DIFFUSION OF KNOWLEDGE ABOUT SUSTAINABLE SUPPLY CHAIN

Anna Maryniak and Magdalena Stefańska

Poznań University of Economics, Poland

The topic of this paper is knowledge diffusion about Corporate Social Responsibility (CSR) and Sustainable Supply Chain (SSC). The purpose of this article is to explain the need for diffusion of knowledge in the supply chain in the area of socially responsible activities as well as identification the barriers connected with this process. This paper focuses on the chosen aspects of SSC - the quality and safety of products resulting from manufacturer certification and the importance of natural environment and informing about SSC. The considerations are illustrated by specific projects undertaken under the SSC and primary research conducted on the purpose sample of companies among Polish market actors using a structured questionnaire.

The undertaken research proved that there was a different level of knowledge on SSC as part of CSR in different chain elements. The research revealed that the diffusion of knowledge SSC in the first place relates to environmental aspects. Another important finding from the research is a barrier to the diffusion of knowledge consisting of too poor communication between the supply chain and the lack of mutual transfer of knowledge and experience in the implementation of CSR activities. In addition, participants in the supply chain does not notice the pressure of the implementation of the standards of good practice, which can be interpreted as part of socially responsible attitude. Information about the possession of certain certificates proving the standards for the manufacturer communicate his image and are an important source of his individual competitive advantage as well as the whole supply chain. What's more, manufacturers who meet international standards in SSC or CSR can be moved to the cooperation with international retail chains which expect from their suppliers fulfilling high standards. This let them expand cooperation and open new geographic markets. Finally it can be concluded that the increase of SSC knowledge diffusion will contribute to the increased business activity in the field of CSR within the supply chain and will cause the improvement of the company image as well as getting a stronger competitive advantage.

Keywords: Corporate Social Responsibility (CSR), Knowledge diffusion, Sustainable Supply Chain (SSC).

Introduction

The term „diffusion” is commonly associated with the field of marketing and its model of product innovation diffusion, so with ways in which new products are accepted by customers. This model is correlated with another model, namely, with the product life cycle, which allows sales specialists to plan better marketing activities in order to adjust them to the increasing interest of buyers. Product innovation diffusion occurs thanks to the knowledge about the product, which influences attitudes and finally determines customer behavior.
The topic of interest in this paper is the meaning of knowledge diffusion about Corporate Social Responsibility (CSR) and Sustainable Supply Chain (SSC) among companies. First, although CSR in relations with customers is quite well explained, the diffusion of knowledge about CSR practices in supply chain is not fully recognized in literature. Secondly, both ideas, CSR and SSC are often analyzed in publications separately, so one may assume, that relations between them are week.

Definitions of both ideas and their range shows that they are partly integrated. In line with CSR rules, companies are accountable for the results of their operations to stakeholders and environment. Their activities are voluntary and go beyond legal regulations. The idea of CSR embraces Sustainable Supply Chain in terms of responsibility types, however, it focuses on the relationship between the manufacturer and the intermediary. But, in comparison with the Sustainable Supply Chain, the idea of CSR points out to fundamentals of building relationships with all stakeholders. Sustainable supply chain management (SSCM) is a similar term, which includes the social sustainability, economic viability and environmental sustainability of a firm’s supply chain, and has important implications for firms’ survival and long-term development [Carter and Rogers, 2008, p. 360-387]. Successful strategy based on CSR requires involvement of all participants of a chain into implementation of CSR initiatives. Their strategy has to be CSR oriented and they have to pull other members of supply chain into strategy based on CSR. Otherwise there is always a risk, that poor reputation of suppliers will negatively influence image of other members of supply chain.

According to Hammond and Slocum [1996, p. 159-166] there are four attributes of the measurement explicitly represent a company's relations with key stakeholders:

- quality of products and services, representing relations with customers;
- ability to attract, develop and retain talented people, representing relations with employees;
- community and environmental responsibility, representing relations with the environment in which the company operates;
- quality of management, representing management of relations with stakeholders, awareness of and proactivity to changes in the business environment

All the attributes are key to develop relationships within the supply chain. In order to evaluate their influence, it is however necessary to identify: if knowledge diffusion occurs in case of these attributes, which areas of knowledge diffusion attract attention, what are barriers for diffusion and what should be taken into consideration when improving the process of SSC knowledge diffusion. This paper focuses on the chosen aspects enumerated by Hammond and Slocun [1996, p. 159-166], i.e. the quality and safety of products resulting from manufacturer certification, the importance of natural environment and informing about SSC.

