

“The role of accounting in sustainable development”

AUTHORS

Inna Makarenko  <https://orcid.org/0000-0001-7326-5374>

 <http://www.researcherid.com/rid/AAE-8453-2020>

Alex Plastun  <https://orcid.org/0000-0001-8208-7135>

 <https://publons.com/researcher/1449372/alex-plastun/>

ARTICLE INFO

Inna Makarenko and Alex Plastun (2017). The role of accounting in sustainable development. *Accounting and Financial Control*, 1(2), 4-12.
doi:[10.21511/afc.01\(2\).2017.01](https://doi.org/10.21511/afc.01(2).2017.01)

DOI

[http://dx.doi.org/10.21511/afc.01\(2\).2017.01](http://dx.doi.org/10.21511/afc.01(2).2017.01)

RELEASED ON

Thursday, 08 June 2017

RECEIVED ON

Wednesday, 10 May 2017

ACCEPTED ON

Tuesday, 06 June 2017

LICENSE



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)

JOURNAL

"Accounting and Financial Control"

ISSN PRINT

2543-5485

ISSN ONLINE

2544-1450

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

Sp. z o.o. Kozmenko Science Publishing



NUMBER OF REFERENCES

24



NUMBER OF FIGURES

0



NUMBER OF TABLES

4

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy,
40022, Ukraine

www.businessperspectives.org

Received on: 10th of May, 2017

Accepted on: 6th of June, 2017

© Inna Makarenko, Alex Plastun,
2017

Inna Makarenko, Ph.D., Associate
Professor, Accounting and Tax
Department, Sumy State University,
Ukraine.

Alex Plastun, Doctor of Economics,
Associate Professor, International
Economics Department, Sumy State
University, Ukraine.



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution-Non-
Commercial 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/),
which permits re-use, distribution,
and reproduction, provided the
materials aren't used for commercial
purposes and the original work is
properly cited.

Inna Makarenko (Ukraine), Alex Plastun (Ukraine)

THE ROLE OF ACCOUNTING IN SUSTAINABLE DEVELOPMENT

Abstract

Ideology of Sustainable Development and Sustainable Development Goals influence the transformation of business processes in the companies. Professional accountants are important part of this transformation. In this paper the role of accounting in Sustainable Development Goals achievement is discussed. Different approaches to structuring the role of professional accountants in Sustainable Development are investigated. Among them are types of roles that perform accountants, their professional functions, skills and competencies in the corporate environment. As the result a holistic vision of the role of accounting in sustainable development in the new economic conditions is provided.

Keywords

accounting, accountancy profession, sustainability
reporting, sustainable development goals, corporate
sustainability, stakeholders

JEL Classification

G02, G14, M41

INTRODUCTION

United Nation's (UN) Sustainable Development Goals (SDGs) nowadays are generally recognized guidelines of the Global Development until 2030. They were adopted at the UN summit in New York in 2015. There are 17 goals which are specified in 169 varied indicators. SDGs call governments, business and public from all the countries to intensify efforts to resist climate changes, poverty, inequality, environmental pollution and other challenges of our time.

Unlike the Millennium Development Goals the SDGs are aimed for more active involvement of the business community, its innovation and investment potential to overcome these challenges by including them into business priorities. In particular, achievement of the SDGs requires the formation of a pool of resources, comparable with 1.5 – 4% of global GDP. It emphasizes the need to attract business to government initiatives on sustainable development.

Herewith, business leaders consider the SDGs as new opportunities for the development of their activities: 89% of CEO noticed that commitments to sustainable development have a real impact on their industry (United Nations, 2016) and 71% of businesses already plan to take the SDGs into account in their activity (PwC, 2015).

17 SDGs and 169 indicators form a continuous basis for companies to create, enhance, inform and report on their strategies, objectives and

activities. This will improve communication with key stakeholders, increase their loyalty and transparency of the business environment and quality management as a framework for corporate sustainability in terms of growth of legal, reputational risk, volatility of financial markets and access to finance (UN Resolution, 2015).

