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Correlation between ESG reporting and financial performance: the case of Helsinki Nasdaq

Bachelor's thesis

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has not been previously presented for grading.

The document length is 8789 words from the introduction to the end of the conclusion.

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ABSTRACT

The emerging sustainability and development crises require future-oriented actions from companies to mitigate and adapt to climate change. There is a growing demand from investors and other stakeholders for companies to engage in global sustainability work. This study aimed to determine the correlation between ESG reports and the financial performance of companies listed on the Helsinki Nasdaq, analyse the effect of the reporting method applied, and compare industries, as some might face more obstacles in their line of business. The analysis was conducted using quantitative methods, specifically correlation analysis and ANOVA. The results indicate that reporting had increased from 2019 to 2021. There is a weak but positive correlation between ESG reporting and financial performance. Companies that publish reports on their ESG practices are also fairly more profitable and have a higher value than non-reporting companies. The reporting format had differences in profitability values but not in firm value. Moreover, industries with a high level of participation in ESG reporting tend to have higher ROA and EPS, although the impact varies across industries.

Keywords: ESG, ESG reporting, Financial Performance

INTRODUCTION

The sustainability and development crisis has emerged as one of the critical challenges in the 21st century. The most recent reminder was the Covid-19 outbreak, which forced businesses to re-evaluate strategies for managing and recovering from challenging times. Early action to reduce the effects and adapt to the challenges of the sustainability crisis would significantly lower future costs and damage to people and nature (IPCC, 2023, p. 56). There planning and budgeting play a crucial role, as they are tools organisations use to evaluate the current performance to align it with its future vision, as Horngren et al. (2008) noted. In line with the growing focus on preventive actions, the European Parliament issued a directive in 2021 as part of its European Green Deal, further highlighting the need for pro-activation. To be prepared for future changes, companies need to plan for alternative solutions (Finucane et al., 2020), with a particular focus on environmental, social, and governance initiatives.

According to the consultancy report of the IFRS Foundation (2020, pp. 4-5), the growing demand from stakeholders, particularly investors, is one of the main motivating factors for companies to engage in sustainability actions and reporting. To enhance the evaluation of investment targets, investors are constantly looking for additional non-financial information about companies and are sincerely concerned about the effects of business operations on the environment (Friedman et al., 2021). Research by Amel-Zadeh & Serafeim (2018) found that investors tend to be more interested in the financial opportunities of ESG programs. However, it is evident that ESG initiatives have evolved into an essential component of corporate sustainability. Later on, ESG will provide critical information for companies and other users who want to understand the impact of actions on the environment and society.

After reviewing the present status of ESG reporting and past examinations, it turned out that while there is much research about the connection between Corporate Sustainability Reporting (CSR) and financial performance, few exclusively measure the link between ESG and financial performance. Furthermore, the existing studies' findings varied greatly, with some indicating a positive correlation and others indicating a negative link or none at all (Friede et al., 2015). The engagement can be risky, as joining means additional expenses by the analyses and measuring of the operations, which also need adjusting and may not show achievements in the first years. 99.7%

of the companies in Finland are classified as small or medium-sized, implying, on average, about 0-4 employees (Tilastokeskus, n.d.). Understandably, resources in such companies are limited, and the decision to join voluntary activities must be well thought out. The slacking standardisation and reporting inconsistency also create challenges for organisations to communicate the performance to external users.

As found in previous reports, arguments for and against the association of ESG with a corporation's performance exist. This study aims to determine the correlation between ESG reports and the financial performance of companies listed on the Helsinki Nasdaq and analyse the effect of the reporting method applied. The stock exchange includes businesses from multiple industries; some might face more obstacles in their line of business when taking actions towards sustainable solutions than others. When lining out the topic, the author decided that the global pandemic will be taken into account where suitable but is not the main focus of the research. After the topic was formed the following three questions were formulated based on the research aim:

1. What is the correlation between ESG reports and financial performance?
2. Does the reporting format impact the relation?
3. Is there a difference in the relationship between industries?

The thesis is divided into three parts. The theoretical part (1) includes three chapters that will deliver relevant literature regarding ESG and financial performance. The first chapter will introduce the concept of Sustainability and Corporate Social Responsibility as a phenomenon with the distinction of ESG. This works as a base for the second chapter on ESG reporting and its stimulants. Beginning with a summary of the development of the legal frameworks in the European Union, complemented by explaining reasons behind the growing interest of stakeholders in sustainable matters as well as the relation and measures of ESG and performance with an overview of the perspectives already explored and their results. After the theoretical background, the research will move on to the empirical part (2), introducing the empirical knowledge and methods used to achieve the research objectives. It starts with a justification for the methodology used, the sources for data collection and the tools used for gathering. The last part (3) will give a detailed data analysis of the results of the empirical study and ends with a summary of the results of the research with proposals and possibilities for further research in the future.

1 THEORETICAL APPROACH TO ESG

Following chapters will utilise literature sources and theories to offer the necessary information about ESG reporting and financial performance to understand the research's real-timeliness and importance in today's world. Therefore, the last chapter will summarise the current state of the research based on the evidence obtained from previous studies and information.

