

CSR Strategies Applied in Terms of Circular Economy

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Abstract

At the beginning of the 21st century, the European Union and mankind are faced with the challenge of efficiently using waste and thus protecting the environment from pollution. Consumer society in developed and medium-developed Member States has undertaken to use waste in a way to create benefits and added value for the business sector and society at large. A tremendous challenge that Bulgaria and the EU have to overcome is the achievement of the highest recycled rate and the level of efficiently utilized waste. The value of unused waste that remains in landfills in the EU is a lost resource that may be re-introduced into the business sector's production chain and thus create preconditions for introducing the "circular economy" principle in Bulgaria. In this regard, this paper reviews literally the basic concepts of circular economics and the strategies applied by companies in recent years to replace the take-do-discard linear model with one that turns waste into resources through recycling and re-use. On the basis of this review and of the main elements of the circular economy, a poll has been developed that has been sent to the 50 largest Bulgarian companies according to their assets, aimed at assessing their corporate social responsibility

strategies focusing on practices in the field of recycling, use of energy-saving technologies, environmental protection and attitude towards the interested in their activities parties.

Key words: CSR, CSR strategies, circular economy, best practice of Bulgarian company

JEL: M14, M21

Introduction

Social responsibility is a set of attitudes, decisions and actions of the organization that are oriented towards the society. This means that they take responsibility for their impact on employees, the environment and society. At the same time, the benefits of CSR may include promoting innovation, cost savings and customer involvement in the design of the future. In the circular economy reuse, repair and recycling have become the norm, and the waste remains in the past. We live in linear economic systems inherited from the XIX century, in the world of the 21st century – characterized by emerging economies, millions of new users and interconnected markets. More effective, rapid and reuse of resources will increase the competitiveness of companies. If we want to be market leaders, we need to make the most of our resources, and that means to recycle them and use them again, instead of burying them in landfills. In the circular economy, the value of products and materials is preserved as long as possible; waste generation and the

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use of resources are kept to a minimum and resources are retained in the economy when the product reaches the end of its life cycle, and they are used repeatedly to create added value. This model can create secure jobs in Europe, promote innovation that provides a competitive advantage. Furthermore, it can ensure a level of protection for the people and the environment that Europe can be proud of. This model can also provide consumers with more durable and more innovative products that deliver financial savings and improve the quality of life.

In this context, the purpose of this article is present corporate social responsibility strategies used by large companies in terms of circular economy in Bulgaria.

The resulting research tasks are related to making:

- a theoretical presentation of basic definitions related to the circular economy;
- a statistical analysis of the level of implementation of the corporate social responsibility strategies in the context of a circular economy in Bulgaria;
- specific recommendations for the introduction of this concept in Bulgaria.

Literature Overview

Although the number of publications on the circular economy is increasing, there is still no comprehensive definition of what its essence is. Circular economy is officially used as a term in the economic model of Pearce & Turner (1990). The authors express a critical view of the traditional linear economic system in it, and develop a new model called a circular economy that applies the principles of the first and second law of thermodynamics. This model outlines the relationship between the economy and the environment, specifying three economic functions of the environment: resource provider, waste assimilator, and source of utility.

The Pearce & Turner model is based on Kenneth Boulding's Thesis (1966), which several decades earlier revealed the biophysical boundaries of the current economic system, based on the over-consumption of society and the growing resource shortage¹.

Another researcher of the circular economy Preston (2012, p. 1) argues that "it is an approach that transforms the function of resources in the economy. Plant waste will become a valuable resource for another process – and products can be repaired, reused, or upgraded instead of being thrown away." Similarly, the European Commission (2014, p. 11) considers that the circular economy "refers mainly to the physical and material resources of the economy – it focuses on the recycling, restriction and reuse of physical resources for the economy and the use of waste as a resource leading to a reduction in primary resource consumption. Mitchell (2015) goes further and highlights the importance of the circular economy to keep resources for as long as possible period of time, as well as to draw a maximum value out of their re-use. According to Ghisellini et al. (2016), the radical overhaul of all product life cycle processes by innovative players has the potential not only to recover materials or energy but also to improve the whole life and economic model.

Comparing the definitions used in the literature, Kirchherr, Reike & Hekkert (2017) found that most scientists describe the circular economy based on the 3R model: reduction of used materials and waste, reuse of end products and recycling of materials.

