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Can Private Equity Enhance Value Creation by Integrating ESG Considerations Throughout the Investment Life Cycle?

Identifying Current Practices and Emerging Trends

Camilla Olsen
Hedda Enbusk
Business Administration, Finance

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List of Acronyms

PE	Private Equity
VC	Venture Capital
GP	General Partner
LP	Limited Partner
LBO	Levereged Buyout
BO	Buyout
ESG	Environmental, Social & Governance
SRI	Socially Responsible Investing
SI	Sustainable Investing
RI	Responsible Investing
CSR	Corporate Social Responsibility
UN	United Nations
SDG	Sustainable Development Goals
EU	European Union
SFRD	Sustainable Finance Disclosure Regulation
CSRD	Corporate Sustainability Reporting directive
NFRD	Non-Financial Reporting Directive
ISSB	International Sustainability Standards Board
SBT	Science Based Targets
KPI	Key Performance Indicator
IPO	Initial Public Offering
IPCC	Intergovernmental Panel on Climate Change
GHG	Greenhouse gas

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Camille Olsen

Hedda Enbusk

Abstract

Despite the increasing recognition of Environmental, Social, and Governance (ESG) factors in public market investments, little is known about their impact on value creation in the private equity (PE) industry. This study aims to fill this gap by exploring the integration of ESG factors throughout the PE investment life cycle and examine its potential to enhance value creation. Utilizing a mixed-methods approach, we conduct in-depth interviews with industry experts in four PE firms based in Norway and survey 22 PE firms in the Scandinavian region. Although Norwegian firms are overrepresented, the findings offer insights into the broader Scandinavian PE industry. The thesis addresses five research questions related to ESG integration in the pre-investment phase and the ownership period, defining characteristics of firms that are leading on ESG, the role of ESG factors in value creation in PE investments, and emerging ESG trends.

Our findings indicate that the Scandinavian PE industry demonstrates a strong focus on ESG, although the degree of ESG integration is mixed. Value creation and compliance are identified as primary drivers of ESG integration, followed by LP expectations. The main challenges to ESG integration include limited data in the pre-investment phase and difficulties in data collection during the ownership period. We find that ESG leading PE firms demonstrate organization-wide knowledge and shared responsibility for ESG integration, supported by a clear expectation from the top. They proactively adopt ESG best practices, including embracing standards and regulations, and consistently gather and analyze ESG data throughout the investment life cycle. Our research findings indicate a potential positive relationship between the ESG initiatives of PE firms and the value of their portfolio companies, supported by case studies and analysis of post-IPO financial performance. Finally, we emphasize the growing importance of regulatory developments and data utilization, climate change and environmental risks, and investor expectations in shaping the industries investment processes going forward.

Our findings contribute to the ongoing conversation about responsible and sustainable investing practices in the PE industry. The diverse representation of PE strategies and firm sizes in our study makes the results relevant to a wide range of stakeholders, including PE firms, investors, and other interested parties seeking insights on ESG integration within the PE industry.

1. Introduction

This thesis aims to provide a comprehensive analysis of the integration of Environmental, Social, and Governance (ESG) considerations within the private equity (PE) industry in the Scandinavian region. By conducting an in-depth analysis of current practices and industry expectations, the study explores ESG integration methods, challenges, and opportunities. The objective is to determine to what extent ESG factors are integrated throughout the investment life cycle, discuss the potential impact on value creation, identify best practices, and uncover emerging ESG trends that may shape future investment processes. The study employs a mixed-methods approach, utilizing qualitative and quantitative research methods. This includes semi-structured interviews with industry experts and a comprehensive survey. The research also includes case studies and analysis of previous portfolio companies post IPO financial performance.

In the wake of the UN 2030 Agenda and the Paris Agreement, attention towards sustainable development and climate change has been ever-increasing. As global challenges become more pressing, the combined efforts of private and public equity, along with businesses, in promoting sustainability grow increasingly evident. For instance, the Sixth Assessment Report by the UN Intergovernmental Panel on Climate Change (IPCC) highlights that current levels of investments are insufficient to reach climate targets set under the Paris Agreement. To meet these targets, adaptation and mitigation financing must increase substantially, and public funding alone will not be sufficient. This backdrop has driven a rise in ESG-related regulations and expectations that hold companies and financial market participants accountable for their environmental and societal impact, which in turn has sparked new life into the debate on whether ESG considerations affect corporate performance and financial returns.

Over the past four decades, there has been a significant increase in academic and empirical studies examining the relationship between ESG and financial performance. The majority of these studies indicate a positive relationship, with high-performing ESG practices often linked to enhanced corporate and investment outcomes (Friede et al., 2015; Whelan et al., 2021). For instance, responsible and sustainable initiatives at corporations have been found to improve financial performance through reduced systematic risk (Giese & Lee, 2019), increased employee satisfaction (Edmans, 2011), and increased firm value (Albuquerque et al., 2019; Fatemi et al., 2015; Nirino et al., 2021). However, it is important to consider some limitations of the existing body of research, which include inconsistent terminology, shortcomings in ESG data, and a lack of differentiation between multiple sustainable investing strategies. Consequently, the findings remain inconclusive, and the debate continues. It is also important to note that research on the relationship between ESG and financial performance has primarily focused on the public market.

The PE industry has historically prioritized financial returns over environmental and social factors, with governance being the main exception (Eccles et al., 2022; McKinsey & Company, 2022). However, there is growing recognition that the PE industry is well-positioned to integrate ESG considerations in their investment process and ownership and push for action to address critical issues (Alfonso-Ercan, 2020; Menon Economics & NVCA, 2021; PwC, 2021; Zaccone & Pedrini, 2020). PE firms' large ownership stakes and ability to take active ownership, combined with their long-term investment horizon, offer an ideal opportunity to scale innovative business models and products that address pressing social and environmental challenges (Alfonso-Ercan, 2020; Menon Economics & NVCA, 2021; PwC, 2021). PE firms have the potential to not only improve the sustainability performance of companies they invest in, but also influence which companies receive significant funding by targeting investments that align with sustainable business practices and goals.

Despite extensive research on the impact of ESG factors on public market investments, there is a gap in the academic literature concerning ESG integration and how this may impact and potentially accelerate value creation in the PE industry (Krysta & Kanbach, 2022; Zaccone & Pedrini, 2020). This study aims to bridge a current knowledge gap and contribute to the field by providing new and updated insights on a rapidly changing investment landscape and an ever-evolving industry. Our findings will contribute to the ongoing conversation about responsible and sustainable investing practices in the PE industry, and will provide insights for PE firms, investors, and stakeholders who are interested in responsible and sustainable investing practices.

1.1. Problem statement and research questions

It is our hypothesis that PE firms can enhance value creation by integrating ESG factors throughout the investment life cycle. The PE life cycle typically consists of the following stages: fundraising, sourcing, due diligence, investment decision, onboarding and ownership, and exit. First, the PE firm raises funds from investors. Next, it searches for investment opportunities and conducts comprehensive due diligence to gather all necessary information about the target companies. Once the investment decision is made, the PE firm takes charge of and manages the portfolio companies. Finally, the PE firm exits the investment to realize the return of the investment. We categorize these stages into two main phases: pre-investment (fundraising, sourcing, due diligence, investment decision) and ownership (onboarding, ownership, and exit). We define value creation as the process through which private equity (PE) firms enhance the value of their portfolio companies. This can be achieved by, for example, identifying companies with high potential for value creation during the pre-investment phase and implementing strategic, financial, and operational initiatives throughout the ownership period. Such efforts may lead to improvements in earnings and cash flow, which ultimately drive value creation and generate returns for stakeholders upon exit. Our hypothesis suggests that the potential for value creation can be enhanced by effectively integrating ESG considerations in both the pre-investment phase and during ownership. Specifically, we seek to address the following problem statement:

"Can private equity enhance value creation by integrating ESG considerations throughout the investment life cycle?"

To address this question, we have formulated five research questions (RQs) which will guide our study. RQ1 and RQ2 focus on current practices. RQ1 investigates how ESG factors are integrated in the pre-investment phase, defined as one that includes fundraising, sourcing, due diligence, and the investment decision. We examine screening criteria, ESG DD processes, which frameworks are utilized to guide investments, and how they materialize ESG risks and opportunities. RQ2 focuses on the ownership period, examining how PE firms operationalize ESG through active ownership. We also examine which, if any, obstacles they face in each phase.

- ***RQ1:*** *How are ESG factors integrated in the pre-investment phase?*
- ***RQ2:*** *How are ESG factors operationalized and monitored during the ownership period?*

With RQ3, we aim to identify ESG best practices in the industry that can effectively facilitate the integration of ESG considerations in the above phases. To accomplish this, we will conduct a comprehensive analysis of the approaches employed by ESG-leading PE firms. Moving on to RQ4, our objective is to explore the evidence of value creation resulting from the adoption of these best practices. Specifically, we examine the relationship between ESG performance and financial performance, by analyzing the performance of portfolio companies previously owned by ESG-leading PE firms following their IPOs and comparing it to the broader Nordic market. We will also present two case studies that illustrate success stories of portfolio companies committed to enhancing ESG practices within their operations.

- ***RQ3:*** *What are the defining characteristics of PE firms that are leaders on ESG-integration?*
- ***RQ4:*** *Can ESG integration contribute to value creation in PE investments?*

In the final part of our thesis, we discuss trends and expectations that are likely to shape future PE investment processes. This analysis is based on the information gathered from the previous stages of our study, and considers current trends and industry expectations that may impact PE behavior. We explore various ESG tools that can guide future investment processes evaluate whether a competitive advantage still exists for firms that adopt ESG practices. To address this, we have formulated the following research question:

- ***RQ5:*** *What emerging ESG trends will impact future PE investment processes?*

1.2. Scope, delimitations & structure

This thesis investigates the integration of ESG considerations in the investment life cycle of various PE strategies, including venture capital, growth equity, and buyout. While these strategies are distinct, they share a focus on non-publicly traded companies. Therefore, we will use the term "private equity" or “PE” as an umbrella term that encompasses all these strategies, while also acknowledging the differences among them. However, due to the limited sample size, we have chosen not to differentiate between these strategies in our analysis, as we believe that such differentiation would not yield additional insights.

Our research is limited to ESG practices within the Scandinavian PE industry. We focus on the value creation potential of ESG integration and discuss the relationship between ESG and financial performance in portfolio companies. This approach reflects that the thesis is written from a financial perspective as part of our master’s degree in finance. We do not include fund analysis in our thesis, as such data is difficult to access. We do, however, analyze the post-IPO performance of portfolio companies to evaluate the resilience and future-proof characteristics of companies that has been owned by ESG-leading PE firms.

The remainder of this thesis is organized as follows. In Section 2, we provide an overview of the PE sector and its history, as well as the concept of ESG and sustainable finance. Section 3 presents a literature review on the relationship between ESG and corporate and financial performance, as well as the literature on ESG in PE. In Section 4, we describe the methods used in our study and outline the procedures for collecting data through interviews and surveys. Section 5 analysis of our results. We investigate the current state of ESG integration at the firm level, the role of ESG throughout the investment process, and how ESG can contribute to value creation in PE. Moreover, we discuss current ESG developments and emerging trends, including regulatory developments, data utilization, the interdependence of ESG factors, and increased investor and consumer expectations. Section 6 contains a summary of our findings, discussed in the context of the research questions. We end our study with a discussion on research limitations and suggestions for further research in Section 7.

2. Background

2.1. About PE

Private equity refers to investments in privately held companies, which are not publicly traded on a stock exchange. The PE industry plays a vital role in our economies by financing private companies with the goal of creating value through a combination of financial engineering and operational improvements. They manage funds, which typically are organized as limited partnerships, in which the investors are called limited partners (LPs) and the fund's manager is the general partner (GP). LPs are primarily institutional investors, funds of funds, or high net worth individuals or families (Invest Europe & Arthur D. Little, 2022).

PE investments can be classified into different categories based on the investment strategy employed, ranging from venture capital (VC), growth capital to buyout (BO). VC funds primarily acquire a minority stake in early-stage companies with high growth potential (Zeisberger et al., 2017, p. 19). Growth capital investments, on the other hand, usually target relatively mature companies seeking capital to expand or enter new markets. Finally, BO firms typically target mature companies and usually acquire controlling stakes in the company (Gilligan & Wright, 2020, p. 2).

PE firms are actively engaging in the management and decision-making processes of their portfolio companies. During ownership the firm works to improve management and operations, in addition to identifying growth opportunities. They also contribute with other resources and expertise, such as industry and management experience. By participating in board meetings and being in contact with the company´s management, competence is transferred (Menon Economics & NVCA, 2022). The investment horizon for PE is usually longer than that of more conventional investments, and the time horizon can be anywhere from 5 to 14 years (Phalippou, 2007). The most commonly used exit strategies for PE firms are to sell their investment to another PE firm, engage in trade sales[1], repayment of preference share/loans or mezzanine[2] or Initial Public Offerings (IPOs). Upon exit, the capital is distributed to the LPs and GPs. The GPs are also compensated with annual management fees paid by the LPs for managing the

[1] Sale of a company´s shares to industrial investors
[2] The firms repayments represent a decrease of the financial claim of the firm into the company, thus constituting a divestment

investments (Invest Europe, 2022). Ultimately, PE firms seek to generate returns through successful growth and exit of their portfolio companies.

2.2. History/Development of PE

Since the beginning of the industrial revolution, investors have engaged in acquiring businesses and making investments in privately held companies (Alfonso-Ercan, 2020). Initially carried out by a small group of wealthy individuals and families, private investments have proved successful in gaining wealth and influence. The PE firm of today traces its origin to the end of World War II (Cendrowski et al., 2012, p. 29). The rise of the modern PE industry has helped foster entrepreneurship and financed several technological breakthroughs. This highlights the crucial role that private investments have played in fostering innovation and promoting change - outcomes that government funding and public enterprise are not able to achieve.

During the 1980's, the PE industry experienced significant growth, with VC and BO funds generating exceptional returns (Cendrowski et al., 2012, p. 32). Most PE funds were first-time funds at the time, with no set standards or guidelines to adhere to. There were ample opportunities for growth, as a majority of investors had not yet engaged in this domain, thereby resulting in minimal competition. Towards the end of the 1980s, the BO business emerged within the world of PE. Low capital gains tax rates and high availability of bank debt enabled borrowing at lower costs (Cendrowski et al., 2012, p. 32). The "American style" of PE was adopted by European managers towards the end of the 1980s (Kaplan & Strömberg, 2009, p. 127). Within three years from 1980, funds raised for BO funds in the US grew from $180 million to $2,7 billion (Zeisberger et al., 2017, p. 16). The junk bond market crash of 1989 led to a significant wave of defaults among PE firms, putting the industry on the brink of extinction. Remarkably, it managed to overcome this critical period and endure (Kaplan & Strömberg, 2009, p. 128).

The PE activity (transaction values) worldwide increased steadily after the crash in 1989, and peaked in the late 90's. Between 2000 and 2004, the West-European PE market accounted for almost 50% of global LBO transaction value, while the U.S. had a total of 44%. PE transaction value again surged from 2004 to 2006 (Kaplan & Strömberg, 2009, p. 126). The investment horizon during that time was notably shorter than what is currently considered normal. The industry's reputation for focusing on short-term goals may be a legacy from this period. In recent years, there seem to be a shift towards a more long-term perspective among some PE firms, which may have been motivated by a growing recognition that by adopting a longer-term perspective, it can be possible to capture the full benefits of value creation. The PE industry experienced unprecedented growth during the credit boom leading up to the financial crisis of 2008, benefiting from the favorable borrowing conditions and optimistic investment outlook (Cendrowski et al., 2012, p. 32). Another distinguishing feature of the time frame 2006-07 was that deals were larger compared to other time periods (Bain & Company, 2022). Deal activity decreased substantially in 2007, due to the turmoil in financial markets, characterized by a collapse of many financial institutions (Kaplan & Strömberg, 2009, p. 127).

Despite the challenges posed by the global financial crisis in 2008, the industry has continued to grow. A research paper published by eFront (2021) – which is a technology solution part of BlackRock – analyzing the historic exit environment, clearly shows that the holding periods in PE have increased over the period from 2010 to 2020. The year 2021 stands out in terms of market activity. According to industry reports, the PE market set records in both deal and exit values, indicating a strong demand for PE investments (Bain & Company, 2022). McKinsey & Company (2022) reported that between the second quarters (Q2) of 2020 and 2021, PE global assets under management (AUM) grew by 38% and reached an all-time high of $6,3 trillion. In 2021, Norwegian companies owned by PE funds had a total value creation of NOK 73 billion (USD 6,9 billion), which is a slightly decrease from the previous year. This constitutes 2,6% of Norwegian mainland GDP (Menon Economics & NVCA, 2022). Even though the current economic situation is unclear, with high inflation, and supply chain and energy price uncertainty in the aftermath of Russia´s invasion of Ukraine (Bain & Company, 2022), the PE industry has in the past demonstrated remarkable resilience and adaptability.

In recent years, sustainable investing has become progressively more popular in the PE industry, as LPs and GPs have become increasingly aware of the unique opportunity that PE offers for sustainable investment (Alfonso-Ercan, 2020; ILPA & Bain & Company, 2022). In what Indahl and Jacobsen (2019) refer to as PE 4.0, an increasing number of PE firms are expanding their capabilities to effectively manage ESG factors. Some suggest that consideration of ESG risks and opportunities have become increasingly important to create value, both through reducing investment risk and by forging resilience (Indahl & Jacobsen, 2019). For instance, the Nordic PE firms Norvestor and FSN Capital both state that ESG is integrated in all stages of the investment process, in their annual sustainability disclosures. The impact fund market has also grown significantly, with companies such as Verdane and Summa Equity leading the way in Europe, raising record-breaking funds and integrating the SDG framework into their investment and value creation strategy. Despite the growing emphasis on ESG factors in the PE industry, the integration of ESG is still in a transition phase, with GPs in various stages of incorporating these factors into their operations (McKinsey & Company, 2022).

2.3. About ESG and Sustainable Finance

The approach to sustainability within the corporate and financial sector has matured over the years. ESG has roots in early concepts such as Corporate Social Responsibility (CSR) and Socially Responsible Investing (SRI). However, traditional CSR typically focused mainly on community relations and philanthropy, while early SRI relied heavily on negative and norms-based screening methods (Caplan et al., 2013; Cappucci, 2018). Recognizing the limitations of these approaches and spurred by the need for greater integration of sustainability into core business practices, the concept of ESG emerged. ESG is widely understood as a framework that aims to expand on traditional investment and corporate methodologies by recognizing the importance of ESG factors in risk management and value creation assessments. Rather than focusing solely on traditional financial metrics, ESG analysis includes assessments of qualitative and quantitative non-traditional data. ESG integration typically involves identifying the material ESG factors and assessing their short-term and long-term impact on society and financial performance. Impact investing takes a more proactive approach. The Global Impact Investing Network (GIIN) defines impact investing as "*investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return*". In other words, financial returns are seen as a secondary objective.

Due to the absence of universally accepted standards for ESG measurement and reporting, various self-regulation initiatives led by industry associations, NGOs and global institutions have emerged. Notable examples include the UN Sustainable Development Goals (SDGs), UN Principles for Responsible Investment (PRI), Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD). However, concerns about greenwashing have spurred increased global efforts to consolidate sustainable finance regulations and frameworks (UNCTAD, 2022). As a result, governments around the word are ramping up their efforts to establish regulatory frameworks for sustainable finance. For instance, the EU has introduced mandatory ESG disclosure regulations, such as the EU Taxonomy, the Sustainable Finance Disclosure Regulation (SFDR), and the Corporate Sustainability Reporting Directive (CSRD). They are all part of the EU Action Plan on Financing Sustainable Growth, which intends to reorient capital toward sustainable investments by promoting transparency and standardized reporting. Although Norway is not an EU member like Sweden and Denmark, it is part of the European Economic Area (EEA) agreement. Consequently, Norway is subject to the same regulations, but the implementation process might experience delays compared to EU member states.

The EU Taxonomy, SFDR, and CSRD have received much attention as key drivers of sustainability efforts in Europe. The SFDR came into effect in the EU in 2021, requiring financial market participants, including GPs and LPs, to disclose sustainability information to investors and end-users. It also classifies financial products into three categories: Article 6, Article 8, and Article 9, with Article 8 (light green) and Article 9 (dark green) products having binding sustainability considerations. Funds categorized as Article 8 promote either environmental or social characteristics or both, while Article 9 funds have sustainable investment as their objective, both with the requirement of good governance practices. While the SFDR was not implemented in Norway until 2023, all funds marketed in Europe have been subject to the disclosure requirements since 2021.