The importance of high-quality corporate reporting in ensuring financial stability and sustainable development in general and in particular the achievement of the SDGs was officially recognized during 32-nd session of UNCTAD's Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR).

Accountants are highly involved in this process. They measure, evaluate and disclosure the progress in SDGs achieving by the company. Accountants act as guides and translators of the Triple Bottom Line ideas using the language of corporate sustainability.

Bakker (2012) from the World Business Forum for Sustainable Development notes that "accountants are going to save the world". Accountants minimize information asymmetry and assess investment risks, they create integrated reporting and integrated audit, provide and test standards of sustainability accounting, reporting and auditing within the new business model. With specific professional skills and involvement in governance, risk management, business analysis, decision support, due diligence, anti-corruption activities and ensure corporate transparency, professional accountants today are reassessing their roles because of the SDGs and corporate sustainability.

Importance of accounting activates in SDGs achievement is recognized by professional international organizations. Among them are International Federation of Accountants (IFAC), the Association of Chartered Certified Accountants (ACCA), the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting Council (ISAR), Fauna & Flora International, the World Business Forum on Sustainable Development, KPMG, PwC and others.

The aim of this paper is to define the role of accounting in SDGs achievement and to promote the general idea of sustainable development. To do this authors integrate different approaches to structuring the role of professional accountants in Sustainable Development. Among them are types of roles that perform accountants, their professional functions, skills and competencies in the corporate environment. As the result a holistic vision of the role of accounting in sustainable development in the new economic conditions is provided.

Another contribution of this paper is a panoramic vision of the accounting profession transformation according to corporate sustainable development. Also further development of information and analytical support of sustainable development is required. To do this professional competence of accountants will be discussed.

The remainder of the paper is organized as follows: section 2 briefly reviews the academic literature about the role of accounting in the sustainable development. Section 3 contains analysis of existing approaches to differentiation of these roles. Section 3 presents concluding remarks.

1. LITERATURE REVIEW

The role of accountants in sustainable development and SDGs are actively discussed in academic literature.

Gray (2010), Gray and Bebbington (2000) points to the need for a critical approach to understanding of the role of accounting and business in the context of the sustainable development.

Lovell and MacKenzie (2011) analyze the role of professional accountant organizations in management of the new carbon economy and climate changes.

Ngwakwe (2012) provides a critical review of sustainable development initiatives in the accounting profession and proves the need for more pragmatic approach to achieve accounting impact on sustainable development.

Milne and Gray (2013) offer a paradoxical idea that under isolation 'triple bottom line' concept and business participation in sustainable development accounting initiatives could lead to greater levels of un-sustainability.

Bebbington and Larrinaga (2014) outline the reasons for lack of progress in social and environmental accounting while achieving sustainable development and prospects of accounting and sustainability science merger.

O'Dwyer and Unerman (2016) show that society can get benefit from academic accounting researches.

Schaltegger et al. (2017) analyze the role of innovations in accounting during corporate sustainability promotion.

Lawrence, Botes, Collins and Roper (2013) and Khan and Gray (2016) provide an overview of the accounting, educational and business practices in the context of sustainable development based on the theory of autopoiesis as a metaphorical lens.

Gray and Collison (2002) explore the role of accountants and their education in the UK in the sustainable development context.

Ng, Leung and Lo (2016) prove the importance of attraction of sustainability competence for the new generations of accountants.

According to ACCA research (poll of over 4,500 ACCA students from 126 countries) 81% of respondents see the direct link between business and the depletion of natural resources (ACCA, 2014).

However, it should be mentioned that academic literature about the role of accountants in achieving sustainable development in general are critical and

mostly discusses challenges and issues facing the accounting in the process of moving towards sustainable development. We believe these searches should be supplemented with research materials prepared by professional accounting organizations and developers of accounting and reporting standards, including IFAC, ACCA etc. The study of these organizations, as opposed to academic papers, creates a holistic vision of the role of the accounting profession in achieving SDGs in different sections.