¹ The first law of thermodynamics stipulates that neither energy nor matter can be created or destroyed and therefore any natural resources used will return to the environment in the form of solid waste or emissions. According to the second law of thermodynamics, there are physical boundaries that prevent the set-up of a system in which all waste is recycled and transformed back into natural resources with 100% efficiency.

Korhonen et al., (2018) determine CE as sustainable development initiative with the objective of reducing the societal production consumption systems linear material and energy throughput flows by applying materials cycles, renewable and cascade type energy

flows to the linear system. CE promotes high value material cycles alongside more traditional recycling and develops systems approaches to the cooperation of producers, consumers and other societal actors in sustainable development work.

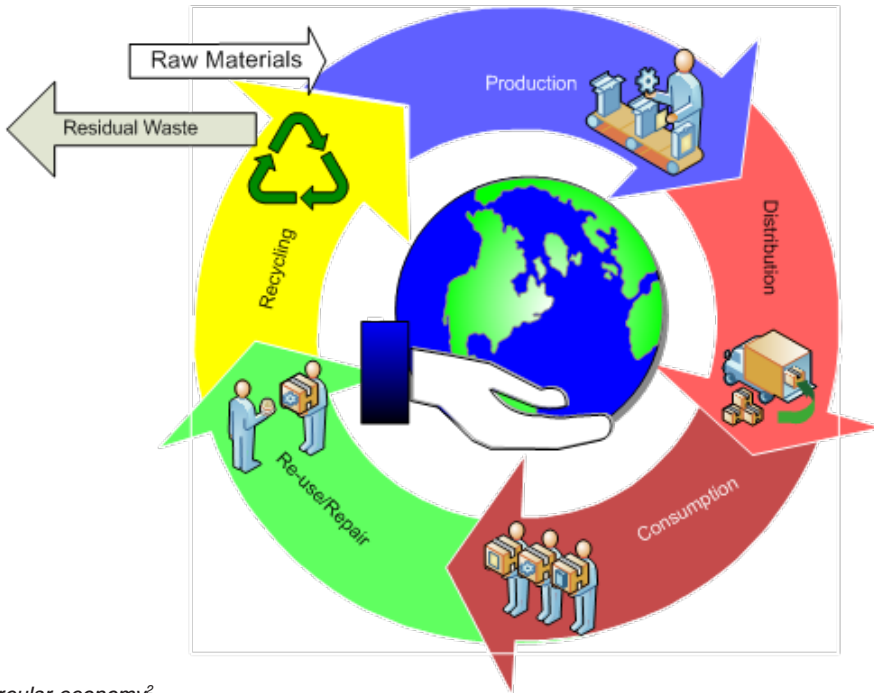


Fig. 1 Circular economy²

With the adoption of the Lisbon Strategy in 2000, the central objective of the European Union has become the path to a sustainable and innovative economy. This goal was strengthened later in 2015 with the Commission’s communication “Closing the Circle- An EU Action Plan for a Circular Economy” and the presentation of a legislative package on the transition to a circular economy in the European Union. This has paved the way for defining European policies and legislative initiatives to achieve this goal through strategic guidelines for Member States (including an EU action

plan on the circular economy) and concrete action points in the areas of: production; consumption; provision of primary resources; waste management; transformation of waste into resources – secondary raw materials; users; innovation and investment.

In this rapidly changing economic and social environment, thinking about sustainability and social and environmental management is a way for companies to position themselves and thrive. Existing technologies as well as economic accessibility already allow productive needs and capacity to meet society’s needs without compromising their values and natural resources through circular

² Adapted <http://ec.europa.eu/environment/circular-economy/>

flows for re-use, recovery and refurbishment, which promote reuse and recycling.

Applying a CSR strategic approach is becoming increasingly important for the competitiveness of enterprises in a circular economy. It can bring benefits in terms of risk management, cost reduction, access to capital, customer relations, human resources management and innovation capacity.

In brief we arrive at the following summary: "Circular economy is a concept in which growth and prosperity are separated from the consumption of natural resources and the decline of the eco systems. It is a strategy for securing natural resources, so that all the people on the planet to reach an acceptable level of prosperity without destroying the planet in the process. "The road to the circular economy is the core of the program on resource efficiency, established in Europe 2020 Strategy for smart, sustainable and overarching growth. Key ideas and guidance on how to manage and use resources efficiently and waste are set out in the programme of action of the EU on the environment by 2020.