The CSRD aims to improve the consistency, comparability, and reliability of sustainability reporting by companies. It expands and replaces the Non-Financial Reporting Directive (NFRD) by introducing more comprehensive reporting requirements for ESG factors, including third-party assurance. Companies subject to the CSRD will be required to report according to the European Sustainability Reporting Standards (ESRS). The development of these standards is being undertaken by the European Financial Reporting Advisory Group (EFRAG). Along with global efforts like the International Sustainability Standards Board (ISSB), which aims to develop the IFRS Sustainability Disclosure Standards, the CSRD aims to consolidate reporting standards for more standardized processes, enhance stakeholders' ability to monitor progress and reduce greenwashing. Both initiatives have worked to align key disclosures, while maintaining compatibility with international initiatives such as the GRI and TCFD. However, while the ISSB has received a lot of attention globally, the initiative primarily concentrates on financial materiality. The CSRD adopts a more comprehensive perspective on certain key reporting elements, including an emphasis on double materiality. Gradually, the scope of firms subject to the NFRD will be expanded under the CSRD.

Finally, the EU Taxonomy is a classification system aimed at promoting sustainable economic activities and investments by providing a comprehensive list of environmentally sustainable economic activities. It is structured around six environmental objectives: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. While criteria for the first two objectives have been established and adopted in both the EU and Norway, the remaining four objectives, as well as updates to the existing criteria, are currently under consultation. At present, EU Taxonomy reporting is mandatory only for companies subject to the NFRD. However, with the introduction of the CSRD, the threshold for taxonomy reporting will be significantly reduced, with listed SMEs required to report in 2027.

3. Literature Review

3.1. ESG and Corporate Performance

The relationship between ESG considerations and corporate performance has been the topic of discussion and research for many years. Numerous studies have attempted to explore the impact of ESG considerations on various measures of corporate performance, including financial and non-financial indicators. Some scholars have argued that a corporation's primary duty is to its shareholders, and that social responsibility may divert resources from profit-maximation (Friedman, 1970; Jensen, 2002). In contrast, Stakeholder Theory suggest that if corporations effectively manage their relationships with all stakeholders, not just shareholders, social responsibility can lead to long-term financial performance (Freeman, 2010). More recently, Hart and Zingales (2017) argue that companies should consider shareholder preferences, which includes values beyond financial considerations, to achieve better outcomes. Some scholars even suggest that companies can go beyond traditional CSR and gain a competitive advantage by integrating social and environmental considerations into their strategies (Kramer & Porter, 2011). For instance, integrating environmental considerations could be a source of competitive advantage, as increased innovation and resource efficiency can lead to lower costs and enhanced profitability (Porter & van der Linde, 1995; Rexhäuser & Rammer, 2014). By being socially responsible, firms may attract more resources (Kramer & Porter, 2011, pp. 9–10; Waddock & Graves, 1997), increase employee loyalty, and attract desirable employees (Kong et al., 2019; Turban & Greening, 1997). Moreover, Edmans (2011) suggests that employee satisfaction contributes to better corporate performance through improved recruitment and motivation, and he finds that employee satisfaction is positively correlated with long-term stock returns. Research by Yuan et al. (2022) suggests that engaging in CSR/ESG activities contribute to improved corporate governance and mitigate the likelihood of negative regulatory or fiscal action (Yuan et al., 2022). Additionally, Wang et al. (2021) finds that CSR has a positive effect on brand equity, making it easier for the company to market its products and services.

Cappucci (2018, p. 27) emphasizes the importance of intentionality as an indicator of a firm´s commitment to a long-term, sustainable business model, which he argues could drive improved ESG performance. Further, he explains that intentionality is shown through for instance a firm´s tone at the top, employee training, and resources allocated to ESG research and data.

Ioannou and Serafeim (2017) explore the impact of mandatory sustainability reporting on sustainability reporting practices and firm valuations. The study utilizes data of 144 Chinese, 29 Danish, 43 Malaysian, and 101 South-African companies, i.e., countries with pre-existing mandatory sustainability disclosure regulations prior to 2011, which are considered as treated firms. Using a differences-in-differences analysis, the authors find that the treated firms increased their ESG disclosure after the implementation of regulations. Furthermore, firms sought to improve the credibility and comparability of disclosure by obtaining assurance or adopting the GRI guidelines. The authors find that the implementation of new reporting regulations resulted in improved firm valuations, as measured by Tobin's Q. However, the authors caution that their research design is inadequate for identifying the underlying mechanisms through which this positive impact materializes. Nonetheless, they argue that increased ESG disclosure regulations could lead to firms attracting and retaining higher quality employees, increased demand for products and services, and reduced risk of regulatory or fiscal action thereby contributing to long-term value creation. One of the study's limitations is that it only focuses on four countries, raising the possibility that the outcomes of sustainability disclosure regulations may differ in other nations.

3.2. ESG and Stock Market Performance

Since 1970, the number of studies and research papers examining the relationship between ESG integration and financial performance has increased exponentially. However, these studies have primarily focused on the public market (Friede et al., 2015). The most comprehensive studies on the topic to date are perhaps the meta-analyses conducted by Friede et al. (2015) and Whelan et al. (2021). Friede et al. (2015) conducted a meta-analysis of over 2,200 unique studies between the early 1970s and 2014, drawn from 60 review studies. Interestingly, they find that in roughly 90% of the cases, there were a non-negative relationship between ESG and financial performance, with the majority reporting a positive relationship. Additionally, the positive impact appears to be consistent over time. The study concludes that investing in ESG pays financially, but that a comprehensive and in-depth understanding of how to integrate ESG factors into investment processes is crucial in order to harvest the full benefits and potential value-enhancing effects. It is, however, important to take into consideration that the meta-analysis conducted by Friede et al. (2015) combines a wide range of studies with different methodologies, sample sizes, industry types, and time frames, which may constrain the validity and reliability of the results. Boffo and Patalano (2020, p. 38) at OECD has concerns about the methodological approach utilized for selecting previous studies to be included in the sample. They argue that the meta-analysis employs a broad concept of ESG, encompassing research on subjects such as CSR, responsibility, and sustainability, leading to a resultant sample that does not solely focus on ESG ratings. Furthermore, the studies incorporated in the sample uses various definitions and measures of financial performance, which can pose a challenge in terms of comparing the results across the different studies and may compromise the accuracy of the conclusions drawn from the meta-analysis by Friede et al. (2015). Overall, while the study provides valuable insight into the existing research on ESG and financial performance, its limitations and potential biases should be taken into account when interpreting its findings.

Similarly to Friede et al. (2015), Whelan et al. (2021) find that ESG integration is associated with improved long-term financial performance with a majority of the relationships being positive. The study examines the linkage between ESG and financial performance in more than 1,000 research papers published between 2015 – 2020, by dividing them into groups of those focused on corporate financial performance and those focused on investment performance. Geographically, most of the studies in the sample are centered on the U.S. (34%), Europe (24%), or have a global focus (29%). The reader should bear in mind that the period covered by Whelan et al. (2021) corresponds with a time characterized by economic growth and recovery, as indicated by GDP growth, wage growth and low unemployment rates. During periods characterized by economic growth, there is often increased attention from investors toward sustainability and responsible investing, potentially further enhancing the performance of ESG-oriented stocks (Bansal et al., 2022).

Pedersen et al. (2021) offer a possible explanation for the positive relationship between ESG and financial performance during the period studied by Whelan et al. (2021). Through an extension of the standard Markowitz framework and the introduction of the ESG Efficient Frontier, they show that ESG factors can be a positive return predictor if ESG is a positive predictor of future firm profits and the value of ESG is not fully priced in the market. They model a market with investors which are either aware, unaware or motivated by ESG, and their theory results in a range of possible equilibria depending on the relative importance of each investor type, leading to a relation between ESG and expected returns that can be positive, negative, or neutral. According to their theory, a future increase in ESG investments will lead to higher demand and an upsurge in prices for stocks that score well on ESG dimensions. If these flows are unexpected, and/or not fully captured by the market, then stocks with positive ESG attributes will experience a return boost during the period of ESG repricing.

Numerous investment managers employ exclusion criteria to align their investments with ESG objectives. Such screening processes may conflict with the conventional wisdom of Modern

Portfolio Theory, which argues that any constraints on the investment universe reduce diversification and may negatively impact long-term risk-adjusted performance (Markowitz, 1952). As mentioned in the preceding paragraph, Pedersen et al. (2021) builds upon Markowitz's theory by introducing the ESG-efficient frontier. Empirically, they estimate the ESG-efficient frontier, and finds that the practice of screening out stocks with the lowest ESG scores reduces the maximum Sharpe ratio one can attain for any given ESG score. Interestingly, they also find that investors who impose ESG restrictions may have portfolios with lower aggregate ESG scores than portfolios of investors who allow for assets with low ESG scores. The authors explain that this is because unconstrained investors can short positions in assets with lower ESG scores to hedge against risks. The results by Pedersen et al. (2021) shed light on the complexities involved in effectively integrating ESG considerations into the construction of investment portfolios. Moreover, the results suggest a potential for improving conventional screening practices.

Barnett and Salomon (2006) argues that investment managers must fully commit to broadly screening of socially irresponsible firms from their portfolios, or alternatively, exclude only a limited number of firms to avoid compromising their ability to diversify. The scholars reveal a curvilinear relationship between social responsibility and financial performance. By analyzing the risk-adjusted return of 61 SRI funds in the period 1972 to 2000, they discover that a company´s financial performance may initially decline as it increases its use of social screens and level of social responsibility. However, as it reaches a specific threshold, the financial performance may improve. Interestingly, the strongest financial outcomes corresponded with low or high levels of social responsibility, while moderate levels yielded the lowest returns. Cappucci's (2018) article, *The ESG Integration Paradox*, may provide an explanation for this phenomenon. He discusses the ESG integration paradox, stating that the costs of integrating ESG in the investment process may offset the financial benefits deriving from such investments. Considering Barnett and Salomon's findings, this could imply that funds employing moderate social screening may not fully realize the advantages of ESG integration.

Ashwin Kumar et al. (2016) conducted a study on the relationship between ESG practices and risk-adjusted returns. The study utilizes a sample of 157 companies featured on the Dow Jones Sustainability Index (DJSI). In addition, the sample includes 809 randomly selected companies that are not listed on the DJSI. The research spans a two-year period commencing from the start of 2014 to the end of 2015. The findings demonstrate that companies with strong ESG practices, as represented by those listed on the DJSI, achieve higher risk-adjusted returns compared to companies with weaker ESG performance. This supports the notion that incorporating ESG factors into investment strategies can enhance risk-adjusted returns. However, the authors emphasize that different industries are affected differently by ESG factors. ESG factors have a stronger impact on risk reduction in certain industries, such as energy, banking and technology. This supports the notion that ESG analysis should be customized to the specific context of the industry and company under evaluation, addressing the relevant concept of *materiality.*

Khan et al. (2016) provide further evidence supporting the notion that firms focusing on *material* ESG issues have better financial performance than those who are not addressing and managing the ESG issues relevant to their firm and industry. The study utilizes a sample of 2,396 unique U.S. firms from 1991 to 2013, using sustainability performance data from the MSCI KLD database. The authors adopt the materiality guidance developed by SASB to define industry-specific material sustainability issues and to classify the KLD data items. Subsequently, they construct a materiality score for each firm-year, which serves to assess the company´s performance on material sustainability issues. Finally, Khan et al. (2016) investigate the correlation between changes in sustainability investments and alterations in stock prices. The authors highlight that firms can improve their financial performance and create long-term value for shareholders by integrating material ESG principles in their strategies. Similarly, research conducted by Clark and Lalit (2020) at Rockefeller Asset Management shows that concentrating on material ESG issues can lead to long-term amplification of alpha. Furthermore, the researchers contend that firms that demonstrate the most significant progress in their sustainability performance are likely to possess the greatest potential for generating alpha in the long-term.

3.3. ESG in PE

There is limited research on the rationales for PE firms to integrate ESG into their organization and investment. However, scholars such as Zaccone and Pedrini (2020) have attempted to address this gap by exploring the motivations for the increasing number of PE firms that integrate ESG factors into their investment process. Utilizing a mixed-methods approach, they interviewed four experts on ESG and PE and surveyed 23 PE firms based in Italy, Switzerland, the US, UK, and France. They find that PE firms have two main approaches to ESG integration: risk management and value creation, with the former being the dominant approach. However, recent evidence indicates a possible shift in the primary drivers for ESG activity. PwC's Global

Private Equity Responsible Investment Survey (2019) identified risk management as the most critical driver, consistent with Zaccone and Pedrini's (2020) findings. In contrast, risk management placed fourth in the 2021 survey, with value creation emerging as the top priority (PwC, 2021). In a Norwegian context, Menon Economics and NVCA (2021) surveyed members of NVCA, with a 65% response rate. They find that profitability was the primary driver of ESG integration in both 2019 and 2021, followed by risk management.

Zaccone and Pedrini (2020) find that external pressure from investors and stakeholders is the main reason why PE firms integrate ESG factors in their investment process. PwC's Global Private Equity Responsible Investment Survey 2021 provides support for the notion that PE firms are progressively recognizing the value that investors place on contributions to favorable environmental and social impact. According to a 2019 Private Equity International report, 85% of LPs consider ESG issues a crucial aspect of their investment decision-making process (Private Equity International, 2022). PEI's Perspectives 2022 report reveals that 74% of investors think that incorporating a robust ESG policy into their private market portfolios will result in superior long-term returns (Private Equity International, 2021). Similarly, the Institutional Limited Partners Association (ILPA) and Bain & Company (2022), demonstrate that 70% of LPs include ESG in their investment policies, and that the motivation behind this choice is primarily the perceived positive impact on investment performance and to communicate ESG efforts to stakeholders. The authors surveyed more than 100 LP organizations and conducted follow-up interviews. However, they also find geographical differences, with European LPs being more convinced that ESG commitments significantly impact valuation premiums. Furthermore, they explain that North American LPs are more concerned with mitigating ESG risks, whereas European LPs are more focused on ESG opportunities.

Focusing on the American and Nordic PE sectors, Spliid (2013) identifies several similarities between these regions, but even more notable differences. One significant divergence relates to managers' financial incentives and the principal-agent relationship. It is essential for the PE firm (the principal) to ensure the portfolio company's management team (the agent) aligns with the firms' values and interests to reduce agency costs. Central to this theory is the notion that portfolio company managers are purely driven by financial incentives, underestimating intrinsic motivation factors and cultural values. However, Nordic managers' values significantly deviate from those of Americans. Nordic corporate culture generally values loyalty, equality, and harmony and places less emphasis on financial incentives compared to US culture. This suggests that relying on financial incentives may have a reduced impact on the performance of Nordic managers. Given these cultural differences, PE firms operating in the Nordic region should recognize that relying solely on financial incentives may not necessarily yield the same outcomes as in the United States. In addition, Semenova and Hassel (2019) argue that "the Nordic model facilitates active, long-term ownership, consensus-seeking dialogue, and control and responsibility for the investee companies". They explain that this model is based on the premise that having an active owner is more efficient and less costly means of monitoring management. The authors also claim that the Nordic model's emphasis on stakeholder cooperation enables GPs to integrate ESG in investment decisions.

Zaccone and Pedrini (2020) highlight that the growing regulatory landscape is a key factor driving the integration of ESG factors in PE investments. Regulatory pressure has resulted in increased awareness and adoption of ESG practices by PE firms, as they strive to comply with the requirements and avoid potential legal and reputational risks. However, Alfonso-Ercan (2020) states that ESG data collection is one of the biggest challenges to integrating ESG in the private sector, due to a lack of standardized reporting requirements. Indeed, Zaccone and Pedrini (2020) find that PE firms struggle to find reliable information and comprehensive ways to measure ESG factors, which may prevent them from effectively integrating ESG into their activities. Another challenge is related to ESG reporting and the lack of clear and consistent definitions (Alfonso-Ercan, 2020). Due to the lack of standardization in the definition and scope of ESG and sustainable investing, there is significant variation in how PE firms prioritize and report on ESG considerations, leading to confusion in the field.

Krysta and Kanbach (2022) conduct a review of 110 empirical studies on the topic of value creation in the PE industry, spanning a period of the past four decades. The authors argue that due to increased competition, PE firms can no longer rely solely on financial engineering to succeed. Instead, they must work harder and more creatively to add real value to their investments. They propose a framework encompassing value creation inputs, outcomes, and context factors. One of the inputs involves the PE firms' role as a strategic revitalizer, where managing ESG externalities is highlighted as an important lever for value creation in portfolio firms. However, transactions in the PE industry take place in a complex environment, with multiple factors influencing the decision-making process and success of the ownership period (Krysta & Kanbach, 2022). Indeed, the success of a transaction can depend on a range of factors, including macroeconomic factors and regulatory changes. Evaluating the success of PE transactions without considering the specific contextual characteristics of each transaction can be problematic.

Crifo et al. (2015) study the impact of ESG practices on equity financing by conducting a framed field experiment in which professional PE investors competed in closed auctions to acquire fictive firms. They find that the disclosure of socially irresponsible policies decrease the firm's price by 11%, 10% and 15% for environmental, social, and governance issues, respectively. This indicates that PE investors should pay attention to a company's ESG practices when evaluating potential investments, as improving irresponsible ESG practices can have a significant impact on the company's value. On the other hand, if a PE firm fails to improve ESG efforts, it may have to sell the company at a lower price.

4. Methodology

This thesis adopts a mixed-methods research design, combining qualitative and quantitative methods. The qualitative method involves in-debt, semi-structured interviews with PE professionals, aimed at improving our understanding of the industry and providing insights into its ESG characteristics. The interviews are exploratory in nature, and inform the subsequent quantitative phase of the study, which involves a survey of a diverse range of PE firms. The survey data is collected through a questionnaire and used to provide a more general understanding of current ESG practices, their impact on value creation, and emerging industry trends. The nature of the quantitative method is thus descriptive. Additionally, we showcase two case studies featuring portfolio companies owned by a PE firm that have integrated ESG considerations into their investment process. We also provide an analysis of the post-IPO performance of portfolio companies previously owned by ESG-leading PE firms. To complement these primary data sources, the study also reviews existing academic literature and industry reports on the topic, providing valuable insights and context for the research findings.

We prioritized ethical considerations regarding participants' privacy and confidentiality. We collected valid consents tailored to the specific data collected from all interviewees and survey participants. We always made sure to provide detailed and clear information about the project, including the responsible parties, the selection process for the participant, what it would mean to participate and the voluntary nature of participation. Additionally, we included information about privacy, data handling, participant rights, and resources for obtaining more information. With this, we aimed to ensure that all participants fully understood the purpose and implications of their involvement, and that their data would be collected in a responsible and ethical manner. We also submitted a Data Management Plan (DMP), along with information about personal data, to NSD/Sikt.

At the end of the survey, participants were asked to provide their company's name for registration purposes only. Upon retrieval of the survey responses, we replaced the firm names with a code. The list of firm names and respective codes was stored separately from the rest of the collected data and was not shared with NVCA or any other party. This list will be deleted no later than August 25, 2023. The anonymized data will be stored on the NMBU's servers for up to 2 years after the end of the project, accessible solely by the academic staff at NMBU School of Economics and Business.

4.1. Interviews

We conducted four in-debt semi-structured interviews with Norwegian based PE professionals. Out of the four interviews conducted, three were done in person, while one was conducted via Microsoft Teams. The interviews lasted between 25 minutes to 1,5 hours. The interview guide ensured consistency, while allowing for flexibility in follow-up questions. It was important for us to have a clear understanding of the purpose and goals of each question to effectively identify relevant follow-up questions. The initial interviews were particularly crucial in laying the groundwork for subsequent discussions and more effective follow-up questions. The interview questions explored the integration of ESG factors into firms' business strategies, internal organization, and investment processes, while considering the role of industry standards, regulations, and best practices. The interviews provided valuable insights, informing the subsequent survey.

