

Article

Determinants of Corporate Social Responsibility Disclosure: An Empirical Study of Polish Listed Companies

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Abstract: In this paper we explore whether a number of elements influence the levels of corporate social responsibility (CSR) disclosure in the annual reports of Polish companies. These elements include the following: company size, profitability, financial leverage, industry environmental sensitivity, board size, women on the board, internationalization, and reputation. We use content analysis to determine the quality of CSR disclosures. We test our hypotheses using a Tobit regression analysis on a sample of 60 reports from Polish companies listed on the Warsaw Stock Exchange. We find industry environmental sensitivity to have significant influence on CSR disclosures. Our research findings also reveal a relationship between company turnover, duration of the stock exchange listing, inclusion in the Respect Index portfolio and foreign capital share, and the level of CSR disclosures. This study extends the scope of previous studies by including non-commonly used independent variables: the company's internationalization and reputation. To the authors' knowledge, it is the primary step to investigating CSR reporting practices coupled with the corporate characteristics in a Central and Eastern European country such as Poland. The paper contributes to the understanding of determinants of CSR disclosure and offers findings which are potentially useful for both theory and practice.

Keywords: corporate social responsibility; CSR; disclosure; Directive 2014/95/EU; Poland; management commentary; annual report

1. Introduction

In both the corporate and the academic world there is uncertainty as to how corporate social responsibility (CSR) should be defined [1]. Carroll's study [2] on the CSR definitions in academic literature dates the first formal definition to Bowen [3]. He defined the social responsibilities of a businessman as follows: 'It refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society'. According to the European Commission [4] CSR is 'the responsibility of enterprises for their impact on society'. Companies can become socially responsible by following the law, as well as by integrating social, environmental, ethical, consumer, and human rights concerns into their business strategies and operations. These companies inform stakeholders about their CSR achievements (i.e., companies' social and environmental performance) in their annual, integrated, and social reports, as well as on their corporate websites. The 2008 financial crisis prompted increased accounting and reporting interest in the CSR concept because of the clear need to restore investors' and consumers' trust in markets. Better information about risk management and sustainability is expected

to help restore this confidence. Therefore, CSR disclosure may not only be beneficial for society, but also for the competitiveness and the innovation of businesses [5,6].

In the European Union, a legislative proposal was considered necessary in order to ensure a level playing field and to reduce the possibility of additional costs for cross-border businesses created by the different national requirements regarding CSR disclosure across the EU. The legislation took the form of the Directive 2014/95/EU [7] that addresses the disclosure of non-financial and diversity information by certain large undertakings and groups. Its goal is to improve the average quality and consistency of CSR reporting across Europe. It is perceived as the most significant EU legislative initiative in respect of environmental, social, and governance disclosure in nearly a decade. As Giannarakis [8] points out, the concept of CSR has been changing over time and it means different things to different stakeholders and companies in different countries. Such European countries as France, Sweden, Great Britain, and Denmark have implemented additional disclosure requirements regarding CSR issues. For many others, the enactment of the Directive 2014/95/EU [7] will constitute a major change in local accounting regulations. Poland is one of these countries.

In this paper, we examine CSR disclosures in the Warsaw Stock Exchange (WSE) setting. Our motivation behind the choice of this particular context is our interest in Central and Eastern European (CEE) countries and the fact that the WSE is the largest in the region. In our opinion, the attitude towards the CSR concept in Poland is still ambiguous. On the one hand, the government and academic institutions, non-governmental organizations, and companies are currently involved in the development of CSR in Poland in various ways. It has become an important topic of many academic studies and there is a fast-growing number of publications devoted to CSR in the national media [9]. On the other hand, this concept is still understood by many as sponsorship and philanthropy. The main barriers to CSR development in Poland include lack of qualified staff, inability to see the direct effects for business, poor incentives from the state administration, insufficient time, and limited financial resources [9,10]. Polish accounting bodies, such as the Polish Accounting Association or the National Chamber of Auditors, do not seem to be very much involved in the promotion of the CSR concept, either [11]. According to the Polish government, which is generally in favour of CSR, strong regulations regarding CSR disclosure can cause excessive administrative burdens in the area of reporting [9,12].

We focused on the Polish context for several other reasons. First, to the authors' best knowledge, the empirical studies on factors influencing CSR disclosures by Polish companies, or more broadly by companies in Central and Eastern Europe (CEE), are rarely presented in international literature. Some examples of this research include studies by Baldarelli et al. [13,14] on CSR reporting in Bulgaria. Second, although CEE countries as new members of the European Union (EU) are obliged to follow the EU directives, their economic situation and stages of the CSR concept development are very different from the 'old EU' countries. Finally, in contrast to the comprehension of CSR in Western countries, the factors influencing levels of CSR in CEE countries are still relatively unknown.

The goal of our study is to identify the significant elements affecting Polish companies' CSR disclosure. According to Giannarakis [15] the main motivation for publishing CSR disclosure is to legitimize the company's operations, thus justifying its continuous existence and gaining stakeholders' trust. Companies adopt disclosure policies in order to achieve this legitimization that may differ according to their characteristics. Our investigation of the influence of a range of company-level attributes potentially provides evidence for guiding companies' CSR disclosure. Therefore, our findings may not only provide valuable insights into companies themselves, but also provide insights useful for policy-regulators or best practices creators who deal with the development of disclosure regulations or guidelines. In total, we propose to analyse the consequences for CSR disclosure of eight factors: the company's size, profitability, financial leverage, industry environmental sensitivity, board size, women on the board, internationalization, and reputation. The disclosure index is used as a proxy for the level of CSR disclosure.

The paper is organized as follows: Section 2 discusses the development of the CSR concept in Poland and specifies the new regulations regarding CSR disclosures introduced by the Directive 2014/95/EU [7]. Section 3 provides the theoretical background for the research study, namely the legitimacy theory. Section 4 offers a literature review and presents the research hypotheses. Section 5 discusses the research method, including sampling, the measurement of dependent and independent variables, and regression analysis. In Section 6, the results of the study are presented. The last section offers the discussion along with study limitations and suggestions for further research.

2. CSR in Poland and the Introduction of the Directive 2014/95/EU

After many years of turbulent history, Polish society has finally achieved a relative economic stability. The existing structures, although still in need of improvement, allow basic social needs to be satisfied, and prepare the foundation for the CSR concept that has appeared, beginning in the year 2000 [16]. Initially, this concept has been linked to charity and sponsorship. The dynamic evolution of the CSR idea in Poland has peaked between 2006 and 2007 as a result of a massive influx of foreign investors [9,17]. Increasing interest in the CSR concept has appeared in Poland following the financial crisis. The crisis has been perceived by the Polish Ministry of the Economy [18] as an opportunity to reevaluate the economic model to include a more responsible one. The new economic model also promises to provide business with the opportunity to find new competitive advantages. According to the Ministry new competitive advantages may result from better uses of resources. In addition, the new model can potentially help firms to build lasting relationships with key stakeholders that strengthen the company's position in the market. Communication is an essential part of CSR [19]. Reporting on CSR becomes crucial to companies' abilities to manage sustainability issues and to communicate to stakeholders how they deal with these issues [20]. It seems that nowadays, more and more Polish companies, especially the large publicly-traded ones, have become aware of the advantages of implementing CSR in their long-term strategies. One outcome is they are encouraged to provide appropriate CSR disclosures [21]. It has not been an easy task, because the current social and political climate is not particularly conducive to the CSR development in Poland. For example, Poland remains one of the EU countries with restricted water and strategic resources. Moreover, Poland's economy relies on coal, which results in high carbon dioxide emissions. In addition, the country's infrastructure and technology are still developing. Finally, the public administration, political leaders, media representatives, trade unions, or the largest employers' organisations have done no systematic work to strengthen the foundations of CSR in Poland. For many Polish companies, the main concerns remain paying salaries, getting funds for development, exacting debts from creditors, or resolving conflicts with tax offices [22]. Memories of the early '90s continue to dominate most consumers' perspectives, when they could not afford to buy goods available in the shops. These orientations are reinforced by recollections of even earlier periods of permanent commodity shortages and bend Poles' orientation towards consumption. In the light of the above, promoting sustainable consumption and rational use of natural resources remain very difficult. Also, the long-term approach, which is the basis for the CSR concept, still seems to be an aspiration of the future [23,24].

