

разованию на основе базовых ценностей и основных потребностей общества; 4) партнерство открыто для вступления новых членов для преодоления информационного разрыва в сфере образования; 5) сотрудничество будет получать поддержку за счет содействия различных заинтересованных сторон и фондов финансовой поддержки образования.

**Научная новизна.** Авторы исследовали и определили уникальный характер и специфические черты партнерства в области высшего образования в интересах устойчивого развития.

**Практическая значимость.** Реализация выводов и рекомендаций будет способствовать продвижению тематических областей устойчивого развития в университетские программы высшего образования.

**Ключевые слова:** устойчивое развитие, высшее образование для устойчивого развития, партнерство университетов

*Рекомендовано до публікації докт. техн. наук П. І. Пономаренком. Дата надходження рукопису 25.04.15.*

УДК 332.142.6

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## FUNCTIONS OF VOLUNTARY SUSTAINABILITY STANDARDS IN THE GLOBAL VALUE CHAINS

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## ФУНКЦІ ДОБРОВІЛЬНИХ СТАНДАРТІВ СТАЛОГО РОЗВИТКУ У ГЛОБАЛЬНИХ ЛАНЦЮЖКАХ СТВОРЕННЯ ВАРТОСТІ

**Aim.** The aim of the presented research is to define the key functions of voluntary sustainability standards for strengthening the sustainability aspect in global value and supply chains. To achieve this aim the following objectives were formulated: 1) to analyse the current trends and developments in the global value chains; 2) to determine the nature of international sustainability standards and procedures for their realisation; 3) to identify the main fields of application of voluntary sustainability standards that are particularly important for countries with economies in transition.

**Methodology.** The main findings and conclusions in this article were elaborated based on the analysis of scientific papers and analytical reports dealing with the problem of strengthening sustainability in the global value and supply chains, as well as on the influence of the globalisation processes on structure of business activities in various countries. Furthermore, the authors made references to the previous results of their own research on voluntary sustainability standards as a management tool.

**Findings.** The study revealed that implementation of voluntary sustainability standards allows a consistent introduction of uniform types of priorities and responsibility along the whole value chain of a product. Four areas of application of voluntary sustainability standards were emphasised, which are particularly important for countries with economies in transition: 1) strengthening of responsibility along the entire value and supply chains; 2) formation of a basis for the improved management and extended dialog with the most promising partners in domestic and external markets; 3) re-orientation towards innovations and a search for the own part in division of labour; 4) restructuring of internal development policy.

Analysis of formal objectives and attributes of voluntary sustainability standards allowed to determine their following functions: regulation, sustainability management, risk management and communication. Several regulatory procedures enable these functions: conformity assessment, eco-labelling, traceability systems and capacity building services.

**Originality.** Authors suggested several key areas for utilising voluntary sustainability standards as a management tool in countries with transitional economies.

**Practical value.** Realisation of the suggested recommendations will promote the extended use of sustainability standards for achieving sustainable production and supply chains.

**Keywords:** *global value and supply chains, sustainable management of global value chains, international voluntary sustainability standards*

**Problem statement.** The World Summit on Sustainable Development (WSSD), which took place in Johannesburg, South Africa from 26 August to 4 September 2002, confirmed the commitment of the international community to the ideas of sustainable development, and, at the same time, put forward a task to support the global environmental and social goals in economic processes, including systems of production and consumption, distribution and financing [1]. The programme documents emphasised that, while recognising the historical role of the expansion of international and regional cooperation in production and trade, it is necessary to provide not only common but also differentiated responsibilities for the embodiment of the principles of sustainable development in all systems and links of global value and supply chains.

In order to increase the sustainability of economic relations, international organisations have developed certain framework procedures for the integration of environmental and social aspects into the process of value creation, known as ‘voluntary sustainability standards’ (VSS). The totality of these international universal standards represents the soft law instruments, which establish a framework for sectoral and cross-sectoral linkages and relationships in order to achieve sustainable development objectives.

**Identification of an unsolved problem.** Leading corporations successfully implement VSS, reinforcing their impact on certain markets. However, our research has confirmed that in the former Soviet republics the application of voluntary standards is very limited so far [2–3]. At the same time, VSS are particularly relevant for such countries, since they allow businesses to quickly move on to more advanced management methods and to improve the possibility of a dialogue with the most promising partners in internal and external markets.

**Analysis of the recent research** in the field of Voluntary Sustainability Standards revealed a growing interest in them in the context of promoting sustainable value and supply chains. Today, this problem is high on the agenda of national governments, world forums, international organisations for cooperation, including the Group of Twenty (G20), the Organisation for Economic Co-operation and Development (OECD), the World Trade Organization (WTO), the World Bank, the United Nations Conference on Trade and Development (UNCTAD), and others.