1.1. Corporate social responsibility and sustainability

Before going into the concept of ESG, it is crucial to consider sustainable development in a broader context and include CSR and SDGs in the picture, as they are the basis for ESG. Defining sustainability and development depend on the context and objective they are related to. However, some similarities can be derived from the concepts in general. The Cambridge Dictionary (n.d.) offers a measurable dimension of time to the concept of sustainability, explaining it as: ”the quality of being able to continue over a period of time“. United Nations General Assembly's (1997) definition of development emphasises the resistance to development, implying that the current advancement must not eliminate opportunities from the future. Therefore, in order for development to be sustainable, it must be a continuous effort that aims to prevent the continuation of harmful actions. In the specific context of business, one definition of sustainability focuses on reducing the effects of operations (IBM, n.d.) to continue the business over time. Corporate responsibility is not a new idea, ESG just represents the forthcoming phase of it. Corporate Social Responsibility (CSR) was the concept that was introduced before ESG and encompassed both sustainability and development under one concept. One possible definition focuses on reducing the impact of an organisation’s behaviour, acting over the requirements, and promoting the general welfare of society (McWilliams & Siegel, 2001, p. 117). However, CSR incorporates the issues of the aforementioned terms of being hard to define and multidimensional (Gorski et al., 2017). According to McWilliams et al. (2006, pp. 8-9), a clear and universally accepted definition would make developing theoretical frameworks and methods for assessing CSR problems easier. According to Schönherr et al. (2017), Sustainable Development Goals (SDGs) might have offered harmony to the framework practices of CSR and eased the setting up of measurements. Thereby

also performing as a base for the ESG later. As these SDG goals are part of the United Nation’s (UN) 2030 sustainable development agenda, which consists of 17 aims and 169 targets assigned and adopted by the 193 United Nations Member States in the Autumn Conference in 2015 (United Nations, n.d.). This same guideline was similarly implemented in the regulations and directives of the European Union to accelerate engagement and unity in the EU area. Many organisations in the EU have also joined the work voluntarily by containing ESG matters in their businesses.

1.1.1. Environmental, social and governance and CSR

As ESG is closely related to and sometimes even used with CSR. This subsection will define the former expression and differentiate the bases for these two concepts. The author also considered it essential to cover the primary reasons that drive companies to engage in the ESG phenomenon to understand the .

ESG stands for Environmental, Social and Governance. It is an ethical framework that assesses companies based on their performance in three areas: environmental impact, social responsibility, and corporate governance (Emerick, n.d.). There, CSR stands for the promises a business will adopt to drive development, and ESG means the actual measures established to evaluate the practices. Concerns about the environment (E) include biodiversity protection and the promotion of the circular economy (Deloitte, n.d.). Social (S) considerations of labour relations and concentration on human rights with equality, therefore organisations must also manage their administration, including management structures and employee relations, to include social and environmental concerns in governance (G) aspects (Ibid., n.d.). Besides being a sustainability measure, ESG is fundamental for non-financial information that can affect firms' performance (Harper Ho, 2016, p. 3). ESG ratings are tool for investors to evaluate the companies’ non-financial risks and opportunities (Investopedia, 2022). ESG ratings, which include an analysis of a company's ESG performance, are offered by several providers such as Bloomberg and Sustainalytics. These ratings are of particular interest to investors seeking to make informed investment decisions based on a company's sustainability practices. However, reporting ESG performance has been a decision of the companies, and the standardisation have slacked (Hespenheide & Kuszweski, 2020, pp. 2-4). A need has risen for more reliable and consistent reporting. The same motivation has played a crucial role in shaping the legal landscape.

1.2. ESG Reporting

As the amount of literature concerning sustainability reporting is massive, this study will briefly introduce the reporting standards and guidelines as well as the institutions responsible for setting them to get a sufficient idea of the current reporting frameworks. The leading reason companies produce ESG reports is to communicate their sustainability efforts and achievements to stakeholders, as initiated in the last subsection. Hespenheide and Kuszewski (2020, p. 5) point out that the reporting must also include the risks and challenges of the economic, environmental, and social environment the company may encounter. In other words, in addition to the achievements and participation in sustainable development, it is necessary to report the downsides, as that is an important part of the transparency and reliability that stakeholders are missing. The International Survey of Corporate Sustainability Reporting by KPMG emphasises that the information should also use qualitative aspects and methodologies (Kolk et al., 2002) to inform the performance of sustainability efforts extensively enough that the external users of the organisation are able to get a sufficient picture of the performance obstacles and achievements. Combining different methods and elements supports the comprehensiveness of the impact of the company's operations on the environment and society.

As explained in the last section, the non-financial reporting standards and guidelines are not yet as substantial and specific as financial reporting standards. The absence of a universal concept makes drawing lines in the reporting hard. Even though there are many frameworks provided by, e.g., the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB), each of them has their own set of suggestions and requirements. This is making reporting rather confusing to the businesses and the statements difficult to analyse equivalently (IFRS Foundation, 2021, p. 2). Another main challenge currently is the slow adaptation to the challenges and implementation process of the measures, according to Intergovernmental Panel on Climate Change (2023, p. 23) report. Already in 2020, the framework providers: CDP, the Climate Disclosure Standards Board (CDSB), GRI, the International Integrated Reporting Council and SASB combined forces to issue a collaborative reporting system: according to which various frameworks and standards can be blended in disclosures to serve the companies needs better (IFRS Foundation, 2022). At the end of 2021, IFRS Foundation, Value Reporting Foundation (VRF) and CDSB took a step to simplify sustainability disclosure and launched the International Sustainability Standards Board (IFRS Foundation, 2022). Starting in 2023, the upcoming phase will enforce the latest

regulations for sustainability reporting in the EU area, with mandatory new standards of the European Financial Reporting Advisory Group (EFRAG).