Yet, more and more Polish companies disclose CSR information voluntarily. It should be noted that the amount of CSR reports prepared using the GRI (Global Reporting Initiative) guidelines has increased even though the total number of such reports is still very low in comparison to other countries, especially in Western Europe. In August 2017, 251 out of 42,624 CSR reports included in the GRI Database were published by companies operating in Poland. In comparison, the result for France is 1095 [25]. CSR disclosures are also the subject of the Polish accounting regulations. According to the Accounting Act (art 49.1), the managers of entities such as companies, limited joint-stock partnerships, mutual insurance companies, cooperatives, and state-owned companies prepare reports on the entities' operations (management commentary) besides preparing financial statements. Until recently, article 49.3 of the Accounting Act stated only that 'the management commentary should also cover financial and non-financial indicators, including information on environmental and employment issues, as well

as additional explanations of the disclosures made in the financial statements, if such information is relevant for the assessment of the entity's condition' [26]. However, since December 2016 the Accounting Act has incorporated the new regulations of the Directive 2014/95/EU [7], discussed later. The Act now contains language that directs firms to disclose non-financial information, and it provides guidelines on the disclosure process that are consistent with the Directive. One difference remaining in the Act is that non-financial disclosures may be also presented outside the management commentary, in a separate statement on non-financial information [27].

Management commentary is also the subject of the Polish National Accounting Standard No. 9, issued in 2014. The purpose of the standard that can be voluntarily used by companies is to assist them in the preparation of management commentary which will meet the users' expectations and promote best practices in this regard [28].

An important change in the legislation concerning the CSR disclosures has taken place in Poland recently with the implementation of the Directive 2014/95/EU [7] requirements that are applicable beginning in 2017. The Directive applies to the public-interest entities. The European Union defines these entities as follows: (1) undertakings listed on a regulated market of any Member State; (2) undertakings that are credit institutions, or insurance entities; or (3) entities designated by Member States as public-interest entities because of the nature of their business, size, or number of employees. In order to be considered large, an undertaking must observe additional criteria related to either total assets (over 20 million EUR) or turnover (over 40 million EUR). Some 6000 public interest entities in the EU would fall under the scope of the Directive [29]. According to the Directive, public interest entities with over 500 employees will be required to draw up, on a yearly basis, a statement relating to environmental, social, and employee-related matters, respect for human rights, anti-corruption and bribery matters, and diversity in the company's board of directors. The statement will have to provide a description of the policies, outcomes, and risks related to those matters. It will be included in the management commentary or in a separate report corresponding to the same financial year. It will include a brief description of the entity's business model, a description of the policies pursued by the company in relation to environmental, social, and employee matters, respect for human rights, procedures to counteract corruption, bribery, and their outcomes, risks and risk-management related to those matters and non-financial key performance indicators (KPIs). The Directive adopts the 'comply or explain' principle: if a company fails to pursue policies relating to anti-bribery and corruption, environmental, or other non-financial matters, it will have to explain why. The Directive allows companies significant flexibility in providing CSR disclosures, including the use of recognized guidelines, such as the United Nations Global Compact, ISO 26000, the OECD Guidelines for Multinational Enterprises, or the Global Reporting Initiative Standards.

According to Barcik and Dziwiński [30], the provisions of the Directive 2014/95/EU [7] are the result of a compromise between the countries that are more advanced in terms of CSR reporting (such as Denmark and France) and those which have so far implemented the minimum requirements regarding non-financial disclosures (such as Poland, Germany, or the Czech Republic). In some countries, the implementation of the new regulations will only be the confirmation of national non-financial reporting practices. In other cases—including Poland—new disclosures may be challenging and result in additional reporting requirements to be imposed on companies, which might be perceived by many as administrative burdens. That is also why Poland was one of the member states blocking the EU legislation process. According to the government, soft regulations regarding CSR disclosure like recommendations or guidelines are more appropriate, whereas Directive regulations on reporting practices are seen as burdens rather than appropriate instruments for popularization of the CSR concept [9,12] (p. 9). However, the extended reporting regulations are coming into force and the Polish companies which are subjected to them will also need to rethink strategic issues regarding CSR. These decisions will have a significant impact on the shape of CSR disclosure. Those companies which have already developed CSR strategy voluntarily are therefore in a favourable position [31].

3. Theoretical Framework

Despite the widespread academic and business interest in the issue, a comprehensive theoretical framework for the underlying determinants of CSR disclosure is still elusive. Legitimacy theory has often been invoked to explain corporate reporting practices. In accordance with this theory, external stakeholders require the enterprise to take such actions that will make its operations be recognized as transparent, in line with the law and the principles of economics. Within legitimacy theory, disclosures (particularly social and environmental) are hypothesized to alter perceptions about the legitimacy of the organization [32].

One of the most commonly cited definition of legitimacy has been formulated by Suchman [33] (p. 574), who described it as ‘a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions’. Legitimacy theory emphasizes that organizations attempt to make sure that the societies perceive them as operating within the accepted norms, and their activities are seen as ‘legitimate’. These norms are determined by the ethical (or moral) environment in which organizations operate, and they change over time, which requires organizations to be responsive to them [34] (p. 323). Legitimacy theory is a positive theory because it seeks ways to describe or explain the behavior of organizations and it does not indicate how they should behave (as normative theories do) [35]. This theory is based on the idea of corporate social communication. According to it, external stakeholders require companies to always undertake such activities which allow their functioning to be seen as transparent, in accordance with the law and the principles of economics.

Despite the above beliefs, corporate performance has for years been measured mainly in terms of profit maximization. This approach has significantly changed over the recent decades. With increasing social expectations towards the performance of companies, it is assumed that the successful ones will take into account ethical, environmental, and social consequences of their actions. Indeed, society more and more often expects that companies will try to repair damages they have made to the environment, or prevent it from further degradation, and ensure the health and safety of their employees, consumers, and all members of the community within which they operate. Consequently, the companies that may not perform well in these areas can expect difficulties in obtaining the resources and support needed to continue their activities in a society that values ethical behavior and clean environment. Failure to meet the expectations of the society (i.e., to act in accordance with the social contract) can lead to sanctions imposed by it on the company in the form of legal restrictions on its activities, restrictions on access to resources it needs (e.g., financial capital or labour force), or reduction in the demand for its products (e.g., in the form of organized boycott by consumers) [36].

Lindblom [37] has identified four ways in which the company can get or maintain legitimacy. It can try to: (1) educate and inform a wide public it considers important of actual changes in the results of the activities and operations that are consistent with the social values and expectations; (2) change the perception of the results of activities and operations by relevant stakeholders without changing the actual behavior (disclosure in annual reports may falsely indicate that the results of the activities and operations have changed); (3) manipulate the perception of its activities by others, directing their attention to such areas where it meets social expectations while, at the same time, diverting it away from the critical issues; (4) change social expectations with respect to its activities, indicating that some of them are ridiculous or too unreasonable [38]. Corporate annual report may be a tool for the implementation of each of the aforementioned strategies. One of the features of accounting, as well as the reports it generates, is the legitimacy of the corporation's existence. This view stresses the strategic nature of the financial statements and related disclosures. As Gavana et al. [39] point out, ‘Communication plays a fundamental role in recognizing a firm's legitimacy as it informs stakeholders, and society, that organizational behavior is congruent with its values, norms and expectations; non-communication may threaten performance, resource availability and survival’. According to the legitimacy theory, companies with a high commitment to social and environmental issues should be inherently more likely to disclose information on these topics.