The closed cycle of the new circular economy model provides: "production – use – recapture". The circular economy requires such proceedings, upon which to conserve resources on the basis of product policy, promoting their optimal use – the final products to be tailored for easy disassembly and reuse and replacement of components; using recycled materials in the production; sustainability and long-term use of the products and the opportunity for their repair; implementation of innovative business models, etc.

The circular economy offers the opportunity to rethink the modern economy so that it should become more sustainable and competitive, which would in turn bring benefits for European companies and industrial sectors and the public. With this new plan for

a cleaner, greener and competitive European economy, the European Commission plans to take ambitious measures to reduce the use of resources, reduce waste and promote recycling.

The trend for sustainable development requires the concept of circular economy, which became one of the main priorities of the EU. The foundations of sustainable development are laid out in the 1960s, as the focus is on the relationship between the environment and the utilization of resources, and between on the economy and public welfare.

Thinking about sustainable development in the common awareness reached 90 years and since then has graded in different ways. Towards the end of the first decade of the new century a new economic model known as the "green economy" was introduced. Furthermore, various processes related to sustainable consumption and production, "green growth", a low-carbon economy and efficiency in resource consumption were observed.

The typical model of the process includes several stages – extraction of raw materials, production, consumption and disposal of products at the end of their life cycle.

On the other hand, the circular process strives for low environmental impact by limiting the amount of waste and overuse of resources, such as turning the goods after their use in other resources through reuse, secondary production, recycling, reduction of waste materials and other practices. In other words, the circular economy seeks to resume its functions.

In the circular economy the value of products and materials is retained as long as possible; waste generation and resource use are minimized and resources are retained in the economy when the product reaches the end of life, and be used repeatedly to create

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additional value. This model can create secure jobs in Europe, encourage innovations that provide a competitive advantage, and to provide a level of protection for humans and the environment, with which Europe can be proud of. This model may also provide users with more durable and more innovative products to achieve financial savings and improved quality of life.

Circular economics approaches “designing the decrease” in waste and usually involves innovations across the value chain instead of relying solely on end-of-life solutions. For example, they can include:

- reducing the amount of materials needed to provide a particular service (lightening);
- prolonging the useful life of the products (durability);
- reducing energy and materials consumption in phases of production and use (efficacy);
- reducing the use of hazardous or difficult to recycle materials in products or production processes (replacement);
- creating secondary raw material markets (recycled materials) (based on standards, public procurement, etc.);
- designing products that are easier to maintain, repair, upgrade, process or recycle (eco-design);
- developing in this respect the necessary services for the users (maintenance / repair services, etc.);
- stimulating and supporting waste reduction and high-quality separate collection by consumers;
- stimulating separation and collection systems that minimize both recycling and reuse costs;
- facilitating grouping of cluster activities in order to prevent the by-products from being converted into waste (industrial symbiosis);
- promoting wider and better choice for consumers through hiring, borrowing or sharing services as an alternative to product ownership, while protecting the interests of consumers (in terms of costs, protection, information, contractual terms, insurance aspects and etc.).

Methods

The implementation of the strategic approach with regard to CSR is increasingly important for the competitiveness of enterprises in terms of the circular economy. It can bring benefits in terms of risk management, reduction of costs, access to capital, customer relationship management, human resources and innovation capacity.

As CSR requires undertakings to engage in internal and external stakeholders, this allows them to better anticipate and take advantage of the rapidly changing public expectations and conditions of activity. Therefore, it can move the development of new markets and creates opportunities for growth.

Paying attention to their social security, enterprises can create at employees, consumers and citizens long-term trust, to serve as a basis for sustainable business models. The high level of trust in turn helps create an environment in which enterprises can engage in innovative activities and to develop.

Investigating this impact of Corporate Social Responsibility on circular economy on the interested parties, Fonseca, L.M., Domingues, J.P., Pereira, M.T., Martins, F.F. and Zimon, D. (2018), have conducted an online survey among 99 Portuguese organizations (encompassing a wide range of sectors and sizes). The results show that CE is regarded as a strategic and relevant issue for profitability and value creation. It was found that the level of CE adoption is positively impacted by the status of the EMS (Environmental Management System)

certification and the willingness to improve environmental performance and achieve a sustainable business model.