2. APPROACHES TO DETERMINING ACCOUNTANCY CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

2.1. Relevant SDG aspect & accountancy contribution

According to IFAC (2016) 8 from 17 SDGs and their 17 targets have direct relation to the accounting. Accountants can influence their achievement (see Table 1) and at the same time transforming accounting according to the new challenges from corporate sustainable development.

The most relevant goals for the accountants are the following: 12.6, 8.3, 17.16 and 17.18. Goal 12 and its target 12.6 act as a basis for the corporate sustainable development. They related to incorporation of the sustainable development criterions into the mission, strategy, tactical decisions and operating policies of business. As the result demand for more transparent and quality sustainability reporting (SR) is growing.

Goal 8.3 provides guidelines for the development of the accounting profession which consolidate efforts and harmonize approaches to standardization of SR.

Multi-stakeholder approach is formed within Goal 17.16. According to this goal improved data collection, monitoring and accountability are key elements of the information and analytical support of sustainable development.

Table 1. Mapping the SDG's Goals interconnection in the light of accountancy contribution

Goal	Targets	Key accountants' contribution		
4: Quality Education	3, 6	Undertake initiatives to boost the profession's talent pool	Identify innovative ways to contribute to societal goals, such as increasing financial literacy	Consider how to address inequality in the rates of men and women entering the profession
5: Gender Equality	5	Champion diversity, especially in gender	Create partnerships and support initiatives to increase the number of women in accountancy and finance, as well as in broader finance and business leadership roles.	
8: Decent Work and Economic Growth	1, 3	Enhance awareness among accountants of the SDGs and the opportunities they create, and help foster the significant contribution of the profession to economic growth	Continue the commitment and effort to build the capacity of the profession and of public accountant organization	Support the development and adoption of globally accepted standards for financial reporting for the public and private sectors, auditing, and ethics
9: Industry, Innovation, Infrastructure	4, 5a	Facilitate the profession's contribution to integrated reporting to rebalance economic and capital market decision making in favor of long-term value creation	Accelerate efforts to influence and drive sound public and private sector governance and financial management	Identify and evaluate opportunities for investment in new technology and infrastructure to enhance the sustainability of organizations
12: Responsible Consumption and Production	6	Provide visible and practical leadership to help drive greater insights and transparency that can lead to a more enlightened and inclusive capital markets system through decisions based on a longer-term perspective	Help companies, especially large and transnational companies, adopt sustainable business practices through integrating sustainability information into their governance, management, and reporting	Further develop support services that help accountants play a role in embedding sustainable development into strategy and operations
13: Climate Action	1-3	Support market-based policy initiatives, such as carbon pricing, as a key policy lever to encourage necessary efficiency gains and investment in new technology	Encourage and support consistency, accessibility, and usefulness of climate-related disclosure and reporting	Keep accountants informed of how they can support their organizations' efforts to lower carbon emissions and adapt to climate change
16: Peace, Justice Strong Institutions	5, 6	Advocate for good governance focused on smart regulation, rule of law, and well-functioning national institutions	Enhance the capacity of accountants to monitor and control fraud, corruption, and money laundering	Promote the importance of external public sector auditing in monitoring and reporting on national efforts to implement the SDGs
17: Partnerships for the Goals	9, 13, 14, 16, 19	Collectively consider where the profession can contribute, especially in terms of where its perspective and influence would be valued, and which partnerships and collaborations would enhance its contributions		

2.2. Business perspectives gradations, accountants' responsibilities and sustainable decisions

IFAC (2011) Sustainability Framework 2.0 identifies the importance of accounting contribution to sustainable development by the following three gradations (prospects) of corporate sustainability – strategic, operational and reporting (Table. 2). However, it should be noted that to create long-term value of the company it is necessary to integrate all types of capital requires, as well as in-

tegrated decision making process and integrated internal and external information. Materiality, relevancy, accuracy, comparability and completeness of this information should be confirmed by independent auditors.