They may not, in fact, legitimize their operations, financial situation, and position on the market in a different way. References to the traditional corporate measures of success—the financial ones—are not appropriate or reliable in their case. Such companies need to disclose information about how social and environmental performance contributes to the generated value. If the value of the company is created by the non-financial performance, it will provide a wider range and higher quality information about these issues to external stakeholders [34].

4. Literature Review and Hypotheses Development

Firms are increasingly seen as being accountable not only for their financial, but also social and environmental impacts [40]. One consequence is the demand for enhanced CSR disclosures, which, as presented in the section above, can be explained by their desire to get or maintain legitimacy. Companies usually inform stakeholders of their CSR activities in the annual report or in separate CSR reports [41,42].

The most common form of disclosing CSR is in annual report. Our study focuses on the annual report as the source of CSR also due to the requirements posed by the Directive 2014/95/EU [7]. There are also a number of other reasons why it is justified to use the annual report as a source of social and environmental information. First, it is the main source of corporate communications to investors and it is widely used by firms to disclose their CSR activities. Second, it is most actively sought by pressure groups. Third, disclosures through other media, such as popular press, are subject to the risk of journalistic interpretations and distortions, whereas disclosures through annual report are completely editorially controlled by management [43].

A variety of determinants can influence company CSR participation, and understanding these processes is essential [44]. The factors that influence the scope of CSR disclosures have been extensively discussed in prior literature. Studies we refer to in this paper often focus on one country, e.g., US (Giannarakis [8,15]), Libya (Bayoud et al. [44]), Malaysia (Rahman et al. [45]; Said et al. [46]; Haniffa and Cooke [47]), Egypt (Hussainey et al. [48]), Bangladesh (Rouf [49]; Khan [50]), Indonesia (Siregar and Bachtiar [43]), Germany (Verbeeten et al. [42]; Gamerschlag et al. [51]), Spain (Reverte [41]); Portugal (Branco and Rodrigues [52]), Sweden (Tagesson et al. [53]), and India (Hossain and Reaz [54]). In addition, a cross-country analysis is performed by Ho and Taylor [55], who investigated the CSR disclosure of 50 of the largest US and Japanese companies.

The researchers often use content analysis and develop their own disclosure indexes in order to measure the extent of CSR disclosures (e.g., Verbeeten et al. [42]; Bayoud et al. [44]; Rahman et al. [45]; Said et al. [46]; Haniffa and Cooke [47]; Hussainey et al. [48]; Rouf [49]; Khan [50]; Gamerschlag et al. [51]; Tagesson et al. [53]; Ho and Taylor [55]). However, Giannarakis [8,15] used as a proxy for the extent of CSR disclosure the environmental, social, and governance disclosure score calculated by Bloomberg, while Reverte's [41] data on CSR disclosure ratings come from the Observatory on Corporate Social Responsibility (OCSR).

There are several factors presented in the literature that could contribute to the level of CSR disclosure. In general they can be divided into three main categories: financial characteristics (such as, e.g., profitability or financial leverage), corporate governance characteristics (such as, e.g., chief executive officer duality or presence of women on the board), and firm-specific characteristics (such as firm size or industry profile). The way factors from each of the above mentioned group are used in studies varies, e.g., the determinants included in Giannarakis [15] study comprised: the board meetings, average age of board members, presence of women on the board, the board's size, chief executive officer duality, financial leverage, profitability, the company's size, the board's composition, and the board's commitment to CSR. The potential influence of such determinants as the company's age, industry type, and company size on levels of CSR disclosure of Libyan companies was investigated by Bayoud et al. [44], and the purpose of Siregar's and Bachtiar's [43] study was to investigate the effect of board size, foreign ownership, firm size, profitability, and leverage on CSR reporting. Less common determinants, such as media exposure, were included in Reverte's [41] and Branco and

Rodrigues [52] studies, and the influence of multiple exchange listing was investigated by Hossain and Reaz [54] and Haniffa and Cooke [47].

In order to identify the potential influence of chosen determinants on levels of CSR disclosure, authors usually formulate appropriate hypotheses and test them with the use of statistical methods, such as multiple regression analysis (Giannarakis [8]; Siregar and Bachtiar [43]; Rahman et al. [45]; Khan [50]; Branco and Rodrigues [52]). Our study uses a similar approach.

The following part of the section focuses on the hypotheses development and presents factors we use in our study that are likely to affect the extent of CSR disclosure. Both corporate governance and financial and firm characteristics are involved; namely, the company's size, profitability, financial leverage, industry environmental sensitivity, board size, women on the board, internationalization, and reputation. In several cases, the results of previous empirical studies concerning the link between explanatory variables and CSR disclosure are ambiguous, thus making the formulation of an a priori hypothesis impossible.

4.1. Company Size

According to Branco and Rodrigues [52], large companies disclose more than small ones as they are more prone to scrutiny from stakeholder groups, since they are highly visible and more vulnerable to adverse reactions. Large companies are more diversified across geographical and product markets, and they have more diverse stakeholder groups. They are also usually more involved in the CSR practices than SMEs, and enhancing corporate reputation is an important factor which encourages them to increase the scope of CSR disclosures. As large companies have more financial resources than medium or small ones, the cost of preparing disclosure is decreasing for such companies because of economies of scale [55].

A thorough literature review performed by Giannarakis [8] reveals the following indicators have been used to measure the company's size: the number of employees [53], the market value of equity [55], turnover [53], the market capitalization [41,56], and the total assets [40,41,43,45,47,50,54]. The positive relationship between the company's size and the extent of CSR disclosure (the bigger the company, the better the CSR disclosure) has been recorded by numerous empirical studies presented earlier [41,43,45,47,50–54]. Thus, our first hypothesis, stated in the alternative form, is the following:

Hypothesis 1 (H1). *There is a positive relationship between the company size and the CSR disclosure.*

4.2. Profitability

On the one hand, a profitable company has the freedom and the flexibility to expose its CSR practices more extensively to the stakeholders, thus legitimizing its existence. On the other, companies with less profit tend to provide more information to demonstrate that their business operations contribute to social values and benefit society. The studies focusing on the relationship between profitability and the level of CSR disclosure provided mixed results. For example, the positive relationship between profitability and CSR disclosure was found by Roberts [57]. However, Siregar and Bachtiar [43] noted that there was an insignificant association of profitability with the level of CSR disclosure, and according to Ho and Taylor [55], companies with less profit tended to provide more CSR information. In the light of the above, we do not make any a priori assumption about the sign of the association between CSR disclosure and profitability. The following hypothesis is thus tested:

Hypothesis 2 (H2). *There is a relationship between profitability and the CSR disclosure.*

4.3. Financial Leverage

More highly leveraged firms disclose voluntary information in order to reduce their agency costs and, as a consequence, the cost of capital [55]. However, Brammer and Pavelin [40] state that a low degree of leverage ensures that creditor stakeholders will exert less pressure to constrain managers' discretion over CSR activities which are only indirectly linked to the financial success of the firm. Purushothaman et al. [58] also predict a negative relationship between leverage and CSR disclosure as the companies with high leverage may have closer relationships with their creditors and use other means to disclose social responsibility information. Rahman et al. [45] hypothesized a positive association between leverage and the extent of CSR disclosure. However, statistical results showed that this association was insignificant. Reverte [41] showed that leverage cannot explain differences in CSR disclosure initiatives. Given the previous mixed results, it is hypothesized:

Hypothesis 3 (H3). *There is a relationship between financial leverage and CSR disclosure.*