1.2.1. EU regulation on non-financial reporting

From 2014 onwards EU introduced the Non-Financial Reporting Directive (NFRD) 2014/95/EU to enhance the coherence and comparability of information and to facilitate the shift of the economy to a sustainable direction. The Non-Financial Reporting Directive (NFRD) 2014/95/EU obligated the disclosure of the sustainability practices of large public companies with more than 500 employees. According to de Groen et al. (2021, p. 7) this forced around 11 500 enterprises around the EU to disclose information about their non-financial and diversity matters. The European Union required companies to include a reportage in their annual statements to recognise the company's performance, development, and activities, including market status, to be able to evaluate the harmfulness of operations on the environment (Directive 2014/95/EU). At a minimum, Directive 2014/95/EU included an explanation of environmental, social, and employee-related issues, with actions taken to support human rights as well as prevent corruption and bribery. Article 19a also specified that information including:

> “(a) a brief description of the undertaking's business model;
> (b) a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented;
> (c) the outcome of those policies;
> (d) the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks;
> (e) non-financial key performance indicators relevant to the particular business”
> (Directive 2014/95/EU, Article 19a), should be stated with the other required information to be able to form comprehensive picture of the actions taken.

However, the directive ended up failing to achieve the expectations of reliability and comparability by the interest groups of the businesses. Moreover, a large number of organisations were left outside the scope of the directive, which left stakeholders craving

more. Therefore, the European Parliament and Council initiated a complementary regulation: Corporate Sustainability Reporting Directive (CSRD) (EU) 2022/2464 in April 2021. The revised directive bound companies that met two criteria: over 250 employees, a net return of over 40 million and a balance sheet of over 20 million, to become the subject of the new directive (Directive (EU) 2022/2464). The scope increased to oblige over 50 000 organisations in the EU area to disclose information regarding their impact on society and the environment and the potential sustainability risks they may face starting from 2023 (European Commission, n.d.). The European Union kept the same criterion body as the previous directive (NFRD 2014/93/EU), enhancing regulatory principles based on the lack of reliability and consistency to the requirements on the description of business strategy. Moreover, Article 19a incorporates targets of the 2030 and 2050 agendas as follows:

"(a) a brief description of the undertaking's business model and strategy, including:
(i) the resilience of the undertaking's business model and strategy in relation to risks related to sustainability matters;
(ii) the opportunities for the undertaking related to sustainability matters;
(iii) the plans of the undertaking, including implementing actions and related financial and investment plans, to ensure that its business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1,5 °C in line with the Paris Agreement under the United Nations Framework Convention on Climate Change adopted on 12 December 2015 (the 'Paris Agreement') and the objective of achieving climate neutrality by 2050 as established in Regulation (EU) 2021/1119 of the European Parliament and of the Council (*8), and, where relevant, the exposure of the undertaking to coal-, oil- and gas-related activities;
(iv) how the undertaking's business model and strategy take account of the interests of the undertaking's stakeholders and of the impacts of the undertaking on sustainability matters;
(v) how the undertaking's strategy has been implemented with regard to sustainability matters;
(b) a description of the time-bound targets related to sustainability matters set by the undertaking, including, where appropriate, absolute greenhouse gas emission reduction targets at least for 2030 and 2050, a description of the progress the undertaking has made towards achieving those targets, and a statement of whether the undertaking's targets related to environmental factors are based on conclusive scientific evidence;

(c) a description of the role of the administrative, management and supervisory bodies with regard to sustainability matters, and of their expertise and skills in relation to fulfilling that role or the access such bodies have to such expertise and skills;
(d) a description of the undertaking's policies in relation to sustainability matters;
(e) information about the existence of incentive schemes linked to sustainability matters which are offered to members of the administrative, management and supervisory bodies;
(f) a description of:
(i) the due diligence process implemented by the undertaking with regard to sustainability matters, and, where applicable, in line with Union requirements on undertakings to conduct a due diligence process;
(ii) the principal actual or potential adverse impacts connected with the undertaking's own operations and with its value chain, including its products and services, its business relationships and its supply chain, actions taken to identify and monitor those impacts, and other adverse impacts which the undertaking is required to identify pursuant to other Union requirements on undertakings to conduct a due diligence process;
(iii) any actions taken by the undertaking to prevent, mitigate, remediate or bring an end to actual or potential adverse impacts, and the result of such actions;
(g) a description of the principal risks to the undertaking related to sustainability matters, including a description of the undertaking's principal dependencies on those matters, and how the undertaking manages those risks;
(h) indicators relevant to the disclosures referred to in points (a) to (g)" (Directive 2022/2464, Article 19a).

In addition, a new set of reporting rules by EFRAG as well as auditing, which means that a third party must verify the report along with the financial statements (Directive (EU) 2022/2464), became mandatory. The new mandatory rules of EFRAG will unify the reporting and raise the degree of transparency and accountability, at least in the EU area. ESG reporting is a new practice in Finland, as reporting has been widely voluntary. The (NFRD) 2014/95/EU have required certain large companies to report their sustainability efforts before, but even with the broader scope of the new (CSRD) 2022/2464, Laitinen (2021) estimated that about 600-800 companies in Finland would be obligated to produce sustainability reports in the future. Nevertheless, frameworks towards ESG actions were initiated with the corporate governance code 2020, mandatory for all Helsinki Nasdaq-listed companies (Securities Market Association, 2020, pp. 9 & 25). The corporate governance code defines the

relationships and responsibilities of stakeholders within a corporation to ensure effective management, transparency, and integrity, protecting the interests of all stakeholders.