Incorporation of sustainable development criteria at all levels of decision-making process (strategic, tactical and operational) and business activities (management, current planning, budgeting and evaluation), effective communication with stakeholders based on SR are crucial tasks for accountants.

Table 2. Role, responsibilities and decision direction on corporate sustainability perspective

Perspective	Level	Role	Responsibilities	Decision directions
Business strategy	Senior management	Strategic decision about company development and its accountant assurance	Adopting a strategic approach, so that sustainability is integrated into vision and leadership, strategic planning, objectives, goals, and targets, as well as incorporated into governance, accountability arrangements, and risk management	Strategic analysis of business environment; M&A activity strategy and target setting in accordance with ESG
Operational	Performance management	Planning, budgeting, costing, and performance measurement	Full spectrum of management and management accounting activities to support higher quality information, implementing sustainability and environmental accounting can help to provide the environmental, social, and financial information needed to support decisions	Internal and external separate and integrated reporting; Raising finance through better risk practice on capital markets
Reporting	Reporting I	Preparing business, financial, sustainability, or integrated reports, providing audit and assurance	Developing a reporting and disclosure strategy that will yield high quality reports with complete picture of an organization's performance, clues reconciling approaches to applying materiality to multi-stakeholder SR; and establishing an approach to external assurance and review that adds credibility to an organization's disclosure and can also help to improve it	Capital investment decision concerning projects with ESG impacts; Procurement with taking in to account of supply value chain; Pricing in context of nature and social capital costs

2.3. Types of accountant roles, job functions, competencies and corporate sustainability

Sustainable development transforms the role of professional accountants during the entire accounting cycle. The cycle is finished with the SR. SR requires identification of key stakeholder groups and their information needs; thorough knowledge and use of reporting standards; planning, execution and control of reporting process; management, monitoring, improvement of financial and non-financial reporting information systems; expansion of reporting indicators among environmental, social and managerial; use of new technologies, such as eXtensible Business Reporting Language, real-time reporting, integrated reporting (IFAC (2012).

To achieve their tasks professional accountants have to improve their knowledge, skills and competencies.

International Education Standards for Professional Accountants 3 "Professional skills and general education" defines a list of skills and competencies that should possess professional accountants. It includes intellectual abilities, technical and functional skills, personal qualities, communication skills, organizational and managerial competence.

Implementation of SR and effective reporting increase the value of such skills of professional ac-

countants as professionalism and ethical behavior according to the Code of Ethics for Professional Accountants, free and objective application of professional judgment, extensive knowledge of business technology, human resources, management and evaluation of non-financial activities, including environmental and social, focusing on stakeholders requests for information, the ability to work in conditions of changeable, uncertain and complex business environment (IFAC (2011).

In this case the roles of Professional Accountants in SR are as follows:

- creators of value – professional accountants play the leading role in the development and implementation of strategies, policies, plans, structure and activities of the management and set a course to create sustainable development values;
- providers of value– professional accountants use information and provide management with high-quality reporting horizons which is the basis of the sustainable development strategy;
- keepers of the value –professional accountants protect natural, social, industrial and financial capital of the company;
- reporters of values – professional accountants ensure high-quality reporting for stakeholders.