To minimize the risk of bias and ensure reliable and representative data, we took several measures during the interview process. Interviewer bias can result from a lack of trust with the interviewee, misinterpreted responses, or unintentional gestures and facial expressions (Sekaran & Bougie, 2016, p. 113). To avoid this, we attempted to build a positive relationship with each interviewee by showing interest in their experiences and using nonverbal cues, such as nodding or maintaining eye contact, to demonstrate active listening. Additionally, we used neutral and objective language in our questions to avoid leading respondents towards a particular answer and ensure that the data we collected accurately represented their attitudes and beliefs. We took audio recordings of each interview using a GDPR approved dictaphone app developed by the University of Oslo (UiO). We also transcribed each interview and sent the transcripts to the respondents for review and approval. By doing so, we were able to capture every detail of the conversation and review the information at a later time to ensure accuracy. Important to note, however, is that using taped interviews as a method of data collection can introduce its own set of biases (Sekaran & Bougie, 2016, p. 113). Respondents may be self-conscious or feel that their anonymity is compromised, potentially affecting their answers. To minimize this risk, we sent an information letter and obtained the respondent's permission before the interview.

4.2. Survey

To collect reliable and trustworthy data, we created an electronic survey using the user-friendly and secure web-based platform Nettskjema developed by UiO. Electronic questionnaires have several advantages, including ease of administration, low cost, fast delivery, and automatic processing. We sent the survey to member firms of the Norwegian Venture Capital & Private Equity Association (NVCA), targeting a wide range of PE firms, including VC, BO, and Growth. Initially, our goal was to collect data from at least 20 PE firms in the Nordics. However, our collaboration with NVCA naturally shifted our focus to PE firms headquartered in Norway. We received a response from 22 members, with the average completion time being 15 minutes. While the majority of respondents were from PE firms based in Norway, it is important to note that numerous firms have established a strong presence throughout the Scandinavian region. Thus, we argue that the findings of this research possess relevance and can be considered representative of the broader Scandinavian region.

A well-designed survey is essential for obtaining reliable and trustworthy data. One of the main limitations of using surveys as a data collection method is the potential for low response rates (Sekaran & Bougie, 2016, p. 158). Acknowledging the diversity of ESG interpretations among industry stakeholders, we chose not to provide a specific definition of ESG within the survey. This decision aimed to prevent confusion among respondents and minimize the risk of deterring participation from companies with slightly differing ESG interpretations. Furthermore, we structured the survey with an easy-to-follow question sequence, presenting simpler questions first. All questions were designed to meet specific standards, including being easily understood, conveying only one thought at a time, and using concrete language. We used a combination of multiple choice and Likert-scale questions, which provide a comprehensive picture of the information being collected. The main drawback of fixed alternative questions is that of putting answers in people’s mouths (Kothari, 2004, p. 103). While open-ended questions avoid this issue, we refrained from using such questions, as these can be more challenging to handle and may raise issues of interpretation, comparability, and non-response bias.

Morrel-Samuels' "Getting the Truth into Workplace Surveys” (2002) suggests using odd-numbered response scales that includes a neutral option. It is also important to include a "don't know" or "does not apply" choice to prevent respondents from feeling pressured to provide meaningless answers. Such options can increase the likelihood of respondents completing the survey while reducing response bias. However, excessive use of "does not apply" or "not applicable" responses may lower response rates and suggest poorly designed or irrelevant questions. We used a five-point scale, as research indicates that a five-point scale is just as good as any, and that an increase from five to seven or nine points on a rating scale does not improve the reliability of the ratings (Sekaran & Bougie, 2016, p. 215).

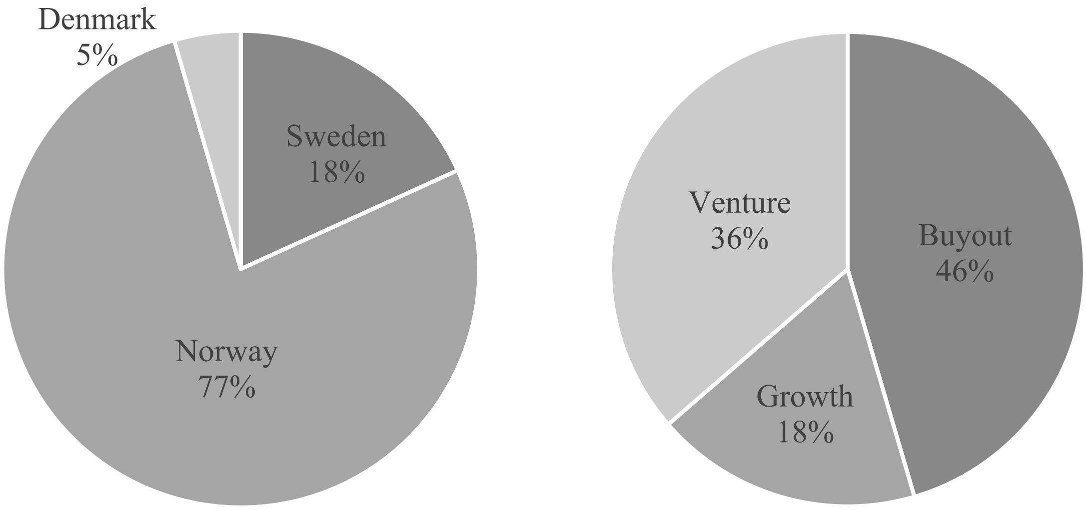
Chyung et al. (2018) compare the effect of ascending and descending order of response options in surveys. The results showed that presenting response options in ascending order produced more accurate and reliable survey responses than presenting them in descending order. Ascending order response scales list the lowest response option first and the highest response option last, such as "Strongly disagree," "Disagree," "Neutral," "Agree," and "Strongly agree". Given this evidence, we adopted the practice of using ascending order for every question that included a Likert-type scale. We also made sure to not phrase all questions positively, to minimize the tendency in respondents to mechanically circle the points toward one end of the scale (Sekaran & Bougie, 2016, p. 147)

5. Results

In this section, we analyze and discuss the findings of our survey, complemented by insights obtained from interviews. The survey received responses from firms headquartered in Sweden, Norway, and Denmark. However, a large majority (77%) of the firms have their headquarters in Norway. The response sample includes a diverse representation of various PE strategies, with BO being the most prevalent (46%), followed by VC (36%) and growth (18%).

Question: *In which country is your firm headquartered?*

Question: *In which fund stages does your firm primarily invest?*



Panel A

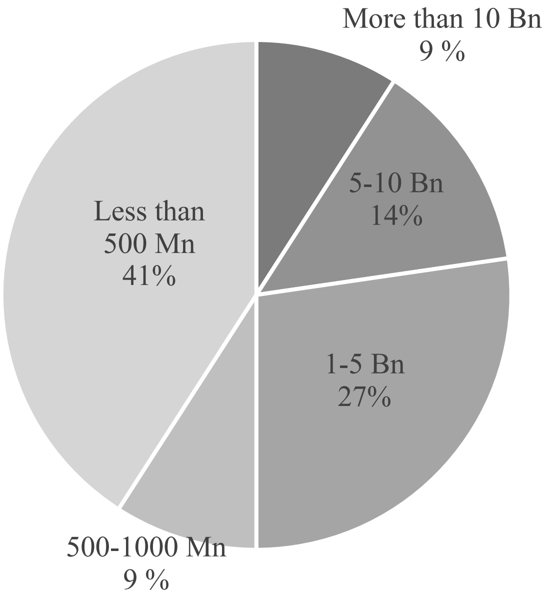
Panel B

Figure 5.1: *Responses by firm headquarters (Panel A) and responses by investment strategy (Panel B).* The remaining options and their corresponding percentages were: "Iceland" (0%) and "Finland" (0%)

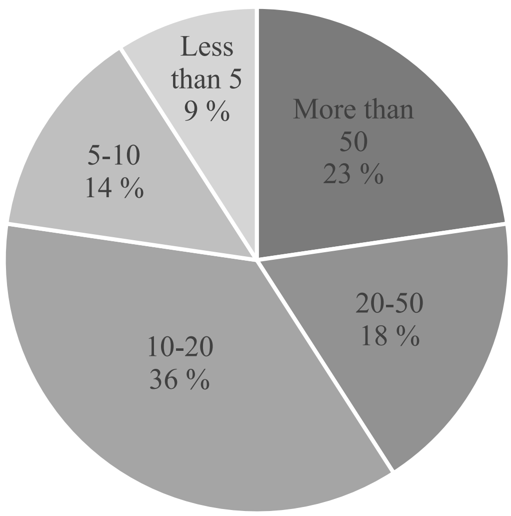
In terms of assets under management (AUM), the sample contains a wide range of firm sizes. A considerable proportion of firms (41%) manage less than €500 million in assets, suggesting a significant presence of smaller PE firms in the region. On the other end of the spectrum, 9% of firms manage over €10 billion. Many firms fall within the middle range, with 27% managing €1-5 billion and 14% managing €5-10 billion. When respondents are asked about their firm's headcount, we find that most respondents represent mid-sized firms, with 36% of the teams consisting of between 10-20 people. 41% of respondents have more than 20 employees, and 23% represent small firms, with 10 or fewer employees.

Question: *What is your firm's amount of AUM (€)*

Question: *What is the headcount of your firm?*



Panel A



Panel B

Figure 5.2: *Responses by firm's AUM (Panel A) and responses by headcount (Panel B).*

5.1. Present State of ESG Integration at the Firm Level

Our findings reveal that 91% of respondents consider ESG to be an important part of their firm's agenda, with 64% strongly agreeing and 27% agreeing. A matching 91% have an ESG/RI policy in place. It is worth remembering that we did not provide a specific definition of ESG in the survey, allowing for the possibility that the interpretation of ESG may vary among respondents. This choice is made to capture a diverse range of perspectives on ESG within the industry. Despite the potential variations in understanding, 59% of respondents report having a dedicated ESG professional or team within their organization. Out of the firms we interview, all have established dedicated ESG teams, consisting of approximately 3-5 people. The primary responsibilities of these teams include developing internal expertise, establishing ESG frameworks and guidelines, fostering learning within portfolio companies, and ensuring compliance with ESG regulations and reporting requirements. The interviewees further emphasize the importance of organization-wide knowledge and their commitment to incorporating ESG into their core value creation efforts. This viewpoint is supported by for instance Cappucci (2018) and the Norwegian Climate Foundation (2018), which emphasize the importance of wholehearted commitment to ESG and a clear tone from the top, rather than delegating ESG responsibility solely to the ESG team. 52% of respondents answer that the entire organization is responsible for implementing the firm's ESG/RI policy, which may indicate a shift towards a more holistic approach to ESG integration, with shared responsibility across all levels of the organization. However, 77% of respondents do not link ESG performance to their incentive or bonus systems, indicating that there is still room for improvement in aligning financial rewards with ESG outcomes.

Question: *Who is responsible for the implementation of your firm's ESG/RI policy?*

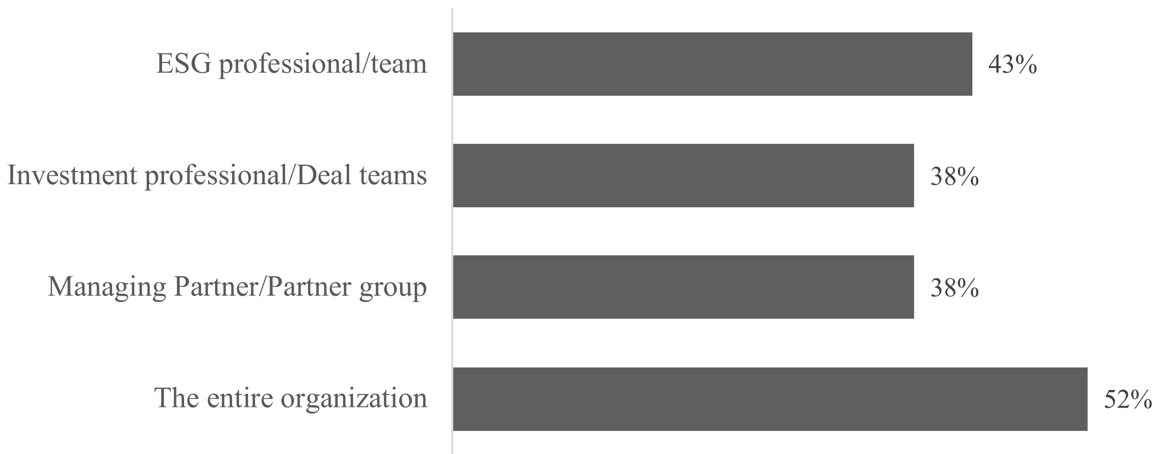


Figure 5.3: *Responsibility for implementation of firm´s ESG/RI policy.* The respondents were given the option to choose several alternatives. The remaining options and their corresponding percentages were: "Other" (0%) and "Does not apply" (0%)

In terms of key drivers for ESG integration, value creation and compliance emerge as the top drivers. This development highlights the increasing recognition of ESG's role in generating long-term value, as well as the intensified emphasis on adhering to regulatory requirements. Notably, this marks a shift from a previous study conducted by Menon Economics and NVCA (2021), where compliance was ranked third as an ESG driver. The recent increase in regulatory requirements from the EU likely contributes to this focus, as firms seek to mitigate potential legal and reputational risks associated with non-compliance. In our survey, expectations from LPs was ranked third, highlighting the growing importance of ESG considerations for investors.

The interviewees emphasize the importance of transparency and communication to investors, as many investors now expect to know how their money is being invested and the progress being made in terms of ESG. We discuss these topics further in Section 5.3 and 5.4.

Question: *What do you consider to be key drivers of ESG integration in your firm?*

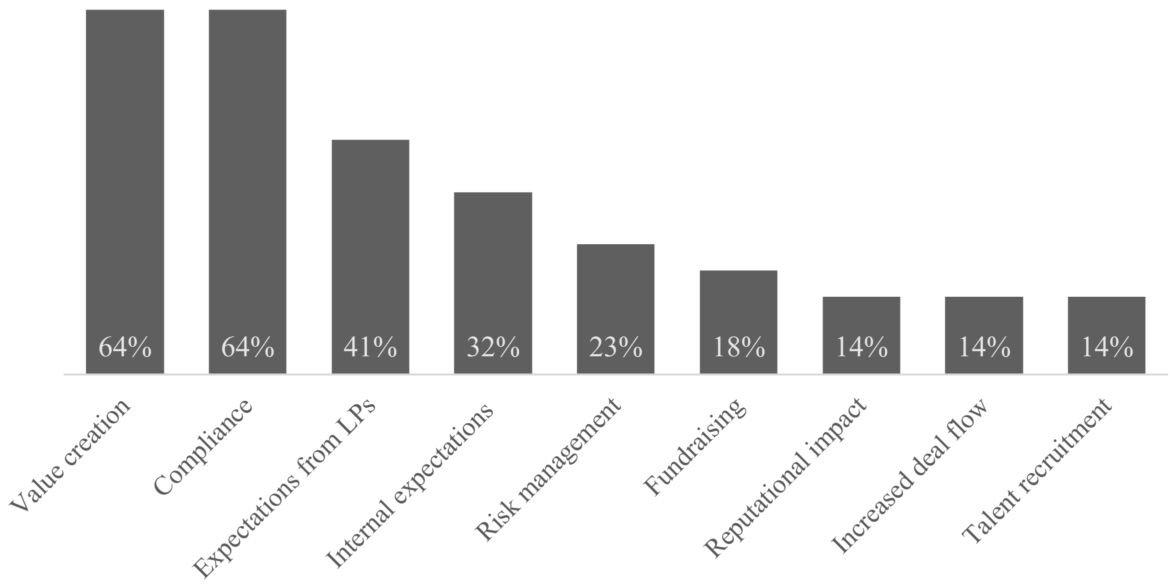


Figure 5.4: *Key Drivers for ESG integration.* The respondents were given the option to select a maximum of three alternatives The remaining options and their corresponding percentages were: "Peer competition" (0%), "Other" (0%), and "Does not apply" (0%).

Consistent with global trends, as identified in Section 3.3, risk management is ranked as the fifth in importance most important driver of ESG integration for Scandinavian PE firms. This may suggest that the industry has moved beyond a risk-based view and indicates an evolving perception of ESG. This finding contrasts with the Menon Economics and NVCA (2021) study, which identifies risk management as the second most important driver. PwC (2021) suggests that the driving factors behind this shift may include the disruption caused by sustainability trends, such as the circular economy and net zero which create investment opportunities. Additionally, managing partners' growing recognition of the value creation opportunities in aligning business with sustainable transitions and utilizing ESG as a transformative lever alongside other levers such as digitization and internationalization.

In our survey, we inquire about the frameworks, guidelines, and initiatives that the firms use in their integration of ESG considerations. Our findings indicate that UN initiatives are currently more widely used than EU regulations. This may suggest uncertainties surrounding the practical implementation of EU policies, or it can be a reflection of the presence of companies that remain unaffected by the EU regulations. Furthermore, our analysis reveals a relatively low adoption of ESG software and data solutions. We will discuss this further in Section 5.4.

Question: *Which of the following frameworks, guidelines and/or initiatives does your firm use in its integration of ESG considerations?*

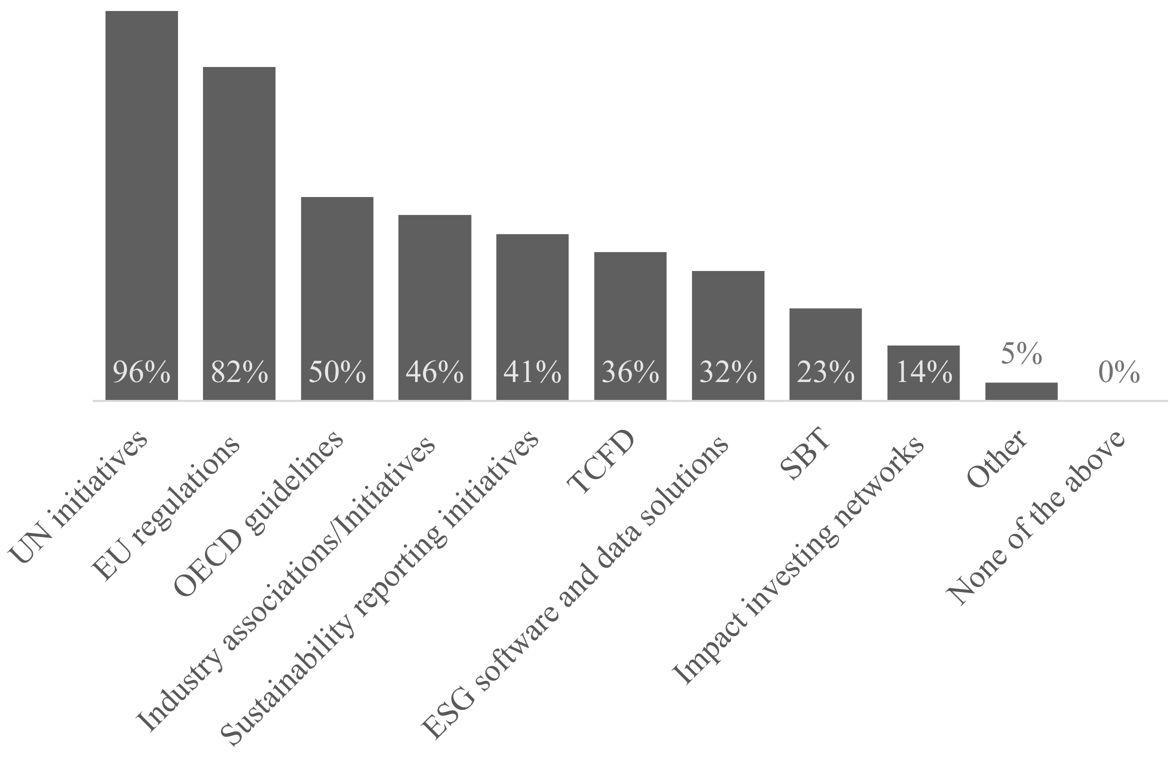


Figure 5.5: *ESG integration frameworks, guidelines, and initiatives utilized by firms.* The respondents were given the option to choose several alternatives.

We further explore the importance assigned by respondents to the alignment of their investments and activities with the SDGs, Principal Adverse Impact (PAI) of the SFDR indicators, and the EU Taxonomy. Our findings indicate that the SDGs are considered the most important framework, with 82% of respondents rating them as such, compared to the PAI indicators of SFDR (55%) and the EU Taxonomy (64%). There could be various explanations for this. For instance, their simplicity and the industry's familiarity with the SDGs could contribute to their widespread adoption. Another potential reason is that the industry might be reluctant to fully embrace the EU regulations at present, anticipating that these regulations may undergo further development and modifications in the future. Nevertheless, we find highly diverse perspectives and applications of the SDGs within the PE industry. Our interviews reveal that while some firms use them as their main tool for sustainability and impact assessments, others argue that the SDGs are too vague to be employed as a framework for this purpose. Indeed, we find no standardized approach to utilizing SDGs in the PE industry.

