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THE ROLE OF SELECTED TOOLS OF INSTITUTIONALISING THE ENVIRONMENTAL AREA IN THE PROCESS OF GENERATING THE ENVIRONMENTAL PERFORMANCE

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Abstract: The article is a part of a stream of research related to environmental, social and governance (ESG) aspects of business activity, focusing on environmental factors. Its main objective is to identify the strength of the relation between selected tools of institutionalising the environmental area and the environmental performance of the company. Six tools were analysed: Policy Emissions, Policy Water Efficiency, Policy Energy Efficiency, Policy Sustainable Packaging, Policy Environmental Supply Chain and Environment Management Team. ESG data of companies from the clothing sector obtained from the Refinitiv database were used for the research, which found that the most popular policy is Policy Energy Efficiency, and the least popular, Policy Sustainable Packaging. There is a positive correlation between the tools of institutionalisation of the environmental area and Environmental Score. Policy Emissions, Environment Management Team, and Policy Water Efficiency, are most correlated with environmental performance and should be of particular interest to companies. This research makes an important contribution to the discussion on the effectiveness of tools for institutionalising the environmental area within a company.

Keywords: clothing industry, sustainability, Environmental Score, environmental policies, Environment Management Team.

1. Introduction

The growing popularity of management concepts such as corporate social responsibility (CSR) and sustainable development (SD) has contributed to increased public expectations of companies to improve environmental performance and to communicate pro-environmental commitments (Cooney, 2009; O'Brien, 2016). Environmental performance has become a vital indicator of environmental responsibility generating valuable information on a firm's potential competitive advantage (Ioannou & Serafeim, 2010). Environmental, social and corporate governance ratings have gained importance (Kolk & Pinkse, 2010; del Mar Alonso-Almeida, Llach, & Marimon, 2014), whilst corporate governance is the ESG pillar that currently receives the most attention from investors, other research (Orsagh et al., 2019) shows that environmental issues will become more critical in the coming years.

There is a clear link between CSR, sustainable development and ESG performance. Sustainability can be defined as doing business in a way that respects the natural and social environment, with a view not only to the present but also to future generations. Its operationalisation at organisational level is reflected in corporate social responsibility and environmental, social and governance criteria (ESG) (Iamandi, Constantin, Munteanu, & Cernat-Gruici, 2019). Corporate Social Responsibility refers to a company's commitment to meeting different stakeholders' needs and expectations, while ESG refers to explicit criteria that can be used to assess a company's sustainability practices, and thus to the criteria used to assess a company's commitment to CSR.

According to (Wijen, 2007), sustainable progress towards sustainability requires high and widely shared environmental ambitions and well-embedded environmental practices. It is therefore essential for managers to strive to 'routinise' and systematise a company's pro-environmental activities. This is about developing the capacity to consolidate action patterns, i.e. creating conditions conducive to the institutionalisation of the environmental field. In practice, this may mean developing appropriate environmental sub-policies and establishing organisational units to coordinate their implementation.

Research suggests that organisations face formidable obstacles in institutionalising the environmental field. These include industry-specific barriers and organisational barriers that may limit a company's ability to cope with any form of change (Post & Altman, 1994). Moreover, some researchers point out that environmental reporting is biased (Romlah, 2005), using the manipulation of public perceptions rather than honestly reflecting companies' environmental performance (Hummel & Schlick, 2016). Füssel & Georg (2000) described the process of 'greenwashing', examining how environmental management tools have become embedded in organisational rhetoric and practice, whereas (Ramus & Montiel, 2005) noted that corporations have an incentive to publish environmental policy statements because

these statements positively influence the public's perception of the company's commitment to environmental protection and sustainability. This, in turn, may even lead to increased market share and improved stakeholder relations. At the same time, they stress that companies' actual environmental commitment cannot be examined due to the lack of effective mechanisms to verify this commitment. As a result, companies may formulate environmental policies without any serious intention to implement them, thus practising 'greenwashing'. A similar view is taken in (Delmas, Etzion, & Nairn-Birch, 2013), which stated that environmental policies are usually difficult to measure and only indicate intentions and potential improvement without guaranteeing results. It is worth referring to the results of a study by Doan and Sassen (2020), which revealed a weak and negative relation between environmental performance and environmental reporting, i.e. entities with poor environmental performance have a greater incentive to increase their disclosure level than firms with a good performance.

Some studies distinguish ESG activities into symbolic activities and actions with significant importance and impact on the functioning of the company (Christmann & Taylor, 2006; Hawn, 2012; Short & Toffel, 2010; Stevens, Stensma, Harrison, & Cochran, 2005). Hence the lack of reliability of environmental, social and governance performance can be a significant barrier to considering ESG criteria in investment decision making (Lin & Shen, 2020; Yu, Luu, & Chen, 2020).