4.4. Industry Environmental Sensitivity

There is a general notion in the CSR literature that industries with negative impact on the environment provide more information in disclosures than other industries. Patten [59] investigated the effect of the industry's profile on the extent of CSR disclosure. Different industries were incorporated, such as petroleum, chemical, and forest and paper products, as they have a greater motive to integrate CSR initiatives into their operations to create a more positive social profile. A regression analysis on the level of disclosure for 128 firms indicates a positive relationship between CSR profile and the level of CSR disclosure. Gamerschlag et al. [51] found that companies that are classified as consumer and energy supplying industries provide more CSR information. Ho and Taylor [55] categorized seven types of industries into two groups: manufacturing and non-manufacturing companies. It was found that there were significant differences in the extent of CSR disclosures between the two types of companies. Taking into account the previous studies the adopted hypothesis is:

Hypothesis 4 (H4). *There is a positive relationship between industry environmental sensitivity and CSR disclosure.*

4.5. Board Size

Board size is one of the corporate governance attributes frequently used in CSR disclosure studies. Abeysekera [60] states that a larger board size can help boards to overcome skill deficiencies in making more discretionary disclosure related to future earnings. The results of Chapple and Moon [61] study imply that larger board size through wider exchange of ideas and experiences could lead to better appreciation and involvement in CSR activities and hence its disclosure in annual report. Studies conducted by Siregar and Bachtiar [43], Esa and Mohd Ghazali [62], and Wang [63] showed that the board's size was positively associated with the extent of CSR disclosure. According to Dienes and Velte [64] the size of the supervisory board has no impact on CSR reporting. Similarly, Cheng and Courtenay [65] found no association between the board's size and voluntary disclosure. In our study we hypothesize:

Hypothesis 5 (H5). *There is a positive relationship between board size and CSR disclosure.*

4.6. Women on the Board

As Giannarkis [8] states on the basis of conducted literature review, gender composition of the board has been traditionally associated with financial performance, and there is no satisfactory evidence linking board composition to CSR disclosure. According to Webb [66] (who used a sample of

394 socially responsible firms and compared these to a matched sample of firms), boards of socially responsible companies comprise significantly more women than boards of non-socially responsible companies. Williams [67] showed that an increasing number of women members on the boards is positively related to the firm's level of charitable giving to the arts and community. Hyun et al. [68] argue that independent female directors in comparison to males might take CSR issues more seriously because of their stronger moral orientations and reputational reasons to do so. According to their research results, the number of independent female directors is positively associated with a firm's CSR ratings. Dienes and Velte [64] argue that company's sustainability performance is always depicted in CSR reporting, and a higher proportion of women on the supervisory board could contribute to enhancing it. In contrast, Khan [50] did not find a significant relationship between women's representation on the board and CSR reporting. Thus, based on the above studies, we formulate the following hypothesis:

Hypothesis 6 (H6). *There is a relationship between the presence of women on the board of directors and the CSR disclosure.*

4.7. Internationalization

Internationalization in economics is understood as the process of increasing involvement of enterprises in international markets [69] (p. 281). Zahra and George [70] (p. 261) define international entrepreneurship as 'the process of creatively discovering and exploiting opportunities that lie outside a firm's domestic market in the pursuit of competitive advantage'.

According to Kolk and Fortanier [71], internationalization is expected to force firms to disclose more information. Companies which are more diversified across geographical markets have more varied stakeholders groups. They face potentially stronger and more diverse attacks on their legitimacy, driving them to voluntarily disclose more information in terms of volume and scope in order to manage and maintain legitimacy and prevent damage to their reputation. According to the authors, the diversity in regulatory requirements, as well as the array of cultures and employee values and interests, would lead firms to choose the highest rather than the lowest common denominator. When a foreign company, with the headquarters based in a country with developed CSR structures, enters the market where CSR is in initial stages, it might be assumed that it will impose its own practices on the local divisions.

Kolk and Fortanier [71], analyzed the relationship between internationalization and environmental disclosures. As they point out, theoretically, arguments can be made for it to be both negative and positive. When firms from home countries with relatively strict standards and high public pressure to be sustainable internationalize, they may 'escape' the public eye and stop or diminish their CSR disclosures. However, firms may also link internationalization with detailed and externally verified CSR disclosures, as this will generate benefits such as positive reputation effects, risk reduction, and costs reduction resulting from maintaining and coordinating diverse systems and standards. Kolk and Fortanier [71] argue that the relationship between internationalization and voluntary environmental disclosure is essentially a balancing act between pressures from home and host country environmental institutions. According to them, a few studies on the determinants of voluntary disclosures have included internationalization in their models (i.e., [61,72]) but, generally, as a control variable, with mixed findings. Chapple and Moon [61] and Araya [72] found that firms with an international sales orientation or foreign ownership are more likely to report. Murcia and Souza [73] found that internationalization had a positive relation to the CSR disclosure in Brazilian companies. Because of the fact that both a positive and a negative relationship between the degree of internationalization and CSR disclosure may be expected, depending on how the costs and benefits of disclosure add up for the firm in an international context, we formulate the hypothesis as follows:

Hypothesis 7 (H7). *There is a relationship between the company's internationalization and CSR disclosure.*

4.8. Reputation

Literature has pointed out that companies may use CSR disclosure as a way to manage their reputation risk and increase legitimacy [74]. As stated by Friedman and Miles [75], reputation can be conceived as a determinant of CSR disclosure since companies show externally that they are aware of the need for managing a wider range of social and environmental issues. According to the authors, increased interest in SRI (Socially Responsible Investments) will create a greater demand for CSR and greater legitimacy of CSR within the accounting orthodoxy.

Michelon [76] examined the relationship between corporate reputation and CSR disclosures. According to her, the literature has not considered the concept of reputation as being a determinant of sustainability disclosure, even if legitimacy and reputation are somewhat overlapping concepts. She argued that corporate reputation can be considered either a determinant or a result of CSR disclosures. As Giannarakis [15] points out, the main motive for the publishing of CSR disclosure is to legitimize the companies' operations, thus justifying their continuous existence [77] and gaining higher levels of trust. Baldarelli and Gigli [78] described the CSR concept as an inherent component of reputation. They concluded that the instruments used for measuring and managing reputation can also be usefully employed with reference to corporate responsibility. An increasing number of investors are showing interest in CSR development and are adopting CSR policies which lead to rapid changes in stock market investments [79]. Shavit and Adam [80] indicate that a rating system used to assess CSR can probably be an incentive to companies excluded from CSR indices based on them to perform better in this field. Therefore, when companies are ranked publicly by CSR index criteria, the market forces an incentive on companies to invest in improving their ranking. That is why we formulate the hypothesis as follows:

Hypothesis 8 (H8). *There is a positive relationship between the company's reputation and CSR disclosure.*

5. Research Method

5.1. Sample

The companies in the sample have been selected from among non-financial companies listed on the Warsaw Stock Exchange and included in two price indices: the WIG30 Index and the mWIG40 Index. The WIG30 Index is based on the value of portfolio with shares in 30 major and most liquid companies in the WSE Main List. The mWIG40 index comprises 40 medium size companies listed in the WSE Main List. The selection of the sample consisted in excluding companies with the average number of employees lower than 500 on their balance sheet date (on 31 December 2014). The research sample comprised 60 companies in total (cf. Table 1).

The research study is based on the CSR disclosures presented by the companies in annual reports (management commentaries) (56 cases) and in integrated reports (4 cases) for the year 2014. The European Directive 2014/95/EU [7] indicates management commentary as an appropriate part of a company's report for disclosing environmental, social, and ethical issues: 'Such [non-financial] statement should be included in the management report of the undertaking concerned' [7] (p. 2). Data sources for independent variables i.e., potential factors influencing CSR disclosure level, are presented in Table 2.

Table 1. Company sample.