Question: *How important is it to your firm to align investments and activities with:*

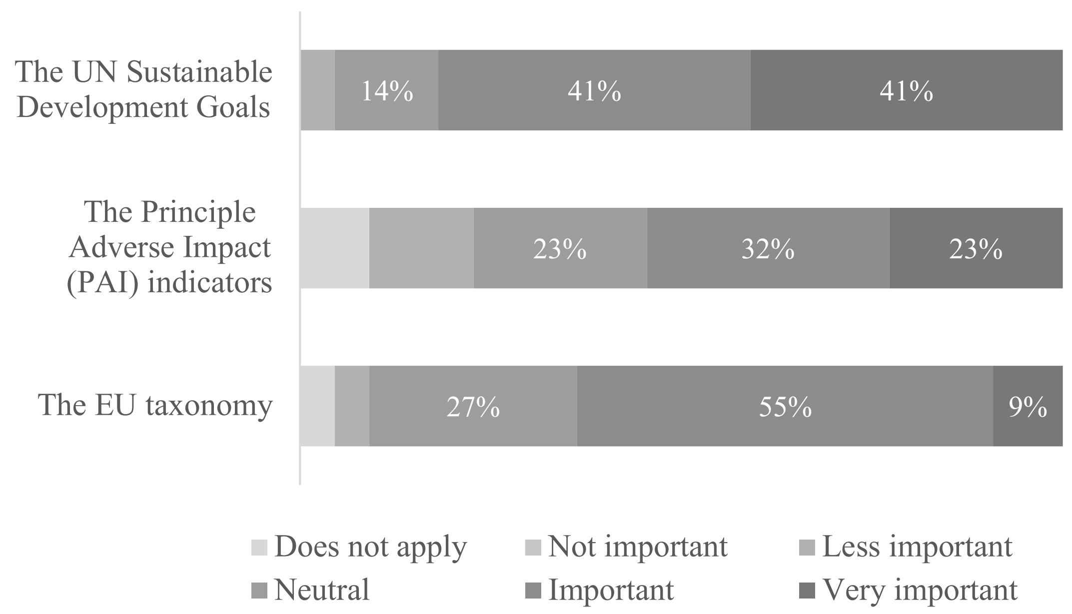


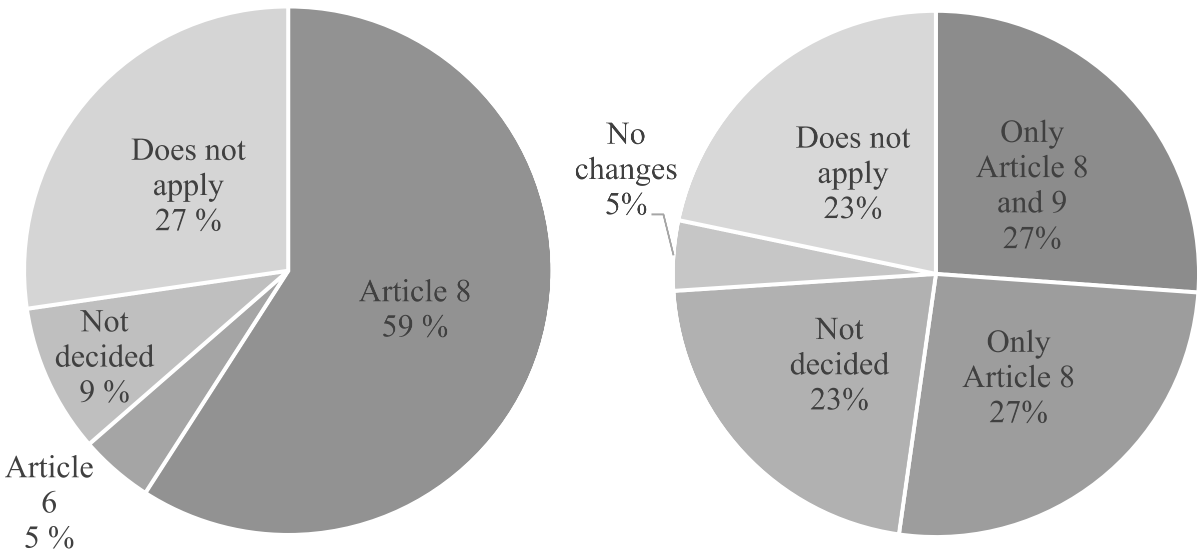
Figure 5.6: *The importance for firms of aligning investments and activities with SDGs, PAIs, and the EU Taxonomy.*

As noted in Figure 5.5 and Figure 5.6, firms currently rely more on UN initiatives than EU regulations for ESG integration considerations into their operations. This finding is not entirely unexpected, given that sustainability reporting and practices historically has been characterized by voluntary self-regulation initiatives (Heras-Saizarbitoria et al., 2022). Among these, the PRI and SDGs have a particularly strong foothold. Initially, the UN SDGs aimed to engage the private sector in addressing global challenges (Kramer et al., 2019). However, their broad nature allows for "SDG-washing" (Heras-Saizarbitoria et al., 2022), as many firms cherry-pick icons without setting ambitious targets aligned with the SDGs (Siegel & Lima, 2020) and often under-recognize their operations negative impacts compared to positive contributions (GRI & Support the Goals, 2022; United Nations Global Compact & GL, 2020, p. 18). This form of reputational management within sustainability reporting is closely associated with greenwashing. A similar observation can be made regarding PRI affiliation, which is often widely advertised without yielding improvements in either the ESG or the financial performance of portfolios (Kim & Yoon, 2021). In response to these issues and with the aim of increasing transparency and reducing greenwashing, the EU introduced the EU Taxonomy, SFDR, and CSRD, which we explained in Section 2.3.

In our survey, we pose two questions regarding fund classification according to the SFDR. First, we ask what classification the majority of the respondents' latest funds currently fall under. Our findings reveal that most funds are classified as Article 8. We further ask if respondents anticipate the SFDR to influence their portfolio/fund composition over the next five years. 26% indicate that they will aim to solely have Article 8 funds, while another 26% indicate that they will aim to only have Article 8 and Article 9. Notably, no firm reports that the majority of their funds are classified as Article 9 or that they will exclusively target Article 9 funds in the future. Furthermore, a substantial portion of respondents, state that the SFDR does n ot apply to them (27% to the first question and 23% to the second, respectively).

Question: *What classification does the majority of your latest funds currently fall under according to the SFDR?*

Question: *Do you anticipate the SFDR to influence your portfolio/fund composition over the next five years?*



Panel A

Panel B

Figure 5.7: *Current fund classification (Panel A) and SFDR influence on portfolio/fund composition (Panel B).* The respondents were given the option to choose several alternatives for the figure in Panel B. The remaining options and their corresponding percentages were: “Article 9” (0%) in Panel A and “Yes, we aim to only have Article 9” (0%)

Based on our interviews, it is evident that there is a lot of confusion and debate among PE firms regarding the interpretation and their ambition when it comes to the SFDR. Interestingly, while some funds may qualify for article 9 classification, firms opt to market themselves under article 8. According to our interviewees, this decision stems from the complex nature of the regulation and the ambiguity surrounding the definition of "sustainable investment" or “impact investment”. One interviewee explains that under the article 9 label, all investments must be sustainable and have a demonstrable impact, at least according to their understanding of the regulation. They further express concern about the possibility of being accused of "greenwashing," and as a result, they choose to align with article 8 instead of article 9.

5.2. ESG Throughout the Investment Life Cycle

To investigate the integration of ESG factors throughout the investment life cycle, we pose several questions concerning current ESG practices throughout the investment process. One of the areas we explore is the extent to which firms consider ESG factors when screening potential investments. Our findings reveal that negative screening is the most prevalent approach, with 59% of firms employing this method. This is in line with global trends reported by ILPA and Bain & Company (2022). However, positive screening and norms-based screening are also commonly used, with adoption rates of 50% and 55%, respectively. A smaller proportion of respondents (27%) report utilizing a thematic/impact approach for their investments. Interestingly, none of the respondents indicate a complete disregard for ESG considerations in their screening process.

Question: *To what extent does your firm consider ESG when screening for potential investments?*

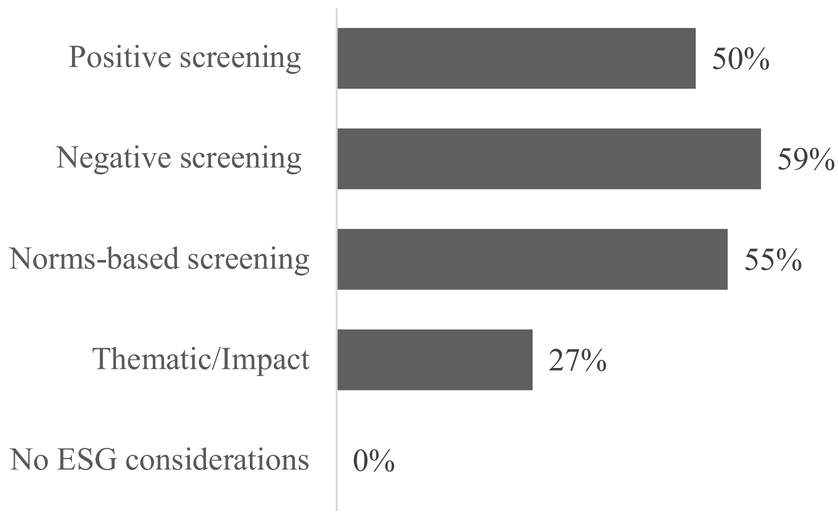


Figure 5.8: *ESG fund screening strategies.* The respondents were given the option to choose several alternatives.

Zaccone and Pedrini (2020) find that most PE firms use checklists as tools for assessing ESG factors, with 64% employing this method, and only a modest use of external ESG advisors (41%). Similarly, our analysis of the due diligence (DD) process indicates that the ESG Due Diligence Questionnaire (DDQ) is the most widely used method among Scandinavian PE firms, with 77% utilizing it as a tool. Our findings also reveal that 59% of firms consult with ESG experts, which is 20% higher compared to Zaccone and Pedrini's findings. 55% assess compliance with ESG regulations and another 55% evaluate minimum safeguards. Notably, only a minimal percentage (5%) of firms stated that they do not utilize any ESG assessment activities or tools in their operations.

Question: *Which of the following activities/tools does your firm employ as part of its ESG due diligence?*

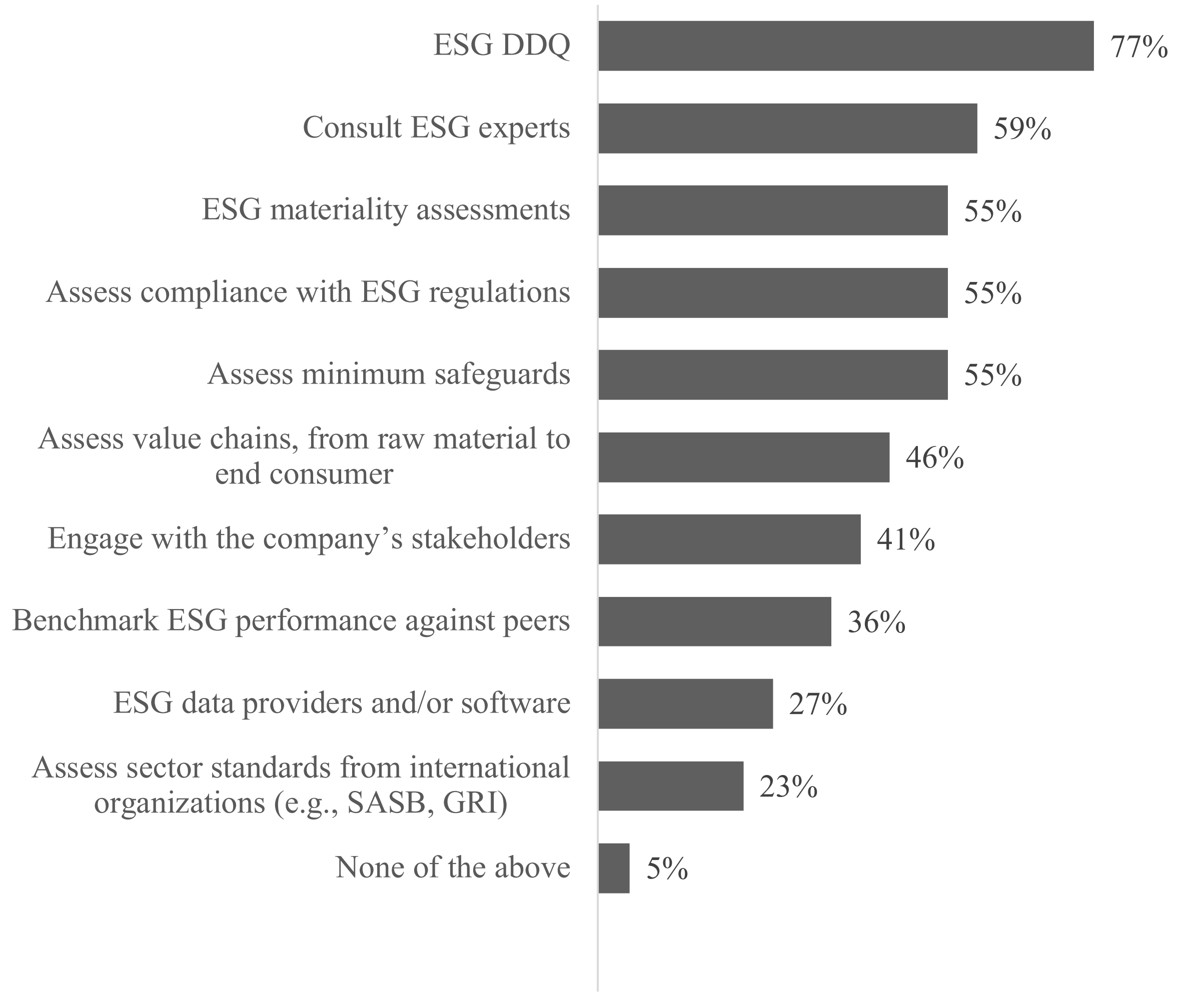


Figure 5.9: *ESG DD activities and tools employed by firms.* The respondents were given the option to choose several alternatives. The remaining option and its corresponding percentage was: “Other” (5%)

Our survey results provide interesting insights into the implementation of ESG materiality assessments by firms. Although 55% of respondents claim to perform these assessments, a closer examination of the key components involved uncovered potential gaps in their execution. We find that a smaller proportion of firms address vital elements of materiality assessments, such as assessing value chains (46%), engaging with stakeholders (41%), benchmarking against peers (36%), and evaluating sector standards developed by internationally recognized frameworks (23%). We argue that these are important components for a comprehensive understanding of ESG risks and opportunities associated with potential investments.

Question: *How does your firm approach ESG materiality assessments?*

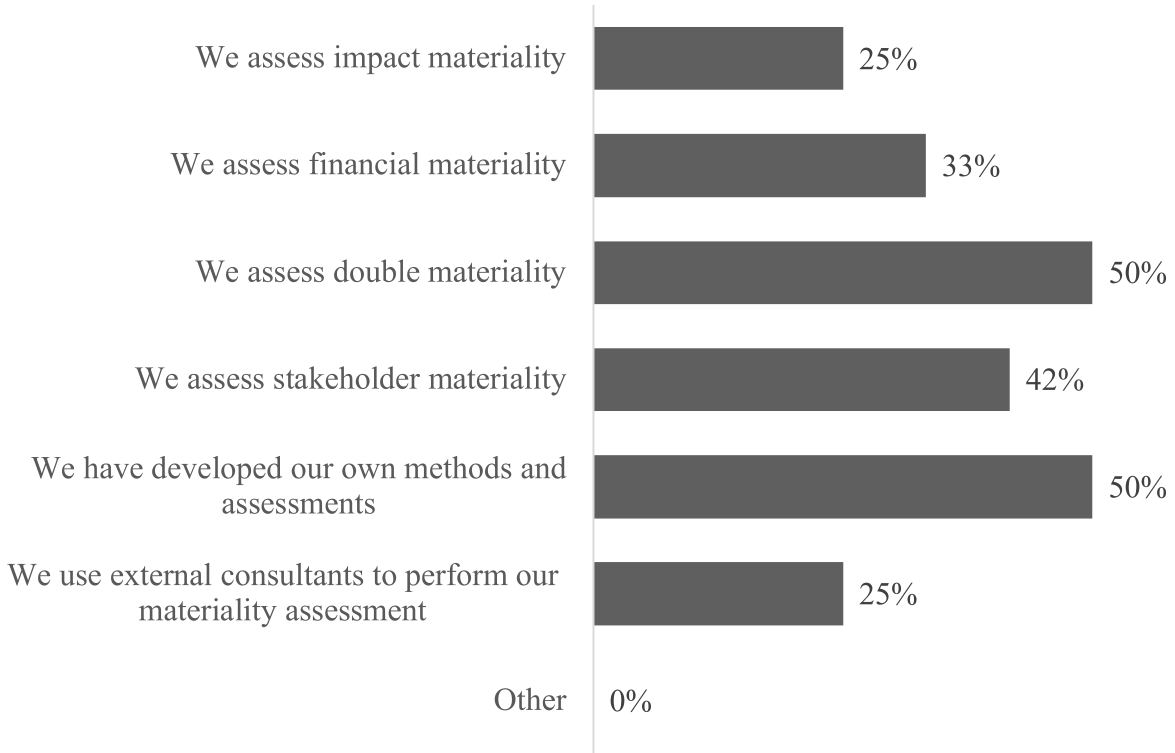


Figure 5.10: *Approach to ESG materiality assessments.* The question was conditional on selecting the option "ESG materiality assessments" in Figure 5.9 and the respondents were given the option to choose several alternatives. The remaining options and their corresponding percentages were: “Other” (0%) and “We do not perform materiality assessments” (0%)

Further analysis of the firms' approach to ESG materiality assessments reveals that only 50% of those who conduct these assessments evaluate double materiality, which is a key requirement in the CSRD (as mentioned in Section 2.3). This implies that only about 28% of the total respondents adhere to what is regarded as the best-practice guidelines for identifying material ESG risks and opportunities at the time of writing. Double materiality encompasses both financial materiality (outside-in) and impact materiality (inside-out). Firms that focus on only one of these perspectives risk overlooking negative impacts of their operations, or external factors affecting financial performance. Moreover, drawing from both the survey and interviews, we find that many respondents (50%) have developed their own methodologies for materiality assessments, influenced or uninfluenced by existing frameworks. No standardized approach to conducting materiality assessments was found, consistent with Kotsantonis and Serafeim (2019), which claim that there is "*currently no agreed method on how to handle diversified businesses, in terms of which ESG issues are material to them*".

Inconsistent methodologies and prevalent use of self-developed tools for ESG materiality assessment highlight the need for standardization. A more standardized approach to materiality assessments could potentially reduce the time and resources used by PE firms to develop their own methodologies and tools. While a one-size-fits-all approach may not exist, a common language can enhance comparability and reduce confusion in the field. We argue that adopting double materiality should be the preferred approach. Moreover, increased thoroughness in materiality assessments, including stakeholder engagement and value chain analysis, may prevent firms from overlooking material risks and opportunities. Finding the right balance between standardization and addressing industry- and company-specific needs is important for performing effective materiality assessments for portfolio companies going forward.

The interviews demonstrate a notable distinction in attitudes towards materiality between the pre-investment phase and the ownership period. Some claim that in the pre-investment phase, there is a strong focus on risk. In contrast, the emphasis shifts towards enhancement and exploration of potential opportunities during the ownership period. We argue that PE firms should emphasize identifying and exploring material ESG-related opportunities early in the investment process for better-informed investment decisions. To explore this further, we ask the survey respondents if they believe their firms are more likely to identify ESG-related risks than ESG-related opportunities. The results indicate a mixed perception, with 33% of respondents disagreeing, 33% agreeing, and the remaining 33% remaining neutral. Of particular interest is the finding that one-third of the respondents believe that they are more likely to identify ESG-related risks rather than opportunities. This indicates an area of improvement. By shifting the focus from risk mitigation to proactive identification and exploration of ESG-related opportunities, PE firms could potentially unlock additional value and drive positive societal impact.

