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Review

Understanding the Relevance of Sustainability in Mergers and Acquisitions—A Systematic Literature Review on Sustainability and Its Implications throughout Deal Stages

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Abstract: The importance of transforming business models and activities toward a sustainable economy is more urgent than ever and manifests in the adoption of international agreements and regulatory initiatives. Company transactions, including mergers and acquisitions (M&A), need to pay attention to sustainability concepts and their implications. Consequently, the current and traditional literature on M&A processes acknowledges the role of sustainability as a prerequisite for success in M&A operations. However, reviews of the relationship between sustainability and M&A from an integrative perspective that highlight the pre- and post-deal stages are limited. To bring further transparency to this context, we perform a systematic review of the academic literature on the relevance and implications of sustainability in M&A, focusing on archival studies. We present an overview of major sustainability influences at different stages of the M&A process, using the perspective of the acquirer as well as the target of sustainability. We observe that in all analyzed pre- and post-deal stages, sustainability is identified as having an impact or being impacted by M&A activities. Accordingly, practitioners' strategic consideration of sustainability for deal origination and performance is required. Furthermore, we highlight several understudied factors and create a research agenda, as research findings are, to some extent, heterogeneous and limited.

Keywords: sustainability; corporate social responsibility; ESG; mergers and acquisitions; M&A process; systematic literature review

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1. Introduction

The transition toward a sustainable economy is a major mission nowadays. To align business activities with social objectives, countries support the United Nations' Sustainable Development Goals and encourage firms to engage with them [1–3]. Together, the "2030 Agenda for Sustainable Development", with its 17 established SDGs, and the signed "Paris Climate Agreement", which aims for the prevention of human-caused global warming and climate change, represent a comprehensive framework for achieving sustainable development [4,5]. Companies must play a key role in achieving these goals, especially those acting globally within international markets [6]. Companies indicate their individual progress and contribution via sustainability reporting and sustainability ratings [7]. To address the importance of sustainable development, increasing sustainability disclosure requirements and sustainability ratings are being enforced [8,9].

This is demonstrated in an exemplary way by the European Commission's adoption of a Corporate Sustainability Reporting Directive (CSRD) as an element of the European Green Deal [10], a plan to move toward a climate-neutral economy by 2050 [11].

Such regulatory pressure and aspirations require businesses to internally develop their capabilities and adapt to align their business activities with sustainable development. Alternatively, companies may strategize to look externally for sustainable solutions. The importance of M&A as a supplementary tool for sustainable transformation is reflected by the significant increase in green M&A transactions in recent years [12,13].

This trend is promoted by certain aspects. On the one hand, it is a necessity for the transformation into more environmentally friendly business models, given the rising pressure to mitigate climate change. Therefore, companies need to identify approaches for redesigning business models and value chains. The external acquisition of technology or capabilities for meeting environmental and sustainability aspirations via M&A activities is one option [13,14].

On the other hand, the shift in investors' mindsets and stakeholder orientation toward sustainability promotes this trend. The rapid development of both the Socially Responsible Investments (SRI) market in recent decades and private equity (PE) firms is exemplary [15,16]. PE firms are integrating sustainability issues more strongly into their investment decisions since investors and other stakeholders are paying increasing attention to them. In addition, the risk management factor, sustainability integration is also expected to support value creation [17]. Better growth options, which manifest in higher valuations, also set incentives for targets to push sustainability aspects in deals [13]. As a result, sustainability issues, including corporate social responsibility (CSR), have become increasingly important in academia [18,19]. Also, at the nexus with M&A research, discussion has started on the role and value relevance of sustainability, and—corresponding with this development—the current and traditional literature on M&A processes acknowledges the role of sustainability as a prerequisite for successful M&A operations [20,21].

However, despite the wealth of material, the field of M&A research suffers from a lack of connectedness and integrative research design [22–24]. M&A transactions are, by their nature, complex and consist of a pre-deal and a post-deal phase [24].

In the pre-deal phase, systemic screening and evaluation of the strategic fit are central aspects [25]. The target needs to be chosen in terms of its strengths and weaknesses, as well as the fit of the company [24]. Scholars rarely analyze sustainability aspects at this stage but emphasize their importance in deals [26,27]. Also, due diligence must be carried out in the valuation of targets. The challenge is to find the right price and value synergies while not overpricing [28]. The form of payment also has to be chosen; either cash or stock payments are options to choose from and have an impact on governance and risk [29,30]. An increasing number of studies have focused on the connection between sustainability and stock-market reactions in the context of M&As [22]. The final success of M&A deals can be judged in the post-deal phase using performance measures [31]. Studies are paying more attention to analyzing whether sustainability is relevant to better post-deal performance or whether sustainability performance can be influenced by M&A [22,32]. However, non-existing integrative design can also be considered with respect to the intersection of sustainability and M&A research. Literature reviews in this context are limited, and there is an existing need to review the body of knowledge [20,22].

Given the perspective of potentially unavoidable sustainability transformation for industries and companies, a holistic understanding of the sustainability implications is mandatory. To identify whether M&A can be a supplementary tool to promote sustainability performance and to identify whether sustainability is an enabler in M&A stages should be of strategic priority. Therefore, to contribute to the growing sustainability research nexus and to overcome non-connectedness in the M&A and sustainability intersection, the main goal of this literature review is to summarize and synthesize M&A research from the perspective of sustainability with respect to pre- and post-deal stages as a framework [24]. Accordingly, we investigate the following research question (RQ): What is the relevance of sustainability and its implications in M&A stages? In more detail, this covers the stages of target selection, bid premia, payment method, and announcement return in the pre-deal phase. Post-deal performance is analyzed for financial and sustainability performance implications, thereby laying a foundation for the understanding and further analysis of sustainability as well as M&A research [33].

To the best of our knowledge, our study is the first review to holistically analyze archival studies and present an overview of the major implications of sustainability, including their theoretical underpinnings in the M&A context. Moreover, we are the first reviewers using the Web of Science database and applying a broad scope of subject areas, including environmental studies. Therefore, we also shed light on target selection in the pre-deal stage of transactions and analyze the impact of M&A activity on post-deal sustainability performance.

Using this approach, we make multiple contributions to the literature. First, from a comprehensive perspective of sustainability in the M&A process, this is the first review to illuminate the relationship from a pre- and post-deal perspective in combination with the acquirer and target perspectives, so that one can understand the current state of research on the influence of the sustainability of the involved transaction parties in different stages of deals.

Second, we review the theoretical underpinnings and reasoning in the identified articles and, therefore, contribute to the discussion of sustainability implications. Third, potential avenues for future research are identified, considering the findings of the contemporary literature. On the one hand, this provides robustness to findings and research that identified gaps in regional, deal, and sustainability metric perspectives. It also further disentangles the limited research on the relevance and implications of companies' single sustainability pillars, with respect to the optimal level of sustainability performance for companies and with respect to individual sectors. The evolving regulatory environment (e.g., the European Union (EU) Green Deal) represents a potential to overcome the challenges of lack of availability as well as comparability in definitions, on the other hand. Moreover, M&A in the context of new sustainability regulations (e.g., EU Taxonomy) can be elaborated.

The succeeding parts of the review are designed as follows: Section 2 introduces theoretical foundations and key terminologies to discuss the linkage between sustainability and M&A. In Sections 3 and 4, we provide a detailed overview of our methodological approach and present our selected sample of archival studies. Section 5 presents and analyzes the findings on the relevance of sustainability and its implications in the framework of major pre- and post-deal stages in M&A. In the final section, we provide a summarized discussion of our key findings and state potential future research agenda topics.

2. Theoretical Background

2.1. Sustainability Terminology

Even though research on sustainability and CSR is increasing, a universal definition for the terms is still nonexistent [34,35]. Initially, the two terminologies developed along separate research strings [36]. While CSR originally referred to social aspects, environmental issues were the focus of sustainability. Both are related to each other [36,37]. These days, the terms have converged and are used as synonyms [36,38]. Following the terminology of the Corporate Sustainability Reporting Directive (CSRD) of the European Union [10], we use the terminology of sustainability in this study. Although this term is applied in the subsequent sections, articles referring to CSR or other sustainability concepts will also be presented in the literature review under this term.

Concept-wise, all sustainability terminologies share the notion of shifting the goal of doing business to the interests of numerous parties' stakeholders. Examples of stakeholders are customers, suppliers, employees, and creditors [39]. Regarding business activities, balancing between the dimensions of profit, planet, and people is also referred to [7]. In addition, defining the scope of sustainability, measuring sustainability performance is identified as controversial [40,41]. Usually, sustainability measurement is provided by agencies collecting and aggregating information across various sources and reporting standards [41,42].

