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ORIGINAL SCIENTIFIC ARTICLE  
10.5937/ekonomika2203029V  
Received: January, 21. 2022.  
Accepted: February, 26. 2022.

## GREEN SUPPLY CHAINS AND GLOBAL COMPETITIVENESS OF COMPANIES

### Abstract

*Companies are increasingly incorporating both social and environmental sustainability into their business activities. Ethical issues along with environmental and labor protection issues are integral components of the supply chain strategy. By implementing the concept of green supply chain, the level of sustainability, supply continuity and long-term business efficiency are improved. Positioning modern supply chains in the context of a green economy and a dynamic business environment is a matter of work. The key goal of this paper is to identify the business implications of the relationship between green supply chains, the environment and economic, social and environmental performance, based on the analysis for the field of research of relevant scientific sources, and to propose a model of “greening” of classic supply chains. of benefit to researchers and company managers. The research contribution of this paper is reflected in the achieved level of development and degree of implementation of sustainability practices in global supply chain management practices, overview of concepts, paradigms and research in the field of green supply chains over a period of twenty years, as well as in examining the impact of leading global supply chains on three main aspects of the environment - climate, water resources and forests. The paper is structured according to the IMRAD principle. The first part points out the different theoretical coverage of the concept of green supply chain. Then a green supply chain model is proposed. Analysis of the development perspective and discussion on the impacts of green chains on the environment is a key topic of the next part of the paper.*

**Keywords:** sustainable development, green economy, environmental performance

**JEL classification:** M11, M14

## ЗЕЛЕНИ ЛАНЦИ СНАБДЕВАЊА И ГЛОБАЛНА КОНКУРЕНТНОСТ КОМПАНИЈА

### Апстракт

*Компаније све више инкорпорирају социјалну и еколошку одрживост у своје пословне активности. Етичка питања и питања заштите животне и радне среди-*

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не представљају интегралне компоненте стратегије ланца снабдевања. Имплементацијом концепта зеленог ланца снабдевања, унапређује се ниво одрживости, континуитет снабдевања и дугорочна пословна ефикасност. Позиционирање савремених ланца снабдевања у контексту зелене економије и динамичног пословног окружења, представља предметно одређење рада. Кључни циљ рада је да се, на бази анализе за подручје истраживања релевантних научних извора идентификују пословне импликације односа између зелених ланца снабдевања, животне средине и економских, социјалних и еколошких перформанси, као и да се предложи модел “озелењавања” класичних ланца снабдевања који ће бити од користи истраживачима и менаџерима компанија. Истраживачки допринос овог рада огледа се у приказу достигнутог нивоа развијености и степена имплементације пракси одрживости у управљачке праксе глобалних ланца снабдевања, прегледа концепата, парадигми и истраживања из области зелених ланца снабдевања у периоду од двадесетак година, као и у испитивању утицаја водећих глобално присутних ланца снабдевања на три главна аспекта животне средине – климу, водне ресурсе и шуме. Раd је структуриран по ИМРАД принципу. У првом делу се указује на различита теоријска обухватања концепта зеленог ланца снабдевања. Затим се предлаже модел зеленог ланца снабдевања. Анализа развојне перспективе и дискусија о утицајима зелених ланца на околину кључна је тема наредног дела рада.

**Кључне речи:** одрживи развој, зелена економија, еколошке перформансе

## Introduction

The irresponsible behavior of people towards nature reaches destructive proportions. Therefore, it is necessary to focus people and companies on the issues of sustainability of the planet and determine the rules that should regulate human behavior. Accelerating global warming and reducing biodiversity are just some of the phenomena that have called into question the survival of the planet as we know it today, while unplanned and irresponsible actions by industry are a potential threat to sustainability (Stoian, 2021). The effects of these changes are visible on several levels. On the economic aspect, they are manifested by the emergence of a “green” economy, which is based on “sustainable society” and “sustainable use of resources.”