1.2.2. Stakeholders seeking sustainable options

Along with legal pressure, the rapid spread of plead for ESG practices and results has been one of the main factors behind the growing interest in ESG reporting in recent years. A study displays that already in 2019, up to 85% of the investors in the United States inquired about sustainable investing options (Morgan Stanley, 2019, pp. 1-4). According to EY 2022 Global Institutional Investor Survey, almost all the surveyed investors (99%) use companies' ESG disclosures at some level to make investment decisions, along with 74% who are conducting analyses on the responsibility information available to support their decision-making (Gordon & Bell, 2022). The same authors also expose that as many as 78% of the investors support companies to engage and adopt ESG initiatives, even if this means sacrificing some returns on their investments. Opinions like this show that for all investors, sustainability projects are not just investment targets, but genuine concern about insufficient resources and climate change drives investors to support companies during the change. COVID-19 times proved how unstable and unprepared businesses were during the crisis, which might be another reason investors seem to have started to appreciate the increasing sustainability work. Gracia et al. (2021) also suggest that stakeholders want more detailed information to support their processes of evaluating targets, and the progressive trend of finding solutions is found to drive the demand of stakeholders. Although investors' motives for acquiring information on the incorporation and development of sustainable practices vary between financial and ethical motivations, the demand has grown so much in recent years that companies can no longer ignore this desire.

However, investors are only one of the reasons companies produce ESG reports since other interest groups like academics and financial institutions, as well as rating agencies, are becoming at least as interested in matters beyond the actual business operations. For example, the increasing focus on sustainability in business drives higher education institutions to offer dedicated programs and courses to stay on top of emerging challenges and prepare professionals to develop innovative solutions in the future. For example, Utrecht University offers a master’s program dedicated to sustainable finance and investing and many schools already have some type of courses to support education towards sustainable choices. Also,

financial institutions have started to pursue environmental goals. BCG (n.d.) suggests that in the future, banks could use sustainability efforts as loan criteria to support sustainable development. Nordea (2023) announced at the beginning of May 2023 that it is joining the development group whose goal is to refine the guidelines and the plans. These so-called "Green Loans" would be admitted to organisations to improve their operations towards responsible consumption and decreasing emissions (The European Banking Authority, 2022). In other words, ESG performance would become a competitive advantage to organisations applying for financing or loans already engaged in sustainability work. As implied, the organisation's choices not only affect investors but can also impact loan terms, the cost of financing and even employees they can acquire in the future. This makes the commitment to drive development even more appealing to the eyes of organisations.

1.2.3. Financial performance

According to Otley (2002, pp. 4-5), business performance needs effective financial asset planning and management to extend the value of stakeholders' investments. The most recent external setback worldwide was caused by the global pandemic that started in 2019. During the pandemic from late 2019 to early 2021, organisations needed to reset and plan according to the risks and difficulties caused by multiple lockdowns and emerging recession. Budgeting has been an effective method for managing and regulating business operations, as it provides a comprehensive overview of the activities of an organisation (Otley, 1999, p. 9) this allows management to make informed decisions and optimise performance. Capon et al. (1996, pp. 6-9) noted that other factors also affect performance, such as business environment, strategy, and markets. Due to the range of factors involving the success of financial performance, the concept is challenging to define. By measuring performance, companies can identify improvement areas and make decisions to enhance performance and profitability (Le Thi et al., 2021, p. 2): in this process, organisations set up financial and non-financial measures, also called "key performance indicators" (Ferreira & Otley, 2009, p. 271). As this complex equation is affected by factors internal to the company and variables that are partially outside the organisation's influence, performance control can only be partially controlled by the company's decisions.

Business performance can be measured from operational or financial dimensions. However, this study will focus solely on the economic approach as this research aims to find the linkage

between ESG reports and financial success. Financial statements serve as a means for external stakeholders to assess a company's financial performance by utilising financial ratios derived from these statements (Fraser & Ormiston, 2012, pp. 1-4). Such ratios are, for example, Net Profit Margin, Debt to Equity Ratio and Current Ratio. Different users follow different ratios, for example, profitability ratios might be more important to investors than possible creditors. Internal users (management and board) can evaluate financial performance through measures of profitability and value creation (Venkatraman & Ramanujam, 1986, pp. 802-803), which can be divided into two groups: accounting- and market-based measures.

Accounting measurements are commonly thought to indicate the performance and profitability of a corporation. The profitability ratios reveal the relationship between earnings and costs (Dalal & Thaker, 2019, p. 47). According to Alshehhi et al. (2018), the trending accounting metrics in prior studies include Return on Assets, Return on Equity, and Return on Investments. A few arguments supporting the accounting measures are that: 1) the methods are guided by accounting standards, which enable better comparability, and 2) estimates are based on historical data, which makes them more reliable indicators for predictions (Shortridge & Smith, 2009). Studies that raise issues with accounting measures criticise the view based on the past and the judgments of the company's success made on this basis (Hirschey & Wichern, 1984). Certain methodologies and standards also fail to recognise the actual worth of items (Kapopoulos & Lazaretou, 2006, p. 12). According to Merchant and Sandino (2009), market measures can evade accounting-related issues since these measures tend to have a prospective focus on the valuation. Earnings Per Share stood out from the market indicators employed to support the previous analyses. This study's author also found that the most used market-based metric in recent studies was Tobin’s Q and Market Valuation. However, the author of this study decided to use Earnings per Share as the valuation measure in this research, as investors follow this ratio closely.

The previous publications concentrate on ESG performance, index or score in the context of financial performance or corporate value. At least to the author's knowledge, no studies specifically examine the impact of ESG reporting as an action on financial performance. In this study, both measurements of financial performance are used together. The author found that most previous studies measuring financial performance, or its relation apply a mixture of market and accounting variables. Also, Hirschey and Wichern (1984) suggest that the use of a combination of the metrics enables a more comprehensive sight of the performance. The

variables of Return on Asset (ROA) and Earnings per share (EPS) were selected from among frequently used variables. The author also considered the stakeholders when choosing the variables because they are the primary reason the phenomenon is getting more expansive in the business world.