**Theoretical Background**

Despite many theoretical studies and analyses concerning the economic practices in the field of CSR and stakeholder relationships, especially the relationships between buyers [Bhattacharya, Korschun and Sen, 2009, pp. 257-272; Bhattacharya, Sen and Korschun, 2011; Bhattacharya and Sen, 2004, pp. 9-24; Jones, Comfort and Hillier 2007a, pp. 582-593; Jones, Comfort and Hillier 2007b, pp. 17-30; Mohr, Webb and Harris 2001, pp. 45-72], there is still a substantial lack of knowledge about SSC in business surrounding and also irregular development of theory in this field in different countries. Few examples concern the selected companies, such as IKEA [Andersen and Skjoett-Larsen, 2009, pp. 75-86], or the selected function within the supply chain in the given industry [Craig and Carter, 2005, pp. 177-194]. The important and comprehensive studies in the global literature devoted to sustainable supply chain (SSC) issues include:

- Corporate Social Responsibility in the Global Supply Chain – the document from 2007 is the summary of the results of the common project under the auspices of the Capacity Building Network, within HR Development Working Group of APEC (Asia-Pacific Economic
Co-operation). The objective of the project was to gather information about the best practices in the area of CSR, especially with reference to managing the supply chain.

- The Business Case for Supply Chain Sustainability [Chorn, Sisco and Pruzan-Jorgensen, 2010] – the report from 2010 provides the business case for investing in supply chain sustainability, which is increasingly recognized as a key generator of business value. It also enumerates key Supply Chain Sustainability Business Value Drivers, which are: Managing Risk, Realizing Efficiencies, Creating Sustainable Products and Building a Culture of Responsibility.

- Sustainable Supply Chain Management. Practical Ideas for Moving Towards Best Practice (by Cetinkaya et al., 2011) – the book focuses on a series of case studies concerning the implementation of Sustainable Supply Chain in terms of strategic factors.


- Sustainable Supply Chains. Models, Methods, and Public Policy Implications by Boone (eds.) [2012] – the book analyses supply chain operation management issues, which influence the sustainability of the chain. The core analysis focuses on the relationship between the manufacturer and the retail. In the study, among others, the following issues are mentioned: product accessibility and stock/price management.

This is confirmed by the results of bibliometric studies, which prove that the level of awareness in this field and at the same time the number of publications about this topic vary in different countries (Table. 1)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Record count</th>
<th>% of 416 responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>106</td>
<td>25,4</td>
</tr>
<tr>
<td>England</td>
<td>50</td>
<td>12,0</td>
</tr>
<tr>
<td>Germany</td>
<td>35</td>
<td>8,1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>33</td>
<td>7,9</td>
</tr>
<tr>
<td>Canada</td>
<td>30</td>
<td>7,2</td>
</tr>
<tr>
<td>China Republic</td>
<td>29</td>
<td>7,0</td>
</tr>
<tr>
<td>Italy</td>
<td>20</td>
<td>4,8</td>
</tr>
<tr>
<td>Spain</td>
<td>19</td>
<td>4,6</td>
</tr>
<tr>
<td>Australia</td>
<td>16</td>
<td>3,8</td>
</tr>
<tr>
<td>France</td>
<td>11</td>
<td>2,6</td>
</tr>
<tr>
<td>India</td>
<td>11</td>
<td>2,6</td>
</tr>
<tr>
<td>Brazil</td>
<td>10</td>
<td>2,4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>10</td>
<td>2,4</td>
</tr>
<tr>
<td>Denmark</td>
<td>8</td>
<td>1,9</td>
</tr>
<tr>
<td>Sweden</td>
<td>8</td>
<td>1,9</td>
</tr>
</tbody>
</table>

1 As a source of information, the research platform Web of Science was used, including particularly: Science Citation Index Expanded (SCI-EXPANDED) --1945-present, Social Sciences Citation Index (SSCI) --1956-present, Arts & Humanities Citation Index (A&HCI) --1975-present, Conference Proceedings Citation Index- Science (CPCI-S) --1990-present, Conference Proceedings Citation Index- Social Science & Humanities (CPCI-SSH) --1990-present. Taking into account the fact that there are different terms describing socially responsible actions, the search queries included such keywords as: Sustainability Supply Chain or Socially Responsibility Supply Chain or Responsibility Supply Chain. As a result of the search, 416 records. The research findings present the current situation, i.e. April 2014, therefore the data concerning 2014 is incomplete.
Practical Examples