Sustainable development and environmental protection at the global level are recognized as imperative. As the public becomes more aware of environmental issues, consumers will ask more questions about the products they buy, about how green companies’ production processes are, what level of their carbon footprint is, and how much attention is paid to recycling. In today’s business world, where competition is no longer at the level of individual firms, but at the level of supply chains, and the requirements for achieving environmental efficiency are high on the list of business priorities, integrating environmental management practices along the entire supply chain is essential. Implementing the green supply chain management concept is an important innovation that provides organizations with a win-win strategy in terms of reducing risk and environmental impact, maintaining a competitive advantage, achieving business profit and market share goals. The supply chain should be managed in such a way that, in parallel with the reduction of costs, the minimum

negative impact on the environment and the maximum increase of social utility are enabled (Sahaidak, et al., 2022). In this way, the concept of a green supply chain, which, without neglecting the economic dimension, focuses on the social, regulatory and environmental aspects of business, has become more important.

### **Theoretical backgrounds and literature review**

Green economy implies an economy that leads to improved human well-being and social equality, while significantly reducing environmental risks and environmental scarcity (UNEP Green Economy Initiative, 2008). At the core of the green economy is the commitment to emit low-carbon processes, use natural resources efficiently and achieve social inclusion (European Commission, 2015). Sustainable Development (SD) means development that meets the needs of the present without compromising the ability of future generations to meet their needs (WECD, 1987).

In a green economy environment, respecting social and environmental issues at the supply chain level in the direction of achieving a symbiosis between industrial development and environmental protection is crucial (Wang & Dai, 2018). Key companies in the chain need to take social and environmental responsibility and help other companies incorporate environmental standards into their business practices (Neumuller et al., 2016). Any failure in such efforts can lead to the erosion of the reputational capital of the entire chain (Burritt et al., 2011). By the late 1980s, researchers encouraged more responsible and comprehensive implementations of environmental care practices in supply chain management (Shi et al., 2013). The paradigm shift, ie the transition from traditional to green supply chain, respecting environmental repressions, and the affirmation of the concept of the green supply chain as an effective tool for managing proactive manufacturing firms comes somewhat later (Zhu et al., 2008). While the traditional supply chain focuses on issues such as: 1) determining the most efficient production/distribution schedule and optimal locations of distribution centers; 2) optimizing raw material stocks and the number of participants in the chain; 3) determining the most appropriate tasks for production facilities; 4) customer/supplier relationship management (Fiksel, 1996, p. 54), until greening of phases and activities of entities within the supply chain implies rational use of limited natural resources, energy efficiency, reduction of risk of water contamination, reduction of greenhouse gas emissions, management waste, recycling, reduction of packaging materials (Geyer & Jackson, 2004), and due to improved return on investment, adoption of regulations, risk minimization, product differentiation, cost reduction, increased efficiency, ethical reasons (Dubber-Smith, 2005). The implementation of environmental requirements and green practices adapted to them creates significant differences in the relationship between traditional and green supply chains (Table 1).

*Table 1: Comparative overview of traditional and green supply chain*

<i>Variables</i>	<i>Traditional supply chain</i>	<i>Green supply chain</i>
<i>The goal</i>	Maximizing economic benefits	Balance between economic, social and environmental benefits
<i>Management structure</i>	Operational, financial and strategic performance are measured	Environmental performance is also measured
<i>Relations with the suppliers</i>	Short-term relationships	Long-term relationships based on respect for environmental criteria in the selection of suppliers
<i>Business model and business process</i>	The concept of "from the cradle to the grave" - from input suppliers to end users	The concept of "cradle to reincarnation" - from input suppliers to waste management
<i>Return flows</i>	Only for municipal waste	For all types of waste, recycling