Current scientific works are devoted to discussions on how to achieve a steady-state economy (i.e. the state of potential economic growth that does not exceed ecological limits). In particular, the American economist Herman Edward Daly [5] emphasised that the sustainable industrial development is possible only through the implementation of sustainability aspects in all phases and links of global value and supply chains.

In this context, the authors of the monograph ‘Voluntary Standard Systems: Contribution to Sustainable Development’ (edited by Schmitz-Hoffmann et al.) [2–4], based on the analysis of experience in various countries, argued that the implementation of VSS allows to introduce the same level of responsibility along the entire product value chain, and, as a result, to achieve the efficient use of resources and visible improvements in the economy.

#### **Formulation of the research aim and objectives.**

The aim of this research is to define the key functions of voluntary sustainability standards for strengthening sustainability in global value and supply chains. To achieve this aim the following objectives were formulated: 1) to analyse the current trends and developments in the global value chains; 2) to determine the nature of international sustainability standards and procedures for their realisation; 3) to identify the main fields of application of voluntary sustainability standards that are particularly important for countries with economies in transition.

**Research methodology.** The main findings and conclusions in this article were elaborated based on the analysis of scientific papers and analytical reports dealing with the problem of strengthening sustainability in the global value and supply chains, as well as on the influence of the globalisation processes on structure of business activities in various countries. Furthermore, we made references to the previous results of our own research on VSS as a management tool.

**Presentation of the research results.** In the last twenty years we could observe the acceleration of globalisation processes that can be characterised by the increasing fragmentation of production, by relocation of its individual stages (e.g. research and development, production of materials, parts and components, assembly, distribution, marketing, etc.) across different countries, in which they can be carried out more effectively. This phenomenon commonly known as ‘Global Value Chains’, further referred to as GVCs [6].

According to UNCTAD approximately 60 per cent of the world’s trade is accounted for intermediate goods and services traded within GVCs [7]. In this regard, the debate on implementation of sustainable development can be extrapolated to sustainability of GVCs. At the recent G20 summits and joint forums of OECD, WTO, UNCTAD, the problem of sustainability of the global production and consumption systems was intensively discussed, in particular the issue of inclusion in these processes of developing countries and countries with economies in transition, and of all forms of business, especially small and medium-sized [6–7].

While agreeing with H. Daly [5], it can be claimed that the steady-state economy could be achieved only through simultaneous efforts at all stages of value creation – from resources extraction and processing to the manufacturing of the final product, and even disposal after the end of its life cycle. It is implied that: 1) the rate and the amount of the resources consumed (extraction from the natural environment) should not exceed the capacity of their regeneration or substitution through other resources; 2) resources allocation (alternative areas of their usage) should be efficient from the viewpoint of the maximum total benefit to society, also in the future; 3) distribution of the goods, and the resources that they contain, must be fair to all stakeholders.

Following the discussion about their nature and place in the system of sustainability regulators, it is possible to argue that international voluntary sustainability standards are the documents that define a set of common principles, characteristics, rules and procedures, which are recommended for the implementation of environmental and so-

cial objectives and good practices into the value creation processes, taking into account the concerns of all stakeholders, including future generations.

Based on the formal aim of VSS, we can define the following functions that are essential for the formation of sustainable GVCs.

**The control function** is the main function that is expected from VSS in a liberal economy. The regulation is aimed at the establishment of such relations in the value and supply chains, with which all stakeholder groups could realise their key interests.

**The sustainability management function** involves the integration of principles of sustainable development, supported by the standard, into all fragments and along the entire value and supply chain.

**The risk management function** is required to ensure the practices that reduce the likelihood of adverse events and phenomena that negatively affect economic and other results.

**The communication function** provides insight and knowledge about the sustainability methods and processes, the benefits and values, which are offered to value chain participants and the end customers. To perform this function VSS have special procedures, such as certification and eco-labelling.

Realisation of the indicated functions of VSS leads to the creation of framework conditions for the responsible behaviour of subjects, which are involved in the value and supply chains.

Analysis of the recent researches and international documents [4–7] enabled us to identify the main trends in GVCs, which are important for understanding the areas of VSS application in countries with economies in transition.

**Firstly**, the production frameworks are increasingly changing in the direction of strengthening the vertical integration of countries. In this context, international organisations are concerned about strengthening of responsibility in the value chains in the environmentally sensitive sectors [8]. This aspect is addressed by the group of VSS for certain types of products, such as: management in the forestry sector – FSC (Forest Stewardship Council), for sustainable fisheries – MSC (Marine Stewardship Council), evaluating sustainability of buildings – the DGNB Certification System (German Sustainable Building Council) or BREEAM (Building Research Establishment Environmental Assessment Method), etc.