1.1. Justification of the research – a research gap

There is no shortage of studies in the literature on various aspects of ESG. Previous studies were devoted to analysing the extent to which the implementation of environmental reporting and environmental management systems affect a company's environmental performance (Annandale, Morrison-Saunders, & Bouma, 2004). Mitra and Gaur (2020) in their research inquiry focused on the relation between environmental performance and corporate governance performance. There are studies on the impact of board gender, board independence and the existence of sustainability committees on the social and environmental performance of Australian companies (Biswas, Mansi, & Pandey, 2018). The impact of women's presence in companies, and diversity policies on environmental performance was also explored (Segarra-Oña, Peiró-Signes, Mondéjar-Jiménez, & Sáez-Martínez, 2016), and the links between 'green' supply chain management, economic performance and competitiveness (Rao & Holt, 2005). There are several academic works examining the relation between corporate environmental performance and business risk (Xue, Zhang, & Li, 2020), as well as that between corporate governance and corporate sustainability (Crifo, Escrig-Olmedo, & Mottis, 2019), the determinants of implementing pro-environmental practices and the impact of these practices on firms' financial performance (Álvarez Gil, Burgos Jiménez, & Céspedes Lorente, 2001; Duque-Grisales & Aguilera-Caracuel, 2021). Another study (Eccles, Ioannou, & Serafeim, 2014) examined how the adoption of environmental and social sub

policy affects financial performance, and found that companies that have adopted these types of policies perform significantly better on the stock market as well as in the company books than companies without these policies. The study also confirmed the positive relation between having these policies and the propensity to delegate responsibility for sustainability to the board of directors and creating a sustainability board committee. Other research (Blanco, Rey-Maqueira, & Lozano, 2009) analysed the impact of internal and external environmental management on the triple bottom line (TBL), which includes environmental, economic and social performance. Internal environmental management, according to the authors, is the implementation of a set of actions that aim to achieve specific internal objectives of the company, defined by managers and CEOs or imposed by legislation. However, external environmental management practices have to do with cooperation for greening throughout the supply chain. It is important to stress that the relation between ESG performance and corporate financial performance has not been resolved and is still the subject of academic discourse (Mitra & Gaur, 2020; Hong & Kacperczyk, 2009; Brooks & Oikonomou, 2018; Ferrero-Ferrero, Fernández-Izquierdo, & Muñoz-Torres, 2016).

1.2. The importance of the clothing industry in the economy

One of the oldest and largest export industries in the world is the clothing industry. It is also one of the most global industries (Gereffi, 2010). Everyone is involved to some extent in its value chain (Luján-Ornelas, Güereca, Franco-García, & Heldeweg, 2020). Globally, the US\$ 1.3 trillion apparel industry employs more than 300 million people along the value chain. In some countries, cotton cultivation alone accounts for almost 7% of all jobs (Shepherd et al., 2017).

Today's textile and apparel industry faces numerous challenges such as productivity, rapid response to dynamic customer demands, and product quality and regulatory compliance (Leal Filho et al., 2019). Blamed for generating global environmental problems, the industry is also faced with another sustainability challenge (Kozłowski, Bardecki, & Searcy, 2014; Olofsson & Mark-Herbert, 2020).

The current system of clothing production, distribution and use operate in an almost entirely linear fashion. Large amounts of non-renewable resources are consumed to produce clothes, often used for only a short time. It is estimated that more than half of the fast-fashion clothing made is disposed of in less than a year (Shepherd et al., 2017). The most significant environmental problems of the analysed industry concern (Rudnicka & Koszewska, 2020): the consumption of non-renewable resources in various forms throughout the supply chain; the use of significant amounts of pesticides and fertilisers in the case of natural fibre crops; the use of hazardous substances and chemicals in production processes, resulting in a negative impact on the environment; workers and users of the final product; the use of large amounts of water and energy in production processes; the generation of

a significant amount of waste and problems of its disposal; the emission of pollutants into the air, water and land at all stages of the life cycle of a clothing product.