Sustainability rating agencies are expected to support investors in screening corporate sustainability performance, which is very similar to credit ratings and facilitates the screening process for creditworthiness [41]. However, sustainability performance is an interpretation of what rating agencies interpret as sustainability performance, since no clear definition of sustainability performance is in place [34,41]. The major concern is the low correlation across sustainability ratings from different providers and the substantial disagreement among different raters [40]. Even though sustainability ratings show obvious limitations, academia is increasingly relying on sustainability ratings for their archival studies [43,44].

In this study, we refer to the term sustainability performance to indicate the level of a company's commitment to sustainability and the sustainability initiatives it engages in. As studies in our sample apply various sustainability performance measures, they can be distinguished by the sustainability rating that they apply. Although some studies speak of a sustainability performance that encompasses all or many dimensions [45,46], other studies focus on single sustainability pillars [8,47,48]. Mostly, studies differentiate between the social, environmental, and governance single pillars of sustainability performance [49,50].

2.2. M&A Terminology

The common mechanisms in M&A allow businesses to combine their already existing assets and capabilities [23,51]. From a terminology perspective, transactions must be distinguished between mergers and acquisitions. Mergers represent transactions that form a new company with the combination of two entities, while acquisitions are understood as a takeover of another firm, which is named as a target, by an acquirer party [23,32,52].

In the research literature, however, the two transaction types are usually not differentiated, as they correspond to the same mechanism [23,51]. The underlying aim of M&A transactions is to generate value from undertaking actions corresponding to classical shareholder and agency theories. Firms' management teams are considered to have the purpose of maximizing shareholder value [23,53]. Looking at the research focus of M&A, major streams can be identified. One major research stream analyzes the reasons and factors behind the occurrence of M&A transactions dating back to 1950 [23].

Several driving forces behind merger activities have been identified and theoretically underpinned [32]. Theories, on the one hand, argue from a macroeconomic perspective and define the merger as a consequence of economic disturbances. This corresponds to macro-factors like technological shocks, stock-market conditions, and modifications to regulatory frameworks and settings [54,55].

On the other hand, theories based on firm-specific motivations have been developed [32]. Those theories are mostly based on the perspective of the bidder's shareholder gains. Also, managers' personal benefits as the reason for a merger have been stated according to the empire-building theory. The efficiency theory has a dominant role. According to this theory, realizing synergies by fusing business resources and skills is the intention of mergers [56,57].

The bulk of research has focused on post-deal research [22,23]. The focus lies in researching deal performance and mostly discussing the financial performance of transactions [31]. Based on the time horizon of the evaluation of financial performance, research distinguishes between the short-term and long-term financial performance of deals [31]. The short-term evaluation looks at the effect of the announcement of M&As in an event study setting equivalent to an ex ante expectation from the perspective of the market [30,31]. Long-term financial performance is an ex-post realization of the transaction-level and firm-level benefits that occur as a result of successful acquisitions [31,52]. However, in the context of M&A performance, no clear boundary for differentiating short-term and long-term performance exists [58].

2.3. Linking Sustainability and M&A

The majority of the archival literature on the effects of sustainability in the context of M&A transactions has concentrated on the intersection between firms' sustainability engagement and the financial performance of M&A transactions [22,30,52].

From a theoretical perspective, two theories have been widely used to explain the implications of sustainability. Firstly, the shareholder expense view [59] is referred to. It suggests that sustainability engagement occurs at the expense of shareholders, which represents the value-destruction perspective of sustainability. The value-maximization view of sustainability is reflected in stakeholder theory [39]. According to this view, meeting the demands and expectations of various stakeholders induces greater stakeholder support, which enhances financial performance and increases firm value [60]. Other theoretical perspectives have also been referred to by researchers. Those theories refer to signaling theory, learning theory, or culture clash theory and the culture synergy view [30,61,62].

Since understanding M&A stages (phases) is an important aspect in setting a foundation for understanding and further analysis of M&A research [33], studies focus on different stages within a transaction cycle. No general rule of process stages is established. Prior research in the area has set up various approaches with two to seven phases in the M&A process [33]. Literature reviews often differentiate between a pre- and post-deal stage [23,24]. Similarly, studies in the nexus of sustainability and M&A have paid attention to different transaction stages [22].

From a pre-deal (deal origination) perspective, M&A target selection has been investigated. Those studies contribute to the literature by enhancing the understanding of the determinants of target choice [26,63]. Deal valuation has been focused on studies in the context of bid premia. Acquirers set M&A premia based on their expectations for synergistic gains [28,64,65]. Studies specifically examine whether sustainability affects bid premia [64,66]. Moreover, the analysis of the payment types in deals has been researched [67,68].

The influence of sustainability on deal performance has been the focus of pre- and post-deal research. Capital market reactions to M&A announcements are researched in terms of short-term (announcement) financial performance [30,52]. The contribution of sustainability to the long-term value of the company, also exceeding the year of the deal (e.g., up to three years after the merger), is measured in the long-term financial deal performance. Studies base their analysis on market- or accounting-based metrics and shed light on the question of whether sustainability performance matters for value creation [31,32].

Moreover, the influence of M&A on sustainability performance is focused on the post-deal stages. Studies analyze whether sustainability performance changes as a consequence of M&A transactions [8,9]. An overview of the overall research setting is presented in Figure 1.

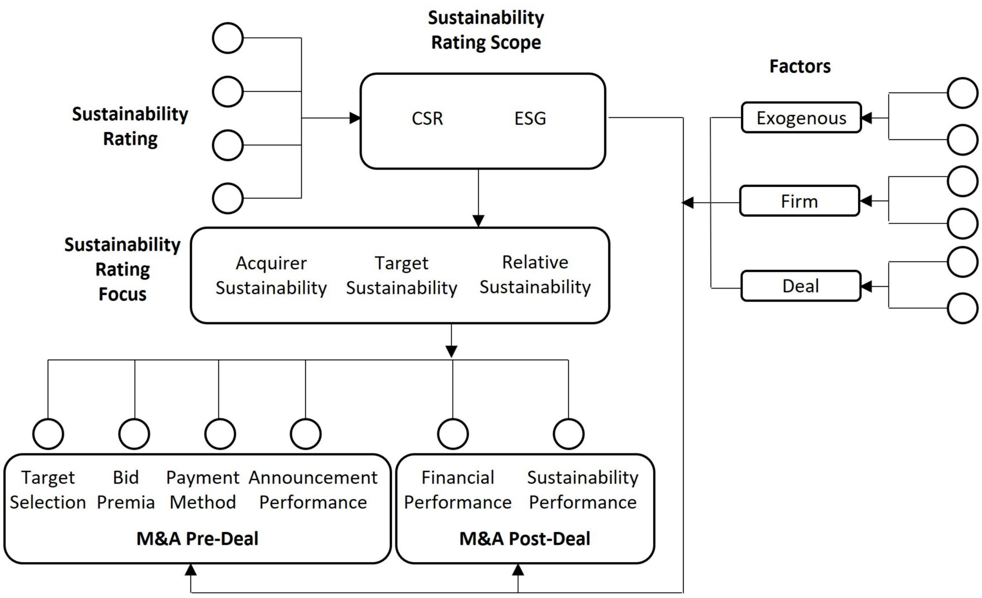

Figure 1. Research setting of relevance and implications of sustainability in M&A stages. Source: authors' own.

3. Materials and Methods

Following Fink [69], we conducted a systematic review of the literature to further clarify the relevance and implications of sustainability in the M&A process. We carry out a four-step process using the approach introduced by Tranfield [70]. First, to conduct the search, we identify and use the Web of Science (WoS) research database similarly to other reviews in the context of sustainability [20,71]. This database is one of the most comprehensive data sources in the field of social sciences, especially in business and economics [72]. The search string is then created by combining different search terms, ensuring comprehensive coverage of the research field. The terms for sustainability include relevant forms, acronyms, and pseudonyms [22,71]. This strategy ensures that different definitions of sustainability are included, which cover a broader definition of sustainability, such as CSR and ESG [73].

In the context of M&A, several other terms are applied as well [20,22]. We avoid overlaps by combining the following terms, allowing for different writing styles, using the Boolean operators AND and OR as follows: ALL = ("M&A$" AND "ESG")) OR ALL = ("M&A$" AND "CSR")) OR ALL = ("M&A$" AND "Sustainability")) OR ALL = ("Merger$" AND "ESG")) OR ALL = ("Merger$" AND "CSR")) OR ALL = ("Merger$" AND "Sustainability")) OR ALL = ("acquisition$" AND "ESG")) OR ALL = ("acquisition$" AND "CSR")) OR ALL = ("acquisition$" AND "Sustainability").

Furthermore, we limit articles to the subject areas of Business, Business Finance, Economics, Environmental Studies, Management, Operations Research, and Management Science, since we want to analyze archival studies in the business context. No restrictions on the years of publication were applied. In total, 2049 studies were retrieved from the WoS database.