According to the data provided, the subject of SSC is mostly taken up by researchers, who come from countries where the headquarters of global companies is located. The subject of SSC is mostly taken up by researchers, who come from countries where the headquarters of global companies are located. The knowledge about SSC in host countries is limited due to lack of research in this area. Current studies indicate that the configuration of supply chains consisting of the elements having different level of SSC culture is a big challenge to their coordinators, for whom the social responsible actions are important not only on the level of a company. Therefore, there are many reasons for which this area of cooperation should be analyzed and systematized. This should be done because:

- buyers expect safe products,
- not complying with work health and safety standards or violating labor rights and rights of children damage company reputation,
- strengthening relations in supply chains increases their competitive advantage over other supply chains,
- strengthening relations in supply chains contributes to building entry barriers for other suppliers, (which do not meet expectations, for example don’t have the required certificates),
- implementing SSC rules contributes to protecting the environment, which matters for societies both in the place of production and in the place of consumption,
- generating added value in the entire chain contributes to increasing the brand value and its distinguishing in the market and allows generating the premium value,
- strengthening the image of the company allows generating socio-economic values.

Despite the advantages listed above, in many cases they are not noticed. The location of elements in global corporation chains in different world’s regions encourages savings, according to the theory of transactional and comparative costs, however, it can lead to ignoring or disobeying the rules of social responsibility. Thus, there is a huge danger that the companies which are driven by the willingness to get a quick profit will get it without respecting either society or the environment. So the problem of irregularities in supply chains touches upon all its participants – employees, societies, competitors obeying the rules and also the final buyers, who as a result of irregularities in the supply chain, buy products classified as unethical or threatening both consumer life and health. This situation concerns many industries and common brands, for example Mattel company – a toy manufacturer or Foxconn – a manufacturer of electronics for Apple. These problems are often publicized by ecologic organizations. The example of such action is a campaign led by Greenpeace concerning the clothing industry [Toxic Threads 2012]. Under the program „Detox Fashion”, the industry products underwent laboratory examination. It turned out that all of them contained substances harmful to health and/or environment. The situation was connected with the fact that the primary elements of supply chains were located in the regions where there is a significant social and legal acceptance of activities disobeying the rules of sustainability supply chain. As a result of the action taken and under the pressure of the government appeals, the public opinion and in the fear of the loss of clients, a lot of brands decided to change their strategies and committed to eliminate toxic substances from their products by 2020. To these brands belong, among others: Puma, Nike, Adidas, H&M, C&A, Marks and Spencer, Benetton, Levi’s, Victoria’s Secret and Zara. Some of them have already undertaken actions connected with the implementation of CSR idea. For instance, H&M code of conduct is based, among others on the UN Convention on the Rights of the Child and ILO Convention (International Labor Organization). The requirements of this chain concern not only direct suppliers, but also indirect suppliers take part in the Full Audit Programme, which serves the monitoring of sub-suppliers [Musso and Risso, 2006, pp. 79-92].

Another, extremely different example concerning implementation of SCC idea are Intel operations. Despite having production plants and suppliers all over the world, it successfully contributes to promote socially responsible actions in complex supply chains. Intel designs and manufactures the majority of our products in our own factories around the world. Firma have a global supply chain comprised of more than 10,000 suppliers in more than 100 countries.
Intel’s supply chain responsibility approach has four key areas:
- setting clear expectations with suppliers.
- holding suppliers accountable: Intel provides tools to measure results and proactively help suppliers improve.
- recognizing and rewarding performance: Intel provides regular feedback to suppliers on their progress.
- building internal skills and capabilities: through training, tools, and systems, Intel enables employees to further integrate ESG considerations into purchasing decisions and supplier management processes [Accelerating Supplier Sustainability…, 2013].

An example of a supplier that has mature ESG practices is Murata Manufacturing Co., Ltd. Murata supplies Intel with multilayer ceramic capacitors, Inductors, ferrite beads, and wireless modules. Murata has more than 37,000 employees and manufacturing operations in nine countries.

Murata:
- provide a salary and benefits that are above average compared to other nearby companies,
- put health first in these ways: controlling overtime, reducing workload, improving the workshop environment, providing health exams for all workers, supporting sports activities, and focusing specifically on women’s health needs,
- making efforts to prevent discrimination, treat employees fairly, and engage them, including focusing on all workers’ learning and growth by encouraging them to take part in quality and engineering improvement activities and to develop their skill sets [Accelerating Supplier Sustainability…, 2013].