Today's consumer is becoming more aware of textile and clothing products' environmental and social impacts (Allwood, Laursen, Malvidode Rodriguez, & Bocken, 2006; Natarajan & Degamboda, 2020). As a result, social responsibility is increasingly expected of companies, which is supposed to mean that business considers the needs and expectations of various actors including the "silent" stakeholders. To deserve the tag of a socially responsible company, the clothing industry has started to define and implement environmental policies. However, it seems the responsibility of the clothing industry is a poorly recognised research area (White, Nielsen, & Valentini, 2017). Previous research concerning the industry in question, has been devoted to the analysis of the main socio-economic problems of the textile and clothing industry, covering such aspects of its functioning as the outsourcing of the production of clothing and textile products, the low level of workers' wages, and the fast fashion trend (Kowalski & Salerno-Kochan, 2018). The usefulness and implementation of life-cycle assessment as a standard tool used to study the environmental impact of all stages of a product's life (Kozłowski, Searcy, & Bardecki 2014), corporate sustainability practices used by global apparel brands in developing countries, and the role of sustainable leadership and corporate culture in promoting the CSR model (Islam, Perry, & Gill, 2020; Nguyen, Le, Ho, & Nguyen, 2020) also had been studied. Kozłowski, Searcy, & Bardecki (2015) identified environmental indicators captured in corporate sustainability reports, while (Natarajan & Degamboda, 2020) analysed the impact of *Total Quality Management* (TQM) on the implementation of pro-environmental practices. The literature provides an overview of key methods for reducing the environmental impact of textiles and how to implement them in practice (Hong & Kacperczyk, 2009), as well as case studies that analyse the theoretical and practical implications of the environmental footprint of textile production, consumer behaviour, eco-design of clothing and apparel, sustainable supply chain and waste management (Muthu & Gardetti, 2020). However, there is a lack of studies dedicated to identifying and evaluating the effectiveness of the tools implemented by clothing companies to institutionalise the environmental area, such as environmental policies and the environmental management team of environmental policies.

In summary, the literature review conducted for this study indicates a high level of research interest in the relations between economic, social, environmental and governance performance and environmental reporting, particularly the level of disclosure of environmental performance.

2. Materials and methods

The relevance of assessing the determinants of ESG performance (Santamaria, Paolone, Cucari, & Dezi, 2021), as well as the uncertainty about the relations between

tools such as the Environment Management Team and environmental policies and the taking of actual pro-environmental actions, led the authors of this study to investigate whether, and if so, to what extent the aforementioned tools are related to the environmental performance of a company.

The research presented in this article concerns the environmental area. Environment Score is the weighted average relative rating of a company based on the reported environmental information and the resulting three environmental category scores: Resource Use Score, Emission Score, and Environmental Innovation Score. Six tools were analysed: Policy Emissions, Policy Water Efficiency, Policy Energy Efficiency, Policy Sustainable Packaging, Policy Environmental Supply Chain and Environment Management Team. The choice of these policies was derived from the research assumptions, which indicated that the data on companies were to be obtained using the desk research method from the Refinitiv database. As a result, all environmental policies that are included in the Environment area of the database were selected for the study. In addition, it was decided to include Environment Management Team in the analysis because of the alleged strong relation between having such a team and the existence of environmental policies in companies. The category descriptions are presented in Table 1.

Table 1. Category descriptions

Category	Description
1	2
Resource Use Score	Resource use category score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
Emission Score	Emission category score measures a company's commitment and effectiveness towards reducing environmental emission in the production and operational processes.
Environmental Innovation Score	Environmental innovation category score reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed products.
Policy Emissions	Does the company have a policy to improve emission reduction? <ul style="list-style-type: none"> • the scope are the various forms of emissions to land, air or water from the company's core activities • processes, mechanisms or programs in place as to what the company is doing to reduce emissions in its operations • system or a set of formal, documented processes for controlling emissions and driving continuous improvement.
Policy Water Efficiency	Does the company have a policy to improve its water efficiency? <ul style="list-style-type: none"> • the scope are the various forms of processes/mechanisms/procedures to improve water use in operation efficiently • system or a set of formal documented processes for efficient use of water and driving continuous improvement.

1	2
Policy Energy Efficiency	Does the company have a policy to improve its energy efficiency? <ul style="list-style-type: none"> • the scope are the various forms of processes/mechanisms/procedures to improve energy use in operation efficiently • system or a set of formal documented processes for efficient use of energy and driving continuous improvement.
Policy Sustainable Packaging	Does the company have a policy to improve its use of sustainable packaging? <ul style="list-style-type: none"> • description of processes /procedures used as sustainable packaging or to reduce the use of packaging for products by the company • information on environmentally friendly (resource and energy efficient) packaging • green packaging, returnable containers, biodegradable packaging.
Policy Environmental Supply Chain	Does the company have a policy to include its supply chain in the company's efforts to lessen its overall environmental impact? <ul style="list-style-type: none"> • legal compliance data on the supply chain to reduce environmental impact is the scope • data on collaboration with suppliers towards reducing their environmental impacts • data on the reduction of environmental impacts at the suppliers operations.
Environment Management Team	Does the company have an environmental management team? <ul style="list-style-type: none"> • the scope are any team that performs the functions dedicated to environmental issues • an individual or team at any level composed of employees, even if the name of the team is different performing implementation of the environmental strategy • it is important to understand that the members of the team include employees of the company, who are operational on a day to day basis and are not the board committees (directors).