The most used accounting-based measure is either Return-on-Assets or Return-on-Equity in other studies. This study will only use ROA for the following reasons: 1) it is considered to measure the managerial performance of the company, and 2) it shows how well the assets are being utilised to support the business goals (Pandey & Diaz, 2019). The following formula is applied in the data analysis and further calculations by Jewell and Mankin (2011):

$$Return\ on\ Assets = \frac{Net\ Income}{Average\ total\ Assets}$$

Research studying the formulas of ROA by Jewell and Mankin (2011) found that the most widely used formula of ROA is Net Income divided by Total Assets or Average Total Assets. Net income means profit after tax, which is the organisation's income after all the expenses and liabilities are excluded. Average total assets evaluate the efficiency of the usage of assets compared to income. This measure is frequently used to assess the success of management in optimising the utilisation of assets for the benefit of the business.

As the market-based indicator, the author chose EPS. According to Rockmore and Jones (1996), the ratio indicates the value of the stock and is widely used by investors to evaluate investment opportunities. Generally, EPS measures the portion of the company's profit allocated to shares outstanding and functions as an indication of the company's profitability (IFRS Foundation, Article 33). However, a significant demerit of EPS is that the management can manipulate accounting decisions, creating a reliability issue in evaluating the firm value.

1.3. Contemporary research on the ESG relation and financial performance of companies

As the author explored previous studies, it was discovered that the compliance effect of ESG on different aspects of business varied amongst the prior analyses. Most studies imply a positive connection between ESG score (Dalal & Thaker, 2019; Yahya & Vaihekoski, 2021) or ESG

Performance (Aydoğmuş et al., 2022) and financial performance or firm valuation. One study learned that even the ESG controversies and firm value had an encouraging connection (Aouadi & Marsat, 2018). However, a reasonable number of studies also show the opposite results (negative effect) regarding ESG practices and financial performance (Grisales & Aguliera-Caracuel, 2021; Vuorimaa, 2022) or at least differentiating results between measured variables (Giannopoulos et al., 2022). The author also found a study that did not support any association of ESG practice with performance (Nirino et al., 2021). Other aspects of the business have been studied in relation to ESG. The author found that other studies have found a positive correlation between ESG performance and the cost of debt (Eliwa et al., 2021) through better credit ratings (Hentilä, 2022) and reputation (Maaloul et al., 2023), which can also have an indirect effect on the financial performance and valuation of the company. Even though the impact of ESG on financial performance and firm value has been found to be biased in past studies, reporting, and measuring forces companies to look into their financial structure. This can lead to better cost structure and improvement of operations (McClure & Shah, 2022), and by embracing sustainability and being responsible, companies can build a positive reputation, increase customer loyalty, and attract and retain employees who share their values (Henisz et al., 2019), which are some of the other beneficial factors of taking part in the social and environmental battle.

In summary of previously produced studies, it can be noted that the inclusion of ESG initiatives in business does not speak directly in favour of an increase in results or value. There still needs to be more information and research on the subject, and for example, in Finland, at least according to the author's knowledge, there is no similar research measuring the adoption of reporting and performance. It is true that building, implementing, and monitoring such comprehensive reporting is expensive, and certainly one of the reasons why some companies still need to be more open to this. However, it is inevitable that taking these issues into account will be mandatory for more and more companies in the future, and therefore it is an excellent option to act too early. The next chapter will therefore study if the reporting has had a relation to the financial development in recent years, during the global crisis.

2. METHODOLOGY AND RESEARCH RESULTS

Moving forward in this research paper, this chapter deals with the empirical basis of the study. After an introduction of the practical background and methods used to achieve the research objectives, the results of the conducted analysis are provided, considering the main research questions.

2.1. Quantitative data analysis

This study uses quantitative research methods, such as descriptive statistics, correlation analysis, and analysis of variance. Quantitative methods are particularly suitable for studying relationships between variables because they allow us to measure and analyse data numerically (Selvamuthu & Das, 2018, pp. 66-70). The purpose of descriptive methods, like frequencies, percentages of frequencies, and averages, are useful for summarising and describing the characteristics of a dataset and can show divisions inside the data and point up trends using tables or charts. These methods aim to answer questions: How many ESG reports were collected from 2019-2021? What is the division and correlation between industries? To provide information about the ESG reporting from different angles.

Point biserial correlation and one-way Analysis of Variance (ANOVA) were employed for more in-depth analysis. According to Selvamuthu and Das (2018, pp. 193-196), the strength of reliance on two variables can be investigated by correlation analysis. The same authors clarify that the correlation coefficient, usually just coefficient, "determines whether the dependence between the two variables is positive or negative" and "the magnitude of the correlation coefficient gives the strength of the dependence" (Ibid., 2018). The point biserial correlation enables to execution of correlation analysis to categorical variables that have only two values, also referred to as binary values (Kornbrot, 2014). The null hypothesis (H0) assumes no association between reporting and performance. However, the author of this study is confident that there is a linkage between the independent and dependent variables (H1) and has applied a confidence level of 95% to this study. In other words, the correlation analysis aims to determine the direction and strength of association (if any) between the performance through financial measures (ROA and ESP) and ESG reporting. Moreover, to answer the first research question: "What is the correlation between ESG reporting and a company's performance?".

One-way ANOVA is applied for more in-depth insights, as it allows testing for differences between two groups. According to Jackson (2008, pp. 261-283), the method compares the means of groups to those within the groups by supposing the null hypothesis (H0) that the means are equal. The unidirectionality implies that only one independent variable exists: ESG reporting (Ibid., 2008). As said, a significance level of 0.05 is employed, the author believes that the means of the groups differ (H1). In general, the author found that the standalone reports were easier to find and better structured than the ones united with other financial statements, which were often placed in the middle of the other statements and tighter. This study has divided reporting types into two groups: standalone and united reporting. In studying the relationship between ESG reporting and financial performance, we can use ANOVA to determine whether there are significant differences in financial performance between firms with different reporting practices.