Company	Sector	Company	Sector
Agora	Media	Kruk	Other services
Alchemia	Metal industry	Lotos	Petroleum industry
Alumetal	Metal industry	LPP	Retail trade
Amica	Electromechanical industry	LW Bogdanka	Raw material industry
Apator	Electromechanical industry	Monnari Trade	Retail trade
Asseco Poland	IT industry	Netia	Telecommunication industry
Benefit Systems	Other services	Neuca	Wholesale trade
Bioton	Pharmaceutical industry	Newag	Electromechanical industry
Boryszew	Metal industry	Orange Polska	Telecommunication industry
Budimex	Construction industry	Orbis	Hotel industry
CCC	Retail trade	PBG	Construction industry
Ciech	Chemical industry	Pelion	Wholesale trade
Comarch	IT industry	Pfleiderer Group	Timber industry
Cyfrowy Polsat	Media	PGE	Energy industry
Elektrobudowa	Construction industry	PGNiG	Petroleum industry
Emperia Holding	Wholesale trade	PKM Duda *	Food industry
Enea	Energy industry	PKN ORLEN	Petroleum industry
Energa	Energy industry	PKP CARGO	Other services
Eurocash	Retail trade	Polimex-Mostostal	Construction industry
Fabryki Mebli Forte	Timber industry	Rovese	Construction materials industry
Famur	Electromechanical industry	Sanok Rubber Company	Automotive industry
Farmacol	Wholesale trade	Stalprodukt	Metal industry
Grupa Azoty	Chemical industry	Synthos	Chemical industry
Impexmetal	Metal industry	Tauron PE	Energy industry
Integer.pl	Other services	Trakcja PRKII	Construction industry
Inter Cars	Wholesale trade	TVN	Media
JSW	Raw material industry	Vistula	Retail trade
Kęty	Metal industry	Wawel	Food industry
KGHM PM	Raw material industry	ZE PAK	Energy industry
Kopex	Electromechanical industry	ZEW Kogeneracja	Energy industry

* Currently the company name is Gobarto; Source: own elaboration on the basis of the WSE data [81].

Table 2. Description of independent variables.

Hypothesis	Variable	Measurement	Source of Information
H1	Employment size	Number of employees	Company annual reports, company websites
H1	Turnover	Net sales (in mln EUR)	Company annual reports
H2	Profitability	Return on sales (ROS)	Company annual reports
H3	Financial leverage	Debt to total assets ratio	Company annual reports
H4	Industry environmental sensitivity	Dummy variable: value 1 if a company is from an industry with a negative impact on environment, otherwise value 0	Warsaw Stock Exchange website
H5	Board size	Number of directors on the company's board	Company annual reports
H6	Women on the board	Percentage of women on the company's board	Company annual reports
H7	Foreigners on the board	Percentage of foreigners on the company's board	Company annual reports
H7	Foreign capital share	Percentage of foreign capital in the company's capital structure	Company annual reports
H7	Company's activity abroad	Number of foreign countries the company is active in	Company annual reports
H8	Inclusion in the Respect Index portfolio	Dummy variable: value 1 if a company is included in the Respect Index portfolio, otherwise value 0.	Warsaw Stock Exchange website
H8	Inclusion in the largest review of socially responsible business activities in Poland	Dummy variable: value 1 if a company is included in 'The Report: Responsible Business in Poland 2014. Good Practices', prepared by the Responsible Business Forum, otherwise value 0	Responsible Business Forum website
H8	Auditor type	Dummy variable: value 1 if an auditor belongs to the Big Four auditors (Deloitte, Ernst & Young, KPMG, PricewaterhouseCoopers), otherwise value 0	Company annual reports
H8	Duration of the stock exchange listing	Measured in months from the beginning of the company's listing to the end of 2014	Warsaw Stock Exchange website

5.2. Measurement of Dependent Variable

The basic research method applied is a semi-objective approach which falls into the category of disclosure index studies, according to the division of research methods applied to the analysis of narratives in annual reports by Beattie, McInnes, and Fearnley [82] (p. 209). This is a form of content analysis where the items to be studied are specified *ex ante*. In the research presented in the paper, we use an index which takes into account the weightings given according to the way the information is disclosed.

While conducting the content analysis we will follow the approach developed by Dumitru et al. [10] which is based on the following scoring system:

- 0—no presentation;
- 1—narrative presentation;
- 2—presentation using KPIs or other numerical data;
- 3 (1 + 2)—narrative and numerical presentation, at the same time.

The items to be studied were determined according to the Directive 2014/95/EU [7] and covered:

- I. Business model, policies, risks related to CSR issues:
 1. Business model—brief description;
 2. Policies related to environmental, social and employee matters, respect for human rights, anti-corruption, and bribery matters;
 3. Principal risks related to environmental, social and employee matters, respect for human rights, anti-corruption, and bribery matters;
 4. Non-financial KPIs;
- II. Environmental matters:
 1. Impacts on the environment;
 2. Impacts on health and safety;
 3. Use of renewable energy;
 4. Use of non-renewable energy;
 5. GHG emissions;
 6. Water use;
 7. Air pollution;
- III. Social and employee related matters:
 1. Actions taken to ensure gender equality;
 2. Implementation of fundamental conventions of the International Labour Organisation;
 3. Working conditions;
 4. Respect for the right of workers to be informed and consulted;
 5. Respect for trade union rights;
 6. Health and safety at work;
 7. The dialogue with local communities;
 8. Actions taken to ensure the protection and the development of the local communities;
- IV. Ethical matters:

Prevention of human rights abuses, instruments in place to fight corruption and bribery.

Following the approach developed by Dumitru et al. [10], two items mentioned in the Directive 2014/95/EU [7] were excluded from the list: ‘outcome of policies’ and ‘social dialogue’, because they were covered by other above-mentioned items.

The coding system consisted of two stages. Both authors were responsible for the coding process in order to increase reliability of coding. In the first stage, the randomly selected four corporate reports were analysed independently. After confirming that the approaches used were exactly the same and the data was comparable, authors proceeded with the coding (the second stage).

Each studied item was assigned a weight (score) based on the type of information used to disclose it. The higher the score is, the better the quality of CSR disclosure. Four indexes representing the weightings per category of CSR disclosures (in relation to the maximum number of points) were determined for each company, as follows:

$$I_1 = (P_1/12) \times 100; I_2 = (P_2/21) \times 100; I_3 = (P_3/24) \times 100; I_4 = (P_4/3) \times 100, \quad (1)$$

where

I_1 —the index obtained by the company under business model, policies, risks related to CSR issues,

I_2 —the index obtained by the company under environmental matters,

I_3 —the index obtained by the company under social and employee related matters,

I_4 —the index obtained by the company under ethical matters,

P_n —number of points obtained by the company under each category.

A combined index was developed in order to assess the overall extent and quality of social, environmental, and ethical disclosures:

$$I = (I_1 + I_2 + I_3 + I_4)/4 \quad (2)$$

The combined index is a measure of the main dependent variable, i.e., total CSR disclosure level. The maximum overall number of points (60) corresponds to a maximum combined index of 100%.

In the analysis, we take into consideration two other dependent variables as well: environmental disclosure level and social disclosure level. They are measured by I_2 and I_3 indices, respectively.

5.3. Measurement of Independent Variables

The independent variables selected for the analysis of the factors influencing CSR disclosure level are presented in Table 2. Following Tagesson et al. [53], two variables, employment size and turnover, are used as a proxy of company size.

Corporate reputation is measured by means of four variables: inclusion in the Respect Index portfolio, inclusion in the largest review of socially responsible business activities in Poland, auditor type, and duration of the stock exchange listing. Michelin [76] used participation in the Dow Jones Sustainability Index (DJSI) as an indicator of corporate reputation. The results show that companies with a strong reputation provide a significantly higher amount of CSR disclosures to their stakeholders. In our study we follow Michelin’s approach using inclusion in the RESPECT Index at the Warsaw Stock Exchange as a proxy for corporate reputation. Respect Index is a total return index that takes into account income from dividends and rights issues. The name of the index is an acronym of the main values which should be followed by the companies included in it: Responsibility, Ecology, Sustainability, Participation, Environment, Community, and Transparency. It was published on 19 November 2009.