Source: refinitiv database.

The main research question was formulated as follows: what is the strength of the relation between selected tools for institutionalizing the environmental field and the environmental performance of firms?

In particular, answers were sought to the questions:

- What is the Environmental Score (ES) of the companies surveyed?
- How does the popularity of such tools of institutionalisation of the environmental area present itself, such as Environment Management Team (EMT), Policy Water Efficiency (PWE), Policy Energy Efficiency (PEE), Policy Sustainable Packaging (PSP), Policy Environmental Supply Chain (PESCh) and Policy Emissions (PE)? Is there an increase or decrease in interest in these tools?
- Which of the tools analysed shows the most substantial relation with Environmental Score and which the weakest?

The following research hypotheses were formulated for the study:

H1: There is a positive relation between having an emissions reduction policy and an Environmental Score.

H2: There is a positive relation between having a water efficiency policy and an Environmental Score.

H3: There is a positive relation between having the policy to improve energy efficiency and Environmental Score.

H4: There is a positive relation between having the policy improve sustainable packaging and Environmental Score.

H5: There is a positive relation between having a pro-environmental supply chain management policy and an Environmental Score.

H6: There is a positive relation between having an environmental management team and an Environmental Score.

A diagram of the research process is shown in the figure below.

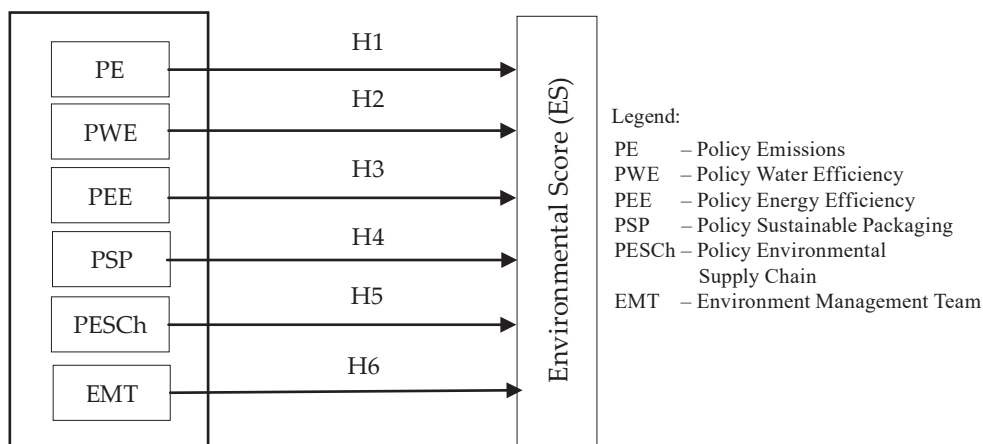


Fig. 1. Plan of the research process

Source: author's own work.

The objects of the study were clothing companies from different countries. The study deliberately ignored the impact of the company's country of origin on environmental performance as there are already studies in this area (Mondejar-Jimenez, Peiro-Signes, & Segarra-Oña, 2014; Peiró-Signes & Segarra-Oña, 2013).

The extraction of data on enterprises was conducted using the desk research method. The data are secondary in nature and were extracted on 07/12/2020 from the Refinitiv database using Datastream in Excel tools. This data's reliability is based on the unity of the international entity (unity of the assessor), which assesses different aspects of the company's non-financial activities in question. Access to ESG data and ESG risk ratings, such as ASSET4 (Thomson Reuters), EIKON (Thomson Reuters), Sustainalytics, MSCI ESG (KLD), Bloomberg, made it possible to assess a company efficiently and quickly, including the possibility to make comparisons with other entities or sector data or across countries. Therefore, it can be expected that the demand for ESG data will continue to grow and that databases with ESG data can help investors make investment decisions (Ribando, 2010). A prerequisite for creating

such databases is access to high-quality ESG data provided by companies in their non-financial reports. However, studies show that ESG assessments have standard dimensions, but at the aggregate level, they do not converge (Semenova & Hassel, 2015). The accessibility dictated the Refinitiv database's choice to the database and the possibility of obtaining uniform data. The assessment, according to Refinitiv, is made in the general aspect (ESG Score) and three specific elements: environmental (Environmental Score, or Environment Pillar Score), social (Social Score, or Social Pillar Score) and corporate governance (Governance Score, or Governance Pillar Score).