Question: *To what extent do you agree with the following statement regarding ESG materiality assessments: "We are more likely to identify ESG related risks than ESG related opportunities"*

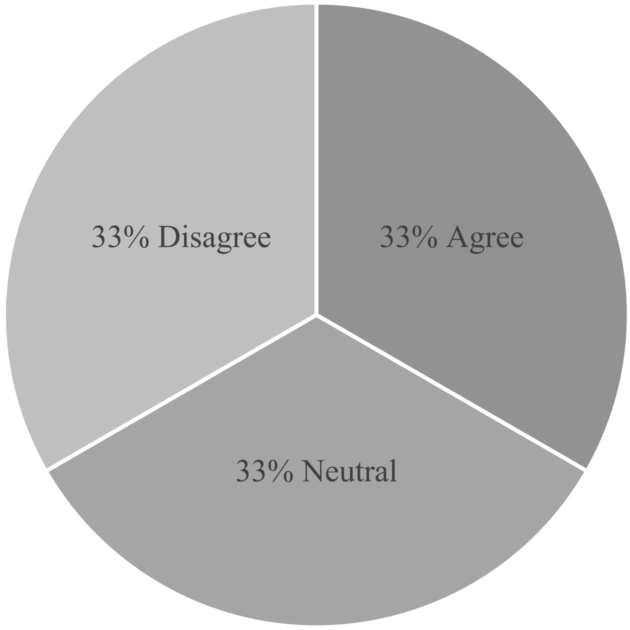


Figure 5.11: *Perception of firms regarding their ability to identify ESG risks versus ESG opportunities.*

Our findings indicate that the most significant obstacle to ESG integration in the pre-investment phase is lack of objective data and information (77%). Evaluating a company's environmental performance involves analyzing factors such as greenhouse gas (GHG) emissions, water usage, waste generation, and sustainable materials. Assessing social performance includes tracking employee turnover, diversity, training, and health and safety records. Governance practices can be evaluated through executive compensation, compliance, and ESG-related policies. Analyzing such non-financial data and plans for improvement can provide investors with a comprehensive understanding of a company's long-term prospects and support informed investment decisions. However, due to the lack of regulation and standardization in ESG disclosures, it can be challenging to compare ESG information across companies (Kotsantonis & Serafeim, 2019). Not all companies report on ESG issues, and those that do may lack consistency in their reporting. Smaller companies in particular may exhibit more limited ESG disclosure. In some cases, especially in the very early-stage companies, ESG data might not even exist. This makes it difficult to collect such information through questionnaires. We will address this topic further later in this section and in Section 5.4.

Question: *What do you perceive as the biggest obstacles to ESG integration during the pre-investment phase?*

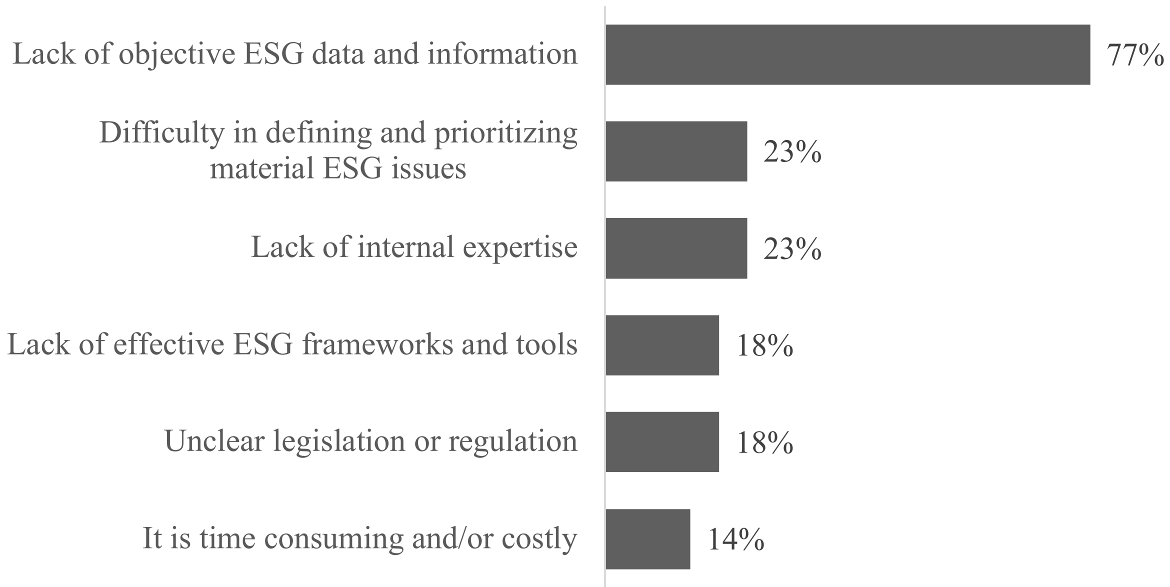


Figure 5.12: *Obstacles to ESG integration in the pre-investment phase.* The respondents were given the option to select a maximum of three alternatives. The remaining options and their corresponding percentages were: "Partners disagree regarding the importance" (4.5%), "Lack of external expertise" (5%), "Other" (5%), and "Does not apply" (5%)

Two obstacles tie for second place, each receiving 23% of the responses, were the difficulty in defining and prioritizing material ESG issues, as well as the lack of external expertise. The fact that only 23% of respondents regard defining and prioritizing material ESG issues as one of the biggest obstacles may indicate limited understanding of the importance of materiality assessments. Indeed, one interviewee specifically mentions that developing effective methods for materiality assessments presents a challenge. Interestingly, we find that only 14% view time consumption and/or costs as obstacles to ESG integration.

Several interviewees explain that their intention is to improve the ESG performance of companies they invest in. Despite this, certain deterrents may cause them to "walk away" from potential investments. Interestingly, our findings indicate that the most prevalent reason for abandoning an investment opportunity is the company's environmental impact. This is somewhat unexpected, given the potential for PE firms to make substantial improvements to a company's environmental performance. However, if the negative environmental impact is intrinsic to the business or not easily mitigated, the PE firm may deem it impractical to proceed with the investment. This is closely related to the second most cited reason for withdrawal, namely challenges in improving the company's business model. Tied for second place, we also find corruption and unethical behavior and potential risk of negative headlines. The prominence of corruption and unethical behavior as a walk away trigger is not surprising. As one interviewee notes, "*changing culture is much harder than changing bad processes*". One interviewee further reveals that they always look for clear company values, health and safety policies, and whistleblowing policies before they invest. The absence of such features can raise red flags. Notably, none of the surveyed firms indicate that they would *not* walk away from a deal for ESG reasons.

***Question**: What are the main ESG considerations that have caused your firm to walk away from an investment opportunity?*

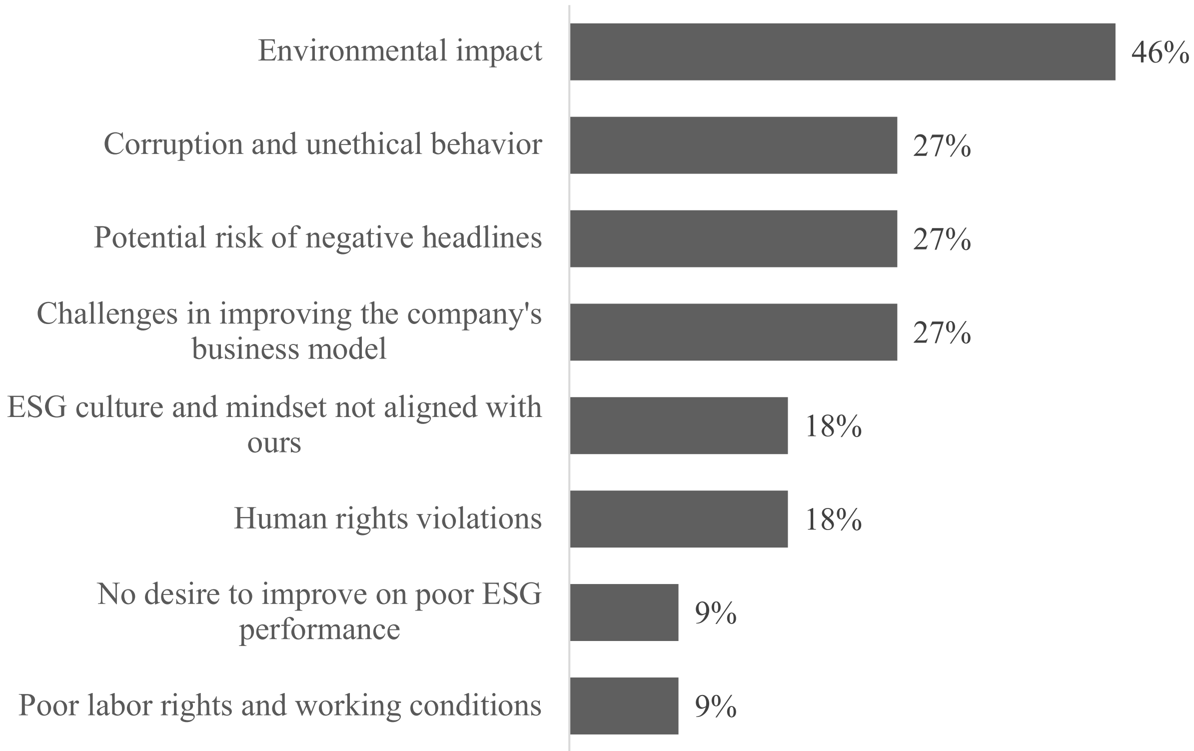


***Figure 5.13:** ESG factors that have led firms to walk away from investment opportunities.* The respondents were given the option to choose several alternatives. The remaining options and their corresponding percentages were: "Does not apply" (18%), "We would not walk away from a deal for ESG reasons" (0%), and "Poor ESG reporting" (0%)

During the ownership period, all surveyed firms report that they monitor ESG efforts within their portfolio companies. Only 23% answer that they only monitor for some portfolio companies. A substantial 86% of respondents operationalize ESG factors by ensuring board representation and management oversight. The interviewees emphasize the importance of participating in board meetings of portfolio companies and dedicating sufficient time to align interests, particularly during the onboarding process. However, only 50% of the respondents implement ESG policies. Additionally, a mere 9% highlight their emphasis on enhancing resource management and efficiency. This finding is noteworthy given the research conducted by Rexhäuser and Rammer (2014), which suggests that innovations aimed at increasing a firm's resource efficiency – by reducing material or energy consumption per unit of output – positively affect profitability.

Question: *Do you monitor the ESG efforts in your portfolio companies?*

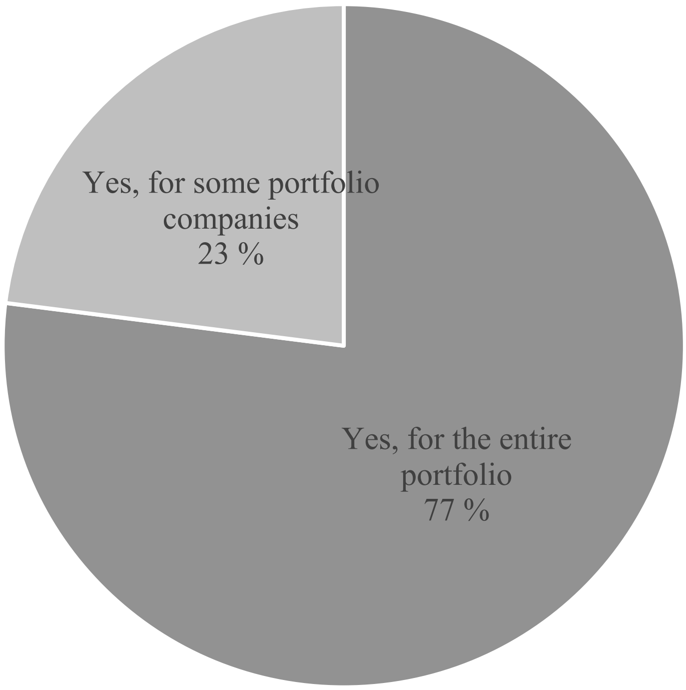


Figure 5.14*: The proportion of respondents monitoring ESG factors. The remaining options and their corresponding percentages were: "Does not apply" (0%), "No" (0%)*

Interview findings indicate that materiality assessments are primarily utilized during the pre-investment phase. We therefore wanted to investigate whether these are updated (yearly) during the ownership period. Our findings show that only 32% of respondents conduct annual updates to their materiality assessments. We argue that such updates are important, as there may be aspects that the PE firm fails to uncover during the DD process, potentially altering the materiality assessment during ownership. Furthermore, given the rapidly evolving nature of the field and the constant emergence of new insights, we emphasize the importance of regular updates. Finally, we argue that one of the most important things the PE firm can assist with is helping their portfolio companies prioritize what they should focus on in terms of ESG, which could result in enhanced financial performance and long-term value creation, as demonstrated by Kahn et al. (2016).

Question: *How does your firm operationalize ESG factors during the ownership period?*

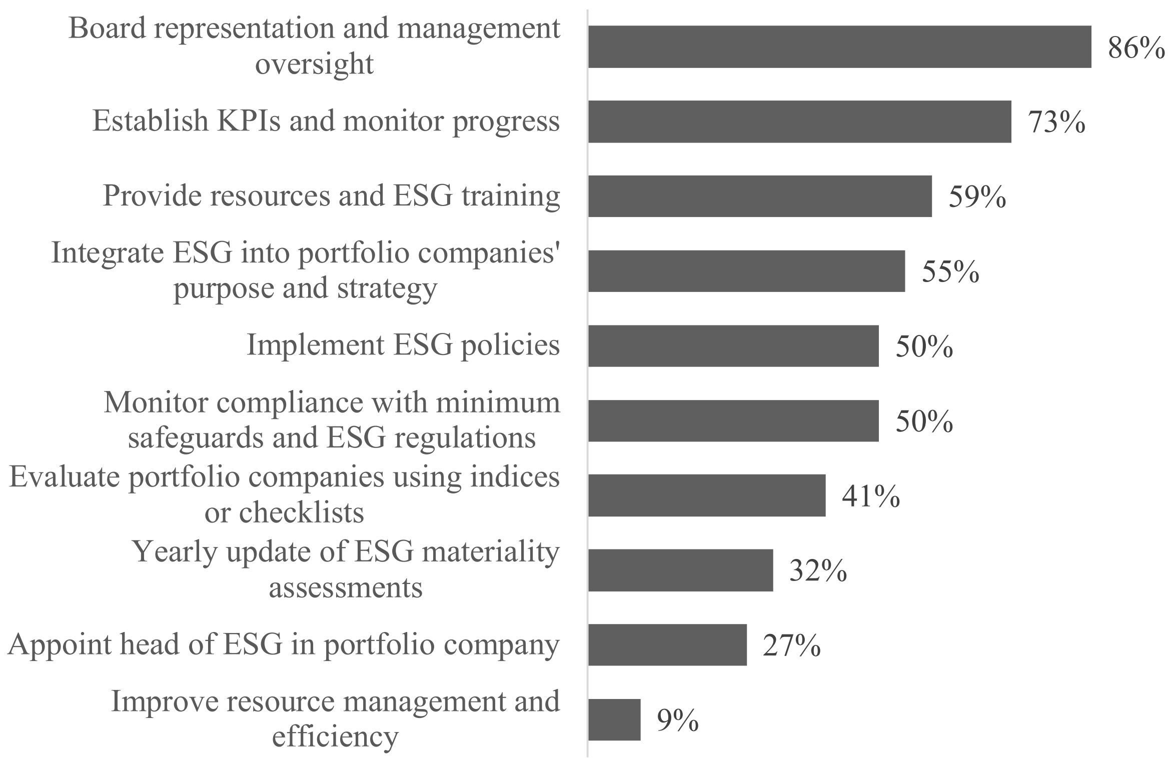


Figure 5.15*: Firms' operationalization of ESG factors during the ownership period.* The respondents were given the option to choose several alternatives. The remaining options and their corresponding percentages were: "Other" (5%) and "Does not apply" (0%)

From our survey, we find that 73% of firms establish KPIs to evaluate progress in portfolio companies ESG efforts. Among these, 50% develop KPIs on a company-by-company basis, and 87% expect their portfolio companies to report on their progress either monthly or yearly.

However, interview findings suggest that PE firms generally delegate the responsibility for setting, approving, and tracking ESG objectives to either the portfolio company's management team or a dedicated ESG person. This approach allows individual companies to take ownership of their ESG objectives. On the other hand, only 27% of firms appoint a dedicated head of ESG. An improvement can be achieved by appointing a head of ESG within portfolio companies and incorporating ESG priorities – identified through regularly updated materiality assessments – into the broader organizational strategy, ultimately bolstering the overall effectiveness of ESG initiatives. Notably, nearly 60% of respondents report that they provide resources and ESG training, which is one of the key intentionality factors identified by Cappucci et al. (2018).

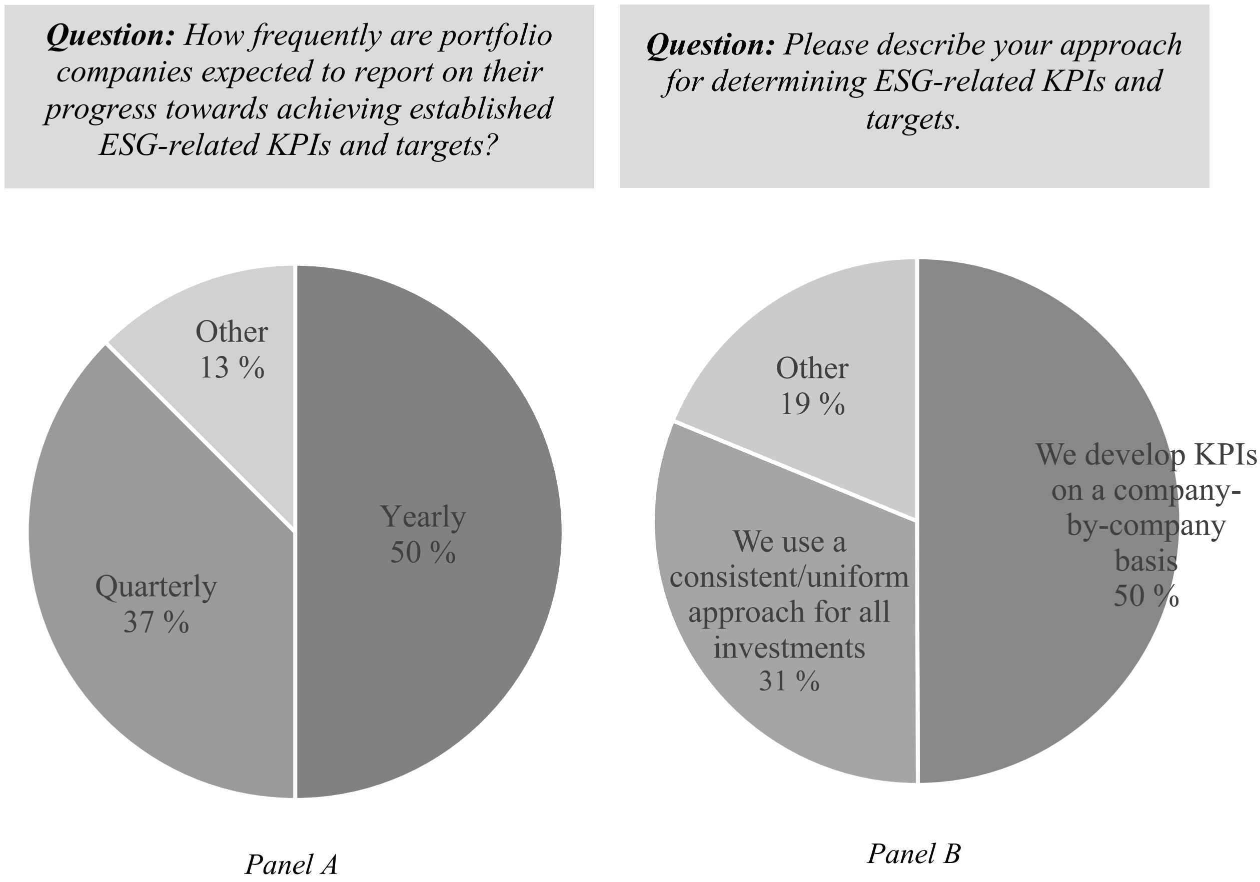


***Figure 5.16**: PE firms' KPI reporting expectations for portfolio companies (Panel A) and KPI setting approach (Panel B).* Both questions were conditional on selecting the option "Establish KPIs and monitor progress" in Figure 5.15. The remaining options and their corresponding percentages were: “Monthly” (0%) and “Does not apply” (0%) in Panel A, and “Does not apply” (0%) in Panel B

A lack of high quality ESG data clearly presents a major challenge in the industry, as it is identified as the primary obstacle during both the ownership period and the pre-investment phase. Managing a diverse portfolio with multiple companies, each possessing unique ESG metrics to monitor, can result in an overwhelming amount of data. Nevertheless, effective ESG strategies require the measurement of non-financial data (Alfonso-Ercan, 2020). In our interviews, there is a consensus that quantifying and measuring environmental factors is easier compared to social and governance factors. Indeed, significant progress is being made in quantifying and reporting emissions. However, the environmental factor encompasses more than just emissions. It also includes aspects such as biodiversity loss and natural resource depletion, where data remains scarce and valuation proves more challenging. Quantifying and measuring social factors are also considered challenging due to their complex and qualitative nature, though one interviewee noted that progress is being made in this area as well. As for governance, one interviewee noted that the industry has gained considerable expertise in identifying criteria that exemplify good governance practices. We will discuss the importance of ESG data collection and reporting further in Section 5.4.