Rizos, V.; Behrens, A.; van der Gaast, Wet al. (2016) highlight the barriers and opportunities for small and medium-sized enterprises in the conditions of a circular economy. For this purpose, they investigate SMEs from the UK, the Netherlands, Estonia, Belgium, Germany and Greece.

Lakatos, Dan, Cioca, (2016) examine consumer behavior in terms of environmental protection and the adoption of new patterns of behavior and responsible consumption in the promotion of a circular economy in Romania. They conduct an online survey nationwide interviewing 642 respondents.

There are many other examples in the scientific literature to assess the impact of corporate social responsibility on the parties interested in the activities of the companies. But in order to assess the attitudes of Bulgarian managers, we conducted an online survey in the period 15-25.03.2018. The survey was sent to companies listed in top 100 by *The Kapital* gazette³. The ranking includes non-financial companies registered in Bulgaria and does not include banks, insurers, leasing companies, investment intermediaries and special investment vehicles (SPVs). It does not include schools and hospitals either. Data was collected from information provided by companies, from public sources of information, regulators, databases. Some of the reports are from the Trade Register. The financial information for public companies comes from the Bulgarian Stock Exchange, the Financial Supervision Commission and other reporting platforms. The main criterion in the ranking is the total amount of revenue for 2017. A second indicator of the company's activity during

the year is included – the net financial result (i.e. after tax).

It contains questions based on the standard ISO 26 000 and on the evaluation criteria by the International Business Leaders' forum on⁴ Socially Responsible Practices. It aims to assess how the CSR strategy affects the recycling practices, use of energy saving technologies and environmental protection.

We received responses of 37 managers. Company managers responding to the survey are from the light industry, machinery and equipment sectors. energy, fuels, trade, metals, telecommunications, transport. Under the size criteria – more than 2/3 are defined as big, and the remainder are categorized as medium-sized companies.

Results & discussion

In 2014, EU Member States produced over 2.5 million tonnes of waste, of which only 50% were recycled. While recycling capacity is growing, still practically half of the materials used go out of the economy. Let us take for example the mobile phones. In the current design and manufacturing process, there is an average of two to three years before mobile devices begin to show signs of delay and become obsolete. According to the World Economic Forum in 2016, only 20% of the generated electrical and electronic wastes (nearly 45 million tonnes) were recycled, 4% were disposed of in landfills and information lacks about the remaining 76%. According to Eurostat data for the last decade (2006-2015), recycling in Bulgaria has increased by only 10%, from 19% to 29%. To reach even the current mandatory 50% recycling target by 2020, Bulgaria needs to increase the share of recycled waste four times faster than the current 1% per year. The continuation of the current scheme of collection and treatment of predominantly mixed municipal waste leads

³ https://www.capital.bg/biznes/kompanii/2017/07/01/2998761_nai-golemite_kompanii_edna_dobra_godina/

⁴ <https://www.csr-online.cz/en/15-questions-answers-about-csr/>

to an increasingly rapid filling of new depots and old landfills, as well as costly destruction through the incineration of waste materials that could be recycled or composted.

The European Commission has repeatedly expressed the view that, in order to move forward with regard to waste management, Bulgaria has to shift the course to intensive segregation at the source, coupled with a “household waste” fee based on the quantity and extended deposit system for bottles of beverages and other packaging.

There are significant benefits from the full implementation of EU waste legislation at risk, including the opening of between 16,500 and 29,000 new jobs in Bulgaria, as well as 72 billion euros per year of avoided environmental and health damages in Europe.

Taking into account the above-mentioned data, we are even more convinced of the

role of the CSR strategy as a priority in the circular economy. This is because it requires businesses to engage with internal and external stakeholders, enabling them to better anticipate and benefit from rapidly changing public expectations and business conditions. It can drive the development of new markets and create opportunities for growth.

By paying attention to their social responsibility, businesses can create a long-term trust within the employees, consumers, and citizens, that can serve as a basis for sustainable business models. A high level of trust, on its part, helps create an environment in which businesses can engage in innovative activities and develop itself.

In order to assess the readiness of Bulgarian companies to apply the principles of CSR in the context of a circular economy, we have developed a survey⁵.