Data on the six tools are provided in a binary system, i.e. yes (Y), no (N), and whether the company has or does not have the tool. Missing data are also possible. Regarding the Environmental Score, this measure takes values from 0% to 100% (the higher the score, the better). The research covered all companies whose data were available in the Refinitiv database on the day of data collection. It belongs to the Textiles & Apparel group (Industry: Textiles and leather goods, apparel and accessories, Footwear) according to TRBC (The Refinitiv Business Classification) Industry Group. All the companies in this group, as of the date of data collection, numbered 76, and were all included in the study. However, assuming the study period 2015-2019, the data varied depending on the year. In the breakdown of the surveyed companies by country of origin, these were:

- 1 company each from Belgium, Brazil, Denmark, Greece, Poland, Sweden;
- 2 companies each from Canada, India, Switzerland, the United Kingdom;
- 4 companies each from China, Germany, Turkey;
- 5 companies each from France, Japan;
- 6 companies each from Italy, Taiwan;
- 7 companies each from Hong Kong;
- 21 companies each from the United States.

Statistical analysis of the data was performed using STATISTICA (version 13.3). Descriptive statistics and non-parametric analysis were used. Contingency coefficients based on the chi-square independence test were calculated to assess the relation between a given environmental area institutionalisation tool and the Environmental Score. The correlation analysis between Environmental Score and institutionalisation tools was possible after taking into account the division into four classes of continuous data, to which Environmental Score belongs. The breakdown by class was as follows: Class 1 <0-25%>, Class 2 (25%-50%>, Class 3 (50%-75%>, Class 4 (75%-100%>.

By analogy with the rank system established for the ESG Score (Refinitiv, 2021), it was assumed that grade 1 corresponds to a D grade, grade 2 to a C grade, grade 3 to a B grade and grade 4 to an A grade. The description of these grades can be found in the table below.

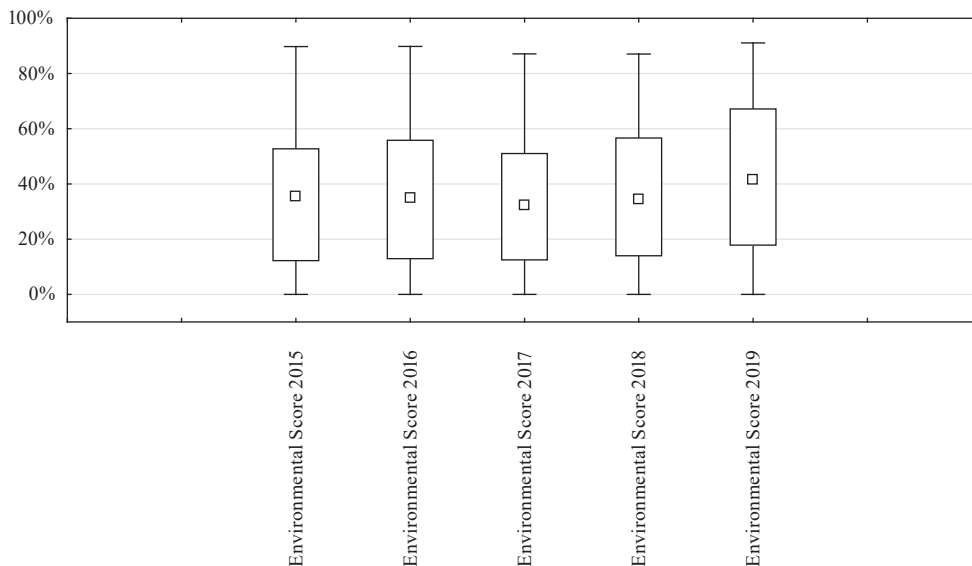
Table 2. Score range and grade for Environmental Score (ES)

Score range	Grade and description
<0-25%>	“D” score indicates poor relative ES performance and insufficient degree of transparency in reporting material ES data publicly.
(25%-50%>	“C” score indicates satisfactory relative ES performance and a moderate degree of transparency in reporting material ES data publicly.
(50%-75%>	“B” score indicates good relative ES performance and an above-average degree of transparency in reporting material ES data publicly.
(75%-100%>	“A” score indicates excellent relative ES performance and a high degree of transparency in reporting material ES data publicly.

Source: own elaboration based on the literature.

3. Results and discussion

The results of the research are presented from the general phenomenon to detailed conclusions. The box-and-whisker diagram (Figure 2) shows the surveyed companies' Environmental Score changes over five years.