***Question**: What do you perceive as the biggest obstacles to ESG integration during the ownership period?*

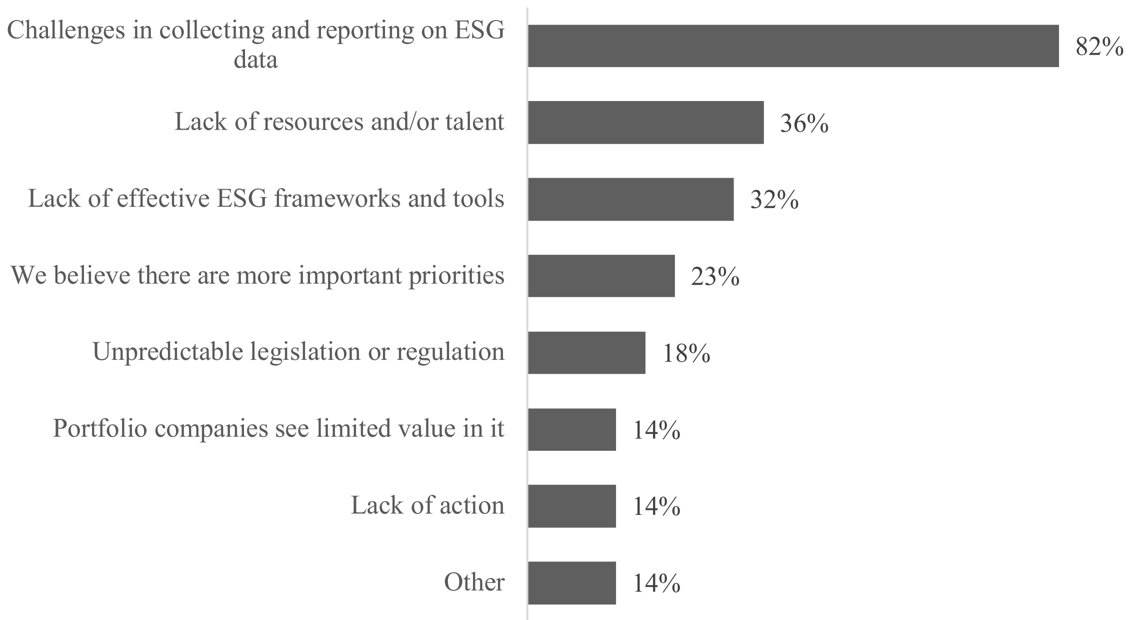


***Figure 5.17:** Obstacles to ESG integration in the ownership period.* The respondents were given the option to select a maximum of three alternatives. The remaining options and their corresponding percentages were: “Lack of ambition” (0%) and “Does not apply” (0%)

5.3. ESG and Value Creation

We explore the industry's perspective on the impact of ESG on value creation by asking about the influence of firms' ESG efforts on the value of their portfolio companies. The majority of respondents, 60%, indicate that their portfolio companies' value increases as a consequence of their firms' ESG efforts. The remaining respondents either report no impact on value or find the question irrelevant. This finding aligns with empirical literature on the subject, such as Friede et al. (2015) and Whelan et al. (2021), which suggests that ESG factors generally have a non-negative impact on investment returns. Indeed, the majority of the studies included in these meta-analysis' reported a positive relationship between ESG factors and financial performance.

Question: *To what extent have your firm's ESG efforts impacted the value of your portfolio companies?*

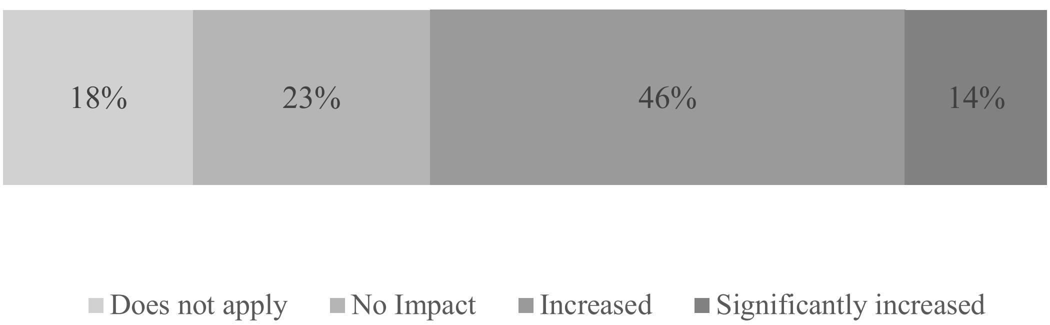


Figure 5.18: *Firms' perception of the impact of ESG efforts on the value of their portfolio companies.*

The interviewees emphasize several reasons why their ESG efforts contribute to increased company value, such as enhanced operational efficiency, risk mitigation, and the development of resilient businesses. One interviewee highlight the importance of employee satisfaction, and suggest that it is intrinsically linked to satisfied customers. This aligns with the findings by Edmans (2011), who suggests that employee satisfaction can generate superior long-term returns, due to underlying mechanism such as increased motivation. Moreover, customers may be more likely to support companies that demonstrate fair treatment of their employees. Additionally, a growing consumer interest in sustainable products is noted, indicating an expanding market for companies with robust ESG credentials. When we ask about potential trade-offs between financial returns and ESG considerations, the majority of the interviewees maintain that no such compromises exist. However, one interviewee acknowledged the possibility of trade-offs but stresses their strategy of avoiding investments in companies where such dilemmas might emerge.

To further explore this topic, we initiate a conversation with FSN Capital Partners (FSN), a leading North-European PE firm. FSN is acknowledged for their emphasis on responsible investing, and it's a commitment to fostering sustainable and resilient companies. According to FSN, ESG principles have been a part of the firm's DNA and value creation approach since its inception. FSN incorporates ESG considerations into every stage of the investment process, from sourcing to exit, while maintaining a long-term investment perspective. Our objective was to uncover success stories, and we present two such examples below:

CASE 1

In 2008, FSN invested in Lagkagehuset, a renowned Danish bakery and food-service chain. FSN found that Lagkagehuset had not been tracking waste levels. Addressing food waste is essential in light of a growing global population and the need to reduce environmental impacts from food production. A tracking system was thus implemented, revealing waste costs exceeding 16% of revenues. Although maintaining an attractive display of baked goods throughout the day was crucial for the company, it raised the issue of managing unsold food at day's end. It was discovered that the bakery had been discarding leftover food into a container, posing a substantial reputational risk for the otherwise strong brand. To address this problem, the product selection displayed towards the end of the day was adjusted, prioritizing high-frequency items over low-frequency items. By analyzing such historical data and purchasing habits, as well as repurposing leftover products for alternative uses, Lagkagehuset was able to reduce its annual waste levels to around 11% during FSN's ownership. This led to a gross margin increase of over 5% and an EBITDA boost of approximately €5 million. The majority of the remaining unsold food was donated to charitable organizations. Any leftovers unsuitable for donation were sent to rural areas for use as pig feed. This simple yet profitable approach not only eliminated the reputational risk for the brand but also contributed to a more sustainable business model.

CASE 2

In 2017, FSN invested in Active Brands (AB). AB is a leading Nordic supplier of sporting goods brands operating in an industry characterized by significant environmental and social challenges, including high GHG emissions and risk of labor exploitation in Asian supply chains. Under FSN's guidance, AB has accelerated their ESG efforts by setting clear operational criteria. By building long-term relationships with their suppliers and closely monitoring working conditions in suppliers' factories, AB ensures adherence to ethical labor practices. Through a double materiality analysis, climate action was identified as a top priority. Thus, when FSN established their Science Based Targets (SBTs) in 2021, AB followed suit and received support to establish their own SBTs. The company's devotion to decarbonization throughout its value chain is evident by its commitment to Net-Zero emissions (scope 1-3) by 2050 at the latest, and ambitiously, Net-Zero in its own operations (scope 1-2) in 2025. Despite data collection challenges, particularly for scope 3 emissions, and increased product costs due to its sustainable initiatives, AB has gained significant benefits from its commitment to environmental and social responsibility. The company has experienced improved employee engagement and has met the expectations of its primary customer group, B2B clients, who have established their own SBTs and increasingly demand climate-friendly products.

PE firms' recognition of the ESG potential in both the pre-investment phase and ownership period can unlock value creation opportunities and serve as an important contribution to sustainable development, as demonstrated by historical examples provided by Ahmad et al. (2018). One approach may involve targeting start-ups and SMEs that offer innovative, sustainable technologies and business models. These are often in high demand, yet struggle to secure financing from traditional sources such as banks or bond markets. Another approach can be to invest in companies with ESG improvement potential, which can be acquired at lower prices, as demonstrated by Crifo et al. (2015), and then improve their ESG practices during the ownership period. Interestingly, Clark and Lalit (2020) shed light on the advantages of targeting companies with improvement potential in their ESG performance. They argue that firms investing in companies with the aim of enhancing ESG practices potentially generate higher returns by identifying and investing in ESG improvers. The study demonstrates that these companies tend to outperform their counterparts experiencing a decline in ESG performance. As a result, PE firms that prioritize ESG improvements within their investment approach may capitalize on the observed outperformance while simultaneously promoting positive ESG practices and contributing to sustainable long-term value creation.

Finally, we examine the effect of ESG-focused PE ownership on the financial performance of portfolio companies. We analyze publicly available post-IPO data for companies previously owned by PE firms known for their commitment to ESG best practices, and hypothesize that these firms are better positioned for long-term success. Our selection process naturally favors PE firms with BO and growth strategies, as they invest in mature companies that are closer to being ready for an IPO. Additionally, later-stage firms typically have more resources available to address ESG considerations. Our analysis covers a three-year post-IPO period and includes companies that went public between 2015 and 2018. We choose not to evaluate the companies' performance beyond three years, as the impact of prior ownership tends to diminish after this period. The resulting sample comprises the following companies: Netcompany Group, BHG Group, Green Landscaping Group, Instalco, Troax Group (previously owned by FSN Capital), Boozt (previously owned by Verdane), and Crayon Group Holding (previously owned by Norvestor). The reader should note that the majority of these companies have at some point been under the ownership of FSN Capital.

We collect daily total return data for all companies and the Nordic OMX index from the Refinitiv Datastream database and employ simple returns for the analysis. We then compare the performance of the companies to the Nordic OMX index for their respective time periods by rebasing the data to 100. We use the Nordic OMX index as a benchmark because the companies were listed on different exchanges in the Nordic market. Finally, we average the data to create two datasets: the Portfolio Companies Post-IPO Average and the OMX Average, as illustrated in Figure 5.19. We observe a substantial increase in the performance of the portfolio companies Post-IPO Average compared to the OMX Average. The selected companies outperform the market with an impressive 3 year holding period return of 173% above the Nordic market average. To validate our findings, we perform a paired t-test. Our analysis verifies that the portfolio companies not only produce returns above the benchmark, but their outperformance is also statistically significant with a test statistic of 3.2. However, the annualized standard deviations for the post-IPO portfolio companies and OMX are 16% and 6%, respectively, indicating that the post-IPO portfolio companies have experienced higher volatility compared to OMX. This finding is not entirely surprising given that the post-IPO portfolio is less diversified, and the post-IPO period is typically associated with a higher level of uncertainty due to the companies' less established market presence.

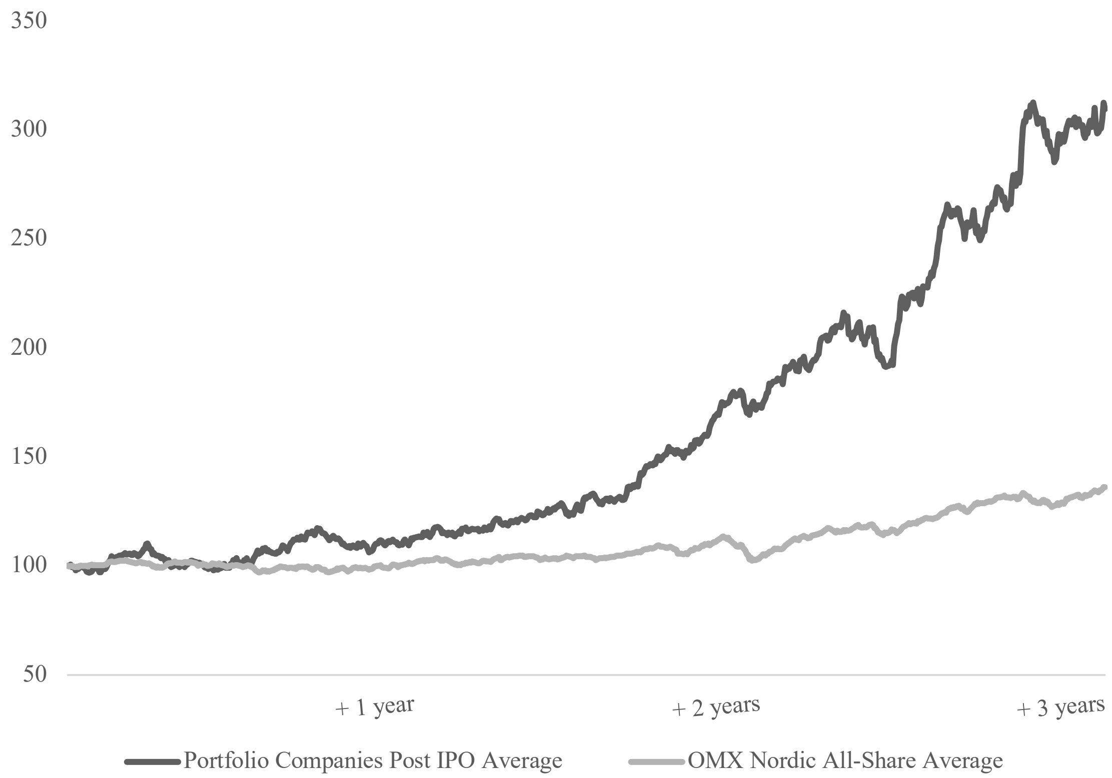


Figure 5.19: *Total return development of portfolio companies post IPO Average compared to OMX Nordic All-Share Average, cumulative simple returns, daily observations, rebased = 100. The graph and methodology are inspired by FSN Capital's ESG report 2022.*

While our result may indicate that the companies demonstrate a greater potential for success, there may be other reasons behind these observations. For instance, as Krysta and Kanbach (2022) argue, the nature of PE transactions is complex. As a result, it is difficult to isolate ESG considerations as a key driver of value creation, even if such considerations are an explicit part of the investment strategy. For example, it can be challenging to determine the extent to which improvements in environmental performance, such as reducing GHG emissions or improving water efficiency, contribute to a company's overall financial performance. Similarly, it can be difficult to attribute changes in social or governance metrics, such as employee satisfaction, to specific actions taken by the PE firm. Another important observation is that the majority of the portfolio companies went public between 2017 and 2018. This could potentially explain the dramatic increase observed in Figure 5.19, as several of the companies operate within industries like technology and e-commerce, which experienced a significant growth due to the impact of the COVID-19 pandemic (Mehrotra, 2023).

In Section 5.1, we showed that ESG integration is primarily driven by value creation and compliance. However, 46% of respondents believe that regulations and reporting currently take priority over value creation. This suggests that PE firms may be concerned about balancing compliance and value creation efforts. One possible explanation for this concern is the complexity of regulations and reporting requirements, which can divert resources and attention away from executing value creating ESG strategies. Furthermore, several interviewees note that the current regulatory landscape may not be fully customized to businesses, especially for small and early-stage companies. Even if regulations clearly define data and reporting requirements, these companies may not have the necessary knowledge or resources to provide the information required. Despite not being directly impacted by regulations, companies may still face regulatory ripple effects and expectations from stakeholders, which may force companies to prioritize meeting these expectations. We will discuss this further in the next section.

Question: *To what extent do you agree with the following statement «The current focus on new regulations and reporting is taking priority over value creation»?*

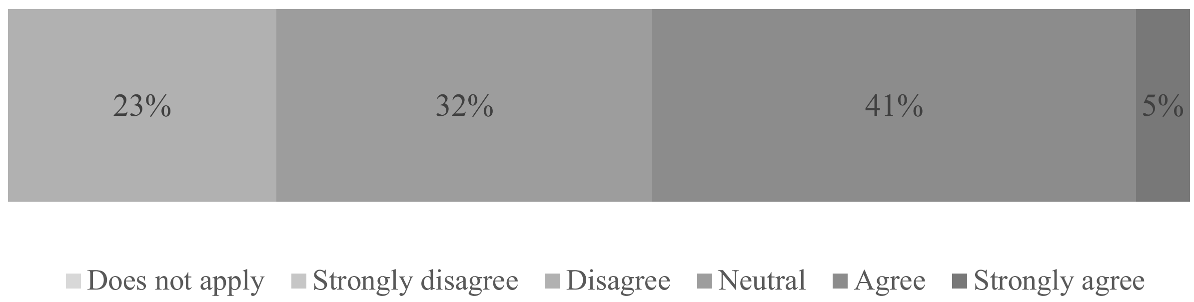


Figure 5.20: *Firm's perception of regulations and reporting taking priority over value creation.*

5.4. Emerging ESG Trends

5.4.1. Regulatory Developments and Data Utilization

The role of sustainability reporting in driving value creation and addressing global challenges has been the subject of much debate. Historically, sustainability reporting on its own has not inherently created value (Whelan et al., 2021) or effectively addressed global challenges (Pucker, 2021). These shortcomings can be attributed to the widespread adaptation of voluntary self-regulation, as discussed in Sections 2.3 and 5.1, leading to inconsistent reporting, the measurement of ESG metrics without integrating them into a comprehensive strategy, and instances of greenwashing. The industry appears to recognize these concerns. Our interviews reveal that many find it difficult to navigate the “jungle” of regulations, frameworks, guidelines, and initiatives. Furthermore, when questioned about which frameworks, guidelines, and initiatives the industry believes will have the greatest impact on ESG efforts, our survey results show that a considerable number of respondents anticipate EU regulations, such as the CSRD, SFDR, and EU Taxonomy, to be the most impactful in the coming five years. This expectation might be due to the regulations' mandatory nature and their aim to address challenges related to sustainability reporting, including increased standardization and third-party verification.

Question: *Which of these do you believe will have the greatest impact on ESG efforts in Nordic PE over the next five years?*

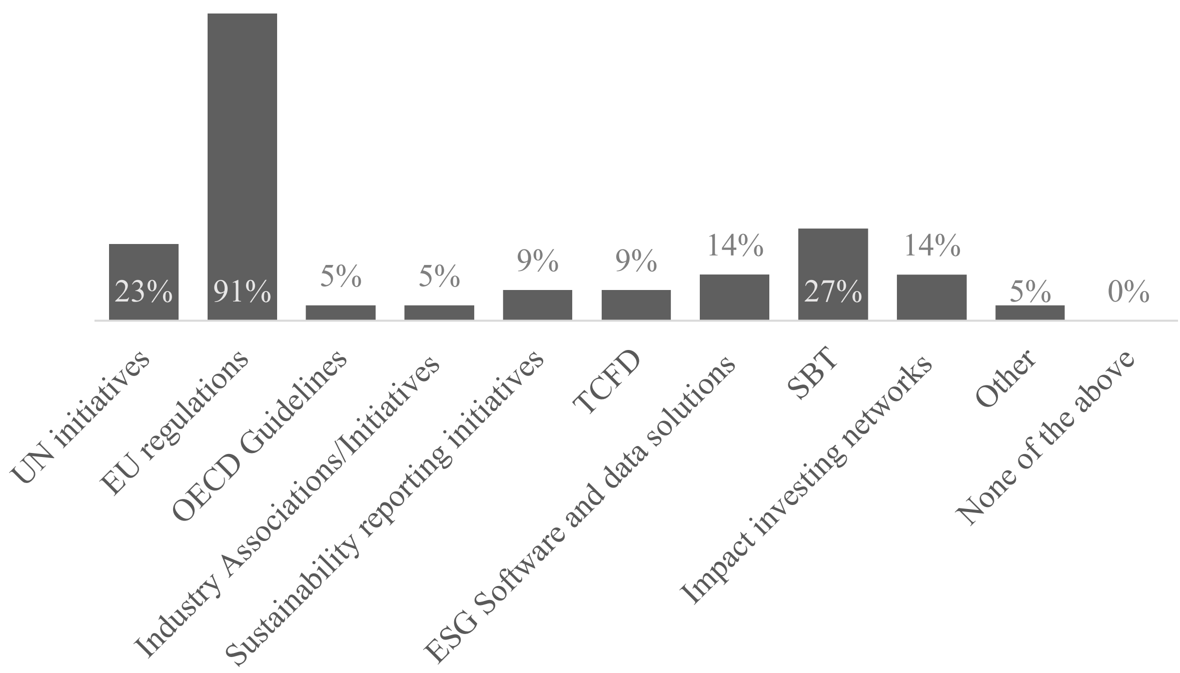


Figure 5.21: *Most influential frameworks, guidelines, and initiatives considered by respondents for future ESG efforts.* The respondents were given the option to choose several alternatives.