As a second step, practical screening criteria are set to select empirical studies. At first, articles were limited to English-written work. Secondly, we only look for studies that analyze the data empirically. Consequently, we exclude all conceptual or theoretical studies. In addition, articles are limited to peer-reviewed studies (either published or forthcoming). Given the criteria stated, the primary search is conducted by systematically screening the titles and abstracts of the sample literature. This includes a scope screening. Articles that focus on the intersection of sustainability and M&A are included. We include domestic and cross-border M&A types for the review. Studies that only focus on one area (either only on sustainability or only on M&A) are excluded. The scope screening is complemented by a methodological screening. Studies that apply archival methods (e.g., regression analysis) are included. Studies that do not apply archival methods are excluded. Therefore, case studies, studies using experimental designs, and surveys are classified as non-relevant. In the case of meeting all screening criteria, studies are included in the database. On 27 June 2023, the last search was undertaken, and the sample was reduced by 1928 articles. During this stage, articles focused predominantly on Green and Sustainable Science and Technology, Environmental Sciences, and Environmental Studies in the WoS category were eliminated, leading to 121 articles in the full-text review.

As a third step, methodological screening criteria are created and used to review the content of the studies gathered. The authors look deeply into the complete articles before selecting those that meet our research objective with the following characteristics: First, all articles' bibliographic data are collected (e.g., authors, title, journal, and year of publication). Also, methodological information (e.g., sample details and research method) is extracted. The sustainability rating (database) applied is also identified and recorded. Studies that do not include required information are classified as non-relevant and are excluded.

Since we aim to provide details on the relevance and implications of sustainability in the M&A context, we confine our research to sustainability proxies as dependent variables or independent variables of interest in the M&A context. During the full text review, numerous articles were identified that only touched on one aspect of the relationship without going into detail about how sustainability and M&A are related. Furthermore, studies that do not apply archival methods were, as in the abstract screening, also excluded.

In this process stage, 70 articles were eliminated based on the criteria stated above. One relevant article was identified from the reference list and added to the sample. Following these steps, a final sample of 52 articles was retrieved. A detailed overview of the search is provided in Figure 2.

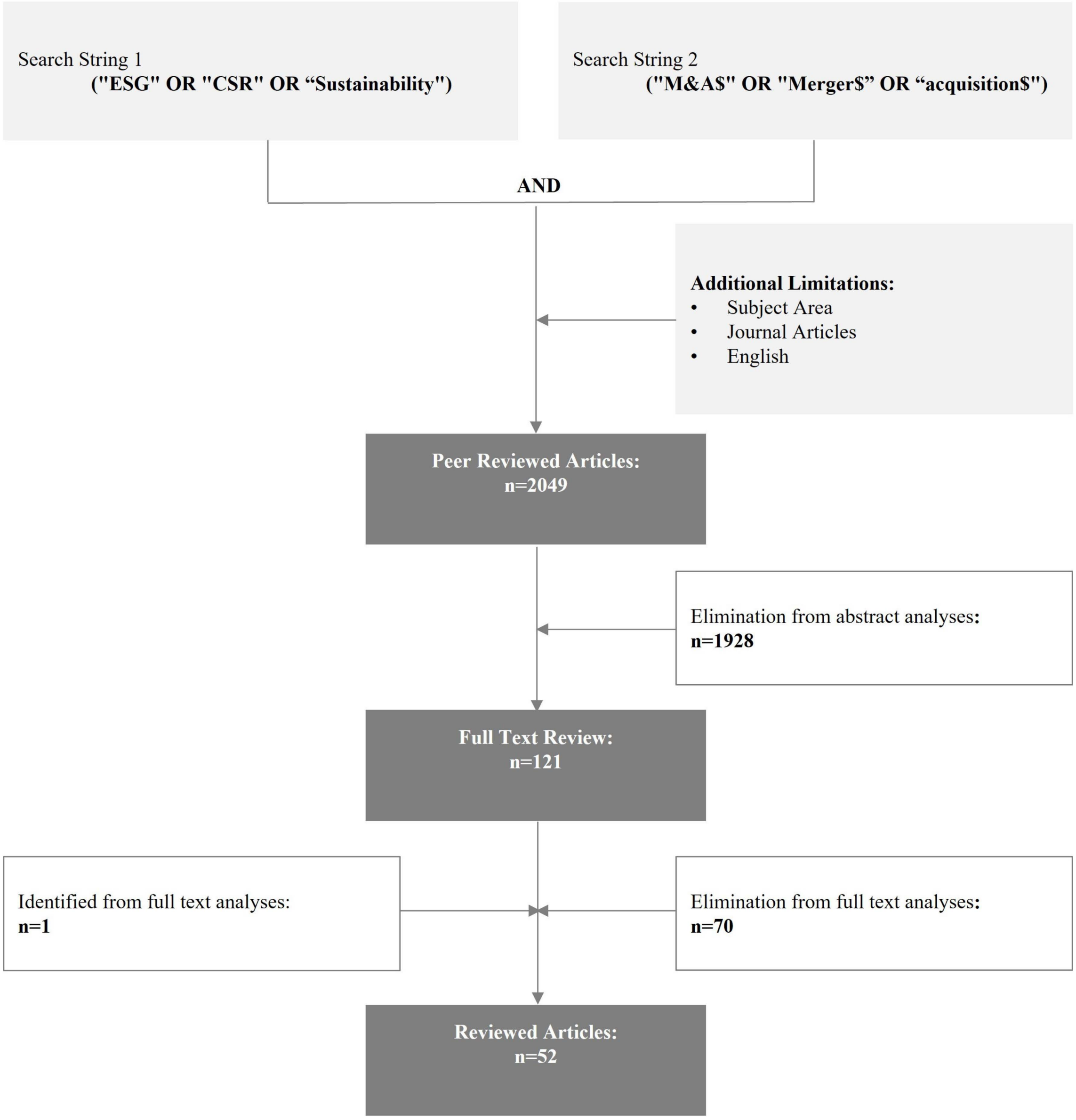

Figure 2. WoS sample identification. Source: authors' own.

Further, we place studies and findings along the M&A process in pre- and post-deal stages [22,24]. The pre-deal phase consists of the stages 'target selection', 'bid premium', 'payment method', and 'announcement performance'. The post-deal stages are 'long-term financial performance' and 'post-deal sustainability performance'. The allocation is determined by the study's context, its applied archival method, and the dependent variable in the study setting. For instance, while announcement performance and long-term financial performance have in common that financial performance measures are dependent variables, announcement studies apply event-study approaches with cumulative returns analysis during announcement window periods. Long-term financial performance analyzes implications for longer periods after closing. Post-deal sustainability performance studies, for example, are characterized by sustainability performance (e.g., sustainability rating) as a dependent variable. Moreover, we also group studies based on the sustainability analysis perspective of the research. Studies are categorized according to three sustainability dimensions: acquirer, target, or relative sustainability (independent of rating type, country, or other aspects). In the case that the acquirer sustainability perspective is analyzed in the study (e.g., sustainability rating of the acquirer), the article is allocated to the dimension 'acquirer sustainability'. The same logic applies to target sustainability. If both parties' sustainability is focused (e.g., distance measure), this study is allocated to the dimension 'relative sustainability'. Where articles use more than one perspective from different categories (e.g., financial and sustainability performance), articles are listed in more than one category. Therefore, the number of findings is higher than the number of articles in the review.

The results were combined in the last step. The literature was classified according to the six M&A deal stages and the three sustainability perspectives. Correspondingly, the articles will inform the six following sub-RQs:

RQ1. How does sustainability impact target selection?
RQ2. How does sustainability impact bid premia?
RQ3. How does sustainability impact payment methods?
RQ4. How does sustainability impact short-term announcement (financial) performance?
RQ5. How does sustainability impact long-term financial performance?
RQ6. How does M&A impact post-deal sustainability performance?

The sample and findings are discussed in the following sections. A comprehensive overview of the final sample is given in Appendix A, organized according to the six addressed sub-RQs, including theoretical underpinning, sustainability rating, and study finding information.

4. Descriptive Statistics of Literature Sample

The final sample consists of 52 archival studies from peer-reviewed journals. According to the research category of WoS, the majority belong to the "Business and Economics" research area. In total, our sample is represented by 33 different academic journals. Around three-fourths (75%) of the archival articles were released in the current decade. The earliest archival article, Aktas [30], was published in 2011 (see Figure 3). At this time, there has been a concentration of studies in the last few years, which emphasizes the growing attention and interest in this field of study.