*Source: Kumar & Kumar, 2013; Hosseini, 2016, p. 161.*

The importance of respecting the principles of sustainability and redesigning traditional supply chains in the direction of their “greening”, in recent years has been recognized by business entities globally. The concept of green supply chain is becoming increasingly relevant, both in developing economies (Malaysia, Thailand, Egypt, Iran) (Eltayeb et al., 2011; Zailani et al., 2012; Hamdy et al., 2018), and in developed countries (USA, Germany, Japan) (Laosirihongthong et al., 2013). The green supply chain is a holistic concept and as such implies that the integration of environmental criteria into the business philosophy of the production organization is accompanied by cooperation with suppliers towards their further integration into the supply chain and engagement of other actors such as shareholders, authorities and NGOs (Wong et al., 2015). This concept is gaining popularity as eco-efficiency and reproduction processes become important means of achieving best practices (Fortes, 2009), and minimizing waste generated in production is a priority (Hosseini, 2016, p. 161). There are different definitions of the green supply chain in the literature. Some authors define it as a set of activities ranging from green shopping to fully integrated environmental practices at the level of suppliers, producers, customers and river logistics, thus “closing the loop” of sustainability throughout construction (Zhu & Sarkis, 2004). Others (Large & Thomsen, 2011) state that this is a concept popularized by the expansion of learning about corporate environmental management and environmentally sound production strategy, at the core of which are four key factors - (1) the possibility of “greening” supply, (2) strategic procurement management, (3) achieved level of environmental commitment, (4) cooperation with suppliers in terms of operationalization of green practices. There are also those who equate the green supply chain with a set of practices aimed at influencing, controlling and supporting the environment by allocating possible material resources and redefining organizational responsibilities and procedures (Kim et al., 2011), or consider it a combination of production and supply chain and reverse logistics chain used products (Sheu et al., 2005), and a fundamental philosophy of sustainability management, included in all processes and decisions in the entire supply chain (Klumpp, 2018). However, the theoretical definition according to which the green supply chain implies the incorporation of environmental thinking into management practices, product design, procurement and selection of materials, the process of production and delivery to final consumers, as well as product management after its end of life (Srivastava, 2007).

When it comes to research achievements in the field of green supply chains, relatively few papers focus on the methodology of green supply chain management (Govindan et al., 2015; Soda et al., 2016), more of them deal with specific aspects and practices of green chains (Islam et al., 2018). Moreover, some authors emphasize the distinction between “green” supply chain and “sustainable” supply chain (Fahimnia et al., 2015), or talk about “environmental supply chain management” (Sharfman et al., 2009), management. sustainable supply network”(Tseng et al., 2018). An overview of significant research in the field of green supply chains is given in Table 2.

*Table 2: Summary of previous green supply chain studies*

<i>Source</i>	<i>Research goals</i>	<i>Findings</i>
Holt R. (2005)	Identify potential links between GSCM and environmental performance, economic performance, and competitiveness	Greening the different phases of SC leads to integrated supply, which ultimately leads to greater competitiveness
Vachon S. (2007)	Examining the link between green supply chain practices and the choice of environmental technologies	The results show that environmental cooperation with suppliers is associated with greater investment in pollution prevention, while such cooperation with customers does not lead to the adoption of preventive technologies.
Walker et al. (2008)	Exploring the factors that drive or hinder private and public sector organizations in implementing GSCM initiatives	Internal factors of the organization, legislative and regulatory framework, customer expectation, market forces, social factors, suppliers
Zhu Q. et al. (2008)	Investigate whether the size of organizations plays a role in the adoption of the GSCM	The success of GSCM implementation does not depend on the size of the organization
Holt & Ghobadian (2009)	Environmental sustainability testing through SC management on a sample of producers in the UK	Regulations, social factors, customer pressures, internal factors are determinants of the introduction of green SC management
Soler et al. (2010)	Describe the use of environmental information in different phases of food SC management in Sweden	The consumer should be regarded as an important actor of SC, the correct transaction of information on consumer preferences in the relevant green SC allows to avoid distortion of information
Duarte et al. (2011)	Develop a conceptual model that integrates lean and green supply with the BSC approach on performance measurement of SC	Linking performance measurement systems to lean and green practices leads to better positioning of all entities in the chain of SC
Luthra et.al (2011)	Develop a structural model of barriers to GSCM implementation in the automotive industry	Eleven variables have been identified, the most important of which are market competition and uncertainty, lack of green practices, costs, environmental ignorance of customers, lack of government support