Thanks to these activities, the company gained:
- high levels of employee satisfaction,
- low turnover rate,
- no labor disputes in the past 10 years,
- a stronger reputation with customers and increased recognition as a good business partner,
- formal recognition from the government on a national, provincial, and local level.

As the given examples show, companies, in fact, in many cases only under the pressure of public opinion decide to implement the idea of SSC. It should be therefore assumed that they have little knowledge about the successful implementations and advantages connected with them, so consequently, they don’t contribute in the knowledge transfer. Despite the fact that a lot of companies implement the rules of SSC and get measurable benefits from it, there is still a lack of basic knowledge and awareness about SSC among companies, or they are afraid to take responsibility for suppliers, which they can’t control or influence, because of the lack of ownership or capital relations. Even if the global company is aware of the irregularities, it can’t enforce changes in supplier behavior which functions in a completely different social and economic reality. As Worley claims, the system of supplier control is commonly insufficient [Worley, 2011, pp. 73-97]. Moreover, the research conducted in 1990s by CEP (Council on Economic Priorities), already confirmed that the system of signing certificates obliging suppliers to meet the requirements of European and American buyers is insufficient. 80% of the workplace codes verified by CEP, didn’t mention the freedom of associations and 90% of them didn’t have information about the right to assembly.

**Implementation of SSC idea in Empirical Studies**

In order to face the challenges introduced in the previous section, we tried to identify what kind of SSC knowledge is transferred along supply chains and specify the requirements and expectations in this matter.

---

2 ESG – Abbreviation meaning the factors which are used for rating and non-financial evaluation of companies, countries and other organizations. These are three elements: environment, social responsibility and corporate governance.
Having the above in mind, the following research questions were formulated:

- What is the subject of SSC knowledge diffusion?
- What kind of standards and guidelines connected with SSC are required and with what intensity?
- What is the intensity of informing about SSC within the chain?

**Methodology of Research**

The research was conducted in 2014 on the purpose sample of companies. The method of snowball sampling was used in the implementation of the research. This method is used in case of population consisting of the specific entities which are difficult to identify and to reach and in situations when there is lack of a sampling frame or when the researcher has little budget. Snowball sampling, despite many limitations and dangers, broadly discussed in the literature of the subject [Biernacki and Waldorf, 1981, pp. 141-163; Shaghaghi, Raj, Sheikh, 2011, pp. 86-94] might be a starting point for the development of the research with the use of triangulation and be the ground for identification the problematic issues in the research area. The choice of the method was determined by the difficulty of data gathering about the topic which is not spread in the Polish market and the lack of sampling frame.

The fact that very few companies report CSR in a professional and comprehensive way (http://odpowiedzialnybiznes.pl/) and at the same time report less issues regarding SSC, justifies the low level of SSC implementation and even implementing it to a lesser extent [Stefańska 2014, pp. 684-692; Stefańska 2014]. Therefore there is few companies, which have a complex SSC programme. These which implement it are usually at the initial stage of its development, which is difficult to communicate as an advantage or anything which a company should boast and inform about. The following criteria have been taken into account when sampling the companies:

- the company has been recognized in the business world as a one which has undertaken SSC initiative,
- the representative of the company agreed that the research was conducted.

Overview of the sample is presented in Table 2.

**Table 2. Characteristics of the companies**

<table>
<thead>
<tr>
<th></th>
<th>Company size</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>small + micro</td>
<td>38</td>
<td>36,9</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>37</td>
<td>35,9</td>
</tr>
<tr>
<td></td>
<td>large</td>
<td>28</td>
<td>27,2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>103</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Chain of sales</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>manufacturers</td>
<td>19</td>
<td>18,4</td>
</tr>
<tr>
<td></td>
<td>service</td>
<td>37</td>
<td>35,9</td>
</tr>
<tr>
<td></td>
<td>trade</td>
<td>35</td>
<td>34,0</td>
</tr>
<tr>
<td></td>
<td>others</td>
<td>12</td>
<td>11,7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>103</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Capital</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>polish</td>
<td>55</td>
<td>53,4</td>
</tr>
<tr>
<td></td>
<td>foreign</td>
<td>29</td>
<td>28,2</td>
</tr>
<tr>
<td></td>
<td>mixed</td>
<td>19</td>
<td>18,4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>103</td>
<td>100,0</td>
</tr>
</tbody>
</table>
In order to increase the credibility of the responses the research was conducted in the area of Wielkopolskie Voivodeship. Adopting such limitation allowed to conduct the interviews directly with the company representatives with the use of a structured questionnaire. In the questionnaire the questions was constructed with the use of nominal and ordinal scales. During the research there was an opportunity to explain the possible merit doubts and check the correctness of the answers. As a result of the research, 103 questionnaires were correctly filled in. The data was encrypted and processed with the use of SPSS software. Part of results of the research will be presented during the conference in Paris 2015 [Maryniak A., Stefanska M., 2015].