**Secondly**, GVCs create new drivers for a sustainable economy. Getting an access to external markets implies increased expectations from the quality of products, but, at the same time, provides incentives for innovations, access to investments and new level of competitiveness. However, many countries with economies in transition, such as Ukraine, strengthen the policy of an open economic system, which has an impact on the evaluation criteria for industries and products in the domestic markets. In this regard, implementation of VSS can be seen as a platform to empower the dialogue with potential partners in sustainable value chains.

**Thirdly**, activities that introduce innovations to the value creation process have an increasing influence on

GVCs. The problem of entering GVCs exists today not from the viewpoint of the effectiveness of a business entity, but rather depends on its potential contribution towards sustainability and added benefits for all other players in the value chain. VSS can help companies from countries with transitional economies to find their place in this process. Examples of such standards are farm assurance programmes maintained by the IFOAM (International Federation of Organic Agriculture) and the GLOBALG.A.P. (Good Agricultural Practice), which lay down uniform requirements for relevant aspects of agricultural practices and processing of agricultural products.

**Fourthly**, joining GVCs leads to the necessity for restructuring the internal policy of a company, bringing changes not only to production, distribution and financial methods, but also to the practice of regulating labour issues. The company should implement strict international requirements in the area of occupational safety and health, ensure social and economic needs for its employees [2–4]. Almost all sectoral VSS contain sections that represent the requirements of the internal policy regarding personnel. In addition, there are specific standards on labour regulation in the context of sustainable development, such as the OHSAS standard.

Thus, **the key areas for the application of voluntary sustainability standards**, which are especially important for the countries with economies in transition, are the following: strengthening of responsibility along the entire value and supply chains; formation of a basis for the improved management and extended dialog with the most promising partners in domestic and external markets; re-orientation towards innovations and a search for the own part in division of labour; restructuring of internal development policy.

The set of requirements, specified in the standard, is usually supplemented by regulatory procedures or elements according to the Plan-Do-Check-Act principle [9]. In the following paragraphs we will review the basic procedures that are particularly important for the implementation of VSS functions in transitional economies.

**The conformity assessment** – verification of compliance with the requirements of the standard. The organisation, which sets and maintains the standard, regulates which particular conformity assessment procedures shall apply. The standard may involve independent verification by a third party and obtaining the relevant certificate. Typically, the certificate validity is limited, after which re-qualification is required. For example, certificate of compliance with forestry standard – FSC is valid for 5 years. During this period, annual supervisory audits are required to confirm the continuity of the compliance with the standard [10].

**The eco-labelling** is a set of information and claims about ecological and/or social characteristics of the products, processes or services in a specific format, i. e. as text, individual graphic, colour symbols and their combinations. Information from the label allows to differentiate the product and thus to increase its competitiveness. The most common eco-labelling is oriented towards the end consumer, such as, for example, as the eco-labelling for certified sustainable seafood MSC [11].

*The traceability systems* allow tracing the so-called 'chain of custody' of products along the entire value and supply chain in order to confirm that all the intermediate products and processes comply with the characteristics defined by the standard. For example, the value chain in the production of chocolate, certified in accordance with the Fairtrade standard, includes the monitoring of such fragments as: the production of cocoa beans by farmers, their primary processing and export, processing cocoa beans into cocoa butter and cocoa powder, the production and trade of the final product.

*The capacity building services* are provided by a standard-setting organisation or its partners to help producers come into compliance with their standard. Voluntary standards offices offer various activities to help manufacturers, trading structures and support services to bring their business in line with the standard. Third-party organisations that provide services on competence improvement could also be involved in the process. For example, in support of the IFOAM standard the British company Food for Life organises cooking classes, excursions to eco-farms, helps in expanding network of school gardens which grow eco-vegetables, etc.

The role of institutional support should be also emphasised, which should help to implement VSS on the national and international level, aimed at increasing the number of companies in the movement for sustainable development and the creation of new markets for sustainable enterprises. An example of this is the experience of Canada. In 2002 the Forest Products Association of Canada (FPAC) demanded that all member companies have submitted the documentation by an independent third party to verify the compliance of their management with sustainable development standards – FSC.

Thus, the functions of VSS and their implementation procedures contribute to the creation of sustainable relationships within value and supply chains.

**Research conclusions and outlook.** The research revealed that implementation of voluntary sustainability standards allows a consistent introduction of uniform types of priorities and responsibility along the whole value chain of a product.

Four areas of application of VSS, which are especially important for countries with economies in transition, were identified: strengthening of responsibility along the entire value and supply chains; formation of a basis for the improved management and extended dialog with partners in domestic and external markets; re-orientation towards innovations and a search for the own part in division of labour; restructuring of internal development policy.

Analysis of formal objectives of VSS allowed identifying the main functions: control, sustainability management, risk management and communication.