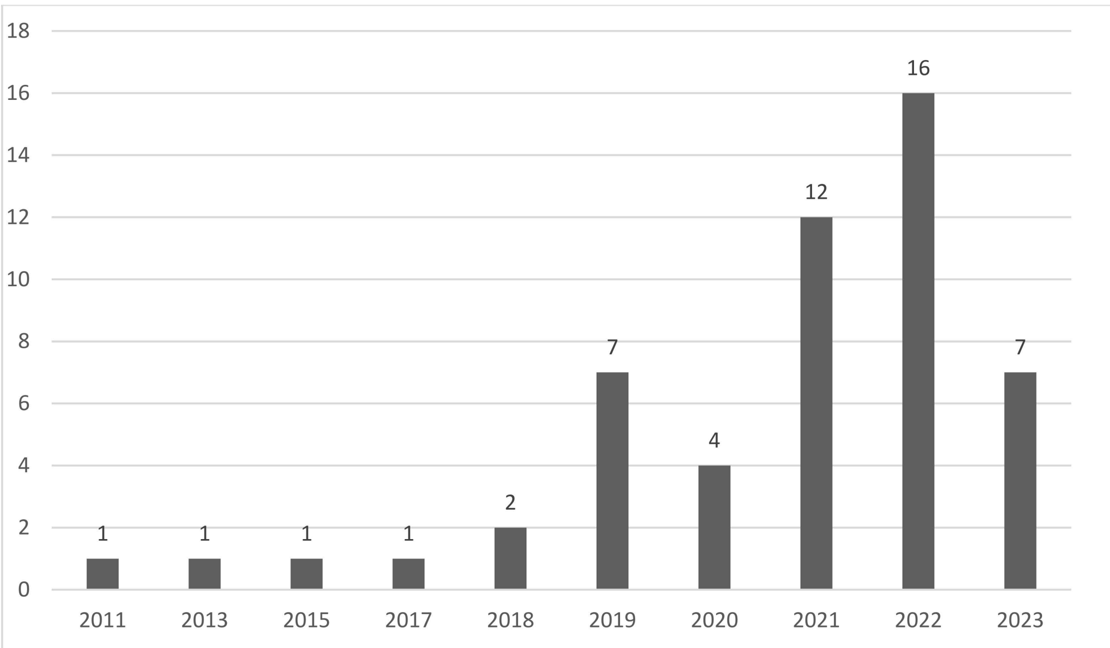

Figure 3. Paper distribution according to the year of publication. Source: authors' own.

Overall, four studies are published by the *Journal of Corporate Finance*, and four studies are *Finance Research Letter* publications, which are the second most represented journals in our sample. The journal *Sustainability*, with six publications, is the most frequently listed one (see Table 1).

Table 1. Distribution of empirical studies among academic journals.

#	Journal	# of Studies
1	*Sustainability*	6
2	*Finance Research Letters*	4
3	*Journal of Corporate Finance*	4
4	*Journal of Cleaner Production*	3
5	*Asia-Pacific Journal of Accounting and Economics*	2
6	*Business Strategy and the Environment*	2
7	*Corporate Social Responsibility and Environmental Management*	2
8	*International Review of Financial Analysis*	2
9	*Journal of Business Ethics*	2
10	*Pacific-Basin Finance Journal*	2
	Subtotal Top10	29
	Other Journals	23
	Total	52

In addition, analyzing and sorting the literature provides a mapping of the number of findings along the M&A stages defined. As is common for M&A research, most of the studies and their findings focus on deal performance and the dimensions of short-term and long-term financial performance of deals [22,31]. The number of findings along the M&A stages is illustrated in Figure 4.

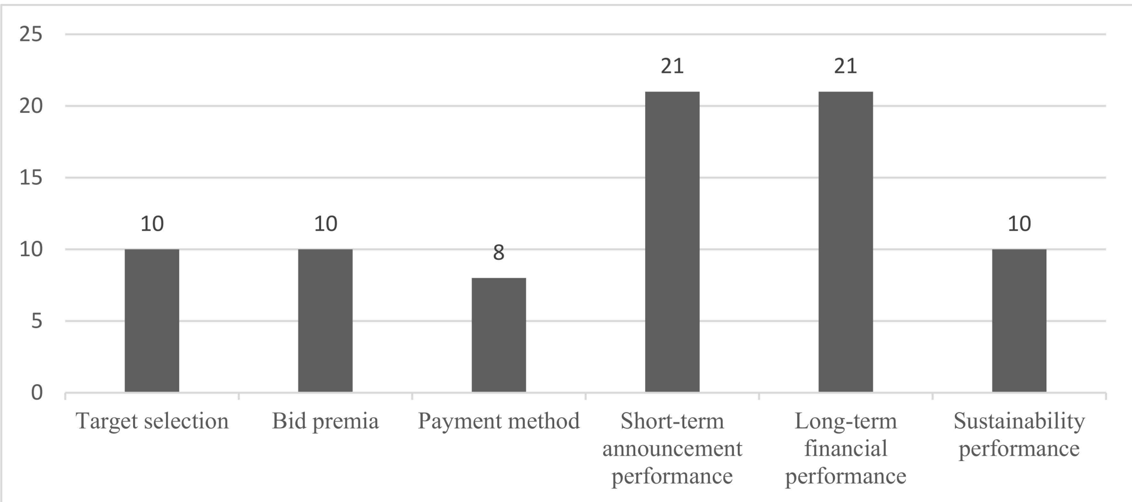

Figure 4. Distribution of research findings along M&A stages (n = 80). Source: authors' own.

With respect to the underlying data source to measure sustainability performance, Refinitiv (formerly Asset4) is the most frequently applied source. It has a reputation as one of the most diligent and trustworthy sources for sustainability data [64]. The second most applied in our sample is the MSCI rating (including the Kinder, Lydenberg, and Domini (KLD) database, as it was acquired by MSCI in 2010 [41]). Depending on the region focused on, other data sources are also used (other databases used are Sino-Securities Index (SSI) ESG Rating; Intangible Value Assessment (IVA) score; Korea Institute of Corporate Governance and Sustainability (KCGS) rating; EIRIS; Orbis database; CSRhub database; and manually calculated variable proxies). Ratings related to Chinese companies mostly apply to Hexun Finance, Rankins CRS Rating (Rankins CSR Ratings (RKS) is one of the best CSR indexes in mainland China; the RKS index consists of 15 first-level indexes and 63 second-level indexes [58]), and the China Stock Market and Accounting Research (CSMAR) database. Figure 5 presents an overview of the sustainability data sources and their distributions, which are identified in our sample. Looking at the regional focus, most of the M&A samples focus on international transactions, followed by US samples and transactions with a focus on China. For details, see Figure 6.

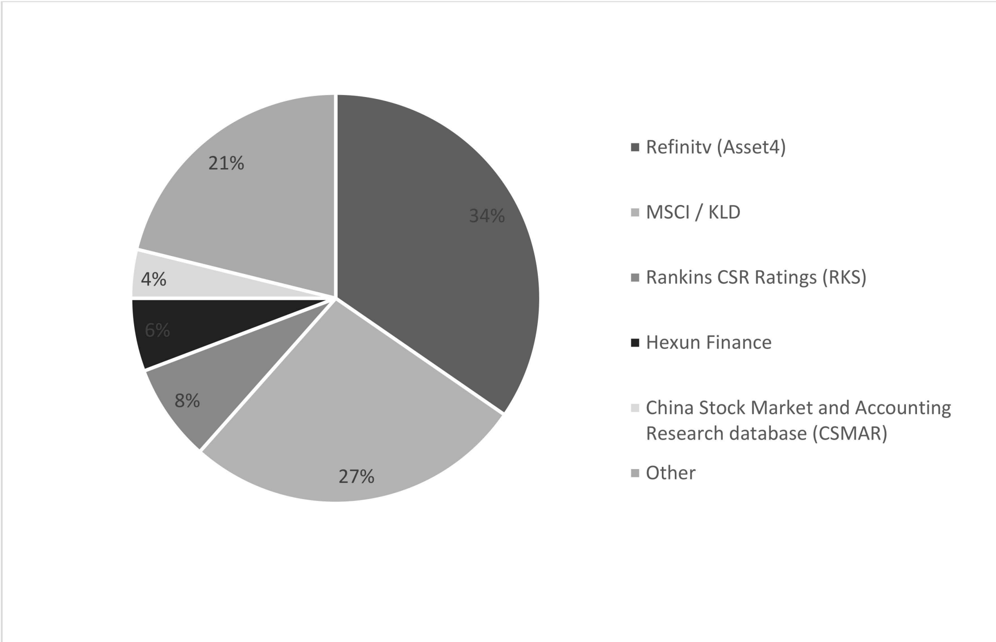

Figure 5. Distribution of sustainability data sources applied (n = 52 articles). Source: authors' own.

