Abstract. There is a growing trend in the theory and practice of sustainable development to focus on small and medium-sized enterprises (SMEs), and not only transnational companies, as part of the process of creating a more sustainable world. The recognition of the impact of SMEs on social development and the environment, as well as the need for studying them, stems mainly from their significant contribution to the economy of countries and employment, as well as from the significant cumulative impact of SMEs on the environment.

The aim of this paper is to demonstrate the extent of environmental responsibility, as a subconstruct of CSR, of small and medium-sized businesses in Bulgaria. The report presents a comparative analysis of the activities undertaken by Bulgarian SMEs to reduce environmental impact in the context of the same in other EU member states, the opportunities and difficulties they are facing in improving their environmental responsibility.

Key words: SME; Corporate Social Responsibility; environmental responsibility; factors

1. INTRODUCTION

Increasing the size and impact of companies on the economic, social and environmental development, globalization in trade, repositioning the government and increasing the strategic importance of relations with stakeholders, the knowledge and reputation of the brand, all significantly change the relationship between business and society. Although the role of transnational companies is considered dominant, in the last decade more and more attention is paid to the responsibility of SMEs towards the society and the environment. Corporate social responsibility (CSR) of SMEs is in the focus of EU and member states' policies and the subject of research by a number of international institutions - Organization for Industrial Development Units Nations [1], EC [2], World Business Council on Sustainable development [3]. There are also a growing number of academic publications in this field [4], [5], [6], [7], [8].

The growing trend of recognizing the impact of SMEs on social development and the environment, and the need for studying them, stems mainly from the significant contribution of SMEs to the countries’ economy and, in particular, employment, in a large part of the world. According to the United Nations Industrial Development Organization (UNIDO), small and medium-sized enterprises represent more than 90% of global enterprises and account for, on average, about 50% of the gross domestic product (GDP) in all countries and 60% of total employment [1]. SMEs are extremely important both for the European economy and for each individual country – 99.8% of private companies in Europe are small and medium-sized enterprises which provide more than two-thirds of jobs in the EU -28[9].
The individual impact of a SME on the environment is usually small compared to that of large companies, but the cumulative environmental impact of the sector is significant.[9] [10] [11]. R.Hillary states that, as a sector, SMEs could contribute up to 70% of all industrial pollutions [12].

The small and medium-sized enterprises in general face serious challenges in the implementation of responsible business practices and improving their social and environmental characteristics, especially in Central and Eastern Europe. The main research question in this report is how Bulgarian SMEs meet these challenges in the context of the EU member states.

The aim of the study is to show the extent of environmental responsibility, as a sub-construct of CSR, of small and medium-sized businesses in Bulgaria. This is carried out through the following research tasks:

- Comparative analysis of the actions undertaken by Bulgarian SMEs to reduce environmental impact and those in other EU member states;
- Defining the motivating factors for implementing environmental activities by the small and medium-sized businesses in Bulgaria;
- Delineating the barriers faced by the SMEs in implementing business practices for improving the characteristics of their environmental responsibility.

To answer the research question the analysis is based on the results of a large-scale EU survey SMEs, resource efficiency and green markets [13], and existing literature. The survey includes a total of 12 913 SMEs from all EU28 member states, and the sample for Bulgaria includes 500 SMEs.

The paper is organized as follows: first the nature of CSR and SMEs is clarified, pointing out the specific characteristics of environmental responsibility. Second, a comparative analysis is carried out of the actions undertaken by SMEs in Bulgaria to reduce environmental impact relative to the other the member states, the opportunities and barriers they face in improving their environmental responsibility characteristics are delineated. Finally, the main conclusions and recommendations for improving the environmental responsibility of SMEs in Bulgaria are made.

### 2. CORPORATE SOCIAL RESPONSIBILITY AND SMEs

The existence of numerous definitions of CSR [14], the use of different terms [15] (corporate governance, corporate citizenship and triple bottom line), which are becoming more or less synonymous, are a result of the efforts to define the meaning of “ethical business” [5], and in the most general sense, to translate the complexity and holism of the interface business-society into organizational realities and operational attitudes/actions [16]. The opinion is
becoming widespread that it is useful to think of CSR as a “umbrella” term [17] used to describe different beliefs and practices which state that the companies have a responsibility for their impact on society and the environment, sometimes beyond the legal requirements; that they have a responsibility for the behavior of others with whom they do business, and finally, the companies should manage their relations with society, regardless of whether the reasons are commercial considerations or creating added value for society, or both [18]. The EC modified its definition of CSR to “the responsibility of enterprises for their impact on society” [19]. In the broader understanding of CSR, the EC includes a large range of actions that can be undertaken by enterprises in order to be socially responsible.

The very essence of the CSR concept explains the different focus of empirical studies in academic literature covering a wide range of questions within the scope of social responsibility. Following the famous Elkington approach "Triple Bottom Line" [20], companies try to achieve three separate but complementary goals (economic, social and environmental) that direct each of the planned actions and activities undertaken by them.