Table 3. Key roles of professional accountants in sustainable business (IFAC (2011), IFAC (2015))

Role	Description	Job functions
Creators of value	Taking leadership roles in the design and implementation of strategies, policies, plans, structures, and governance measures that set the course for delivering sustainable value creation	Leadership/management: chief executive officer (CEO); chief financial officer(CFO)/financial director (FD); chief operating officer; director of governance or operations; treasurer
Providers of value	Informing and guiding managerial and operational decision making and implementation of strategy for achieving sustainable value creation, and the planning, monitoring, and improvement of supporting processes	Operational: business unit controller; financial, or performance analyst; cost accountant; resources manager; business support manager; systems analyst
Keepers of value	Ensuring the protection of a sustainable value creation strategy against strategic, operational, and financial risks, and ensuring compliance with regulations, standards, and good practices	Management control: business assurance manager; risk manager; compliance manager; internal auditor
Reporters of value	Enabling the transparent communication of the delivery of sustainable value to stakeholders	Accounting and stakeholder communications: group controller; head of reporting; investor relations manager; financial or management accountant

This vision of professional accountant's functional roles and their positions clearly correlates with gradations of corporate sustainable development. At the strategic level accountants exercise their authority as creators of values, at the operating level they act providers of sustainable development values and at the reporting level they act as keepers and reporters.

SR is the point of contact between SDGs and corporate sustainability. IFAC (2013) defined principles of reporting process. Among them are: obligations to prepare high-quality reporting, delineation of roles and responsibilities, planning and controlling the reporting process, involving stakeholders, determining the content of reporting standards for the preparation of financial and non-financial information, formalization of reporting process, analysis, interpretation, verification (audit) reporting indicators, evaluation and improvement of the reporting process.

2.4. Types of accountants profession groups& sustainable development

Accounting community can be divided into 5 groups: developers of standards, professional bodies, professional firms, qualified accountants and members of the academic community. ACCA, FFI and KPMG (2015) focus on changes in the traditional roles of these groups in the context of sustainable development (Table. 4).

Detailed analysis of the roles of these groups allowed outlining challenges for them while achieving sustainable development goals. Despite the existence of 41 IAS and 16 International Financial Reporting Standards (The International Accounting Standards Board (IASB)), as well as 80 specific industry voluntary standards (The Sustainability Accounting Standards Board (SASB)), there is a gap between the traditional accounting and reporting and sustainable development and SR. The key task for accounting standards developers in terms of sustainable development is harmonization of information disclosure for all types of capital used by the companies.

For 175 existing professional bodies representing accountants worldwide, the most urgent tasks in the light of sustainable development initiatives are development of such approaches to education, training, certification and improvement of professional competence of accountants that meet the interdisciplinary nature of sustainable development as a concept.

566,797 employees of global professional companies (B4) and companies of the lower levels all over the world, have sufficient resources, vision and opportunities to enhance their efforts in achieving SDGs, and can use appropriate accounting methodologies to implement sustainable development in the corporate environment of their customers.

For 2.5 million professional accountants whose interests are united by IFAC, the key challenge is to introduce the practice of evaluation, mea-

Table 4. Accountancy profession group role in traditional and sustainable business