Despite the potential positive impact of these regulations, there is a concern among the respondents that compliance and reporting requirements may take priority over value creation efforts, as noted in Figure 5.20. We understand these concerns and agree with one of our interviewees who stated that "*the goal of ESG cannot be to make as many reports as possible*". However, reporting is crucial for investors and consumers to make informed, data-driven decisions. More importantly, mandatory sustainability reporting has the potential to influence corporate behavior, as companies seek to avoid having to disclose negative ESG performance to their stakeholders. As Ioannou and Serafeim (2017) find, efforts made by firms to increase the comparability and credibility of the disclosed information complement the increased disclosure and appear to have a positive effect on firm value. This suggests that current regulatory efforts to increase transparency can improve disclosure quantity and quality, and be value-enhancing, rather than value-destroying for companies.

A particularly interesting finding from our interviews is that certain funds that meet the criteria for article 9 classification are being classified as article 8. This phenomenon is referred to as "green bleaching" and involves avoiding the claim of ESG features to dodge regulatory requirements and potential legal risks. If green bleaching as a trend continues, it may reduce the effectiveness of the regulations and weaken efforts to improve ESG practices, thereby diminishing value creation benefits. In light of this, we argue that PE firms should proactively engage with the regulations and encourage their portfolio companies to do the same. To ease the burden on both the PE firm and their portfolio companies while simultaneously preparing them for future reporting requirements, we suggest that PE firms adopt ESG tools that facilitate data analysis and PE firms should embrace them as tools that may lead to increased value creation.

As regulatory requirements and demands evolve, the importance of ESG data is expected to increase. However, only 32 % currently utilize ESG software and data services (Figure 5.5), and a mere 14% of respondents believe such services will have a significant impact on future ESG practices (Figure 5.21). This finding is surprising, given that during the interviews, these services were identified as potential solutions to the data-related challenges facing the industry (Figure 5.12 and Figure 5.17). It begs the question of whether the industry fully understands the potential contributions of ESG software and data services, or whether there is skepticism about their ability to address all the challenges associated with ESG data and reporting. Nevertheless, as Alfonso-Ercan (2020) notes, there is still a need for further developments in ESG data analysis to improve investment decision-making in the PE industry. The emergence of several ESG data and software tools, some of which are based on artificial intelligence, offers opportunities to enhance ESG data analysis and reporting while avoiding burdening portfolio companies. We believe that such tools may play an important role in overcoming challenges and advancing ESG practices going forward.

Future developments in the field of sustainability reporting seem likely to be characterized by mandatory disclosure requirements and the consolidation of standards. However, with regulations still being under development, definitions of "sustainable investment" and "impact” remain unclear. As a result, corporations must, to a large extent, establish their own criteria for sustainable investments. In this context, initiatives such as the UN SDGs might maintain their relevance despite the criticism we have alluded to earlier. While we agree with Godelnik (2022) who argues that the SDGs do not sufficiently challenge business practices, combining them with regulations, comprehensive data analysis and tools can enhance their effectiveness. This approach will enable robust impact assessments, particularly if the analyses account for both positive and negative outcomes.

5.4.2. Climate Change and Environmental Risks

Our survey reveals that the Scandinavian PE industry perceives climate change and environmental risks as the most important megatrend to consider in investments over the next five years, with 77% of respondents recognizing its importance. This awareness appears to reflect the increasing global concern surrounding the impacts of climate change and the corresponding opportunities and risks it presents. Indeed, the IPPC sixth assessment report (2023) emphasize that significant increases in both adaptation and mitigation financing are necessary to achieve the climate targets established under the Paris Agreement. Additionally, many initiatives that reduce emissions and foster climate change adaptation positively align with the SDGs and contribute to overall sustainable development. Despite this, current investments are falling short of the estimated need.

Question: *Which of the following megatrends do you perceive as important to consider in investments over the next five years?*

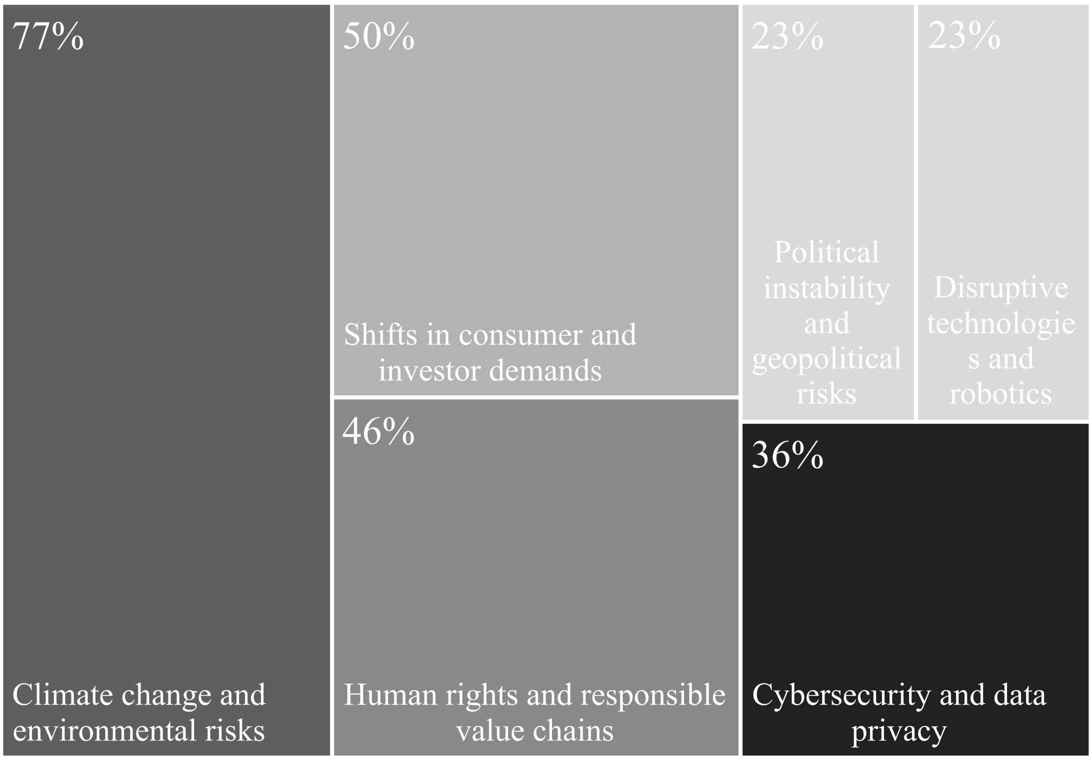


Figure 5.22*: The respondents were given the option to choose several alternatives. The remaining options and their corresponding percentages were: "Health and demographic risks" (18%), "Resource scarcity and efficiency" (18%), "Economic inequality and poverty" (9%), "Other" (0%), and "None of the above" (0%)*

Untapped markets worth billions of dollars are awaiting solutions such as low-cost, clean energy, zero carbon cement or steel, or a net-zero liquid fuel, all of which can help mitigate climate change (Gates, 2021, p. 216). McKinsey & Company (2022) estimates that achieving net-zero emissions globally by 2050 will require an extra $3.5 trillion in annual decarbonization capital expenditures, which represents roughly one-third of the current assets under management in private markets. Mendiluce (2022), on the other hand, argues that climate adaptation measures offer even greater business opportunities in comparison to mitigation efforts, primarily due to their potential for near-term benefits, lower capital expenditures, and accelerated returns on investment. It is projected that the climate adaptation market could be valued at $2 trillion per year by 2026 (Quinson, 2021). As for risks, an important concern relates to the concept of stranded assets. Bos and Gupta (2019) define stranded assets as *"assets that lose economic value well ahead of their anticipated useful life, whether that is a result of* *changes in legislation, market forces, disruptive innovation, societal norms, or environmental shocks"*. For instance, they argue that to achieve the 2°C target set by the Paris Agreement, more than 80% of all proven fossil fuel reserves must be classified as stranded resources. Consequently, investments in these resources, including technologies aimed at improving efficiency or reducing environmental impact in fossil fuel extraction and usage, have the potential to become stranded assets.

The interviewees recognize the potential of private capital in addressing global challenges like the climate crisis. However, they emphasize the importance of regulations and government interventions in this process. Despite the investment opportunities and risks related to climate change and the environment, obstacles to bridge the investment gap remain. To overcome these challenges, the IPCC suggests that governments should establish incentive and penalty systems, such as carbon taxes, to reflect the true cost of emissions and enhance the risk-reward balance (IPCC, 2023). These measures can have important implications for PE investments, including the need to consider environmental sustainability.

The EU Taxonomy is one of the tools available for determining whether investments are environmentally sustainable. However, it is important to note the growing focus on the interdependence between “E”, “S” and “G” factors. For instance, to be considered environmentally sustainable according to the EU Taxonomy, an economic activity must be compliant with so-called “minimum safeguards”. This requires adherence to good social and governance practices in line with international standards such the OECD Guidelines for Multinational Enterprises, UN Guiding Principles on Business and Human Rights, and labor rights conventions. This also includes considering any adverse impacts in the company's operations, supply chain, and business relationships (Platform on Sustainable Finance, 2022, p. 33). However, as Figure 5.15 shows, only half of the respondents currently monitor compliance with minimum safeguards in their portfolio companies, indicating a need for increased awareness and implementation of these standards. Furthermore, although several interviewees noted that Northern Europe maintains a relatively strong position in terms of low ESG risk, only 46% of PE firms incorporate value chain assessments as part of their due diligence process, as seen in Figure 5.9. Value chains are crucial from both social and environmental perspectives, as they often account for a significant portion of a company's emissions and give rise to social concerns (Boston Consulting Group, 2021). When value chains are not evaluated, adverse impacts might be overlooked. Interestingly, 46% of respondents believe that "human rights and responsible value chains" will be important to consider in investments going forward. Indeed, the Norwegian Transparency Act and the upcoming EU Corporate Sustainability Due Diligence Directive (CSDDD) are expected to strengthen the focus on value chains and social DD. Together, these findings underscore the need for greater attention to value chains, human rights and other related topics in the investment process to ensure future compliance and truly sustainable investments.

5.4.3. Investor and Consumer Expectations

It is apparent that ESG considerations are still gaining prominence within the industry. Like Zaccone and Pedrini (2020) , we find that one of the main drivers for ESG integration is growing expectations from investors Figure 5.4. Moreover, 50% of our respondents consider "Shifts in consumer and investor demand" as one of the most important megatrends to address in the coming years (Figure 5.22), and a substantial 91% of survey participants anticipate a heightened focus on ESG by LPs in the next five years. The growing awareness among LPs appears to reflect a global shift in stakeholder expectations and investor preferences towards ESG and impact. Meeting these expectations is crucial for continued success and growth, as several interviewees emphasize. We find that nearly all respondents (87%) are planning to increase their resource allocation towards ESG-related initiatives.

Question: *To what extent do you agree with the following statements:*

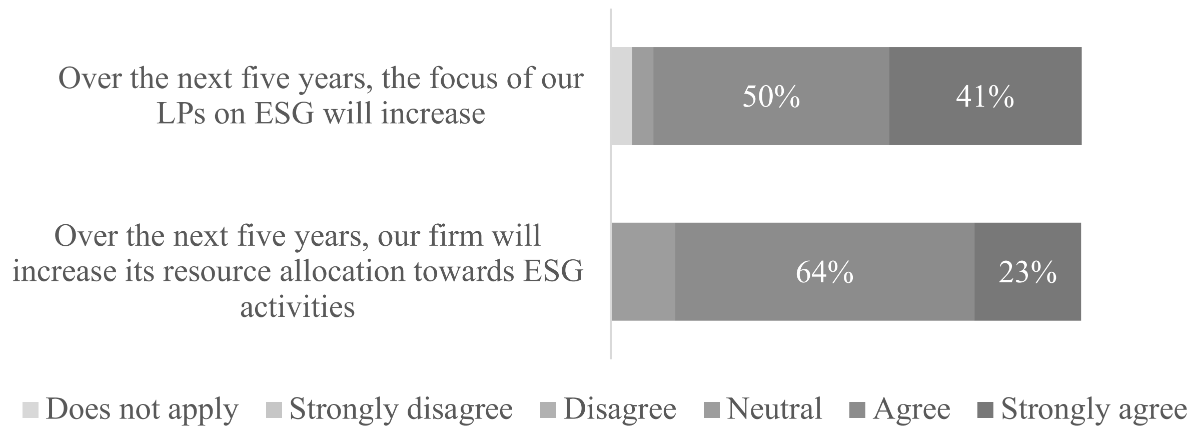


Figure 5.23: *Firms' expectations regarding the future ESG focus of LPs and their own resource allocation toward ESG.*

Interviewees explain that LPs expect PE firms to work systematically with ESG, highlighting the growing demand for sustainable products. In a similar vein, PwC predicts that private ESG-related AUM will grow from $1.1 trillion to $2.7 trillion by 2026, and global ESG-related AUM to reach $33.9 trillion, up from $18.4 trillion in 2021 (PwC, 2022). However, several interviewees point out that European LPs show a stronger preference for ESG and impact/Article 9 funds, indicating higher sustainability expectations compared to their American and Asian counterparts. This could be because European LPs have a stronger conviction in the impact of ESG commitments on valuation premiums and are more focused on ESG opportunities, as discussed in Section 3.3. However, a growing interest in sustainability among American and Asian investors is also noted by the interviewees. PwC (2022) finds that 81% of US institutional investors plan to increase their investments in ESG products within the coming two years, which is nearly equivalent to the 83% of their European counterparts. Similarly, the Asia-Pacific region is expected to have the most significant percentage growth in ESG AUM, tripling to $3.3 trillion by 2026, albeit from a lower base compared to Europe and the US (PwC, 2022).

One interviewee suggest that most investors are more concerned about how the PE firm reports and communicates their ESG efforts to investors, rather than which article the fund is categorized as. This viewpoint seems to be supported by 55% of respondents, who believe LPs will be expecting evidence on the impact of ESG on portfolio company value and societal benefits five years from now, while only 14% believe they will expect article 9 funds. It is evident that the demand for ESG and sustainable investment products is growing worldwide, with no sign of reversing course (UNCTAD, 2022). While several reports indicate an impressive growth in sustainable investment products, it is important to critically evaluate these figures due to the absence of a universally accepted categorization for sustainable funds, which makes the term "sustainable fund" somewhat vague. Some might classify a fund that merely avoids investing in industries like tobacco and weapons as sustainable. Nevertheless, the trend is clear. The GIIN estimated that the private impact market surged to approximately $1.2 trillion by the end of 2021, representing a substantial 63% increase since 2019 (Hand et al., 2022) (although the definition of impact is also unclear, as previously discussed).

__Question:__ Five years from now, what do you think your LPs will expect your firm to have in place in terms of ESG?

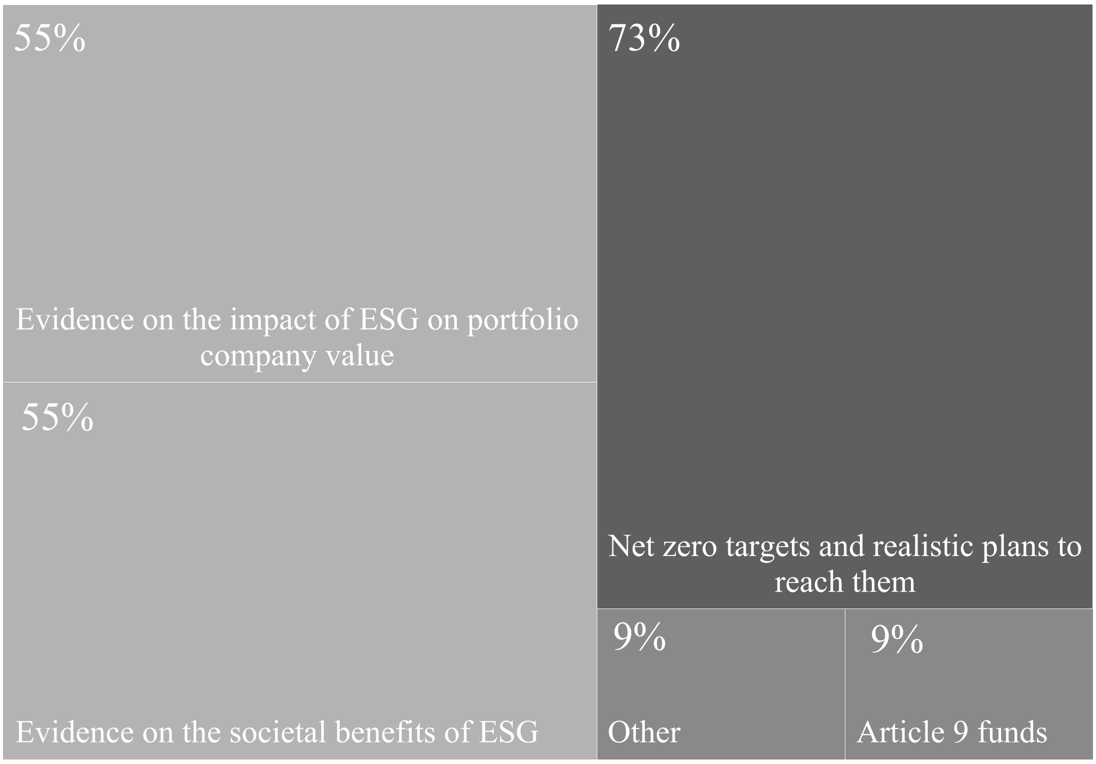


Figure 5.24: *Firms' expectations regarding the future ESG requirements of LPs for PE firms.* The respondents were given the option to choose several alternatives. The remaining option and its corresponding percentage were: "None of the above" (9%)

From our survey, we also find that 73% of respondents anticipate that LPs will expect net-zero targets and develop realistic plans to achieve these goals within the next five years (Figure 5.24). Despite this expectation, Figure 5.5 shows that only 23% have implemented SBTs and a mere 27% believe they will influence ESG practices in the future (Figure 5.21). Although SBTs have faced various criticisms and more research is needed to determine their effectiveness (Walenta, 2020), public commitment to emissions reduction carries the potential to effectively initiate and communicate meaningful climate action to stakeholders (Mendiluce, 2022). As expectations for companies to set net-zero targets grow, both from LPs and consumers, it is our view that it will become increasingly important for PE firms to follow suit and assist their portfolio companies in establishing and working towards realistic goals for becoming net-zero. The Active Brands case exemplifies the importance of meeting expectations in order to maintain stakeholder satisfaction.

We argue that a historical pattern is reemerging in the context of PE. Previously, intensifying competition within the PE sector forced firms to focus on operational improvements alongside financial engineering (Krysta & Kanbach, 2022). It seems that a similar transition is presently occurring with respect to ESG factors, with a pronounced emphasis on the environmental and social components. As demand continues to rise, an increasing proportion of capital is allocated to ESG-oriented investments, and a larger number of firms integrate ESG considerations into their strategies, thereby intensifying the competitive environment. Firms that identify and adopt best-practices may capitalize on this opportunity, secure a competitive advantage within the industry, and become more likely to attract capital from investors.