The second measure used to assess corporate reputation is inclusion in the report entitled ‘Responsible Business in Poland. Good Practices’. The report is a cyclical publication prepared by the Responsible Business Forum (RBF). It is a collection of companies’ CSR activities undertaken in a particular year. In this way, the RBF helps to create the largest overview of CSR activities in Poland (the most recent edition brings nearly 700 practices). The practices described in the Report represent a

unique picture of CSR practices undertaken by companies operating in Poland. The Report also brings expert commentaries, media analysis, and calendar of events. The Report is a source of inspiration for those who start their activity and seek new solutions. The first edition of the Report was published in 2002.

Indicators of the company's internationalization taken into consideration include: foreigners on the board, foreign capital share, and the company's activity abroad.

5.4. Regression Analysis of the Relationship between CSR Disclosure Level and Independent Variables

In our analysis, values of dependent variables (total CSR disclosure level—CSR_DIS, environmental disclosure level—ENV_DIS, and social disclosure level—SOC_DIS), are continuous and have a lower bound of zero (this zero value occurs 33 times for the variable ENV_DIS, 23 times for the variable SOC_DIS, and 8 times for the variable CSR_DIS). In this case, a linear regression model is not appropriate and instead a Tobit model (a censored regression model) should be used.

This model assumes that we model a latent variable y^* . The observable dependent variable y is defined to be equal to the latent variable whenever the latent variable is above zero and zero otherwise:

$$y = \begin{cases} y^* & \text{if } y^* > 0 \\ 0 & \text{if } y^* \leq 0 \end{cases} \quad (3)$$

The equation used to model a linear relationship between the set of independent variables and the dependent variable whose values are censored is the following:

$$y^* = a_0 + a_1x_1 + \dots + a_nx_n + \varepsilon, \varepsilon \sim N(0, \sigma). \quad (4)$$

In the case of this form of the model the OLS estimators are not consistent and therefore the parameters of the Tobit model should be estimated by means of the maximum likelihood method.

In order to examine the relationship between CSR disclosure level and independent variables, we have estimated three Tobit models: model 1 (for total CSR disclosure), model 2 (for environmental disclosure), and model 3 (for social disclosure). The hypotheses were tested at the significance level of 0.05. Calculations were performed using Gretl 2017c software.

6. Results

6.1. Descriptive Statistics

Table 3 reports the descriptive statistics for both dependent and independent variables. The average level of CSR disclosure in the sample is low. The differences between three means for total CSR and environmental and social disclosure are not significant. More than half of companies do not disclose any environmental information in their annual reports (median and minimum are equal to zero). A considerable variability in CSR disclosure level can be observed, as the coefficient of variation (i.e., the ratio of the standard deviation to the mean) for three dependent variables exceeds 60%. The distribution of variables is skewed.

6.2. Tobit Regression Analysis

In order to reduce the influence of outliers, a robust estimation was performed using Gretl software and the obtained results of Tobit regression analysis for models 1–3 are presented, respectively, in Tables 4–6. It has turned out that the problem of multicollinearity of dependent variables does not occur: variance inflation factors (VIF) for particular dependent variables are in the range from 1.23 to 2.07 at the acceptable value of 10. The normality tests used (Pearson chi-square test and Lilliefors test) have positively verified the assumption of normality of residuals in the estimated models.

Table 3. Descriptive statistics for the dependent and independent variables.

Variable	Median	Mean	Standard Deviation	Min.	Max.	Skewness	Kurtosis
CSR_DIS	7.290	11.533	13.304	0.000	63.690	2.129	4.381
ENV_DIS	0.000	10.159	20.212	0.000	95.238	2.509	5.815
SOC_DIS	4.170	9.861	14.595	0.000	58.333	2.117	3.851
EMPL	3219.500	7090.867	8671.200	542.000	40,344.000	1.989	3.462
TURN	470.140	1614.937	3527.500	41.100	25,064.400	5.217	31.027
PROF	0.049	0.066	0.096	−0.096	0.583	2.733	12.538
LEV	0.427	0.466	0.198	0.111	1.307	1.521	4.089
IND *	1.000	0.633	0.485	0.000	1.000	−0.553	−1.693
BFSIZE	4.000	4.233	1.671	1.000	11.000	1.076	2.960
WBOARD	0.000	0.097	0.167	0.000	0.600	1.562	1.217
FBOARD	0.000	0.064	0.182	0.000	1.000	3.419	12.410
FSHARE	0.153	0.232	0.219	0.000	0.804	0.837	−0.347
ABR	2.000	4.217	5.253	0.000	21.000	1.684	2.316
RESP *	0.000	0.317	0.469	0.000	1.000	0.788	−1.378
G_PR *	0.000	0.267	0.446	0.000	1.000	1.055	−0.886
AUD *	1.000	0.817	0.390	0.000	1.000	−1.637	0.679
LIST	150.000	142.583	69.518	6.000	256.000	−0.386	−1.087

* Dummy variable; Dependent variables: CSR_DIS—total CSR disclosure level, ENV_DIS—environmental disclosure level, SOC_DIS—social disclosure level; Independent variables: EMPL—employment size, TURN—turnover, PROF—profitability, LEV—financial leverage, IND—industry environmental sensitivity, BFSIZE—board size, WBOARD—women on the board, FBOARD—foreigners on the board, FSHARE—foreign capital share, ABR—company’s activity abroad, RESP—inclusion in the Respect Index portfolio, G_PR—inclusion in the largest review of socially responsible business activities in Poland, AUD—auditor type, LIST—duration of the stock exchange listing.

Table 4. Tobit regression analysis results for model 1 (total corporate social responsibility (CSR) disclosure).

Hypothesis	Variable	Coefficient	Standard Deviation	z-Statistic	p-Value
	Intercept	6.6837	7.7481	0.8626	0.3883
H1	EMPL	−0.0003	0.0002	−1.1160	0.2646
H1	TURN	0.0015	0.0004	4.2250	0.0000 ***
H2	PROF	−4.9696	14.2589	−0.3485	0.7274
H3	LEV	−11.8727	7.0576	−1.6820	0.0925 *
H4	IND	8.7084	2.8121	3.0970	0.0020 ***
H5	BFSIZE	−0.4137	0.8953	−0.4621	0.6440
H6	WBOARD	5.1740	9.9399	0.5205	0.6027
H7	FBOARD	8.4617	6.9365	1.2200	0.2225
H7	FSHARE	3.2384	6.5435	0.4949	0.6207
H7	ABR	0.2819	0.3036	0.9285	0.3531
H8	RESP	8.0803	3.9100	2.0670	0.0388 **
H8	G_PR	5.3939	4.1149	1.3110	0.1899
H8	AUD	7.3060	3.9299	1.8590	0.0630 *
H8	LIST	−0.0532	0.0212	−2.5040	0.0123 **
Number of observations		60	Number of observations censored		8
Chi-square	58.9032	p-value	0.0000	Log-likelihood	−202.0150
Akaike information criterion	436.0300		Hannan-Quinn information criterion		449.1374
Schwarz information criterion	469.5395		Sigma (standard error)		10.4825 (1.3968)

*** Significant at the 0.01 level, ** significant at the 0.05 level, * significant at the 0.10 level.

6.3. Total CSR Disclosure

The results of the Tobit regression analysis for model 1 are presented in Table 4. On considering total CSR disclosure level, we have found four variables to be statistically significant: turnover, industry environmental sensitivity, inclusion in the Respect Index portfolio, and duration of the stock exchange listing. The regression coefficients on the first three variables are positive, whereas—against expectations—the duration of the stock exchange listing is negatively related to CSR disclosure level. The higher level of total CSR disclosure occurs in companies with higher turnover, from an industry with a negative impact on environment, included in the Respect Index portfolio and with shorter duration of the stock exchange listing. Two variables: financial leverage (LEV) and auditor type (AUD) are significant at the level of 0.10.