This paper analyzes one of the sub-constructs of business responsibility – environmental responsibility, which has its own identity and defining role for business sustainability. Environmental responsibility is most generally defined as the duty to deal with/ take responsibility for the environmental consequences of implemented business operations, created products and used facilities; remove waste and emissions; maximize resource efficiency and minimize practices that could have an unfavorable effect on the use of the country’s resources by future generations.

Any study of the environmental responsibility of SMEs needs to take into account their specific nature, differences from large companies, as well as the diverse makeup of the enterprises included in this group. According to the EU definition, this group includes: micro (0-5 employees), small (6-20 employees) and medium (21-200 employees). The sector of the small and medium-sized enterprises is often described as “hard to access” and falling behind in respect of the green business due to the way of management characteristics of the small and medium-sized businesses, as well as the lack of resources [21]. This opinion is also shared by Condon[22], M.Peters and P.Turner [23], A. Friedman and S.Miles [24] and others. Focusing on their daily operations, a large part of the small and medium-sized enterprises have difficulty in recognizing the environmental hazards and risks, which exist in their business activities [11], [25], [26] and the direct impacts of SMEs on the environment are often diffuse and hard to measure [27], [28], [12]. They might even deny the existence of negative environmental impact or social problems. Taking into account that in Central and Eastern Europe the general awareness of environmental problems and environmental management is significantly lower than in Western Europe, this step might be critical for small and medium-sized enterprises, owned mainly by local people, in contrast to the multi-national companies with an inherent corporate culture. SMEs do not always know the environmental requirements [28], which becomes an even bigger problem in a changing legislative environment, such as the one during accession to the EU. It is generally accepted that the lack of knowledge on environmental management in small and medium-sized enterprises can also be problematic in global terms [12], [29].
3. ENVIRONMENTAL RESPONSIBILITY OF BULGARIAN’ SMEs

3.1. Environmental actions taken by SMEs in Bulgaria.

In economic theory and practice, there is widespread recognition of the fact that business organizations and the public sector have environmental responsibilities and that sustainable commitment to the environment is an important part of their activities [30], [31]. There is a wide range of company activities undertaken to improve social and environmental conditions [32], [33], [34]. The study carried out at the EU level confirms the statements made in existing literature.

The results of the EU survey show high variability in the environmental actions of SMEs, which stems from the very nature of SMEs – their inhomogeneous makeup within or between the kinds of industrial and business sizes, and in the implemented environmental management practices [35]. The context within which SMEs operate has an effect on their environmental responsibility – in western countries it is significantly different than in the newer member states.

<table>
<thead>
<tr>
<th>Actions*</th>
<th>EU 28 %</th>
<th>Bulgaria %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimising waste</td>
<td>60</td>
<td>34</td>
</tr>
<tr>
<td>Saving energy</td>
<td>59</td>
<td>43</td>
</tr>
<tr>
<td>Saving materials</td>
<td>54</td>
<td>44</td>
</tr>
<tr>
<td>Saving water</td>
<td>44</td>
<td>28</td>
</tr>
<tr>
<td>Recycling by reusing material or waste within company</td>
<td>40</td>
<td>22</td>
</tr>
<tr>
<td>Selling their scrap material to another company</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Designing products that are easier to maintain, repair or reuse recycling</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Using predominantly renewable energy</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>13</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 1. Environmental actions taken by SMEs in Bulgaria and EU28.
*Note: more than one response
Source: according to data from EC, Report, SMEs, resource efficiency and green markets, December 2015, p.18

SMEs in Bulgaria, similar to other EU member states, implement different actions to reduce the negative environmental impact, and the efforts are directed mainly to reduction of waste and savings of energy and water (see Table 1). These are also priority fields of SMEs in the other EU member states. It is necessary to keep in mind that it is unlikely for the different activities directed towards environmental protection to be the same for all businesses, and each organization should identify which of the known environmental protection practices are most relevant to its activities [36].

Bulgarian SMEs are falling behind in terms of using predominantly renewable energy compared to SMEs in Sweden (30%), Austria and the Netherlands (both 26%) and fall in the group of the countries with the lowest use of renewable energy sources (Croatia, Bulgaria,
Romania and Estonia – only 3% of all respondents in the survey of the respective countries). This can, to a certain degree, be explained by the high price of green energy in Bulgaria.

The number of companies covered by the survey which do not take any actions for resource efficiency is relatively high (22% of all respondents), similar to Lithuania and Greece (25%), whereas in some western countries (UK, Ireland and Portugal) only 3 - 4% of SMEs do not take any actions to improve the environment.

3.2. Factors for environmental responsibility of SMEs: opportunities and barriers

Numerous factors have been identified in literature which influence the extent of environmental responsibility of SMEs, including costs, time, lack of expertise and skills, access to information, policy and regulation, market framework [37]. The study showed that different motivating factors for taking environmental actions (resource efficiency) have been noted by SMEs, including ethical ones (the environment is among the main priorities in company activities) and financial ones (reduction of costs and increasing competitiveness); factors related to environmental legislation and factors related to the relationship between SMEs and stakeholders (consumers and suppliers).