2.2. Research sample

The first step of the empirical part was to collect ESG reports and financial data of Helsinki Stock Exchange-listed companies from 2018-2021. The former data was retrieved by inspecting the firms' websites to understand the format in which the ESG disclosures are reported. All the financial and ESG information is collected from Helsinki Stock Exchange: the Helsinki Nasdaq, between March 23 and 26, 2023, along with the ESG reports. The Helsinki Stock Exchange is the primary data source for financial measurements (ROA and EPS). Morningstar is responsible for obtaining and analysing financial data on Nasdaq, utilising specific methodologies it ensures that data is standardised across various companies (Nasdaq Inc, n.d.), while the standardised IFRS accounting requirements for listed companies in the Finland stock exchange (Pörssisäätiö, 2016, p. 9; Finanssivalonta, 2020) ensure that the initial data is accounted by using same guidelines.

To make the further processing of data simple and efficient, the author utilised an Excel spreadsheet to store: the complete list of companies (135), the financial data from 2018 to 2021, and information about ESG reports obtained from the websites. On Excel, the ESG publications were then further classified into one of the three groups: standalone reports, parts of financial statements, or none, in cases of absence of the information. The financial data for the calculations of ROA: net income, and total assets were collected with earnings per share from the financial sheet provided by Morningstar. After these procedures, the author continued to conduct the main

calculations, including descriptive statistics, correlation analysis and ANOVA on separate sheets. The full Excel file is added as an appendix to the end of this research paper.

2.3. Reliability and limitations

The work has used 128 companies whose financial statements have been found on the stock exchange for 2018-2021. The author extracted 7 companies from this study because they were missing financial information. For example, marking EPS as 0.00 would distort the results, and the absence of asset or income data would misrepresent the ROA percentage when the denominator is calculated as a fictitious total asset. As still 95% of the total population is applied, this research has a confidential level of giving a reliable and valid picture of the stock exchange of Helsinki-listed companies.

While the research on the relationship between ESG reporting and financial performance using methods such as EPS, correlation, and ANOVA provides valuable insights, it is essential to be aware of the limitations and reliability issues that these methods contain. The author must consider the potential for manipulation and other factors influencing the relationship since, e.g., it is widely known that management can affect EPS through accounting techniques such as revenue recognition, depreciation, and inventory management. Therefore, using EPS to analyse the relationship between ESG reporting and financial performance (firm value) must be analysed with consideration. One can determine the direction and significance of the relationship between two variables using correlation analysis and ANOVA. Furthermore, other external factors, such as size and markets, can impact the connection between ESG reporting and financial performance. The above-mentioned issues are factors to be taken into consideration in the perspective of future research.

2.4. Analysis and results

Altogether there were 135 companies from 11 sectors listed on the Helsinki Nasdaq. This research included 128 companies, as 7 companies still did not meet the criteria of having financial information from 2018 to 2021 published on the Helsinki Nasdaq. After involving the time frame in the evaluation, the sample size was 384. Table 1 illustrates the number of reports and format of reporting from the observation scope of 2019 to 2021. At least from 2019 onwards, sustainability

reporting has been a more dominant phenomenon than non-reporting. In 2021 companies reporting about sustainability matters was already 86, which indicates a 32.31% increase in efforts, while at the same time, the number of non-reporting companies decreased from 63 to 42. Some companies not yet reporting, such as Endomies Finland Oyj, Nixu Oyj and SSH Communications Security, announces in their 2021 statements that they are working on preparing ESG reports for the following year's financial statements. The increase in reports is partly due to legal obligations by the new directive that entered into force in 2023. However, in Finland, the enhanced directive does not direct many organisations, but it is possible that voluntary reporting will increase in the future for various other reasons, including the tightening of funding conditions that was mentioned earlier in this research, as banks and other creditors will launch their sustainability programmes. Organisations may also choose to report to protect their public image. The COVID-19 pandemic has redirected stakeholders' attention more to social and environmental concerns, making ESG also a significant factor in reputation (KPMG, 2020). The effects of unfavourable associations towards a company can be moderated by enhancing efforts towards social and environmental goods, eventually improving the company's image. Reporting is a way to answer the demand for actions of change caused by the worldwide pandemic and the consequences of climate change, which the external interest groups are demanding. Nevertheless, reporting supports the investigation and optimisation of internal operations, cost structures and emissions, which can reveal flaws, leading to construction and better results in the future.

Table 1: Number of reports published by the companies 2019-2021

Division of reporting	2019	2020	2021
No Report	63	55	42
Report	65	73	86

Source: The author's calculations

Table 2 presents the results of a point biserial correlation analysis, examining the relationship between companies publishing about reporting habits as the basis of reporting or non-reporting. The correlation coefficient can take a value from -1.00 to 1.00 (Ratner, 2009), and the value indicates the percentage of how much the dependent variable fluctuates for ESG reporting. The coefficient for financial measure ROA is 0.26, indicating an almost non-existing or weak yet positive correlation between the two variables, while the coefficient for EPS implies an even fainter yet positive correlation of 0.10. The weak positive connection between the variables

suggests that companies that publish reports of their ESG practices are also a little more profitable and valued than those not reporting. However, the connection between variables is moderately insignificant, and the link between the firm value is even weaker. Similarly, t- statistic for ROA (5.22) and EPS (2.04) supports the argument that there is a difference to the null hypothesis, just not quite considerable. As explained earlier in this study, multiple factors affect financial performance, e.g., consumer preferences, inflation, or the general market situation. Additionally, various ways to examine performance through financial ratios provide differentiating perspectives of wholeness. Therefore, the limited effect on financial performance is even justified. The associated p-value for both financial measures: 2.97E-07 (ROA) and 0.04 (EPS), are less than the selected alpha level of 0.05, suggesting that the observed correlation is statistically significant. Consequently, the rejection of the null hypothesis: that there is no correlation between ESG reporting and financial performance, is proven, and we can accept the H1 that the relationship exists.