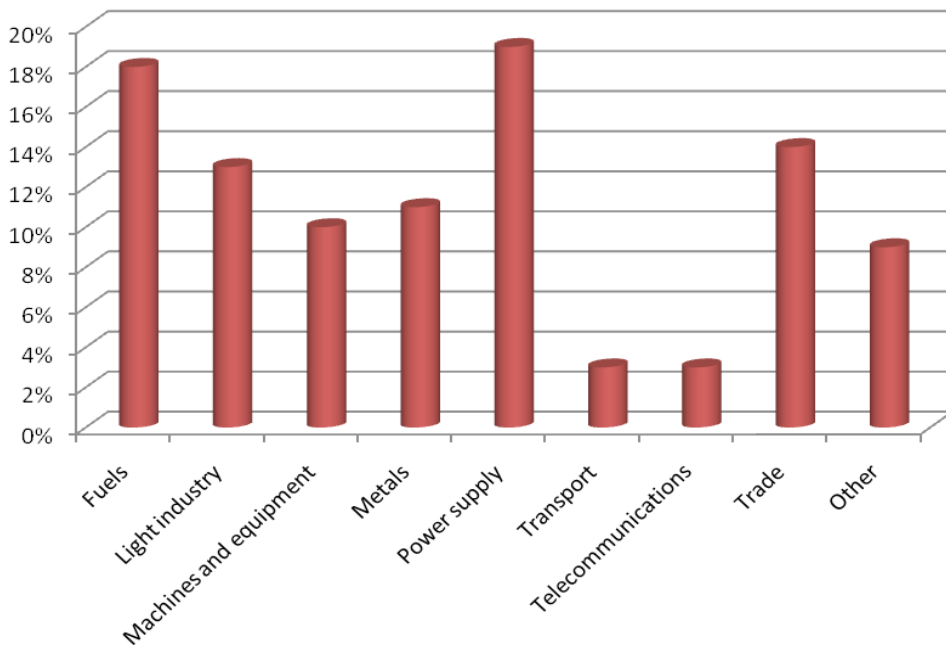


Fig. 2 Distribution by sectors of the companies participating in the survey

⁵ The survey was developed on the basis of ISO 26000 <https://www.iso.org/standard/42546.html>

To the question *Which interested parties are targeted by your socially responsible practices*, the highest is the percentage of

respondents to customers and the public. In particular, they are identified with donations, sponsorships and other charity events.