Accounting profession	Traditional role	Role in sustainability
Standard setter IASB, SASB	Setting the rules and guidance that professional accountants follow when preparing financial statements	Creating a framework for reporting sector-specific information; Filling information gaps; Borrowing from financial accounting practice and expertise; Providing relevant, integrated data
Professional body IFAC, ACCA, Institute of Chartered Accountants in England & Wales (ICAEW); Chartered Institute of Management Accountants (CIMA) along with other national representatives	Promoting the role of professional accountants in modern economies, providing a route for trainees to gain professional accountancy qualifications; Representing the interests of qualified accountant members; Performing some regulatory and disciplinary activities; Supporting standard-setting activities, eg through commenting on proposal; Sponsoring and originating research into business and accounting issues; Generally acting in the public interest (eg commenting on proposed legislation and tax rules).	Supporting a number of the current global initiatives, providing facilities and expertise as appropriate; Support for the development of thinking about sustainability issues; Trying to raise awareness of sustainability issues among members, and business leaders more widely, through the publication of articles in member magazines and journals; Educational role
Professional firm (Big Four firms Other accountancy firm networks)	Providing regulated services such as the audit of financial statements; Providing tax advice and compliance services to clients; Offering additional advisory and assurance services in relation to mergers and acquisitions, fund raising, risk management, finance operations, business processes, etc; Participating in research and thought leadership on emerging accounting and business issues; Supporting professional bodies and standard setters; Training professional accountants	Developing their own methodologies and tools to help businesses understand their sustainability risks and opportunities; Providing support to major initiatives focusing on developing thinking and practice on SD
Qualified accountant	Working in professional firms to provide audit and advisory services to clients; Working in business, preparing management accounts for internal control and decision making or preparing financial statements for external reporting, e.g. to investors Working in the finance teams of public sector or non-profit organizations performing many other roles (e.g. as independent consultants, academics, writers); Participating in the development of accounting and tax rules, etc. through membership of committees or by responding to consultations	Helping to develop thinking about sustainability and to raise awareness of its importance for business success; Creating an agreed framework for companies to report on sustainability; Prioritizing business needs changing business processes so that sustainability risks and opportunities are addressed as part of routine management operations; Reviewing environmental or sustainability disclosures to see if they are fair, balanced and understandable; Identify risks and opportunities associated with natural capital
Academic	Conducting research into current issues in accountancy, providing degree courses for university students, participating in standard setting, sharing insights with professional accountancy bodies and other associations through membership of working groups, expert groups and forums	Develop relationships with all parties involved in the SD – international initiatives, accountancy bodies, accountancy firms working in the area and businesses and financial institutions, to help them understand sustainability risks; exploring differing approaches to value

surement and disclosure of sustainable development indicators into their daily practice, thus incorporating SDGs in the corporate environment. Academicians in the field of accounting

must act as unifying link between these groups, creating a scientific product which will act as a basis for the development of applied accounting methods and SR.

CONCLUSIONS

Nowadays there are 17 sustainable development goals (SDGs) and 169 indicators that act as global guidelines for sustainable development. They help corporate sector in restructuring their business processes according to the challenges of our time. Integration of SDGs and corporate sustainable development strategies needs reformatting of existing information and analytical provision of decision making process on the basis of social, economic and environmental dimensions of sustainable development.

In this context, professional accountants are directly related to the promotion of sustainable development initiatives at the corporate level.

Using materials of professional organizations authors synthesize different approaches to structuring the role of professional accountants, providing a holistic vision of the accounting profession in the new economy

Authors investigate the contribution of professional accountants in achieving SDGs, the most relevant among them are goals 12.6, 08.03, 17.16 and 17.18.

Using the following corporate sustainable development gradation: strategic, operational and reporting, we determine typical roles and areas of professional accountant's responsibility in decision-making support.

Functional roles of professional accountants and their positions clearly correlate with gradations of corporate sustainable development. At the strategic level accountants exercise their authority as creators of values, at the operating level they act as providers of sustainable development values and at the reporting level they act as keepers and reporters. Thus the role of professional accountants in sustainable development needs to be revised according to new economic conditions.

At the same time, mechanisms of professional competence for accountants require further investigation, because different groups of accountants are responsible for the high-quality and reliable sustainable reporting which is the basis of information and analytical support of sustainable development.

REFERENCES

1. ACCA, Fauna & Flora International and KPMG (2015) Natural capital and the accountancy profession: applying traditional skills to new thinking and practice. Retrieved from http://www.accaglobal.com/content/dam/ACCA_Global/Technical/sus/NC_and_the_Accounting_Profession.pdf.
2. ACCA (2014) Sustainability and Business: the next 10 years. Retrieved from <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/sustainability-reporting/presentation-sustainability-and-business-the-next-10-years.pdf>.
3. Bakker P. (2012) Accountants Will Save the World. Speech at The Prince's Accounting for Sustainability Forum on December 13, 2012. Retrieved from <http://www.wbcsd.org/Pages/eNews/eNewsDetails.aspx?ID=15305&NoSearchContextKey=true/>.
4. Bebbington, J., and Larrinaga, C. (2014). Accounting and sustainable development: An exploration. *Accounting, organizations and society*, 39(6), 395-413.
5. Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability...and how would we know? An exploration of narratives of organisations and the planet. *Accounting, organizations and society*, 35(1), 47-62.
6. Gray, R., and Bebbington, J. (2000). Environmental accounting, managerialism and sustainability: Is the planet safe in the hands of business and accounting?, in (ed.) *Advances in Environmental Accounting & Management (Advances in Environmental Accounting & Management, Volume 1)* Emerald Group Publishing Limited, 1-44.
7. Gray, R., and Collison, D. (2002). Can't see the wood for the trees, can't see the trees for the numbers? Accounting education,