Table 2: Relationship of the ESG reporting to the financial ratios: ROA and EPS

Correlation Table	ROA	EPS
Correlation coefficient	0,26	0.10
T - statistic	5.22	2.04
P - value	2.97E-07	0.04
Significance level	0.05	0.05

Source: The author’s calculations

The author may now respond to the first question concerning the relationship between ESG reports and firm performance. The results of the point biserial correlation indicate that companies that publish a report on sustainability tend to have mildly better profitability when studied through ROA. Equivalent results are obtained concerning the firm value, suggesting that the values of organisations with reporting are higher. In other words, the answer is yes, there is a limited yet positive association between the performance measures used in this study and ESG reporting. Thereby the hypothesis was also found true. Profitability and firm value get higher in companies engaged in ESG reporting, though the relationship with profitability is stronger than with valuation. The weakness of the relationship could be explained by reporting being a relatively new practice and still, in many ways, inaccurate. Incorporating the full opportunities of the reporting is consuming, as modelling and adjusting the measuring system to be comprehensive yet effective

takes resources and time. Even though the short-term effect on financial performance seems almost non-existing, the long-term effects of reporting on the cost structures and employee engagement could cumulate over time and occur in performance later, as was introduced, respectively by McClure & Shah (2022) and Henisz et al. (2019) in the theoretical review. After observing a linkage, it seems logical to further examine the connection and distinguish if reporting format is indifferent compared to the financial performance. Moreover, this might be the kind of information that the companies could use if it is observed that one results with higher financial performance or is more significant to stakeholders, as the new reporting directive still does not determine whether the report needs to be separately published.

The ANOVA table shows the financial performance results between two groups: companies that publish a standalone ESG report and companies that include the ESG report in the other financial statements as a complementary part. ANOVA compares the variation in financial results between and within the two groups, indicating if the reporting format is causing a difference. According to Table 4, the F-value of ROA (174.13) indicates that the variation between the groups is statistically significant, as it is higher than the sum of squares (57.30) which indicates the variation within a group. Additionally, the extremely small p-value (8.47E-33) confirms that the result is unlikely to be a coincidence. In other words, the reporting format influences the organisation's profitability. ANOVA results of EPS, on the other hand, designate no statistically significant difference between the groups, as the p-value is higher (0.53) than the selected significance level. Moreover, the table shows F-value (0.40) is lower than the within-group value (1724.95). Hence implying that EPS is not affected by the issuing of the separate report and united report. The second question concerning the effect of reporting format can be answered accordingly: the reporting format has differences in the profitability values, but not to the firm value between companies with standalone reporting and companies with united reporting. Additionally, the results do not suggest that standalone reporting gives higher results since the ANOVA test does not indicate which group has higher financial performance or causality. The above-mentioned issues are factors to be taken into consideration in the perspective of future research, determining which type of reporting is associated with higher financial performance.

Table 3: Comparison of the effect of reporting format on financial ratios: ROA and EPS

ANOVA: ROA			
	SS	F	P-value

Within Groups	57.302	174.133	8.47E-34
ANOVA: EPS			
	SS	F	P-value
Within Groups	1724.953	0.397	0.529

Source: The author's calculations

As mentioned in this research, financial performance is affected by multiple factors. This study includes industry as an example of an external factor of an organisation to look more deeply into the industrial differences in ESG reporting and financial performances. Table 4 displays the 11 industries listed on the Helsinki Nasdaq based on the division of reporting habits of the listed companies. Industries with the highest number of companies on the stock exchange are Industrials, with 111 companies, followed by Consumer Services, with 81 companies and Technology, with 48 companies. Energy and Utilities have the lowest number of companies, with only 3 and 6 representatives on the stock, respectively. The reporting habits of the industries varies also, as all the companies from Consumer Goods, Energy, and Utilities industries are reporting about their ESG matters. In comparison, other industries have some missing data. In Real Estate and Technology industries, even more companies were not reporting than reporting.

Table 4: The division of reporting by industries of the listed companies

Industry	Standalone Reports	United Reports	Total number of Reports	Absence of Reports
Basic Materials	9	10	19	8
Consumer Goods	7	17	24	0
Consumer Services	33	13	46	35
Energy	3	0	3	0
Financials	8	18	26	13
Health Care	10	1	11	10
Industrials	21	38	59	52
Real Estate	5	0	5	7
Technology	8	6	14	34
Telecommunications	6	5	11	1
Utilities	3	3	6	0

Source: The author's calculations

The financial ratios by industries are separated with and without accessible reports in Table 5. The industries listed on the stock exchange ROA have an average of 3.49, while EPS has a mean of 0.43. This indicates that most companies have a return percentage of assets of 3.49% and pay a dividend of 0.43€ per share. Generally, the energy industry has the highest average EPS at 1.86€ and the highest average ROA at 14.35 %. The other industries with the highest average ROA are Energy and Financials, and the industries with the lowest average ROA are Real Estate, and Technology. Similarly, the industries with the highest average EPS are Energy and Utilities, while those with the lowest average EPS are Industrials and Technology, the last two mentioned also had the highest number of companies not reporting.