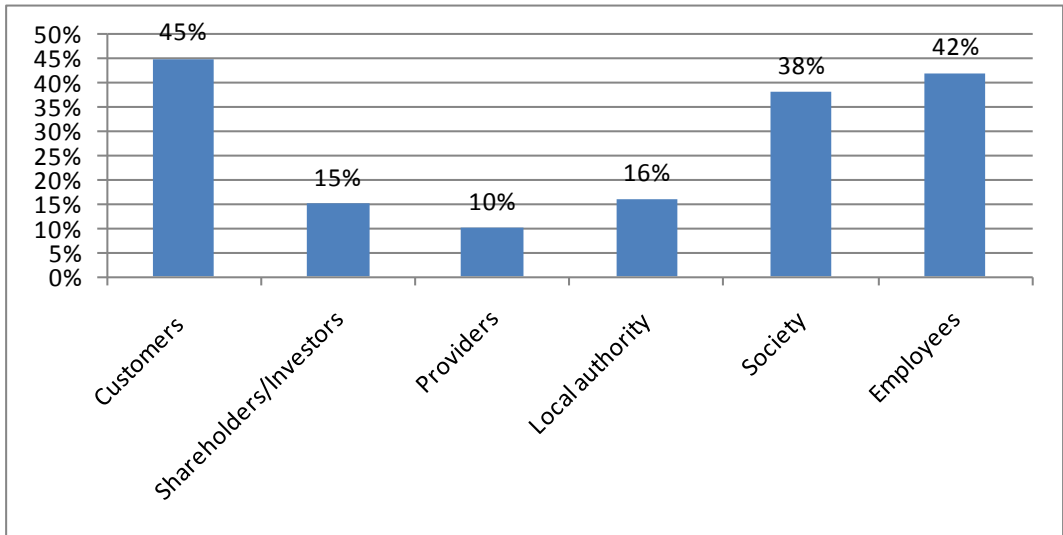


Fig. 3 Corporate Social Responsibility Practices towards Interested Parties

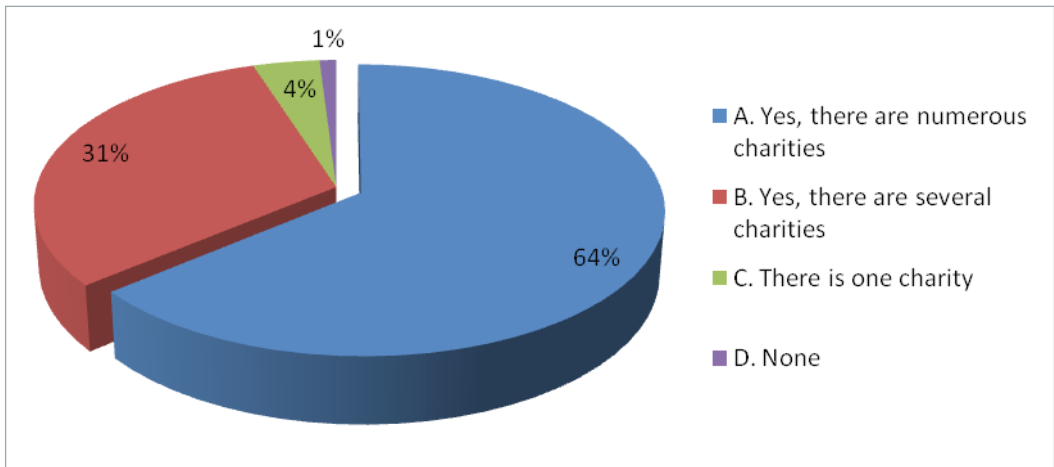


Fig. 4 Corporate Charity events

It is worth mentioning that the large percentage responded that they did not have penalties for air or water pollution (95%),

which speaks of a responsible behavior on the part of the management.

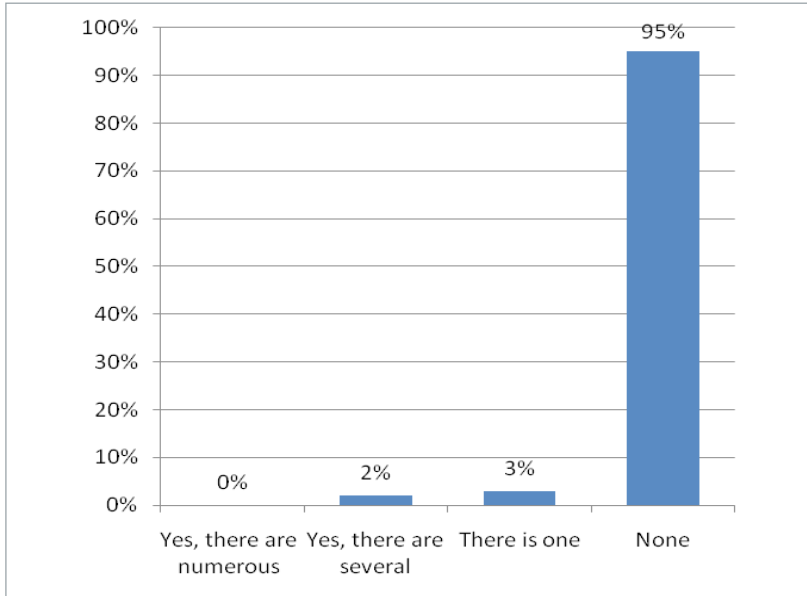


Fig. 5 Was the organization ever fined for air/water pollution?

The survey on socially responsible practices related to the circular economy shows that the share of the ones who have implemented energy saving technologies (73%) is the largest, followed by those who are trying to reduce the consumption of raw

materials (51%) and using eco-labels (48%). Particular environmental actions that are most popular are related to recycling of plastic packaging, recycling of wet labels, reduction of carbon emissions and use of green energy.