Diffusion of Knowledge about SSC

The companies, which perceive themselves as socially responsible, take actions in order to promote socially responsible practices. This diffusion aims, above all, to increase their level of knowledge and social awareness and leads to the increased engagement. The companies, which take actions aiming at transferring SSC knowledge along the supply chain, commonly [Abbasi 2012, pp. 51-74]:

- organize seminars, training sessions and/or workshops etc for our suppliers to disseminate knowledge regarding sustainable practices,
- share exclusive documents, reports, manuals etc. with their suppliers to disseminate knowledge, - conduct seminars, training sessions and/or workshops etc. to share techniques with their suppliers to minimize the usage of packaging material,
- provide design specification to our suppliers that include environmental requirements for purchased items,
- educate our suppliers and extend our cooperation for the purchase of eco-friendly products/parts from next tier suppliers,
- educate our suppliers to adopt eco-labeling/eco-logo in their products/parts/supplies,
- educate & assist our suppliers to adopt eco-friendly technologies in manufacturing.

On the basis of the primary data analysis in the Polish companies it can be claimed that over half of the respondents transfer knowledge about the environmental aspects in the entire product life cycle and it is the most commonly provided response. Also research conducted by Lee and Kim [2009, pp. 138-148] among Korean companies from the electronics sector shows that “environmental” pressures and standards are widely accepted and implemented for supplier management. They noticed that “social” pressures and standards are still not commonly used. What’s more, they are not implemented in the entire supply chain in the industry, because, as the authors suggest, that the main reason for adopting CSR standards is to identify risks and problems in the supply chain, and to avoid or at least reduce the consequences for the final manufacturer. Generally, a lack of integration of social standards in supplier management or requirements creates borders for wide spreading CSR [Lee and Kim, 2009, pp. 138-148]. Next places in the research was given to responses about transferring knowledge regarding reports, guidelines, CSR certificates (51% responses) and knowledge regarding SSC management (45% responses) – Fig. 1. So, like in case of CSR idea development, the development of SSC will be at the initial stage concentrating on environmental aspects.

3 The research was conducted among 187 managers, representing nine major Pakistani industrial sectors, i.e. electronics, automotive, chemical, leather, textile/fabrics, fertilizer/pesticide, pharmaceutical, shoes and plastic (items) producers.
Requirements Concerning Standards and Guidelines about SSC

More frequently, one of the conditions to cooperate in the supply chain is having the required certificates, confirming the quality of management, production or technology. Meeting the required standards makes it possible to cooperate with partners, for whom standards are signals of compliance with the rules and guarantee the safety of cooperation. Consequently, for companies meeting the requirements, a standard is an advantage, but for companies not having the certificates, this lack is a barrier to entry the given supply chain. The business partners required from 25% of the respondents following at least one formalized guideline or standard. At least one third of the respondents required meeting one standard or following one set of guidelines from the partners in the supply chain. The insignificant percentage (of the respondents or their supply chain partners) concerned requiring four or more standards (Table 3).

Table 3. The number of standards and guidelines required by the companies

<table>
<thead>
<tr>
<th>Number of standards and guidelines</th>
<th>Requirements towards chain partners in terms of SSC standards and guidelines (%)</th>
<th>Requirements in terms of SSC standards and guidelines from chain partners (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>32,0</td>
<td>36,9</td>
</tr>
<tr>
<td>1</td>
<td>30,1</td>
<td>25,2</td>
</tr>
<tr>
<td>2</td>
<td>15,5</td>
<td>23,3</td>
</tr>
<tr>
<td>3</td>
<td>10,7</td>
<td>5,8</td>
</tr>
<tr>
<td>4</td>
<td>4,9</td>
<td>4,9</td>
</tr>
<tr>
<td>5</td>
<td>5,8</td>
<td>1,9</td>
</tr>
<tr>
<td>8</td>
<td>1,0</td>
<td>1,0</td>
</tr>
<tr>
<td>9</td>
<td>0,0</td>
<td>1,0</td>
</tr>
</tbody>
</table>
The most commonly required certificates are ISO 9001, ISO 9004 and ISO 14001 – Fig. 2.

