena B. Abdalova  <https://orcid.org/0000-0002-0450-6661>

Elena A. Zhidkova  <https://orcid.org/0000-0002-7658-0254>