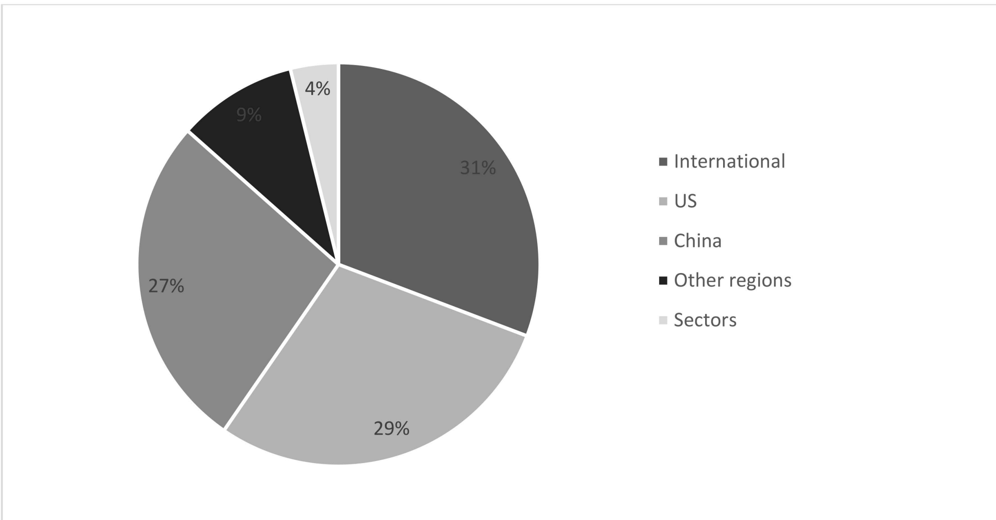

Figure 6. Distribution of regional M&A-sample focus (n = 52 articles). Source: authors' own.

5. Results

This section provides information on the implications of sustainability in M&A. The stages of the M&A process and the sustainability focus of acquirer, target, and relative sustainability are used to organize the reviewed literature.

5.1. Pre-Deal Stage

5.1.1. Implications of Sustainability for Target Selection

Acquirer Sustainability Implications for Target Selection

Looking at the link between acquirers' sustainability performance and target selection, studies base their arguments on the conflict resolution view of stakeholder theory [63]. According to the conflict resolution viewpoint, investments in sustainability and M&A activities are viewed as a source of conflict among various stakeholders [74]. Sustainability-oriented firms have a lower likelihood of investing in M&A activities in order to reduce potential conflicts of interest with stakeholders [63].

Krishnamurti [63] discovers, in the context of US samples, a highly negative association between firms' sustainability engagement and M&A investment level, which indicates that sustainability engagement reduces M&A investment when a firm is resource constrained. In line with this finding, Gul et al. [75] find for a US sample that firm-level sustainability has a significant negative association with a firm's M&A activity, which proxies the empire-building tendency. Looking at trait behavior, CEO overconfidence is found to moderate the effect of empire-building and weaken the negative relationship. Therefore, overconfident CEOs engage in sustainability activity for empire-building, revealing agency theory concerns.

Examining the impact of acquirers' sustainability risks on target selection, studies find an increased likelihood of acquiring foreign targets for emission risk reduction [76,77]. High-emitting companies in the manufacturing industry are likely to diversify the risks of their carbon emissions through cross-border M&A investments in countries with weak environmental, regulatory, or governance standards. Consequently, sanctions are less likely to be imposed, thereby reducing the financial risk associated with the acquirer. While, for a multi-country sample, weak environmental regulatory stringency in a target country increases acquisition probability, it is not confirmed for results in China. Sub-national voluntary civil environmental regulations are facilitating cross-border activities in China.

In contrast, Leon-Gonzalez and Tole [78] find no evidence for the pollution haven hypothesis on M&As focusing on the worldwide mining industry between 1996 and 2004. Accordingly, countries with weak environmental standards seem not to necessarily attract mining industry firms. Those firms are potentially concerned about avoiding environmental liabilities, damage to their corporate image, and complying with shareholder demands.

Target Sustainability Implications for Target Selection

Findings on the association between targets' sustainability performance and target selection suggest that sustainability performance has a relevant role in the likelihood of being targeted in M&A transactions.

Gomes [26] finds in an international deal sample that target firms possess on average higher sustainability scores than comparable non-target firms. Using logistic regressions, they also find a positive relationship between a target's sustainability performance and its propensity to become a M&A target. The author argues that acquirers search for firms featuring good sustainability performance linked to cost- or risk-reduction perspectives. In addition, the overall sustainability performance, the three sustainability pillars (environment, social, and governance) significantly lead to higher probabilities.

Ma et al. [79] analyze the implications of sustainability for becoming a M&A target in developing countries with heterogeneity introduced in product market competition and ownership structure. In line with the finding of Gomes [26], target firms have higher sustainability scores than similar non-target firms. In contrast, for developing countries, sustainability performance is only positively related to a firm's probability of becoming a M&A target in more competitive industries when it is not a state-owned enterprise, indicating ownership structure as a factor. In such industries, firms are more socially responsible and more willing to conduct sustainability activities [80] and aim as a non-state-owned entity to obtain the market's goodwill to overcome financing constraints [45].

Furthermore, high-quality sustainability disclosure is identified to mediate target probability, increase the likelihood of becoming a target in competitive industries, since high-quality sustainability disclosure is relevant to attracting investors [43,81,82], and reduce information asymmetry between insiders and outsiders [83].

The association between the size of an acquirer's purchased stake in a target company and its sustainability orientation is also researched [84]. Findings for a sample in Romania indicate that, when acquiring a company (e.g., controlling interest), more attention is paid to the social pillar of the target when purchasing a large stake. The satisfaction of the target's employees might be helpful for successful post-deal integration. Moreover, focusing on sustainability pillars is expected to support the achievement of strategic acquisition motivations, such as cost reductions or synergy creation, for realizing market share increases.

Fairhurst and Greene [85] find limits of sustainability (investment) benefits in the context of target selection in the case of avoiding takeover likelihood. They identify a non-linear, U-shaped relationship between sustainability performance and the likelihood of a takeover. Firms with the most extreme sustainability scores (lowest and highest) face a relatively higher likelihood of a takeover. The authors argue that, from an external governance mechanism perspective, the takeover market corrects firms for both under- and over-investment in sustainability. Low-sustainability firms reveal environmental, community, or labor issues as acquisition reasons. High-sustainability firms might overinvest in environmental protection or employees [85].

Relative Sustainability Implications for Target Selection

In addition, the sustainability orientation of acquirers in the context of target selection is researched in an Australian sample [86]. The authors find a positive association between an acquirer's sustainability performance and the likelihood of acquiring a target with sustainability practices. The reason for this behavior is that firms with strong sustainability scores should be more aware of the benefits of sustainability activities, which are expected to minimize social and environmental risks. The findings are in line with the benefits of the stakeholder view.

5.1.2. Implications of Sustainability for Bid Premium

Acquirer Sustainability Implications for Bid Premium

Examining the implications of acquirers' sustainability performance and M&A bid premia, Krishnamurti [86] used an Australia-based sample and found a negative association with bid premia. They argue that firms with high sustainability scores have a higher likelihood of paying lower bid premia because of CEOs ethical attitude, which corresponds with smaller agency costs.

In line with this reasoning, studies referring to the conflict resolution view of stakeholder theory confirm that acquirers who trade off pay lower bid premia to targets to generate value for the acquiring shareholders [63].

Hussaini et al. [87], in contrast, find a positive link between acquirers' sustainability performance and M&A premia by analyzing a US-based sample. The authors justify their results in the light of shareholder theory, pointing to an agency concern that harms shareholders. Consequently, sustainability engagement reflects management's seeking of personal objectives as a form of agency problem [88]. Also, Li [68] shows Chinese acquirers raising acquisition premia with a higher level of acquirer sustainability performance, since acquirers might follow sustainability motives or relatively more value sustainability in targets.

Recent studies on M&A bid premia and sustainability support neither of the two perspectives provided by stakeholder and shareholder expense views [66]. No significant impact of acquirers' sustainability performance on M&A premia is found. As the authors base their research on an international sample, different regulations, societal preferences, and institutional factors may derive varying effects of sustainability from shareholders' value, as indicated by Hussaini [87]. Consequently, results might vary from country to country. For improved governance level, Jost et al. [66] find a negative association with M&A premia, indicating that, combined with high sustainability engagement, governance might mitigate potential agency concerns regarding investment decisions [89].

Target Sustainability Implications for Bid Premium

The literature with a focus on the influence of targets' pre-deal sustainability and bid-premia payment largely refers to the signaling theory [90]. Studies claim that sustainability performance might provide positive signals that reduce information asymmetry issues about targets' specific risks, therefore inducing higher deal premium levels [64,65]. An example is decreasing the specific risk of negative environmental spillovers such as pollution-related lawsuits. Additionally, a firm's image and moral capital may be positively impacted by strong environmental performance [91].

Given that international transactions are more complex and incorporate more uncertain factors, research suggests that M&A bidders assign different importance to a target's sustainability performance depending on its location. Gomes and Marsat [64] find that social performance is only significant on premia for cross-border deals in contrast to national ones. Larger cultural and regulatory differences between acquirers and target firms are more present. Therefore, bidders have a higher willingness to pay a premium related to social performance. This includes aspects that are largely contingent upon the target's national context, such as working conditions, relationships with suppliers, business partners, contractors, and communities.