- sustainability and the Public Interest. *Critical perspectives on accounting*, 13(5-6), 797-836.
8. IFAC. (2011). Competent and Versatile: How Professional Accountants in Business Drive Sustainable Organizational Success. Retrieved from <https://www.ifac.org/news-events/2011-10/competent-and-versatile-how-professional-accountants-business-drive-sustainable>.
9. IFAC. (2011). Sustainability Framework 2.0, International Federation of Accountant 195 p.
10. IFAC. (2012). Integrating Governance for Sustainable Success. Retrieved from <http://www.ifac.org/publications-resources/integrating-governance-sustainable-success>.
11. IFAC. (2013). International Good Practice Guidance. Principles for effective business reporting process. Retrieved from <https://www.ifac.org/publications-resources/principles-effective-business-reporting-processes>.
12. IFAC. (2015). Accounting for Sustainability: From Sustainability to Business Resilience, 28 p.
13. IFAC. (2016). The 2030 Agenda for sustainable development: a snapshot of the accountancy profession contribution, 31 p.
14. Khan, T., and Gray, R. (2016). Accounting, identity, autopoiesis + sustainability: A comment, development and expansion on Lawrence, Botes, Collins and Roper (2013). *Meditari Accountancy Research*, 24(1), 36-55.
15. Lawrence, S. R., Botes, V., Collins, E., & Roper, J. (2013). Does accounting construct the identity of firms as purely self-interested or as socially responsible? *Meditari Accountancy Research*, 21(2), 144-160.
16. Lovell, H., and MacKenzie, D. (2011), Accounting for Carbon: The Role of Accounting Professional Organisations in Governing Climate Change. *Antipode*, 43, 704-730.
17. Milne, M., and Gray, R. (2013). W(h)ither Ecology? The Triple Bottom Line, the Global Reporting Initiative, and Corporate Sustainability Reporting. *Journal of Business Ethics*, 118(1), 13-29.
18. Ng A. W., and Leung, T., and Lo, J. (2016). Developing Sustainability Competence for Future Professional Accountants: The Integrative Role of an Undergraduate Program. *Handbook of Theory and Practice of Sustainable Development in Higher Education, Part of the series World Sustainability Series*, 119-136.
19. Ngwakwe, C. C. (2012). Rethinking the accounting stance on sustainable development. *Sustainable Development*, 20, 28-41.
20. O'Dwyer, B., and Unerman, J. (2016). Fostering rigour in accounting for social sustainability. *Accounting, Organizations and Society*, 49, 32-40.
21. PwC. (2015). Make It Your Business: Engaging with Sustainable Development Goals. Retrieved from https://www.pwc.com/gx/en/sustainability/SDG/SDG%20Research_FINAL.pdf.
22. Schaltegger, S., Etzeberria, I. Á., and Ortas, E. (2017). Innovating Corporate Accounting and Reporting for Sustainability – Attributes and Challenges. *Sustainable Development*, 25, 113-122.
23. United Nations Resolution. (2015). Resolution adopted by the General Assembly on 25 September 2015 Transforming our world: the 2030 Agenda for Sustainable Development. Retrieved from http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.
24. United Nations. (2016). UN Global Compact and Accenture Strategy 2016 CEO Study. Retrieved from <https://www.accenture.com/us-en/insight-un-global-compact-ceo-study>.