6.4. Environmental Disclosure

Statistically significant determinants of environmental disclosure level (cf. Table 5) include: turnover, industry environmental sensitivity, duration of the stock exchange listing, and foreign capital share. The higher level of this disclosure is observed in companies with higher turnover, from an industry with a negative impact on environment, with shorter duration of the stock exchange listing and higher foreign capital share. The variable G_PR (inclusion in the largest review of socially responsible business activities in Poland) is significant at the level of 0.10.

Table 5. Tobit regression analysis results for model 2 (environmental disclosure).

Hypothesis	Variable	Coefficient	Standard Deviation	z-Statistic	p-Value
	Intercept	−30.6810	19.8400	−1.5460	0.1220
H1	EMPL	−0.0002	0.0003	−0.5626	0.5737
H1	TURN	0.0037	0.0005	8.2270	0.0000 ***
H2	PROF	−29.9343	40.3462	−0.7419	0.4581
H3	LEV	−12.2142	16.4474	−0.7426	0.4577
H4	IND	33.7207	8.0595	4.1840	0.0000 ***
H5	BSIZE	0.3590	1.8928	0.1897	0.8496
H6	WBOARD	10.9808	19.7441	0.5562	0.5781
H7	FBOARD	−12.1484	20.7559	−0.5853	0.5583
H7	FSHARE	40.0273	18.6811	2.1430	0.0321 **
H7	ABR	0.9884	0.8657	1.1420	0.2536
H8	RESP	1.4960	8.8362	0.1693	0.8656
H8	G_PR	16.8402	8.8063	1.9120	0.0558 *
H8	AUD	15.8670	10.4590	1.5170	0.1293
H8	LIST	−0.1815	0.0484	−3.7520	0.0002 ***
Number of observations		60	Number of observations censored		33
Chi-square	190.5147	p-value	0.0000	Log-likelihood	−130.2512
Akaike information criterion		292.5024	Hannan-Quinn information criterion		305.6098
Schwarz information criterion		326.0119	Sigma (standard error)		18.8395 (3.0207)

*** Significant at the 0.01 level, ** significant at the 0.05 level, * significant at the 0.10 level.

6.5. Social Disclosure

Based on the regression analysis results for model 3 (cf. Table 6), it can be stated that turnover and duration of the stock exchange listing are the only factors influencing social disclosure level. Similarly, as for total CSR and environmental disclosure, the higher level of social disclosure is observed in companies with higher turnover and with shorter duration of the stock exchange listing. There is

no significant relationship between the extent and quality of disclosing social information and the rest of independent variables considered at the adopted significance level of 0.05 (however, two of the variables: industry environmental sensitivity and inclusion in the Respect Index portfolio are significant at the level of 0.10).

Table 6. Tobit regression analysis results for model 3 (social disclosure).

Hypothesis	Variable	Coefficient	Standard Deviation	z-Statistic	p-Value
	Intercept	0.9225	12.7708	0.0722	0.9424
H1	EMPL	−0.0004	0.0003	−1.1790	0.2382
H1	TURN	0.0022	0.0004	5.4250	0.0000 ***
H2	PROF	8.3546	21.3389	0.3915	0.6954
H3	LEV	−6.6749	11.2952	−0.5909	0.5546
H4	IND	8.3564	4.7559	1.7570	0.0789 *
H5	BSIZE	1.2558	1.5119	0.8306	0.4062
H6	WBOARD	6.3357	13.5425	0.4678	0.6399
H7	FBOARD	8.7681	10.8821	0.8057	0.4204
H7	FSHARE	−20.7677	12.8848	−1.6120	0.1070
H7	ABR	0.2109	0.4901	0.4303	0.6670
H8	RESP	12.7078	6.7090	1.8940	0.0582 *
H8	G_PR	−0.8829	5.6263	−0.1569	0.8753
H8	AUD	5.8154	6.5039	0.8941	0.3713
H8	LIST	−0.0785	0.0299	−2.6270	0.0086 ***
Number of observations		60	Number of observations censored		23
Chi-square	63.6118	p-value	0.0000	Log-likelihood	−164.2471
Akaike information criterion		360.4943	Hannan-Quinn information criterion		373.6017
Schwarz information criterion		394.0038	Sigma (standard error)		14.3475 (2.0122)

*** Significant at the 0.01 level, * significant at the 0.10 level.

6.6. Hypotheses Verification

Significant factors influencing CSR disclosure level are:

- turnover (total, environmental, and social disclosure),
- duration of the stock exchange listing (total, environmental, and social disclosure),
- industry environmental sensitivity (total and environmental disclosure),
- inclusion in the Respect Index portfolio (total disclosure),
- foreign capital share (environmental disclosure).

The H1 hypothesis is partially supported due to the fact that only one proxy for company size, i.e., turnover, has a positive effect on CSR disclosure. The higher the turnover is, the higher the level of total CSR disclosure, as well as environmental and social disclosure. As far as employment size is concerned, the results of the Tobit regression analysis show that this variable is not significantly associated with the extent and quality of non-financial reporting. Results of regression models 1 and 2 suggest that companies from industries with a negative impact on environment disclose more (overall) CSR and environmental information as compared to other companies. Therefore, the H4 hypothesis is supported. Only one indicator of the company's internationalization taken into consideration (foreign capital share) has turned out to be related to the environmental disclosure level. The H7 hypothesis is thus partially supported. We have found the relationship between the company's reputation and CSR disclosure in the case of two of the four variables considered: duration of the stock exchange listing and inclusion in the Respect Index portfolio. Therefore, the H8 hypothesis is partially supported.

However, the influence of these variables on the CSR disclosure level is different. For total CSR and environmental and social disclosure, we have not found any association between disclosure level and profitability, financial leverage, board size, and women on the board. Therefore the H2, H3, H5, and H6 hypotheses are not supported.

7. Discussion

The profit-maximizing rule proposed by the traditional theory of economics as one and only aim of business operations does not explain the behavior of many types of companies that is observed nowadays. Although this approach still has many supporters, business executives more and more often recognize the importance of non-economic purposes, declare them as part of their companies' mission, assume responsibility for their implementation, and disclose information on their achievement in annual reports. CSR disclosure is a response to the changes that have occurred in business operations in recent years and which, among other things, consist in the growing belief that companies' social and environmental performance has an impact on their general performance.

In this study we have attempted to investigate the factors that affect the CSR disclosure among companies listed on the Warsaw Stock Exchange. We have determined the quality of CSR disclosure with the use of the disclosure index based on the Directive 2014/95/EU [7]. From among potential factors influencing the CSR information presented in corporate annual reports, we have chosen: company size, profitability, financial leverage, industry environmental sensitivity, board size, women on the board, internationalization, and reputation. In order to examine the relationship between CSR disclosure (total, environmental, and social) and independent variables, three Tobit regression models have been used. They refer to: (1) total CSR disclosure level; (2) environmental disclosure level; and (3) social disclosure level.

The results of the research allow us to state that—in contrast to the majority of studies conducted up to date—the company's size cannot be perceived unequivocally as a determinant of CSR disclosure. The outcome of the verification of the first hypothesis (H1), according to which company size has a positive effect on CSR disclosure, varies depending on the size measure. Only one proxy of company size, i.e., turnover, has a positive effect on CSR disclosure while employment size turns out not to be significantly associated with it. The reason for this might be the fact that companies with high turnover are perceived as more visible to stakeholders such as suppliers, retailers, customers, and are prone to their scrutiny. They care for the maintenance of their good corporate image in order to acquire and retain the business partners' and customers' loyalty. They are also able to absorb extra costs of CSR disclosure. Following Tagesson et al. [53], who also used these two proxies in order to determine the company's size, social disclosures can be expected to be more affected by a corporation's number of employees than by its turnover, while other areas of disclosures might be more affected by corporate turnover. However, this was not the case in our findings, as social CSR disclosure was not significantly affected by employment size.