In addition, Qiao and Wu [92] find that bidders are more likely to pay higher acquisition premia in the case of acquiring a socially responsible target in cross-border deals. However, they show that cross-border premia might be conditional on institutional factors and likely to decrease with increasing cultural and institutional distance and the number of fellow acquisitions. Negative moderation of cultural distance for cross-border deals might be caused by difficulty in mutual understanding, communication and post-acquisition integration and induce a more conservative management valuation. Increasing the number of acquisitions negatively moderates premia as more accurate sustainability valuations are possible. In line with the finding, Li et al. [68] also find for domestic transactions in China a positive association between bid premia and target sustainability performance.

Furthermore, analysis shows that the implication of target sustainability performance for bid premia is relatively more distinctive for labor-intensive industries and is confirmed by a positive moderation effect in service industries [65]. Sustainability performance is a signal of a firm's quality in more intangible industries, which reduces information asymmetries [93].

Relative Sustainability Implications for Bid Premium

Ahmad et al. [94] find that, especially for polluting industries, country-level environmental sustainability (ES) performance differences are associated with higher bid premia at a company level. Based on the pollution haven hypothesis (PHH) and its competing view, either acquirers attempt to potentially relocate polluting activities to a low ES country or, respectively, acquisitions in a high ES country can be viewed as the acquirer's commitment to various stakeholders, resulting in achieving instrumental support in gaining technology-induced competitiveness that yields higher shareholder returns.

Further existing studies suggest that, in the context of value creation for target shareholders, the target and acquirer pre-deal company sustainability performances are not independent of each other [60,65]. Cho et al. [60] analyze the target firm's 3-day cumulative abnormal return (CAR) and show that a better target sustainability performance compared to the acquirer (target spread) is positively associated with target takeover gains.

Li et al. [68] also find for a sample in China that targets with higher social performance can attain a higher acquisition valuation, especially when conducted in more highly developed regions, as social responsibility is more noticed by acquirers. Similarly to the positive economic development moderation, valuation interaction is positive when acquirers are also socially responsible. This is in line with the beneficial valuation effects of the target spread, which are more evident for acquirers with effective governance. These results are based on the rationale that markets expect acquirers with strong corporate governance to pay a higher premium to the target in M&A transactions compared to acquirers with weak corporate governance [60].

5.1.3. Implications of Sustainability for Deal Payment Methods

Acquirer Sustainability Implications for Payment Methods

Studies analyzing the relevance of sustainability for deal financing for US takeovers and Australian M&A announcements find that high sustainability and sustainability coverage of acquirers are associated with cash payments [67,86]. This method reduces risks and agency costs in deals [86]. Moreover, a positive association between acquirer sustainability concerns and the probability of cash offers is found, which indicates reluctance to accept the stock payment of low sustainability acquirers [67].

Li et al. [68], in contrast, discover that high-sustainability acquirers in China are oriented toward opting for equity payments. The authors find that a higher level of acquirer sustainability is associated with a higher likelihood of equity payments, thus underscoring the role of equity payments as a method for dealing with target risks. Also, in times of financial crisis, M&A firms pursuing sustainability activities demonstrate a substantial propensity to use stock payment methods for financing transactions while markets are less information efficient [95].

Target Sustainability Implications for Payment Methods

With respect to payment type and target sustainability, studies find a higher probability of cash payments when the target company enjoys higher sustainability [68] and a higher likelihood of cash payments when there is sustainability coverage on the target site [67]. The rationales of the results are that sustainability reduces information asymmetry and provides incremental information regarding target value [67], or sustainability might enhance the acquirer's belief in the post-acquisition performance and reduce concerns about the acquisition risk [68].

Relative Sustainability Implications for Payment Methods

Alexandridis et al. [62] find that for social cultural proximity in international deals, larger social cultural dissimilarities introduce more uncertainty or information asymmetries about the value of the combined firm. Therefore, cash deals are more likely since targets are less inclined to use the acquirer's stock instead of cash as a M&A currency under the cultural clash hypothesis. Hussain and Shams [96] find that, in the presence of a positive acquirer–target gap, stock–finance deals are used to enable governance changes in line with the portability of the bidder's governance standards.

5.1.4. Implications of Sustainability for Short-Term Announcement Performance

Research on the short-term (announcement) performance is widely based on event study approaches around the announcement days of transactions [31] and is characterized by a commonly applied method of measuring abnormal returns [52]. Also, few studies with a focus on the relation between sustainability and the likelihood of deal completion or completion duration time exist [97]; further details and analysis can be found in the review of Ahammad [22].

Acquirer Sustainability Implications for Announcement Performance

Based on the value maximization view of stakeholder theory, Deng et al. [52] find for US deals that, compared to transactions of low-sustainability acquirers, high-sustainability acquirer deals induce relatively higher announcement stock returns for acquirers and for value-weighted portfolios. Moreover, such deals are associated with reduced market completion risks [98].

Also, Zhang et al. [99] identify for a sample in developed countries that high-sustainability acquirers generally experience positive announcement returns for non-hostile takeovers due to an insurance-like effect. Sustainability engagement from a signaling perspective positively encourages target stakeholders to cooperate, which markets positively reward.

In their study on Chinese cross-border deals, Shi et al. [100] define CAR as the net market reactions, which represent the difference between positive (e.g., reputation, goodwill, legitimacy, and good relationships) and negative (self-serving opportunism of managers by enhancing their own reputations) market reactions. The authors find for sustainability performance improvement a non-linear U-shape relation. Therefore, firms characterized by extremely high or extremely low sustainability levels are found to receive better market reactions to cross-border M&A announcements in comparison to those with moderate sustainability levels, which indicates the complementarity of stakeholder and shareholder theory. First, sustainability creates a competitive disadvantage by allocating scarce resources to unprofitable activities. With an increase in sustainability activities, firms communicate more information to the public, which reduces adverse selection costs for investors [100].

Yen and André [89] argue that the relationship between sustainability and M&A premia is more nuanced than first thought and cannot be comprehensively understood based on stakeholder or shareholder theory alone. The effects of sustainability performance on market reactions to M&As are primarily determined by investors' cost–benefit concerns.

The studies of Caiazza and Huang [47,48] also find that acquirer sustainability levels are irrelevant in short-term stock-market reactions. Due to the complexity of M&A integration processes reflected in changing stakeholder relationships and operational processes, beneficial outcomes are not expected to be fully effective in the short term.

Li et al. [101] highlight the implications of passive sustainability performance, which is caused by external pressure, instead of active behaviors motivated by internal motivations for long-term company benefit. In the case of China, the authors show that pre-deal passive acquirer sustainability does not support improving the market investors' evaluation of M&A in China.

Zhang et al. [102] find for a sample in China that market investors are more short-term profit-oriented and are more likely to value acquirers with lower sustainability performance in the year prior to the deal, thus neglecting long-term sustainability implications.

Tampakoudis et al. [103] also argue for the negative announcement value effects of sustainability in economic downturns. Based on the overinvestment hypothesis, they find for a US sample between 2018 and 2020 overall negative value effects, which were even more negative during the COVID-19 crisis.

For hostile takeovers, Zhang et al. [99] show that insurance-like effects of acquirers' sustainability engagement vanish and even negatively affect the announcement returns of the acquirer in a hostile takeover setting. They argue that opportunistic deal practices send a negative signal that can seriously undermine the goodwill and altruism of acquirers' pre-deal sustainability performance.

Target Sustainability Implications for Announcement Performance

As for targets' sustainability performance association with announcement returns, studies suggest a positive direction. The findings of Aktas [30] are based on the value-enhancing role of SRI with learning opportunities for acquirers, which markets are rewarding.

Tong et al. [104] also link targets' sustainability performance to acquirers' announcement returns based on the stakeholder preservation perspective, which values maintaining good relationships with target stakeholders via honoring implicit contracts. The authors find a positive association between target sustainability level and acquirer abnormal returns based on market reactions to acquisition announcements in the US. There is a positive moderation of value congruence. Common values and norms between firms therefore strengthen the relationship, while business similarity weakens it.

Relative Sustainability Implications for Announcement Performance

Hussain and Shams [96] compare acquirers' to targets' sustainability (the bidder–target sustainability gap) and identify international takeovers as a channel for the portability of good sustainability standards in M&A. The stock-market reaction is positive, as CARs are positively associated with an increase in the bidder–target sustainability gap.

Similarly, further studies on international and US samples consider whether the target has a relatively superior sustainability performance (target spread) [105,106]. The results on acquirers' CAR around announcement days suggest that acquiring companies have a benefit if they acquire a target company with a higher sustainability score. Acquiring shareholders therefore anticipate the value-adding knowledge acquisition channel of targets' higher sustainability performance in line with stakeholder theory.