Pandya et al. (2012)	Investigation of the external factors affecting green SC and understand the link between green practices and environmental, operational and financial performance in the context of the Indian pharmaceutical industry	Environmental regulations and environmentally conscious suppliers, consumers and the local community can improve a firm's performance
Laosirihongthong et al. (2013)	Examining the application of proactive and reactive practices in GSCM and their impact on the environment, economic and intangible impact	Proactive practice - green procurement, ecodesign, river logistics; Reactive practice - legislation and regulations
Tachizawa et al. (2015)	Analysis of the interrelationships between environmental drivers, GSCM practice, and performance	A multiple positive correlations was observed to exist between the given variables
Kuei et al. (2015)	Identification of critical factors influencing GSCM adoption and associated performance	Technological, internal (organizational), external (from the environment)
Lee S.Y. (2015)	The impact of green supply chain management on supplier performance through the accumulation of social capital	Greening the supply chain can increase its social capital, through a focus on frequent communication and common goals between partners, deepening mutual understanding and motivating customers to be directly involved in product decision-making.
Shen et al. (2017)	The issue of SC sustainability in the textile industry	Some consumers are willing to pay more for sustainable products, especially when it comes to clothing
Correia et al. (2017)	Factors and actors of greening SC	Pressures to implement the concept of sustainability through the supply chain come from internal and external actors, such as customers, government, NGOs

Source: Authors

## Research Design and Hypothesis

Over time, there have been numerous efforts to propose a comprehensive, practical, multidimensional conceptual green supply chain conceptual framework that would incorporate the relevant dimensions of green practices, and their implications for the performance set. Thus, some authors emphasize greening of procurement (Hajikhani et al., 2012), and environmental aspects of internal environmental management through green shopping, cooperation with clients, eco-design, sustainable investments (Hamdi et al., 2018). Green supply chain, green construction, green operations and maintenance, reverse logistics (Wibowo et al., 2018), or green transport, green construction and waste management are identified as elements of the green supply chain (Balasubramanian, 2017). Similarly, “green” components are added at all stages of the product life cycle and all activities, with the aim of ensuring long-term benefits and minimizing negative impacts on the environment and society (Dadhich et al., 2015). More about research on

activities and processes within the supply chain that need to be made sustainable can be seen in Table 3.

*Table 3: Different conceptual frameworks of green supply chain dimensions*

<i>Dimension of SC</i>	<i>Description</i>	<i>Source</i>
<i>Green procurement</i>	Purchase of eco-friendly products that have a green label, cooperation with suppliers in terms of achieving environmental goals, adoption of environmental management systems	Vachon & Klassen (2008), Zhu et al. (2008), Perotti et al. (2012), De Giovanni & Vinzi (2012), Esfahbodi et al. (2016), Laari (2016), Hamdy et al. (2018)
<i>Green design</i>	Products and production processes designed to reduce material/energy consumption, products intended for reuse, recycling, products designed to avoid or reduce the use of hazardous products, cooperation with customers to develop eco-design	Zhu et al. (2008), Esfahbodi et al. (2016), Hamdy et al. (2018)
<i>Green production</i>	Optimization of production processes to reduce emissions of harmful gases into the air, depletion of water resources, reduction of waste and noise, use of cleaner production technologies and best practices, establish a system of recycling waste products	De Giovanni & Vinzi (2012), Zailani et al. (2012), Wang & Dai (2017)
<i>Green distribution</i>	Coordination with customers on the development of green transport packaging, reform of logistics and transport systems, monitoring and monitoring of emissions from product distribution	Zhu et al. (2008), Green et al. (2012), Perotti et al. (2012), Yang et al. (2013), Esfahbodi et al. (2016), Laari (2016), Hamdy et al. (2018)

*Sources: Authors*

By adopting GSCM (Green supply chain management) practices, supply chain participants are affected in different ways depending on the type of industry and the context in which it is examined (Chiou et al., 2011), the performance of individual phases in the supply chain determines the performance of other members ( Wang & Dai, 2017). In this regard, the impact of green procurement and innovation on the environment was analyzed (Khaksar et al., 2016), it was examined how green supply chain practices can contribute to improving the company’s performance in terms of environment, economic and operational outcome (Hamdy et al. , 2018), a model was developed to investigate the existence of a positive correlation between green packaging and sustainable economic, environmental and social impact (Zailani et al., 2012). Some authors also mention an additional dimension of performance in green supply chains - brand image (Testa & Iraldo, 2010), often characterized as an intangible outcome (Eltayeb et al., 2011). An overview of the multilayer performance of the green supply chain is given in Table 4.