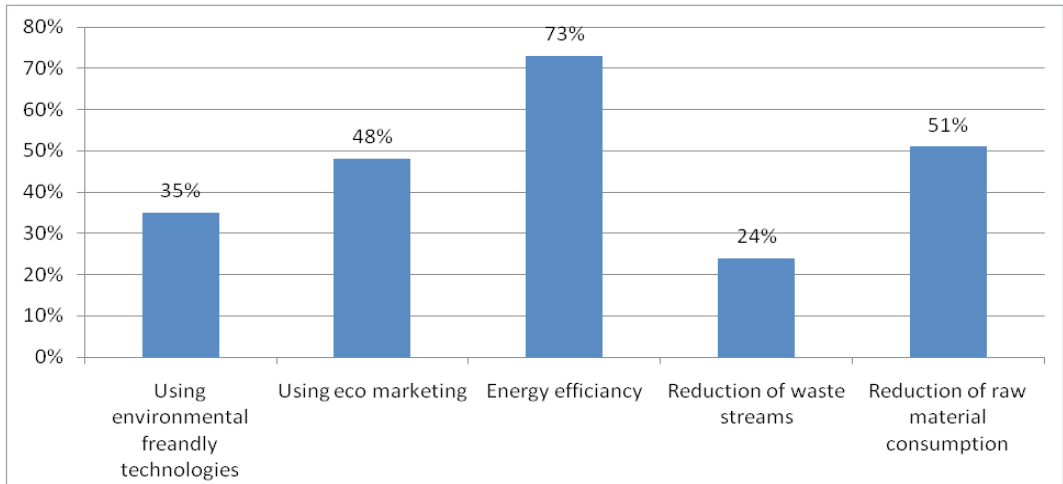


Fig. 6 Good Social Practices related to the Circular Economy

For example, in Nestlé, socially responsible practices related to the circular economy include climate change adaptation, water resource care, and ongoing work on waste reduction. In the last few years, they have reduced their gas emissions by more than 33%, more than half of their factories around the world do not dispose waste to landfills, including those in Bulgaria. Over the past 30 years Nestlé has reduced more than 18,000 tons of finished product packaging. The company's commitment is to recycle or reuse all product packaging by 2025, as at the moment, 60% are recyclable and re-usable.

Another big company, Lidl, achieves 100 percent recyclability of the packaging used, and it is still at the store level and employees are trained for separate collection by type. Only in 2017 over 8700 tonnes of packaging waste has been handed over for recycling by Lidl Bulgaria. The company aims to reduce by 20 more percents the plastic waste by 2025.

Coca-Cola HBC's goal is to recycle each plastic bottle. It has already reduced 22% the amount of water used for production, and 40% of the packaging it places on the market is recycled. The waste it disposes of is being reduced by 83%. As part of the circular economy solutions already implemented by Coca-Cola, is the recycling of wet labels, introducing recycled glass bottles and reducing the weight of both glass and plastic bottles of its products.

Zagorka AD has reduced the use of water with 6% in 2016, compared to 2015. For the same period, it has also achieved a 41% reduction in carbon emissions in its production. 29% of the electricity used by the brewery is from renewable sources at an average of 5% for Bulgaria. Zagorka has high targets for consistently reducing waste by reducing the weight of bottles, and one

of its most successful projects so far has been the removal of paper labels, resulting in savings of 45 tonnes of paper. The new strategic goal of the company is that all packages that go into the market are such that they can be reused. Therefore, one of the company's most active initiatives is the promotion of glass packaging and their re-use. Among the major green successes of Zagorka is that it already manages to recycle 99.6% of its waste.

The Veolia Bulgaria waste water treatment plant last year achieved a record in the production of green energy, covering 123% of the power requirements of the station itself and 84% of the energy needs of the entire water supply system, which is why it receives a high international award for wastewater innovation.

Conclusion

In the modern business environment and the dynamic global economics, the corporate social responsibility has become a key factor for success. It integrates both social commitments and environmental care, while business organizations are working for their economic prosperity. The expectations of many countries are that companies will strive to develop in a greener direction and their role in public life will increase progressively. The corporate social responsibility opens new sources of knowledge and improves the processes and the structures within the organization in a way that it could serve as a source of competitive advantages. The socially responsible behavior improves the relations among the external parties of interest, the consumers, the investors, the suppliers and the community as a whole, which makes the organization that implements socially responsible activities more competitive in the market. Through corporate social policy, staff and their creative

spirit are stimulated, provoking the positive attitude of society towards the organization. On the other hand, the current linear model in which “we receive, produce, consume and dispose” is gradually transformed into so-called circular model. It is important for the preservation, reuse and recycling of materials. This gives the opportunity to gain more added value and benefit from every ton of material, each joule of energy and each hectare of land.

This article explores the impact of the circular economy on the manner of conducting business and the use of socially responsible practices by large companies in Bulgaria. We have found that many of them have different environmental and social initiatives, they are familiar with the specifics of the various CSR standards, and take action to bring their business model into line with current waste recycling and reuse requirements.

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