Wang et al. [107] highlight the dark side of sustainability-overinvesting targets. Based on agency theory, they argue that excess sustainability spending has negative implications for acquirers since unnecessary sustainability assets will be acquired with ongoing value destruction from overinvestment. Their results indicate that acquirers in the US experience significantly lower reactions to the announcements of M&A by financial markets for targets exceeding the optimal level of sustainability spending.

Studies analyzing cultural comparability in the US and international deal settings [61,62] find mergers between two parties with a similar social culture generate synergistic value effects based on the announcement reactions of deals. The authors argue that the mechanism of cultural similarity might reduce potential synergy costs and efforts toward cultural compatibility.

Environmental and carbon risks are analyzed by further studies [76,94]. Findings indicate that greater country-level differences between the acquirer and target countries induce higher cumulative abnormal returns [94]. Respectively, cross-border acquisition announcement returns are higher for high-carbon emission acquirers that acquire targets in countries with weak regulations and governance. Accordingly, carbon risk offshoring is helping to create value [76].

5.2. Post-Deal Stage

5.2.1. Implications of Sustainability for Long-Term Financial Performance

The focus of the long-term financial performance of deals is on metrics covering the first year of completion or longer post-deal horizons of transactions [31]. For the evaluation, studies may apply market-based performance measures [52,61,108] or accounting-based performance metrics [47,48,62].

Acquirer Sustainability Implications for Financial Performance

Several studies provide support for the view of stakeholder theory based on US sample data [52,63,108]. Significant positive abnormal returns of portfolios of high-sustainability acquirers for up to three years [52] and a positive association between acquirers' stakeholder orientation and acquisition performance of CAR over the 36 months [108] underline post-deal value maximization. Also, the positive value effects of the conflict resolution view are confirmed by stock returns over 36 months for trade-off acquirers [63].

In the context of hospitality sector firms [47] and American acquirers in ten sectors [48], studies also support that sustainability capital involvement is expected to induce improvement in the long-term perspective based on accounting ratio metrics. High-sustainability companies tend to realize positive long-term post-deal performance from one to three years after the deal, with post-deal performance positively associated with the acquirer's pre-deal sustainability scores.

Studies outside the US indicate that sustainability could be rewarded in emerging economies. Analyzing variations in earnings per share between the periods from one year before to one year after the M&A deals, Qiao et al. [58] find that sustainability has a positive effect on the M&A performance in China. Zheng et al. [109] also find that acquirers' sustainability rating is positively correlated to post-M&A performance using buy-and-hold abnormal returns (BHAR) and post-M&A accounting-based performance for a Chinese domestic M&A sample. Interestingly, business-relatedness seems to positively moderate the positive relationship between the US and China. Positive performance impacts are even stronger for deals when firms share similarities (e.g., products) [58,108].

Further studies measuring return on asset (ROA) find acquirers' sustainability to impact ROA changes in the year after M&A deals [101] and have a positive impact on the business performance of Korean cross-border M&A by reducing diversification discounts [110]. No direct support for an improvement in the companies' ROA for a long time frame is provided for passive sustainability. The authors attribute this to passive sustainability induced by regulatory changes from outside and not by the firm internally [101].

Yen and André [89] also do not find any improvement in operating performance after the transaction due to sustainability. For cross-border deals conducted by emerging market acquirers, their pre-merger sustainability performance is negatively related to long-term operating improvements based on cash flow performance measures.

Target Sustainability Implications for Financial Performance

High carbon emissions from a target company's country are found to promote cross-border M&A performance. Acquirers gain by achieving cheap environmental costs abroad [111]. For a post-deal period of up to two years, the change in return on equity as well as the purchase and holding abnormal rate of returns of acquirers (BHAR) are positively associated, in line with the pollution haven hypothesis. However, target country wealth increases, and more stringent environmental regulation limits performance [111].

Based on the agency view perspective, Wang et al. [107] find that the benefit of target sustainability might have limits on long-term performance. Acquiring sustainability-overinvesting targets results in significant deteriorating financial performance measured in the level and change in ROA one year after the deal. This is especially true for firms with weak governance or retiring CEOs.

Relative Sustainability Implications for Financial Performance

Acquiring a target with superior sustainability performance (target spread) induces a positive value impact measured in post-deal changes in Tobin's Q based on samples in Europe and the US [9,106]. By learning from a target with stronger sustainability performance, changes in acquirers' Tobin's Q are relatively stronger, which underlines positive market value implications.

Analyzing the performance of acquisitions with the estimation of 24-month buy-and-hold abnormal returns, Choi and Kim [112] provide further support for value-enhancing effects. Supporting the target's superior sustainability (both the target's superior people- and product-related sustainability) will motivate target stakeholders to collaborate with the acquirer firm, indicating that the stock market values acquirers' efforts to strengthen their sustainability following the acquisition of firms with superior sustainability.

Further studies suggest that corporate social culture fit is relevant to explain long-term post-deal performance since it acts as a mechanism that minimizes potential synergy efforts and costs with respect to cultural compatibility [61,62]. A positive performance association of cultural similarity is found by significant positive one-year BHARs of US acquirers [61] and change in return on asset of the combined firm in the subsequent periods up to three years after the deals for international deals [62]. In line with this, ROA decline is amplified for low-sustainability acquirers if the target's sustainability level increases. The decline is expected as a consequence of relatively higher integration costs for low-sustainability acquirers [113]. Moreover, management capabilities and management traits are identified in US samples as playing an important moderating role in the acquisition performance of firms. By engaging in building a sustainability culture, high-skilled managers facilitate M&A success [61]. Non-overconfident CEO levels are found to be positively related to value creation using sustainability engagement [75].

5.2.2. Impact of M&A on Sustainability Performance

Implications of M&A for Acquirer Sustainability

Analyzing the overall sustainability performance, studies find positive effects of transactions on acquirers' sustainability up to three years after the deal [8,47]. On average, regression coefficients have a tendency towards an increase in impact on sustainability performance, which indicates a more efficient integration over longer periods of time. In the year of the deal, the authors find no significant associations in line with the view that sustainability strategies are not apparent from a short-term perspective [8,9].

For emerging countries, findings indicate the sustainability-promoting role of internationalization. From a learning theory perspective, cross-border M&As embody learning opportunities to explore new sustainability knowledge and practices [114]. Having access to resources and capabilities that would otherwise be unavailable to them, Chinese acquirers experience a sustainability improvement after cross-border transactions.

Based on signaling theory, Chen et al. [115] argue that Chinese firms signal their sustainability commitment through cross-border M&As. Accordingly, the authors discover significantly increased sustainability performance and increased sustainability spending following cross-border M&As. Legal origins and social norms of host countries with greater stakeholder orientation are relevant and influence the sustainability performance increase [115].

Moreover, Li and Wang [116] show for Chinese listed firms with cross-border M&A activities an improvement in subsequent sustainability performance motivated by reputation building and obtaining legitimacy in the international market. Also, sustainable environmental governance is positively impacted by green M&A in Chinese firms, since firms in heavy-polluting industries avoid legitimacy pressure by conducting green deals [117].

Implications of M&A for Acquirer Sustainability Relative to Target Sustainability

Aktas et al. [30] find in their international sample of deals between 1997 and 2007 that a rating spread between the target and the acquirer has a positive impact on sustainability performance. Acquirers increase sustainability performance following the acquisition of sustainability-aware targets by gaining knowledge from the target's experiences as well as practices.

Similarly, Tampakoudis and Anagnostopoulou [9] show that EU acquirers increase sustainability performance following the acquisition of a target that has higher sustainability performance. In line with the value-enhancing sustainability view of stakeholder theory, acquirers integrate the target's sustainability practices into their own sustainability in the post-merger stage.

Chen et al. [106] provide further evidence for US acquirers that gain from M&A deals with target spreads based on the perspective of learning from their targets. Choi and Kim [112] discover that acquirers generally adopt targets' superior product-related sustainability. This lends support to the research on growing green M&A transactions (acquiring a company with green technology). Moreover, it confirms the results of Gomes [64], who found that acquirers positively consider a target's product-related sustainability in US markets.

6. Discussion

6.1. Summary and Synthesis

Achieving sustainable development and preventing climate change impacts gains momentum via corporate regulations as well as corporate stakeholders [7]. Therefore, companies need to transform their business models and incorporate sustainability concepts into their investment decisions [12,13]. M&A activities are one of the most important investment decisions [66,115,118] for corporations. As the role of sustainability becomes of more strategic importance, research has grown over recent years [8,18]. Such development is also recognized in our sample with the current growth in archival research. Focusing on the geographical scope, a large part of the sample is international or US transactions. Also, there is a relatively large proportion of deals related to China. This might result from the launch of the 'Go Global' strategy of the Chinese government in 2000, which encourages Chinese firms to acquire strategic assets and expand business abroad [115,116]. Moreover, the pressure for a transition to environmentally friendly technologies is high in the Asia-Pacific region (especially China), as evidenced by it being the second-most active green deal region recently [13].