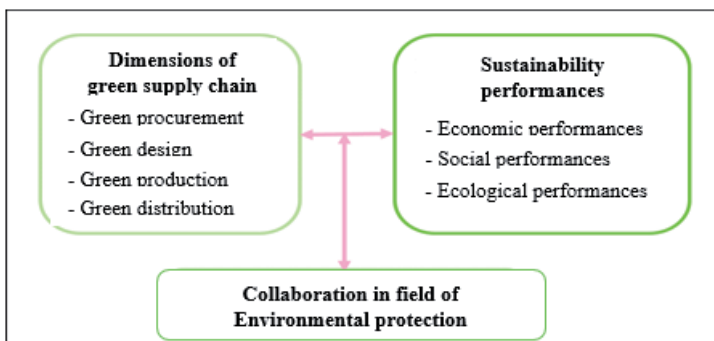
Table 4: Conceptual framework of green supply chain performance

<i>Dimension SC</i>	<i>Description</i>	<i>Source</i>
<b>Economic performance</b>	Economic performance means savings in material procurement costs, energy consumption, waste treatment and waste disposal fees, reduction of fines in case of liability for causing an environmental accident.	Zhu et al. (2008), Zailani et al. (2012), Green et al. (2012), Das (2018), Laari (2016), Pereira-Moliner et al. (2012)
<b>Social performance</b>	The social impact is reflected in the improvement of employment opportunities, training and development of employees, donations, work on eradicating all forms of inequality, participation in the fight against poverty.	Zhu et al. (2016), Das (2018)
<b>Ecological performance</b>	They include the benefits of reducing waste and waste costs, reducing the consumption of toxic materials and energy, reorienting to alternative energy sources, renewable resources and clean technologies, reducing the frequency of environmental accidents, increasing revenue by converting waste into new products, reusing valuable and recycled materials, returned product components by implementing efficient product return programs.	De Giovanni & Vinzi (2012), Yang et al. (2013), Laari (2016), Zhu et al. (2008), Das (2018), Muma et al. (2014), Cosimato & Troisi (2015)

Sources: Authors

Based on the analysis of conceptual frameworks developed so far, it has been shown that strong interaction of sustainability practices in all dimensions of the supply chain, proactive monitoring of effects on triple performance indicators and a high degree of environmental collaboration throughout the chain, results in significant benefits for both chain companies and Society (Paulraj, 2011). Conversely, respect for environmental regulations, adoption of eco standards and cooperation in the implementation of green postulates, is a key relational capability that facilitates the strategic formulation and execution of the green supply chain management concept (Eriksson & Svensson, 2015). In line with all the above, the green supply chain management model could be designed as shown in Figure 1. The proposed design is also based on the idea that through long-term cooperation and strong interaction of all elements and dimensions of sustainability between all participants in the chain supplies, can achieve above-average financial results and social well-being.

Figure 1: Conceptual model of the green supply chain



Sources: Authors based on Chandra & Kumar, 2000.



In accordance with all the above, the following hypothesis will be tested in the continuation of the paper:

*H: In an era of intensifying environmental problems and accelerating the expansion of the green economy, it is essential to preserve and improve company performance by redesigning traditional supply chains in terms of implementing green business practices.*

In order to confirm the truth of the hypothesis, and guided by the proposed conceptual model, the impact of leading globally present supply chains on three main aspects of the environment - climate, water resources and forests - will be examined.

## Research results and Discussion

The achieved level of development and perspectives of green supply chains in the international framework will be reviewed on the basis of data from the CDP (Carbon Disclosure Project Supply Chain Report 2018/19), which includes 115 leading organizations worldwide and 5,545 suppliers based in 90 countries, through three aspects: 1) *impact on climate*, 2) *impact on forests* and 3) *impact on water resources*.