6. Summary & Concluding Remarks

This thesis examines the integration of ESG factors throughout the PE investment life cycle and its potential impact on value creation. The study offers insights into the Scandinavian PE industry. The research includes firms of various sizes and investment strategies, offering valuable insights into the industry for GPs, LPs, and other stakeholders interested in ESG integration within the PE industry. Our research identifies value creation and compliance as the top drivers for ESG integration, followed by LP expectations. While the majority of respondents consider ESG to be important and have ESG/RI policies in place, we find that the degree of ESG integration within Scandinavian PE firms is mixed. We find indications of a stronger preference for UN initiatives compared to EU regulations. Our research highlights the need for greater standardization, consolidation and clarity concerning regulations, standards, and best practices to foster more consistent and effective ESG integration across the industry. In the following, we present a summary of the key findings in relation to the research questions.

RQ1: How are ESG factors integrated in the pre-investment phase?

Our research reveal that all surveyed respondents demonstrate some level of consideration for ESG factors in their screening process, and that only 5% of firms do not employ any ESG activities or tools in their DD. Negative screening is the most prevalent approach in terms of screening, closely followed by positive and norms-based screening. The ESG DDQ is identified as the most commonly used tool for ESG due diligence. Although 55% of the firms claim to conduct ESG materiality assessments during DD, gaps in addressing key components persist. Moreover, firms often develop their own methodologies for materiality assessments and only a minority of respondents follow the double materiality principle. The main obstacle to ESG integration in the pre-investment phase is the lack of objective data and information, and the top reasons for withdrawing from potential investments include environmental impact, challenges in improving business models, corruption, or negative publicity, in that order.

RQ2: How are ESG factors operationalized and monitored during the ownership period?

All survey respondents indicate that they monitor ESG efforts within their portfolio companies during the ownership period, with 86% operationalizing ESG factors through board representation and management oversight. 73% of firms establish KPIs for evaluating portfolio companies' ESG progress, with 87% expecting progress reports either monthly or annually. Only 32% update materiality assessments annually. Interview findings indicate that the responsibility for ESG targets is usually delegated to the portfolio company's management or a dedicated ESG person. However, only 27% of firms appoint a head of ESG in portfolio companies. ESG data collection and reporting also present significant challenges to ESG integration during the ownership phase.

RQ3: What are the defining characteristics of PE firms that are leaders on ESG-integration?

Drawing from survey results and insights obtained from in-depth interviews with PE professionals, we identify several characteristics that define ESG-leading PE firms. First, these firms demonstrate organization-wide knowledge and commitment, fostering shared responsibility for ESG integration across all investment phases. They typically establish dedicated internal ESG professionals or teams, responsible for developing expertise, frameworks, and ensuring compliance. The success of their ESG efforts relies on clear expectations from the top, as well as employee ownership and accountability. Second, leading firms adopt best practices in identifying material ESG risks and opportunities. They conduct comprehensive materiality assessments, adhere to the double materiality principle and regularly update their materiality assessments. Moreover, these firms focus not only on mitigating risks but also on seizing opportunities by incorporating ESG knowledge early in the investment process and throughout the value chain. Third, leading firms are characterized by their commitment to data-driven ESG strategies. They systematically collect and analyze ESG data, both during the pre-investment phase and throughout the ownership period. They often utilize ESG software and data analysis tools to enhance their sustainability risk and impact assessments. Finally, leading firms typically appoint heads of ESG in portfolio companies, provide resources and training, establish, and monitor KPIs on a company-by-company basis, expect regularly reports on KPI progress and adhere to international social standards and guidelines throughout the value chain. They exhibit a strong commitment to transparency and a proactive approach to developments in the ESG field.

RQ4: Can ESG integration contribute to value creation in PE investments?

Our research findings, supported by the existing literature, indicate a predominantly positive relationship between PE firms' ESG initiatives and the value of their portfolio companies. The majority of respondents believe that their firms' ESG efforts increase the value of their portfolio companies. The interviewees highlight reasons such as increased operational efficiency, risk mitigation, employee satisfaction, and the growing market for sustainable products as contributors to this increased company value. To illustrate this, we present two case studies that demonstrate the successful implementation of ESG practices. Furthermore, our analysis of post-IPO financial performance reveals that portfolio companies previously owned by PE firms committed to ESG best practices outperform the market, although higher volatility is observed. Collectively, our research supports our hypothesis that portfolio companies under the ownership of PE firms prioritizing ESG best practices demonstrate higher resilience and future-proof characteristics. While this may suggest that the ESG integration throughout the investment life cycle may lead to enhanced value creation, further research is needed to validate these findings.

RQ5: What emerging ESG trends will impact future PE investment processes?

The emerging ESG trends we have identified can be broadly categorized into regulatory developments and data utilization, climate change and environmental risks, and growing investor and end-consumer expectations.

First, the increasing number and broadening scope of mandatory ESG regulatory requirements will affect the PE industry. However, there is a risk associated with the phenomenon of "green bleaching", which hinders the improvement of ESG practices. We emphasize that proactively engaging with regulations can enhance value creation by driving the PE firm to improve not only its own ESG efforts, but also those of its portfolio companies. Although the utilization of ESG software and data solutions is currently limited within the industry, future trends – characterized by mandatory disclosure requirements and further consolidation of standards – indicate that the importance of ESG data will grow. We believe that ESG software and data solutions can be important tools in overcoming challenges and advancing ESG practices in the future.

Second, the net-zero transition comes with risks and opportunities for the PE industry. The respondent’s recognition of climate and environmental risks as the most important megatrend to consider in future investments highlights its importance. Despite this, global investments are falling short of the estimated need due to several obstacles. Regulatory developments aimed at addressing the current investment gap and solving these challenges can have important implications for future PE investment processes, including the need to increasingly consider environmental sustainability. However, we argue that it is increasingly important to adopt a holistic approach that encompasses all ESG factors when pursuing environmentally sustainable investments.

Lastly, ESG considerations continue to grow in prominence within the PE industry, with investor expectations and consumer demands being significant drivers. Scandinavian PE firms appear to recognize the need to meet these demands, as indicated by a notable number of respondents intending to allocate more resources to ESG activities going forward. To align with the anticipated increase in LPs' demands for net-zero targets, we suggest that PE firms set such targets, develop realistic plans to achieve them, and assist portfolio companies in doing the same. Additionally, as ESG gains traction globally, countries outside of Europe are increasingly joining the trend, which creates new opportunities for the industry. We argue that a historical pattern reemerging in which firms that adopt best practices in ESG may secure a competitive advantage and attract more capital from investors.

Research Limitations and Suggestions for Further Research

This thesis explores ESG integration within the Scandinavian PE industry, as well as the potential for enhanced value creation in portfolio companies. The research contributes valuable insights to the existing body of knowledge on ESG integration within the PE sector, particularly in the Nordic context. However, it is important to acknowledge that, like any study, our research may have certain weaknesses and limitations that should be taken into consideration when interpreting and applying the findings.

First, the limited academic research on PE and ESG necessitates the use of alternative sources, such as industry association reports, consultancies, and other non-academic materials. This dependence on non-academic sources may weaken the theoretical foundation of our discussion and introduce biases or inaccuracies that are not present in peer-reviewed academic literature. To mitigate this limitation, the information from these sources has been critically evaluated and cross-referenced. Second, acquiring non-public data and establishing a clear connection between ESG factors and financial performance present significant challenges, which consequently limit the robustness of our analysis. Access to non-public information is often restricted due to confidentiality agreements or proprietary rights, which makes it difficult to comprehensively assess the impact of ESG factors on financial outcomes Moreover, the absence of standardization in ESG metrics, coupled with the vast diversity of business models and industries, as well as the need to isolate other factors, considerably complicates the process of linking ESG factors to financial performance. As a result, our analysis may not fully capture this relationship. Third, the relatively small size of the Norwegian PE industry results in a smaller sample size than ideal for generalization. Also, the overrepresentation of Norwegian firms may affect the applicability of our findings to the broader Scandinavian and Nordic PE industry. Fourth, due to time and resource constraints, this study was unable to engage with PE industry stakeholders, such as LPs and portfolio companies, which could have further enriched the analysis. Finally, we regret that our study did not include interviews with VC firms. Given their distinct value creation strategies and investment conditions, their valuable insights could have enhanced our understanding of the PE industry. Excluding them may limit the comprehensiveness of our findings and potentially skew the results towards BO firms.

Future research should aim to increase the sample size and include a more diverse representation of PE firms in Scandinavia and the broader Nordic region to gain a comprehensive understanding of ESG integration within the Nordic PE industry. Alternatively, exploring ESG integration in the PE industry across various global contexts, including North America, Europe, Asia, and emerging markets, would provide insights into the influence of cultural and regulatory factors on ESG practices. Additionally, future studies could enrich the analysis of value creation by incorporating more quantitative approaches as data becomes available. Specifically, examining the distinctions and performance differences between article 6, 8, and 9 funds would offer valuable insights, particularly regarding the risk-adjusted performance discrepancies between articles 8 and 9 that have generated extensive discussion and confusion. Furthermore, comparing PE-owned companies with non-PE-owned peers would help determine the impact of PE ownership on ESG performance and value creation. Further research could also explore variations in PE strategies by differentiating between VC, growth, and BO strategies to assess differences in ESG approaches and maturity or dig deeper into value creation potential in portfolio companies in different industries. Lastly, there is a need for further investigation into the implementation and efficacy of technological solutions, such as ESG software, artificial intelligence, and other tools, to enhance ESG integration, reporting, and decision-making within the PE industry.

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Appendix A - Interview guide

- What is the purpose of your company?
- How does ESG fit into your business strategy?
- What is the motivation behind your ESG work?
- How do you organize and prioritize your ESG work internally?
- How do you access and utilize professional expertise in this area?
- Does your organization follow any specific standards or regulatory frameworks?
- How are ESG factors integrated during the pre-investment phase?
- How do you monitor and operationalize ESG factors during the ownership period?
- How can PE best balance financial performance and ESG considerations?
- Looking ahead, how do you envision the private equity industry evolving in terms of ESG?

Appendix B - Survey

Information About the Survey

Thank you for your willingness to take part in our survey! As part of our master's thesis in finance at the NMBU School of Economics and Business, we are conducting this research survey in collaboration with NVCA to gather insights on current practices and emerging trends related to ESG, as well as its potential impact on value creation. The title of our thesis is: *"Can private equity enhance value creation by integrating ESG considerations throughout the investment life cycle? Identifying current practices and emerging trends"*.

Participation is voluntary and confidential: The survey will take approximately 20 minutes of your time, and participation is entirely voluntary and confidential. Please note that if you do choose to participate, you can withdraw your consent at any time without having to provide a reason.

How we will store and use the data: We will process the data in accordance with data protection legislation (the GDPR).

At the end of the survey, we will ask you to provide the name of your company. This information is for registration purposes only and will be used to make sure that no company has submitted more than one response.

Upon retrieval of the survey responses, we will replace your firm's name with a code. The list of firm names and respective codes will be stored separately from the rest of the collected data and will not be shared with NVCA or any other party. Any personal or identifying information will not be included in our written thesis, and the list linking participant's names to code numbers will be deleted no later than August 25, 2023.

The anonymized data will be stored on NMBU's servers for up to 2 years after the end of the project for research purposes and deleted no later than August 25, 2025. The data can only be accessed by academic staff at the NMBU School of Economics and Business.

If you have questions or concerns, or if you would like to know more about our thesis project, please contact:

- Camilla Olsen – camilla.olsen@nmbu.no – student
- Hedda Enbusk – hedda.enbusk@nmbu.no – student
- Associate Professor Torun Fretheim – torun.fretheim@nmbu.no – supervisor

I have read and understood the information provided about this project, and I willingly consent to participate in the survey.

- Yes
- No

Survey on ESG in Private Equity

In which country is your firm headquartered?

- Denmark
- Norway
- Sweden
- Finland
- Iceland

What is your firm's amount of AUM (Assets under management)? (€)

- Less than 500 Mn (€)
- 500-1000 Mn (€)
- 1-5 Bn (€)
- 5-10 Bn (€)
- More than 10 Bn (€)

In which fund stages does your firm primarily invest?

- Venture
- Growth
- Buyout
- Other

What is the headcount of your firm?

- Less than 5
- 5-10
- 10-20
- 20-50
- More than 50

To what extent do you agree with the following statement: (5-point scale from Strongly disagree to strongly agree)

- "ESG is an important part of our firm's agenda"?

What do you consider to be key drivers of ESG integration in your firm?

- Expectations from LPs
- Regulatory requirements and industry standards (compliance)
- Talent recruitment
- Value creation
- Risk management
- Fundraising
- Increased deal flow

- Reputational impact
- Peer competition
- Internal expectations (values, culture, and employee expectations)
- Other
- Does not apply

Does your firm have a dedicated ESG professional/team?

- Yes
- No
- In development

Does your firm have an ESG or Responsible Investment (RI) policy?

- Yes
- No
- In development

Who is responsible for the implementation of your firm's ESG/IR policy?

- ESG professional/team
- Investment professional/Deal teams
- Managing Partner/Partner group
- The entire organization
- Other
- Does not apply

Does your firm have an incentive or bonus system linked to ESG for the following groups?

- Junior deal team
- Senior deal team
- Partner group
- Support staff
- The entire organization
- No ESG related incentives/bonuses

Which of the following frameworks, guidelines and/or initiatives does your firm use in its integration of ESG considerations?

- EU regulations (SFDR, CSRD, EU Taxonomy, CSDDD etc.)
- UN initiatives (UN Global Compact, UN PRI, UN SDGs, UN Guiding Principles)
- OECD Guidelines
- Impact investing networks (GIIN, IMP)
- Sustainability reporting initiatives (GRI, SASB, ISSB, etc.)
- Task Force on Climate Related Financial Disclosures (TCFD)
- Science Based Targets (SBT)

- Industry Associations/Initiatives (ILPA, Invest Europe, iCI etc)
- ESG Software and data solutions (IRIS +, Upright, Infront)
- Other
- None of the above

Which of these do you believe will have the greatest impact on ESG efforts in Nordic private equity over the next five years?

- EU regulations (SFDR, CSRD, EU Taxonomy, CSDDD etc.)
- UN initiatives (UN Global Compact, UN PRI, UN SDGs, UN Guiding Principles)
- OECD Guidelines
- Impact investing networks (GIIN, IMP)
- Sustainability reporting initiatives (GRI, SASB, ISSB, etc.)
- Task Force on Climate Related Financial Disclosures (TCFD)
- Science Based Targets (SBT)
- Industry Associations/Initiatives (ILPA, Invest Europe, iCI etc)
- ESG Software and data solutions (IRIS +, Upright, Infront)
- Other
- None of the above

How important is it to your firm to align investments and activities with:

- EU taxonomy
- Principle Adverse Impact (PAI) indicators
- UN sustainable development goals

What classification does the majority of your latest funds currently fall under according to the Sustainable Finance Disclosure Regulation (SFDR)?

- Article 6
- Article 8
- Article 9
- Not decided
- Does not apply

Do you anticipate the SFDR to influence your portfolio/fund composition over the next five years?

- Yes, we aim to only have Article 8 funds
- Yes, we aim to only have Article 9 funds
- Yes, we aim to only have Article 8 and 9 funds
- No, we do not anticipate making changes because of the SFDR
- Not decided
- Does not apply

To what extent does your firm consider ESG factors important in different investment phases? (5-point scale from not important to very important)

- Sourcing

- Due diligence
- Investment decision
- Onboarding
- Ownership
- Exit

To what extent does your firm consider ESG when screening for potential investments?

- Negative screening (exclusion of non-ESG friendly sectors such as tobacco, weapons, gambling and fossile fuels, or worst-in-class)
- Norms-based screening (exclusion based on minimum standards and international norms such as those issued by the UN and OECD)
- Positive screening (active inclusion of companies with strong ESG performance, or best-in-class)
- Thematic/Impact (only invest in companies with a specific sustainability theme or measurable social or environmental impact)
- No ESG considerations
- Other

Which of the following activities/tools does your firm employ as part of its ESG due diligence?

- ESG materiality assessments
- ESG due diligence questionnaire
- ESG data providers and/or software (internal or external)
- Consult ESG experts (internal or external)
- Benchmark ESG performance against peers
- Engage with the company's stakeholders
- Assess value chains, from raw material to end consumer
- Assess compliance with ESG regulations
- Assess minimum safeguards (i.e., compliance with OECD Guidelines for multinational enterprises and the UN guiding principles on business and human rights)
- Assess sector standards from international organizations (e.g., SASB, GRI)
- None of the above
- Other

How does your firm approach ESG materiality assessments?

- We assess impact materiality (e.g., GRI)
- We assess financial materiality (e.g., SASB, ISSB)
- We assess double materiality (e.g., ESRS/CSRD)
- We assess stakeholder materiality
- We have developed our own methods and assessments (with or without the help of consultants)
- We use external consultants to perform our materiality assessment (with our guidance)
- We do not perform materiality assessments
- Other

To what extent do you agree with the following statement regarding ESG materiality assessments: (5-point scale from strongly disagree to strongly agree)

- "We are more likely to identify ESG related risks than ESG related opportunities"

What do you perceive as the biggest obstacles to ESG integration during the pre-investment phase?

- Partners disagree regarding the importance
- Unclear legislation or regulation
- Lack of internal expertise
- Lack of external expertise
- Lack of ESG data and information
- Lack of effective ESG frameworks and tools
- Difficulty in defining and prioritizing material ESG issues
- It is time consuming and/or costly
- Other
- Does not apply

What are the main ESG considerations that have caused your firm to walk away from an investment opportunity?

- Challenges in improving the company's business model
- ESG culture and mindset not aligned with ours
- No desire to improve on poor ESG performance
- Environmental impact
- Poor labor rights and working conditions
- Human rights violations
- Corruption and unethical behavior
- Potential risk of negative headlines
- Poor ESG reporting
- We would not walk away from a deal for ESG reasons
- Does not apply

Do you monitor the ESG efforts in your portfolio companies?

- Yes, for some portfolio companies
- Yes, for the entire portfolio
- No
- Does not apply

Which of the following ESG factors do you monitor?

- Environmental considerations (Climate risk, biodiversity etc.)
- Governance considerations (Bribery, corruption etc.)
- Social considerations (Diversity, human rights etc.)

- None of the above
- I Don't know

How does your firm operationalize and monitor ESG factors during the ownership period?

- Yearly update of ESG materiality assessments
- Monitor compliance with minimum safeguards and ESG regulations
- Board representation and management oversight
- Appoint head of ESG in portfolio company
- Implement ESG policies
- Integrate ESG into portfolio companies' purpose and strategy
- Establish KPIs and monitor progress
- Provide resources and ESG training
- Improve resource management and efficiency
- Evaluate portfolio companies using indices or checklists
- Other
- Does not apply

Please describe your approach for determining ESG-related KPIs and targets

- We use a consistent/uniform approach for all investments
- We develop KPIs on a company-by-company basis, based on their individual materiality assessment
- Other
- Does not apply

How frequently are portfolio companies expected to report on their progress towards achieving established ESG-related KPIs and targets?

- Monthly
- Quarterly
- Yearly
- Other
- Does not apply

What do you perceive as the biggest obstacles to ESG integration during the ownership period?

- Portfolio companies see limited value in it
- We believe there are more important priorities
- Unpredictable legislation or regulation
- Challenges in collecting and reporting ESG data
- Lack of effective ESG frameworks and tools
- Lack of resources or talent
- Lack of ambition
- Lack of action
- Other
- Does not apply

To what extent have your firm's ESG efforts impacted the value of your portfolio companies?

- Significantly decreased
- Decreased
- No Impact
- Increased
- Significantly increased
- Does not apply

To what extent do you agree with the following statements: (5-point scale from strongly disagree to strongly agree)

- "The current focus on new regulations and reporting is taking priority over value creation"
- "Over the next five years, the focus of our LPs on ESG will increase"
- “Over the next five years, our firm will increase its resource allocation towards ESG activities”

Five years from now, what do you think your LPs will expect your firm to have in place in terms of ESG?

- Evidence on the impact of ESG on portfolio company value
- Evidence on the societal benefits of ESG
- Net zero targets and realistic plans to reach them
- Article 9 funds
- Other
- None of the above

Which of the following megatrends do you perceive as important to consider in investments over the next five years?

- Climate change and environmental risks
- Resource scarcity and efficiency
- Shifts in consumer and investor demands
- Human rights and responsible value chains
- Health and demographic risks
- Economic inequality and poverty
- Political instability and geopolitical risks
- Disruptive technologies and robotics
- Cybersecurity and data privacy
- Other
- None of the above

Is there any supplementary information or commentary that you would like to offer, which was not captured by the questions in this survey?

Norges miljø- og biovitenskapelige universitet
Noregs miljø- og biovitskapelege universitet
Norwegian University of Life Sciences

Postboks 5003
NO-1432 Ås
Norway