**Fig. 2.** Boxplot of Environmental Score for sample companies (period: 2015-2019)

Source: author's own work.

Table 3 presents the results in the environmental area for the selected group of companies.

Table 3. Summary statistics of Environmental Score for sample companies (period: 2015-2019)

Environmental Score	Important	Average	Median	Minimum	Maximum	Lower	Upper	Std. deviation	Coefficient of variation
Environmental Score 2015	44	35.09%	35.46%	0.00%	89.79%	12.25%	52.72%	25.80%	73.54%
Environmental Score 2016	54	34.90%	35.04%	0.00%	89.85%	12.98%	55.81%	25.66%	73.52%
Environmental Score 2017	61	33.46%	32.39%	0.00%	87.11%	12.52%	51.01%	25.57%	76.41%
Environmental Score 2018	75	36.58%	34.46%	0.00%	87.10%	13.98%	56.63%	26.99%	73.80%
Environmental Score 2019	65	42.81%	41.72%	0.00%	91.08%	17.86%	67.18%	27.61%	64.50%

Source: author's own work.

The lowest value of the arithmetic mean and median Environmental Score (ES) was recorded in 2017, the highest in 2019 (Table 3). The increasing importance of the standard deviation since 2018 indicates a decreasing clustering around the mean ES score of the surveyed companies. Between 2015 and 2018, the average ES score was in the range $(0.25; 0.50 \geq)$, which means a rank of "C" and indicates satisfactory ES performance and a moderate degree of transparency in the public reporting of environmental data. The value of the coefficient of variation in 2015-2016 remained at a similar level. It reached its highest level in 2017, after which it started to decrease. Nevertheless, it remained high (more than 60%) in each of the years studied, indicating the high diversity of ES and the heterogeneity of the examined entities.

The next part of the research is also related to descriptive statistics. Detailed results were related to the division of the studied group of companies according to the possession (Yes-Y) or lack (No-N) of a particular tool for institutionalising the environmental area. This division was used to assess the tool's impact on its environmental performance (Environmental Score). The descriptive statistics discussed are included in Table 4.

The data analysis in Table 4 shows that out of the six researched tools for the institutionalisation of the environmental area, Policy Energy Efficiency was the most popular among the studied entities, while Policy Sustainable Packaging was the least popular.

Table 4. Descriptive statistics of the Environmental Score according to the possession of a tool for institutionalising the environmental area for the surveyed companies in the clothing industry (period: 2015-2019)

Y / N	Important	Average	Median	Minimum	Maximum	Lower	Upper	Std. deviation	Coefficient of variation
Environmental Score / Policy Emissions									
Y	211	47.50%	45.51%	2.42%	88.99%	31.24%	62.57%	22.12%	46.55%
N	88	10.46%	5.85%	0.00%	55.82%	1.14%	15.12%	14.32%	136.82%
Environmental Score / Policy Water Efficiency									
Y	173	50.93%	49.23%	9.97%	88.99%	37.07%	66.10%	21.50%	42.39%
N	126	16.82%	11.03%	0.00%	67.88%	1.43%	27.93%	18.52%	110.50%
Environmental Score / Policy Energy Efficiency									
Y	236	45.28%	43.60%	3.44%	88.99%	28.89%	60.95%	22.80%	50.41%
N	63	5.16%	3.40%	0.00%	19.05%	0.14%	8.40%	6.24%	122.29%
Environmental Score / Policy Sustainable Packaging									
Y	137	54.11%	53.57%	11.72%	88.99%	37.67%	71.03%	21.92%	40.43%
N	162	22.17%	18.12%	0.00%	71.95%	4.16%	36.06%	20.23%	92.43%
Environmental Score / Policy Environmental Supply Chain ¹									
Y	221	45.62%	44.07%	4.43%	88.99%	28.69%	61.68%	23.30%	51.16%
N	53	9.18%	3.47%	0.00%	38.51%	0.34%	15.86%	12.54%	136.68%
Environmental Score / Environment Management Team									
Y	147	54.32%	54.25%	12.32%	88.99%	39.16%	70.08%	20.90%	38.59%
N	152	19.36%	14.60%	0.00%	64.57%	3.19%	31.63%	18.40%	95.30%

¹ Excluding 2017 (there are gaps instead of N).

Source: author's own work.