When it comes to the aspect characterized as the impact on the climate, the emission of greenhouse gases caused by the activities of suppliers, in 2018, reached 7.268 million tons of CO<sub>2</sub>. During the same period, the upstream supply chain recorded a reduction in emissions of 633 million tons of CO<sub>2</sub>, which is more than 1% of all current global emissions and represents a significant improvement compared to the level of emissions in 2017 when it was 551 Mt CO<sub>2</sub>. The savings were accompanied by financial benefits of \$ 19.3 billion, up from \$ 14 billion reported in the previous year, and were made possible by improved energy efficiency and reduced process emissions. The achieved reduction per company averages 6%, while 27% of energy comes from renewable sources (Table 5).

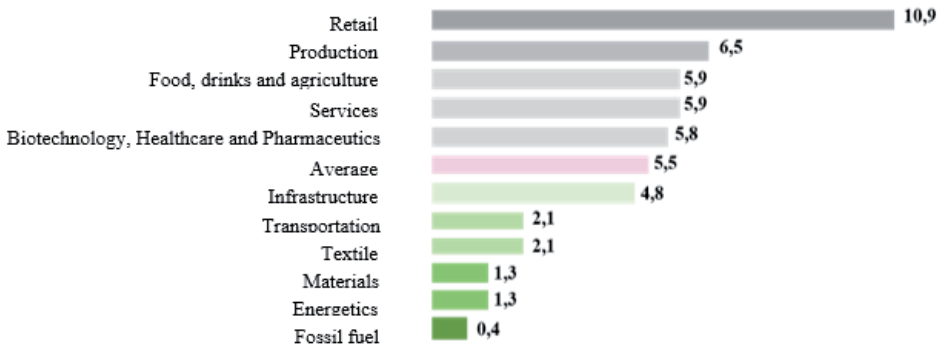
Table 5: Impact of SC on climate change, by sectors

	Total	North America	Latin America	China	Japan	Rest of Asia	Europe	Africa
No. of SC (suppliers)	5.545	1.721	869	519	538	448	1.312	5
% reporting scope 1	75%	72%	65%	74%	92%	74%	80%	58%
Total scope 1 emissions (tCO <sub>2</sub> e)	5.556.239.578	1.390.625.075	1.496.649.887	104.661.632	432.388.304	332.040.273	1.390.625.075	71.872.839
% reporting scope 2	58%	54%	37%	56%	80%	63%	67%	36%
Total scope 2 (market-based; tCO <sub>2</sub> e)	1.712.243.246	323.291.134	506.899.688	264.665.760	117.400.979	137.491.568	328.062.578	13.869.036
% reporting upstream scope 3	33%	28%	34%	33%	42%	32%	37%	36%
Total upstream scope 3 (tCO <sub>2</sub> e)	3.210.954.073	995.205.162	506.381.090	12.767.263	286.110.710	307.341.925	1.048.043.642	2.404.101
% with emission targets	47%	36%	19%	61%	84%	57%	56%	24%
No. with reduced emissions	1.582	495	134	160	165	131	456	6
No. with science-based targets	94	28	1	0	21	3	39	0
% engaging upstream suppliers	35%	31%	25%	25%	38%	30%	50%	24%

Source: CDP Supply Chain Report, 2018/19, p. 38.

Based on data collected from 33% of suppliers, on average emissions at the level of the entire supply chain 5.5 is higher than the direct impact of the company, although there are differences between sectors, which is just another finding that supports the view that greening overall processes and chain activities crucial for minimizing adverse effects on climate and ecosystems in general (Figure 2).

Figure 2: Relationship of supply chain and direct greenhouse gas emissions



Source: CDP Supply Chain Report, 2018/19, p. 18.

When it comes to the aspect of impact on forests, it turned out that 305 suppliers from the sample responded to requests for conservation of forest resources, which is an increase of 247% compared to the level of 2017. Only 17% of suppliers could identify forest, plantation or farm from came the raw material that entered his goods. Wood products, palm oil, soybeans and rubber are considered key goods to which the risk of deforestation is linked. Similarly, 17% of suppliers reported setting any deforestation targets, and 17% said they were working outside the first level to mitigate forest-related risks. The total financial impacts related to risks related to the production, consumption and trade of forest goods in 2018 amounted to USD 23 billion (Table 6).