Table 5: Average financial indicators by industries of the listed companies

Industry	Average ROA (%)	With Report (%)	Without Report (%)	Average EPS (€)	With Report (€)	Without Report (€)
Basic Materials	2.83	4.83	-2.93	1.11	1.50	0.20
Consumer Goods	4.25	4.25		0.56	0.56	
Consumer Services	5.15	5.64	4.50	0.35	0.41	0.27
Energy	14.35	14.35		1.86	1.86	
Financials	7.29	8.73	4.42	0.98	1.20	0.54
Health Care	1.97	8.31	-4.99	0.36	0.68	0.01
Industrials	2.37	4.60	-0.17	0.14	0.09	0.20
Real Estates	0.43	6.59	-3.96	0.46	1.81	-0.50
Technology	1.30	8.12	-1.50	0.21	0.57	0.07
Telecommunications	2.38	2.67	-0.86	0.40	0.45	-0.07
Utilities	4.43	4.43		1.14	1.14	
Total Average	4.39			0.43		

Source: The author's calculations

When it comes to the availability of reports, the financial performance of industries varies widely. Table 5 shows that Real Estate companies generate the highest average EPS at 1.81€ when they publish a report about ESG efforts. On the other hand, when there is no report available, the Real Estate industry has the lowest average EPS at -0.50€. The availability of the ESG report shows greater earnings for all industries except Industrials, which suggests that the earnings are higher

without a report. Average ROA seems to follow the same pattern: when the report is available, the ROA is higher than in case of the absence of the report. The Health Care industry is the most sensitive to reporting according to the ROA, as the difference range is 13.3 percentage points. Out of all the companies listed on the Helsinki Nasdaq, Technology and Real Estates also had one of the widest ranges in ROA when reporting was considered. Still, in both industries, the rate of reporting was one of the lowest, respectively 71% and 58%. This would indicate an area for improvement in these industries to enchase reliability and performance in the future. The third question assuming industrial differences, was also found true. The reaction: magnitude of change, time and effort required to be more sustainable differs between industries, and according to the research in the case of Helsinki Nasdaq, the industries most volatile on reporting are Real Estate and Health Care. However, the statistics also imply that Helsinki Nasdaq businesses that report on ESG activities earn greater ROA and, in most circumstances, higher EPS than companies not yet involved in sustainability reporting. Even though the degree of the effect differs, at least in the short-term frame, these results ultimately support still businesses to change as financial benefits are available.

3. CONCLUSION

The sustainability and development crises and the need for planning in companies to mitigate and adapt to climate change are unavoidable. There is a growing demand from investors and other stakeholders for companies to engage in global sustainability work. As a result, Environmental, Social, and Governance (ESG) initiatives have become important method of measuring efforts in recent years. This study aimed to determine the correlation between ESG reporting and financial performance by presenting three main questions: 1) What is the correlation between ESG reports and financial performance, 2) What is the impact of the reporting format on the relationship, and 3) are there differences in the relationship between industries of the companies listed in Helsinki Nasdaq. The research was divided into three parts, including a theoretical part that provides relevant literature regarding ESG and financial performance, a practical part that introduces the empirical methods used to achieve the research objectives, and a data analysis that summarises the results of the research with proposals and possibilities for further research in the future.

The theoretical part began by defining the main concepts behind the studied phenomenon and found that the basic concepts of sustainability and development are difficult to define. Corporate Social Responsibility (CSR) used to be the term for companies' voluntary efforts to be sustainable and consider the effects of the operations and decisions. It involved reducing the impact of an organisation's actions on the environment and promoting the common good. The concept of ESG included actual measures of the efforts into the equation, making the performance measurable. Therefore, investors particularly became interested in ESG information as it enabled them to evaluate a company's prospects according to the risks and opportunities it might face. However, the standards for reporting ESG are yet in progress and complex to be followed, and as the sharing of information has been voluntary, the reports are unreliable and inconsistent. In response, the Corporate Sustainability Reporting Directive (CSRD) was introduced in 2021, expanding the scope of reporting, uniting the reporting guidelines, and improving reliability by mandatory auditing. In Finland, still, most companies are not legally bound to report. However, the percentage of the companies reporting about the organisations' sustainability increased during the research timeframe.

128 companies were included in this study, of a total of 135 companies listed on the Helsinki Nasdaq. The sample size was 384 after involving the time frame of 2019-2021 in the evaluation. The study found that sustainability reporting has been a more dominant phenomenon than non-reporting, and the number of reporting companies increased by 24.4% from 2019 to 2021. As both financial measures fell into the range of 0.00 and 0.30, there is a weak but positive correlation between ESG reporting and financial performance. Companies that publish reports on their ESG practices have slightly greater profitability and value than non-reporting companies. Likewise, the study found differences in financial ratios between industries. Generally, the industries with a high level of participation in ESG reporting tend to have higher ROA and EPS. The real estate and health care as industries are the most volatile to the reporting. Even though the relationship between ESG reporting and financial performance was found weak by the calculations, by providing ESG reports, companies may be able to improve their public image, which can potentially lead to increased interest by investors towards the organisation. Investors may use the information from this study, suggesting that ESG reporting is worth the costs as it associates mildly with better financial performance, but also, in the future, the efforts might enable serious competitive advantages relating to financing and hiring employees. The effect of reporting format on financial performance was found to have a relationship between profitability values but not firm value. Therefore, the author's suggestions for future research include quantitative and

qualitative research in determining the preferable reporting format to support the information flow and defining the causal linkage of ESG reporting to financial performance, as it seems that taking the ESG matter into account in the future will be unavoidable for all participants in the global markets by affecting everyone from organisations to individual players.

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ESG reports and financial data

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