Having a particular tool for institutionalising an environmental area is associated with a higher Environmental Score. The average values' difference was in the range of 31.94 p.p. (Policy Sustainable Packaging) to 40.12 p.p. (Policy Energy Efficiency). The medians' difference was from 35.45 p.p. (Policy Sustainable Packaging) to 40.61 p.p. (Policy Environmental Supply Chain). Companies took the highest values with an Environment Management Team (mean was 54.32%, the median was 54.25%), and Sustainable Packaging Policy (mean 54.11%, the median 53.57%). The weakest Environmental Score among companies with a specific tool was observed for Policy Energy Efficiency (mean 45.28%, the median 43.60%). Not having Policy Energy Efficiency was associated with an abysmal Environmental Score (mean 5.16%, the median 3.40%). Additionally, not having a Policy Environmental Supply Chain translated into a low Environmental Score (mean 9.18%, the median 3.47%). The coefficients of variation were lower for companies with a specific institutionalisation tool than for those without such a tool. Note the coefficients of variation above 100%; such high values indicate a solid differentiation of the examined characteristic's value, and the standard deviation is larger than the mean.

To examine the relations between having a specific tool for institutionalising an environmental area and environmental outcome, contingency coefficients based on the chi-square independence test were calculated (Table 5).

Table 5. Correlations between Environmental Score and the studied tools of institutionalisation of the environmental area

Environmental Score / A tool for institutionalising the environmental field	Contingency ratio [r]**
Environmental Score (4 classes) / Policy Environmental Supply Chain*	0.4269
Environmental Score (4 classes) / Policy Energy Efficiency	0.4905
Environmental Score (4 classes) / Policy Sustainable Packaging	0.4942
Environmental Score (4 classes) / Policy Water Efficiency	0.5054
Environmental Score (4 classes) / Environment Management Team	0.5316
Environmental Score (4 classes) / Policy Emissions	0.5465

* Excluding 2017 (there are gaps instead of N); **To assess the strength of correlation between variables, classical classification by (Guilford, 1965) was used, according to which: $|r|=0$ – no correlation, $0.0<|r|\leq 0.1$ – weak correlation, $0.1<|r|\leq 0.3$ – weak correlation, $0.3<|r|\leq 0.5$ – average correlation, $0.5<|r|\leq 0.7$ – high correlation, $0.7<|r|\leq 0.9$ – very high correlation, $0.9<|r|<1.0$ – almost full correlation, $|r|=1$ – full correlation.

Source: author’s own work.

Table 6. Several pro-environmental policies according to the ownership of the Environment Management Team

Y / N (Environment Management Team)	Important	Number of policies	The average number of policies / Environment Management Team
Environment Management Team 2015			
Y	22	96	4.36
N	22	39	1.77
Environment Management Team 2016			
Y	25	112	4.48
N	29	56	1.93
Environment Management Team 2017			
Y	28	120	4.29
N	33	62	1.88
Environment Management Team 2018			
Y	37	162	4.38
N	38	92	2.42
Environment Management Team 2019			
Y	35	156	4.46
N	30	83	2.77
Summary			
Y	147	646	4 (rounded)
N	152	332	2 (rounded)

Source: author’s own work.

The research showed a positive correlation between the institutionalisation tools of the environmental field and ES. It should be noted, however, that the strength of this correlation varied. Thus, a high correlation is observed for Policy Emissions (contingency coefficient 0.5465), Environment Management Team (contingency coefficient 0.5316) and Policy Water Efficiency (0.5054). Based on this, it can be concluded that these three tools have the most significant impact on environmental performance and may be of particular interest to companies. At the same time, the lowest correlation was observed between Policy Environmental Supply Chain and Environmental Score. The weak result, in this case, is all the more surprising as previous research in the Textiles & Apparel sector indicates the importance of sustainable supply chain management (Muthu & Gardetti, 2020). No very high correlation was found in any of the cases studied, nevertheless hypotheses H1 to H6 were confirmed.

Table 6 contains calculations of the average number of policies for companies with an Environment Management Team (Yes-Y) and companies that do not have such a team (No-N).

Based on the data in Table 6, it can be concluded that companies that selected an EMT had an average of four policies rounded up, while those that did not have such a team had an average of two policies rounded up. In the latter group of companies, a gradual increase in interest in establishing such policies can be observed.

The number of environmental policies in companies with EMTs indicates managers' commitment to routinise and systematise environmental activities. However, given that despite having adequate sub-policies or EMTs, the entities studied received a C grade in environmental performance, which may confirm the concerns articulated more than once in the literature (Delmas et al., 2013; Doan & Sassen, 2020; Füssel & Georg, 2000) regarding the illusory nature of the environmental measures taken by companies and the practice of greenwashing.