To ensure these functions the main regulatory procedures were highlighted: conformity assessment, eco-labelling, traceability systems; capacity building services.

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**Мета.** Мета дослідження полягає у визначенні ключових функцій добровільних стандартів сталого розвитку для зміцнення стійкості глобальних виробничо-збутових ланцюжків. Для цього сформульовані такі завдання дослідження: 1) проаналізувати сучасні зміни у глобальних ланцюжках створення вартості; 2) визначити сутність міжнародних стандартів сталого розвитку та процедур їх реалізації; 3) ідентифікувати основні сфери застосування добровільних стандартів сталого розвитку, що особливо важливі для країн з перехідною економікою.

**Методика.** Основні твердження й висновки зроблені на основі аналізу наукових праць з проблем посилення сталості глобальних виробничо-збутових ланцюжків, а також впливу глобалізації на структуру економічної діяльності в різних країнах. Крім того, автори використовували висновки власних попередніх досліджень з питань управління на основі добровільних стандартів сталості.

**Результати.** Дослідження довело, що впровадження стандартів сталого розвитку дозволяє послідовно ввести однакові види пріоритетів і відповідальності по всьому ланцюжку створення продукту. Виділені чотири області, застосування добровільних стандартів стійкості, що особливо важливі для країн з перехідною економікою: посилення відповідальності уздовж всього ланцюжка створення вартості; формування основи для поліпшення менеджменту та розширення діалогу з найбільш перспективними партнерами на внутрішніх і зовнішніх ринках; переорієнтація на інновації та пошук свого фрагмента в поділі праці; реструктуризація внутрішньої політики розвитку. Аналіз формальних цілей або ознак добровільних стандартів сталого розвитку дозволив виділити їх основні функції: регулювання, управління стійкістю, управління ризиками та комунікації. Для забезпечення цих функцій виділені головні регламентуючі процедури: оцінка відповідності, еко-маркування, системи відстеження, послуги з нарощування потенціалу.

**Наукова новизна.** Розроблені ключові сфери використання добровільних стандартів сталого розвитку у країнах з перехідною економікою.

**Практична значимість.** Реалізація запропонованих рекомендацій сприятиме розширенню використання стандартів сталого розвитку задля формування сталих виробничо-збутових ланцюжків.

**Ключові слова:** *глобальні ланцюжки створення вартості, управління стійкістю ланцюжків створення вартості, міжнародні добровільні стандарти сталого розвитку*

**Цель.** Цель исследования заключается в определении ключевых функций добровольных стандартов устойчивого развития для укрепления устойчивости глобальных производственно-сбытовых цепочек. Для этого сформулированы следующие задачи исследования: 1) проанализировать современные изменения в глобальных цепочках создания стоимости; 2) определить сущность международных стандартов устойчивого развития и процедур их реализации; 3) идентифицировать основные области приме-

нения добровольных стандартов устойчивого развития, которые особенно важны для стран с переходной экономикой.

**Методика.** Основные утверждения и выводы разработаны на основе анализа научных работ по проблемам усиления устойчивости глобальных производственно-сбытовых цепочек, а также влияния глобализации на структуру экономической деятельности в различных странах. Кроме того, авторы использовали выводы собственных предыдущих исследований по вопросам управления на основе добровольных стандартов устойчивости.

**Результаты.** Исследование доказало, что внедрение стандартов устойчивого развития позволяет последовательно ввести одинаковые виды приоритетов и ответственности по всей цепочке создания продукта. Выделено четыре области применения добровольных стандартов устойчивости, которые особенно важны для стран с переходной экономикой: усиление ответственности вдоль всей цепочки создания стоимости; формирование основы для улучшения менеджмента и расширения диалога с наиболее перспективными партнерами на внутренних и внешних рынках; переориентация на инновации и поиск своего фрагмента в разделении труда; реструктуризация внутренней политики развития. Анализ формальных целей или признаков добровольных стандартов устойчивого развития позволил выделить их основные функции: регулирование, управление устойчивостью, управление рисками и коммуникации. Для обеспечения этих функций выделены главные регламентирующие процедуры: оценка соответствия, эко-маркировка, системы отслеживания; услуги по наращиванию потенциала.

**Научная новизна.** Разработаны ключевые области использования добровольных стандартов устойчивого развития в странах с переходной экономикой.

**Практическая значимость.** Реализация предложенных рекомендаций будет способствовать расширению использования стандартов устойчивого развития для формирования устойчивых производственно-сбытовых цепочек.

**Ключевые слова:** *глобальные цепочки создания стоимости, управление устойчивостью цепочек создания стоимости, международные добровольные стандарты устойчивого развития*

*Рекомендовано до публікації докт. техн. наук П.І.Пономаренком. Дата надходження рукопису 25.04.15.*