Table 6: Impact of SC on forest resources

	Total	North America	Latin America	China	Japan	Rest of Asia	Europe	Africa
No. of SC (suppliers)	305	80	129	5	24	19	41	1
No. with forests risk assessment	142	45	34	0	15	10	33	1
No. with targets	62	19	8	0	11	1	20	1
No. with deforestation policy	69	24	9	0	14	2	17	1

Izvor: CDP Supply Chain Report, 2018/19, str. 38.

When it comes to the aspect of impact on water resources, during 2018, 1,709 suppliers took measures in terms of more rational use of water resources. There has been an improvement in the approach to measuring and managing water resources, as indicated by the increase in reported water-related targets, from 51% in 2017 to 69% in 2018, while

17% of suppliers indicated an interest in further engagement with their partners on the topic of water supply. Overall, the data shows significant progress compared to 2015 - 50% more companies integrate water quality into their risk assessments, 65% more companies set water pollution reduction targets, 104% more report withdrawals, discharges and water consumption. In 2018, the results showed that 329 companies consider water efficiency to be a strategic, operational or market opportunity. \$62 billion of revenue generated from the management of identified water safety risks was also reported (Table 7).

*Table 7: Impact of SC on water resources*

	<i>Total</i>	<i>North America</i>	<i>Latin America</i>	<i>China</i>	<i>Japan</i>	<i>Rest of Asia</i>	<i>Europe</i>	<i>Africa</i>
<i>No. of SC (suppliers)</i>	1.709	408	364	121	287	130	368	18
<i>Reported water withdrawal volume</i>	1.116	269	234	66	189	82	256	12
<i>No. with water risk assessment</i>	962	212	175	85	158	77	237	12
<i>No. with water targets</i>	1.182	262	241	99	188	100	274	9
<i>No. with public policy on water</i>	545	118	59	55	124	58	128	2
<i>% engaging upstream suppliers</i>	17%	23%	8%	7%	19%	16%	21%	6%

*Source: CDP Supply Chain Report, 2018/19, page 38.*

According to data for 2018, 43% of supply chains, members of the CDP Supply Chain program declared that they use environmental performance as a criterion when choosing suppliers to work with, while 30% of them emphasize their intention to introduce such a process in the future, in compared to only 4% in 2008. All of the above speaks in favor of the fact that green supply chains are recognized as important on a global level, that they have largely come to life and that they will experience expansion in the period that follows.

## **Conclusion**

In the last decade, there has been an increase in interest, both in scientific and business circles, in the functioning of green supply chains. It has been found that in order for a particular chain to be considered green, all of its activities must fully implement green initiatives in their operations. In this regard, the existence of specialized strategies and numerous examples of implementation of green practices in procurement, production, distribution and marketing has been identified. It is also pointed out that the connection between the implementation of green initiatives within the supply chain and the competitiveness of such a chain is the subject of numerous studies, the analysis of which concluded that theoretical arguments unequivocally indicate that environmentally conscious business leads to competitive advantage, while there is no absolute consensus related to empirical research testing this claim.

The contribution of this paper is reflected in the analysis of the achieved level of development and the degree of implementation of sustainability practices in the

management practices of global supply chains, as well as reviews of concepts, paradigms and research in the field of green supply chains over twenty years. The paper emphasizes that the incorporation of care for sustainable development, assessment of the impact of business activities on the environment and society, as well as risk management of environmental degradation, at the level of supply chains, and through greening activities and processes that take place in it, as an inevitability, and on the path of expansion and development of corporate entities in an environment of green economy and turbulent business life. In this way, the initial hypothesis was proven that the intensification of the risk of environmental disasters leads to the emergence of new, green business patterns and practices, that green supply chains are gaining momentum and slowly suppressing traditional supply chains, since only they are sufficiently flexible, resilient and monitored. , measuring and maintaining a balance between economic, social and environmental performance.

The limitation of this research is that it did not examine the extent to which the business performance of companies that constitute green supply chains is superior to those that continue to operate under the auspices of traditional chains, and that no analysis of the representation, transparency and frequency of environmental performance reporting was performed. , both at the level of multinational supply chains and those in the Republic of Serbia. This can serve as a starting point for future research.

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