While the study found a correlation between all six tools for institutionalising the environmental area and ES, the already "average" strength of this correlation found for PESCh, PEE and PSP while confirming environmental ambition may also indicate that these policies are insufficiently embedded in a company management system. All this, in turn, may mean that clothing companies will not meet the demands placed on them by the concept of sustainability.

4. Limitations and future research

This paper presents the results of a pioneering (to the authors' knowledge) study devoted to the relation between having an environmental management team and all the policies included in the environmental pillar of the Refinitiv database and environmental performance. The relatively small sample size (76 entities), was a consequence of, on the one hand, the choice to assess the institutionalisation of the environmental area of clothing companies, and on the other, the exploration of only

one data source, i.e. the Refinitiv database. This was dictated by the desire to guarantee consistency of data on the analysed entities, although, at the same time, it negatively affected the issue of representativeness of the research sample. With the above in mind, generalisations of conclusions to the entire clothing industry should be made cautiously. The authors are also aware that there may be environmental policies in companies that are not included in the database but may affect the final environmental results.

Due to the lack of complete numerical data in the adopted research horizon, analyses of the relations between the tools of institutionalisation of the environmental area and quantifiable environmental effects, such as Total Energy Use To Revenues, Renewable Energy Use Ratio, Water Use To Revenues, Estimated CO₂ Equivalents Emission Total, Total Waste To Revenues USD, Waste Recycled To Total Waste, and Water Pollutant Emissions To Revenue, were deliberately omitted. It can be assumed that this may be due in part to companies' unpreparedness to report this type of information, the reluctance of companies to disclose these data, the lack of uniformity in their reporting or the limitations of the non-financial data provider (in this case Refinitiv). Nevertheless, it seems that the gradual increase in the transparency of companies, which is often the result of the introduction of relevant legal regulations, e.g. Directive 2014/95/EU of The European Parliament and of The Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (European Commission, 2014), gives grounds to carry out the aforementioned analyses in the future.

In general, climate-related disclosures are a challenge for entities reporting non-financial information (mandatory or voluntary). Climate-related information can be considered to fall under the category of environmental issues. In particular, it can be a challenge to combine climate-related information with other financial and non-financial information in company reporting, and to provide the target user with easy, user-friendly and straightforward access to this information. Future research may look at analysing and assessing how companies perform in the area of reporting this information, particularly in the context of a document such as Guidelines on non-financial reporting: Supplement on reporting climate-related information, Information from European Union Institutions, Bodies, Offices and Agencies, Communication from the Commission 2019/C 209/01 (European Commission, 2019), which is a relatively new document. This document should be taken into account by companies for which one of the environmental impact priorities should be to limit, to reduce their negative impact on the environment, and not to waste natural resources. These issues are of particular importance in the clothing sector, where minimising consumption is essential.

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ROLA WYBRANYCH NARZĘDZI INSTYTUCJONALIZACJI OBSZARU ŚRODOWISKOWEGO W PROCESIE GENEROWANIA EFEKTÓW DZIAŁALNOŚCI ŚRODOWISKOWEJ

Streszczenie: Artykuł wpisuje się w nurt badań związanych z aspektami środowiskowymi, społecznymi i *governance* (ESG) w działalności gospodarczej, koncentrując się na czynnikach środowiskowych. Jego głównym celem jest określenie siły związku pomiędzy wybranymi narzędziami instytucjonalizacji obszaru środowiskowego a wynikami środowiskowymi przedsiębiorstwa. Analizie poddano sześć narzędzi: politykę emisji, politykę efektywności wodnej, politykę efektywności energetycznej, politykę zrównoważonego pakowania, politykę ekologicznego łańcucha dostaw oraz zespół zarządzania środowiskiem. Do analiz wykorzystano dane ESG firm z sektora odzieżowego, uzyskane z bazy Refinitiv. Z badań wynika, że najpopularniejszą polityką jest polityka efektywności energetycznej, a najmniej popularną – polityka zrównoważonego pakowania. Istnieje pozytywna korelacja pomiędzy narzędziami instytucjonalizacji obszaru środowiskowego a *Environmental Score*. Polityka emisji, zespół zarządzania środowiskiem oraz polityka efektywnego wykorzystania wody są najbardziej skorelowane z wynikami w zakresie ochrony środowiska i powinny być przedmiotem szczególnego zainteresowania przedsiębiorstw. Badanie to stanowi istotny wkład w dyskusję na temat skuteczności narzędzi instytucjonalizacji obszaru środowiskowego w przedsiębiorstwie.

Słowa kluczowe: przemysł odzieżowy, zrównoważony rozwój, *Environmental Score*, polityka środowiskowa, zespół zarządzania środowiskiem.