![Image of Figure 2 showing requirements in terms of SSC standards and guidelines]

**Figure 2.** Requirements in terms of SSC standards and guidelines

### Transfer of information about SSC

According to data gathered in global research, the biggest lack in reporting socially responsible actions refers to supply chains [25]. Information about this, if is given at all, usually concerns relations with suppliers and hardly ever includes sensitive issues connected with imbalance in the supply chain or unethical behavior of stronger chain partners. This problem was noticed and as a consequence, GRI (Global Reporting Initiative) reporting standards of the fourth generation indicated the need for reporting information from the supply chain.

As a result of it, the culture of reporting from the supply chain will slowly but gradually improve, also because of following other guidelines of similar kind. With reference to the analyzed primary studies regarding the Polish market, it can be concluded that only 13% of the respondents communicate in a broad sense with other partners in the supply chain. On the other hand, the same percentage of the respondents get feedback from other chain participants. 41% of the respondents do not pass information on to other supply chain elements, and 49% do not get information from other supply chain participants – Table 4. Both variables are correlated ($r^2 = 0.6$, $p<0.00$).

To make knowledge diffusion smooth and effective it must be a two-way and symmetric transfer. It results from the conducted research, that there is a diversification of attitudes in case of informing the environment about SSC and being informed about it – Fig. 3.

---

4 The analysis of CSR reporting (highlighting SSC) was conducted in the sample of 4,100 companies in different industries from 41 countries. Moreover, in 250 of the biggest global companies an in-depth analysis was conducted.
Table 4. Informing other supply chain participants about CSR

<table>
<thead>
<tr>
<th>Does the company pass information concerning SSC on to the partners in the supply chain?</th>
<th>Does the company receive information concerning SSC from the partners in the supply chain?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of answers</td>
<td>Percentage</td>
</tr>
<tr>
<td>no</td>
<td>41</td>
</tr>
<tr>
<td>yes, but little</td>
<td>49</td>
</tr>
<tr>
<td>yes</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
</tr>
</tbody>
</table>

Figure 3. Companies with a two-way transfer about SSC

Conclusions

The undertaken research proved that there was a different level of knowledge on SSC in different chain elements. Taking into account different groups of the companies under consideration, it was assumed that:

- companies concentrate mostly on environmental aspects,
- standards and guidelines concerning SSC are not commonly recognized by supply chain participants.

The knowledge diffusion is therefore asymmetric and the information passed on from one chain partner to another chain partner is not complete,

- there is a low level of communication about SSC in the supply chain.
Research Limitations

There is few publications on the topic mentioned in this article. Also, there is no proven, reliable research tools, which would verify the knowledge of supply chain participants about SSC knowledge diffusion. As a consequence of it, the research had a pioneer character, which is an advantage because of its novelty, but this on the other hand can be recognized as weakness, resulting from the lack of possibility to compare the study with global research. However, it can be assumed that the presented research is one of the possibilities to verify the knowledge about SSC and to contribute in recognizing its significance in building relations within the supply chain.

One of the research limitations of the presented analysis is the method choice. Like in case of many other unrepresentative research, it is worth noticing that the presented results cannot be generalized. The used snow-ball method causes limitations in the research, moreover, it should be mentioned that suppliers belong to the group of the respondents, who are not willing to share their opinions, because of the sensitivity of the discussed topics and are not willing to talk about their relations with partners. Usually their situation is quite difficult, taken into consideration the set of bargaining powers within the supply chain.

Future Implications

The diagnosis of the level of chain partner engagement in SSC transfer in the supply chain, brings the SSC topics closer and is an incentive to further research. It is reasonable to undertake the analysis concerning:

1) Reasons for the low level of SSC knowledge transfer in the supply chain,
2) Directions and the scope of SSC dimension development and at the same time the scope of the information given to other participants of the supply chain, which is important from the view of other stakeholders.
3) Awareness of SSC importance in other world’s region,
4) The best practices regarding improving the level of communication in terms of SSC.

To sum up, it can be concluded that the increase of SSC knowledge diffusion will contribute to the increased business activity in the field of CSR within the supply chain and will cause the improvement of the company image as well as getting a stronger competitive advantage.

In reference to the research method, it is worth turning to other method – an online research, which would allow comprising the attitudes and opinions of the participants in the given supply chain as well as comparing it with the opinions of other supply chain participants.

References