<table>
<thead>
<tr>
<th>Motivating factors*</th>
<th>EU 28</th>
<th>Bulgaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial and fiscal incentives or other forms of public support</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Anticipation of future changes in legislation</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>Anticipation of future changes to the standards of products or processes</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Demand from customers or providers</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>Creation of a competitive advantage or business opportunity</td>
<td>18%</td>
<td>19%</td>
</tr>
<tr>
<td>Catching up with main competitors who have already taken action</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>Cost savings</td>
<td>68%</td>
<td>66%</td>
</tr>
<tr>
<td>The environment is one of your company’s top priorities</td>
<td>39%</td>
<td>35%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>None</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 2. Motivating factors for taking environmental actions

*Note: more than one response

Source: according to data from EC, Report, SMEs, resource efficiency and green markets, December 2015, p. 38

The main motive for implementing actions for reducing environmental impact by SMEs in all member states is reduction of costs (68%). Bulgarian representatives of the small and medium-sized businesses also place reduction of costs first (66%), second – the environment as one of the most important priorities in their activities (35%), see Table 2. SMEs believe that by implementing activities for improving the environment, they can create a competitive advantage or use opportunities for business development (19%). Among the factors which lead to company actions are those related to environmental legislation (anticipation of future
changes in legislation - 16% and anticipation of future changes to the standards of products or processes - 10% of the Bulgarian respondents in the survey).

In contrast to the other countries, SMEs in Bulgaria do not rely much on financial and tax incentives or other forms of public support (14%) relative to SMEs in Belgium (36%), the Netherlands (32%) and Cyprus (28%). Requirements of consumers and suppliers are also not among the factors, which encourage environmental actions by Bulgarian SMEs (only 12%) compared to SMEs in France (43%), Finland (36%), Poland and Spain (both 34%). The reasons for this can be explained by the fact that SMEs do not participate in green procurement in the country (over 90% of respondents), the low degree of inclusion in the supply chain of big corporations, as well as the low requirements of consumers to the environmental characteristics of offered products (mainly due to the higher price of such products, and to some extent, the distrust of Bulgarian consumers).

SMEs encounter a number of difficulties in the process of implementing environmental practices which lead to improving the financial status, creating a competitive advantage and opportunities for business development. The factors which impede and challenge the implementation of CSR in an organization, called barriers, are in the focus of a number of researchers [37], [38].

<table>
<thead>
<tr>
<th>Difficulties/Barriers*</th>
<th>EU28 %</th>
<th>Bulgaria %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity of administrative or legal procedures</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Difficulty to adapt environmental legislation to your company</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Technical requirements of the legislation not being up to date</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Difficulty in choosing the right resource efficiency actions for your company</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Cost of environmental actions</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Lack of specific environmental expertise</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Lack of supply of required materials, parts, products or services</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Lack of demand for resource efficient product or services</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>None</td>
<td>37</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 3. Barriers encountered by SMEs in the implementation of environmental practices
*Note: more than one response
Source: according to data from EC, Report, SMEs, resource efficiency and green markets, December 2015, p.p. 43-47

For SMEs in 18 member states, including Bulgaria complexity of administrative or legal procedures is the most frequent difficulty (29%). The EC also underlines the need to avoid “the creation of unnecessary administrative burdens” [19]. The representatives of SMEs in Bulgaria believe that the obstacles for implementing environmental activities come from different fields, such as lack of expertise (lack of specific environmental expertise – 16%); the
situation on the Bulgarian market – the lack of demand and supply: lack of supply of required materials, parts, products or services (12%) and lack of demand for resource efficient product or services (14%). They also encounter difficulties in the application of environmental legislation (difficulty to adapt environmental legislation to your company – 12 %; technical requirements of the legislation not being up to date - 18% of respondents). EC also reports the fact that SMEs have to comply with the environmental policy, but these companies often think the environmental legislation is complicated and perplexing [9]. The European Commission directs its efforts for support for the SMEs in this field, as well as for achieving compatibility of legislation in the individual member states with all European environmental laws, regulations, standards and other requirements.

4. CONCLUSION

In comparison to initially stated opinions, which believe that CSR is inherent and justified only for big companies, the survey showed that small and medium-sized enterprises are properly oriented towards social responsibility.

SMEs in Bulgaria, similar to those in other member states, undertake different actions for improving the environment find opportunities for improving the financial status of the business and competitiveness, encounter a number of difficulties in the implementation of environmental practices. We did not find significant differences in the behavior of Bulgarian SMEs in terms of actions, opportunities and barriers compared to those of SMEs in the other countries. Nevertheless, the analysis uncovered fields where our country is falling behind and specific actions need to be undertaken both by the government and by the managers/owners of small and medium-sized businesses, so that Bulgarian companies can improve their environmental responsibility. Knowledge of environmental issues is of extreme importance and according to Schaper [39], it has potential for improving results in two ways: first, by helping demonstrate why action is necessary, and second, by providing means through which companies can learn how and when to act. These observations have been confirmed by Mir and Feitelson [40], who established that companies with a more formal management of environmental data know more about questions and practices for better environmental protection.

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