The next two hypotheses (H2 and H3), which tested the association between CSR information and financial measures, are not supported. Neither profitability nor financial leverage seem to explain the differences in CSR disclosure practices in Polish companies. No relationship between total CSR disclosure and leverage could be explained by the way Polish companies are financed. In Poland, the most popular source of financing is via bank credits and other financial institutions and, according to the literature, it is expected that debt has a less significant effect on voluntary disclosure [45]. A similar situation occurs with the corporate governance proxies such as board size and the presence of women on the board of directors (H5 and H6). These factors do not influence the CSR disclosure of Polish companies. This finding is in line with the results obtained by Khan [50] and Cheng and Courtenay [65]. Because of the fact that CSR in Poland is mainly driven by the influx of foreign investors, we have decided to test whether internationalization is a factor which influences CSR disclosure. In fact, only foreign capital share has turned out to be important in the context of the environmental disclosure.

In our study we also pose a hypothesis (H4) that there is a positive relationship between industry environmental sensitivity and CSR disclosure. This hypothesis is supported because we have found a significant relationship between industry and CSR disclosure. The research results suggest that companies from industries which have a negative impact on environment provide better quality CSR disclosure compared to other companies. Similar results were obtained by e.g., Bayoud et al. [44], Gamerschlag et al. [51], Reverte [41], Ho and Taylor [55], and Haniffa and Cooke [47]. The results of the study by Cho and Patten [83] confirm that companies use environmental disclosures as a legitimizing tool. This finding is in line with the literature and also with the assumptions in the legitimacy theory, as corporations within, e.g., raw materials industry usually disclose more environmental information. They emphasize environmental as well as health and safety issues, which are important in this industry, in order to legitimize their operations.

The last hypothesis (H8) states that there is a relationship between the company's reputation and CSR disclosure. In fact, the inclusion in the Respect Index portfolio and duration of the stock exchange listing influence CSR disclosure. The first proxy is positively related to CSR disclosure. The Respect Index includes companies which are managed in a responsible manner, and are characterized, among others, by high quality of investor relations. They also provide, as expected, high level of the CSR disclosures. However, contrary to our expectations, the Tobit regression analysis has led to the conclusion that there is a negative relationship between CSR disclosure and the second proxy for reputation—the duration of the stock exchange listing. The reason for this situation might be the fact that companies with longer listings paid more attention to CSR disclosure during the initial years of their presence on the stock exchange and, as time goes by, they either neglect this area of their activity or present 'boilerplate' disclosures. In contrast, companies which are relatively 'new' on the stock exchange are motivated to enhance their transparency with better quality CSR disclosures. They are also more up to date with the new voluntary requirements and initiatives in this matter, including the Directive 2014/95/EU, prior to its official endorsement.

According to the research results, it seems that the legitimacy theory is the most relevant one for explaining CSR disclosure practices of Polish listed firms, as captured by the variables related to social visibility. Polish firms report on CSR activities in order to respond to public pressures and build or sustain corporate legitimacy. Companies whose operations are harmful to the environment use CSR disclosures as a means to publicize their image and legitimize their corporate initiatives. In addition, companies with higher turnover are motivated to devote more financial resources to initiatives promoting a positive impression of their performance. Corporate legitimacy is also related to public or social visibility. The positive influence of the inclusion in the RESPECT Index on CSR disclosures is proof that Polish firms that act in a socially responsible manner are capable of providing high-quality CSR disclosure. Companies under investigation report on CSR activities mainly to act and be seen as acting within the bounds of what is considered acceptable according to the expectations of society about how their operations should be conducted.

The study which we propose in this paper is not free from limitations. Firstly, the results should not be generalized, as the sample is based on 60 companies listed on the WSE and reports published for one year—2014. Secondly, this study incorporates only large companies listed in WSE Indices and neglects SMEs, as their corporate data is difficult to collect. The comparison of the two groups of companies could be valuable for the purpose of exploring the differences in CSR disclosure strategies and policies. Thirdly, this study uses disclosure index which is based on the Directive 2014/95/EU [7] requirements to measure CSR disclosures presented in the narrative and numerical form. Firms often use pictures and diagrams to disclose some CSR information. These have not been captured by the index.

Despite the above-mentioned limitations, we believe that our study has several potential theoretical and practical implications. The research results provide evidence on CSR disclosures in a context different from the traditional settings. The institutional context in Poland (a post-communist country with relatively low disclosure requirements and reliance on banks rather than shareholders for

funding, as well as being not very advanced in CSR issues) provides an opportunity to investigate CSR disclosures beyond traditional settings (countries with no communist history, that are more transparent, with more developed stock markets and security regulations, and are more familiar with the CSR concept). Most of the present literature is based on the Anglo-Saxon and West-European countries, and we believe that evidence from other contexts should also be added into it. Our study stresses the importance of CSR disclosures not only for Poland but also for the CEE countries in general. Further studies could use a similar methodology with regard to the Western-European countries. Comparing the results would make it possible to identify the areas for improvement, as well as to determine a set of good practices which could be followed by Poland and other CEE countries where the CSR development processes are less advanced.

We also believe that this paper enriches the literature on the content analysis of the CSR disclosures. There are different approaches proposed in the literature to measure these disclosures with the use of disclosure indexes. In our paper, we follow the new methodology for the measurement of the quality of CSR disclosures, which is up to date and takes into account the latest developments in accounting introduced by the Directive 2014/95/EU [7]. In our opinion, this paper also enhances the literature on the factors influencing CSR disclosures. There is a vast amount of literature which investigates the factors influencing the information content of CSR disclosures in the annual report. We add to this stream by providing new factors such as internationalization and reputation. The latter has not been much explored in the literature. According to Kolk and Fortanier [71], the lack of attention to internationalization as an explanatory factor for disclosure is an important gap in the literature. In our paper we have made an attempt to bridge this gap. We have also benefited from the fact that the RESPECT Index was established in Poland in 2009, for the first time in the CEE region. We have been able to use it as a proxy for corporate CSR reputation, as it covers the portfolio of listed companies which have adopted CSR standards, and to identify its significant influence on the quality of CSR disclosure.

The study is also relevant for practice. It can be useful for the Polish companies to recognize the performance aspects that are essential to enhancing their CSR disclosure. The association of the industry type with CSR disclosure could urge corporate managers to improve their knowledge of CSR in order to adapt disclosure practices relevant to industry to which the company belongs. The results can also be relevant for the audit profession and policy-makers. The implication for these groups is that the development of disclosure regulation should focus on companies with lower turnover, not included in the RESPECT Index, from less environment-threatening industries and with lower foreign capital share, which are least likely to disclose adequately the impact of their business operations on CSR disclosure.

Although the results of this study provide greater understanding of factors influencing CSR disclosures, further research is needed. Our study is based on only one-year disclosure data and needs to enclose more annual data to generalize the results. A longitudinal analysis could explore how companies change their CSR disclosure over time. In addition, it would be valuable to explore how CSR disclosure is developed in other CEE countries. In this way, it would be possible to verify whether the institutional or cultural dimensions are important elements to understand the concept of CSR or to generalize the results irrespective of the country where the companies operate. It would also be interesting to conduct further research with different samples of companies, such as SMEs, to record whether the results are meaningful. A comparison of the two groups of companies could be valuable for the purpose of exploring the differences in CSR disclosure strategies and policies. What is more, the development of CSR disclosure score could be based not only on annual reports but also on other means of corporate communication, such as CSR reports or official corporate websites. Finally, other corporate characteristics could be examined, such as environmental fines, accidents in the work place, carbon dioxide, or other greenhouse gases emissions. In addition, external stakeholders' perceptions could also be considered in future research using different methodological tools, such as interviews to specify their opinions on the company's characteristics and the level of CSR disclosure.

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