Overall, the data sources and definitions of sustainability performance vary among the analyzed studies, and the majority of studies use globally known sustainability ratings (e.g., Refinitiv (Asset4) or MSCI). Even though the examined studies are heterogeneous in terms of sustainability metrics, theoretical perspectives, and performance measures, useful insights and indications can be drawn towards deal origination and deal performance with respect to sustainability.

Regarding M&A target selection, acquirers' higher sustainability is found to reduce the M&A activity of liquidity-constrained firms, but it triggers bidders to be more likely to acquire targets with sustainability activity coverage [86].

With more strategic acquisitions (e.g., controlling interest), bidders pay attention to the target's social dimension [84]. This orientation could be because a strong social dimension might be helpful for the post-deal collaboration process and integration effectiveness [47].

In contrast, the environmental pillar is mostly concerned with the target selection stage when acquiring firms that pursue emission risk mitigation acquisitions cross-border [76,77]. This is expected to result from heterogeneous strictness and aspirations in environmental policies across countries [11]. Firms facing domestically high carbon risks could potentially outsource their carbon risks to foreign targets in developing countries with lax environmental standards [76]. Indicating a corporation's carbon risk plays a critically important role for developed country acquirers in M&A target decisions and supports the theoretical basis of the pollution haven hypothesis [94].

For target companies, the findings indicate that better pre-deal sustainability leads to higher probabilities of becoming a M&A target, either as a source of differentiation or due to reduced information asymmetry [26,79].

In contrast, mixed findings on the relevance of the acquirer's sustainability for offering bid premia exist, which might indicate that non-unitary sustainability effects exist for this aspect [66]. Therefore, the results might differ across countries. Looking at the outcomes of acquisition bid premia from a sustainability perspective, the review indicates that the target firm's sustainability performance is a determining factor. Overall, an indication is that higher target sustainability in the pre-deal stage leads to higher premia [64,65,92].

Also, findings on acquirers' pre-deal sustainability performance on announcement returns are heterogeneous, while the association between the sustainability performance of targets and acquirers' announcement returns indicates positive directions when targets are not sustainability overinvested [30,104,107].

For payment methods, studies reveal that deals performed by acquirers with sustainability coverage and by acquirers with higher sustainability are positively associated with the probability of cash offers [67,86]. Targets' sustainability coverage also improves the probability of cash offers as a source of incremental information.

However, the results for payment methods are not robust, and the association depends on the regional sample in focus. For US and Australian samples, cash payments are associated with acquirer sustainability [67,86].

In contrast, findings for Chinese acquirers' postulate that high-sustainability acquirers in China are inclined to choose equity payments [68].

Eventually, the impact of sustainability on post-deal performance will be, to some extent, uniform. Acquirers' sustainability performance is mostly expected to be beneficial for their long-term financial performance [47,48,52]. These results are confirmed by using market-based or accounting-based financial performance proxies. Across different samples with different sustainability metrics that analyze different financial performance measures, a positive association is found in 10 different studies. This represents the most frequently researched and robust results in our research sample. Details are listed in Table 2.

Table 2. Major results on relevance and implications of sustainability in M&A.

M&A Stage	Sustainability Focus	Sustainability Rating	Performance Measure	Result	Conclusion	Sample	Years	Authors
Pre-deal								
Target Selection	Acquirer sustainability—M&A activity	KLD	Six measures of empire building tendency: (1) number of acquisitions; (2) dummy variable for acquisitions; (3) acquisition ratio; (4) asset growth; (5) capital expenditure growth; (6) property, plant, and equipment growth	Lower propensity to engage	Negative trend	US	1996–2015	Gul, FA; Krishnamurti, C; Shams, S; Chowdhury, H [75]
		KLD	Two measures of M&A investment: (1) number of M&A and (2) M&A ratio	Negative relationship		US	1999–2016	Krishnamurti, C; Shams, S; Chowdhury, H [63]
Bid Premium	Target sustainability	ASSET4	Premium: the acquisition price per share offered to target shareholders less the target's stock price 42 days prior to the acquisition announcement, deflated by the target's stock price 42 days prior to the acquisition	Positive link	Positive trend	International	2003–2014	Gomes, M; Marsat, S [64]
		KLD	The percentage difference between the foreign acquiring firm's offer price and the target firm's pre-acquisition market value four weeks prior	Higher premium		International	1991–2016	Qiao, L; Wu, JF [92]
		KLD	Deal premium: operationalization of Gomes and Marsat (2018) [64]	Positive link to premium		US, Service Industry	1996–2018	Ozdemir, O; Binesh, F; Erkmen, E [65]
Payment Method	Target sustainability	KLD	Binary variable: value of 1 if the payment method is in cash only form and 0 if the payment method is in the form of stock or combination	Positive association	Positive trend	US	1992–2014	Hussaini, M; Rigoni, U; Perego, P [67]
		CSMAR	Binary variable: equals 1 for cash payment and 0 for share payment	Preference cash payment		China	2007–2018	Li, K; He, CH; Dbouk, W; Zhao, K [68]
Announcement return	Relative sustainability—target spread	ASSET4	Acquirer's cumulative abnormal return (CAR) and its standardization (SCAR) for period windows (−5; +5), (−2; +2), and (−1; +1)	Higher value	Positive trend	20 countries	n.a.	Teti, E; Dell'Acqua, A; Bonsi, P [105]
		KLD	5-day cumulative abnormal return for the target (TCAR) and acquirer cumulative abnormal return (ACAR) over event window	Higher gains		US	1995–2014	Chen, C; Lu, WJ; Liu, M [106]

Table 2. *Cont.*

M&A Stage	Sustainability Focus	Sustainability Rating	Performance Measure	Result	Conclusion	Sample	Years	Authors
Post-deal								
Long-term financial performance	Acquirer sustainability	KLD	High CSR acquirers' hedge portfolio abnormal returns for holding periods of one, two and three years	Higher returns	Positive trend/non-negative trend	US	1992–2007	Deng, X; Kang, JK; Low, BS [52]
		ASSET4	Cumulative Abnormal Returns (CAR) over the 36 months following the acquisition	Positive association		US	2002–2010	Bettinazzi, ELM; Zollo, M [108]
		Rankins CSR Ratings	Difference in earnings per share (DiffEPS) between the period from one year before to one year after the M&A deals	Positive effect		China	2012–2014	Qiao, MZ; Xu, SW; Wu, GD [58]
		Sino-Securities Index	Buy-and-hold abnormal return (BHAR) and post-M&A accounting performance: RoA, RoE (one year post-M&A)	Positive correlation		China	2011–2019	Zheng, ZG; Li, JR; Ren, XZ; Guo, JM [109]
		Refinitiv	Accounting-based performance measure: RoA Market-based performance measure: Tobin's Q	Improved performance		America	2003–2020	Huang, CJ; Ke, WC; Chiang, RPY; Jhong, YC [48]
		ASSET4	Accounting ratio up to three years after the announcement of the deal	Significantly correlated		Target of hospitality sector	2000–2019	Caiazza, S; Galloppo, G; Paimanova, V [47]
		KCGS ratings	Two-year average of the acquiring firm's year-end net income divided by its total assets after the completion of M&A (ROA)	Positive effect		Korean Stock Price Index	2012–2018	Kim, BJ; Jung, JY; Cho, SW [110]
		KLD	Long-run stock returns, both equally weighted and value-weighted returns, for monthly buy-and-hold returns earned by the acquirer for the 36-month period following the acquisition month	Create value		US	1999–2016	Krishnamurti, C; Shams, S; Chowdhury, H [63]
		Hexun Finance	Return on asset difference (ROA): 1, 2, 3, 4, and 5 years after M&A	Not Improved		China	2010–2017	Li, MH; Lan, FQ; Zhang, F [101]
		ASSET4	Pre-tax operating cash flow	Not Improved		23 emerging markets	2008–2014	Yen, T; André, P [89]

Table 2. *Cont.*

M&A Stage	Sustainability Focus	Sustainability Rating	Performance Measure	Result	Conclusion	Sample	Years	Authors
Long-term financial performance	Relative sustainability—target spread	ASSET4	Tobin's Q as a proxy to measure the acquirer's market value; change in Tobin's Q as the ratio of the difference between the acquirer's Tobin's Q in the years after and before the merger announcement	Positive relationship	Positive trend	EU	2003–2017	Tampakoudis, I; Anagnostopoulou, E [9]
		KLD	Acquirer buy-and-hold abnormal returns (BHAR) around the deal announcement date: estimated 24 months following the deal announcement date	Higher stock returns		US	1995–2013	Choi, G; Kim, TN [112]
		KLD	Changes in Tobin's Q ratio for the two groups in the 3 years before and after the M&A announcement	Higher acquirer gains		US	1995–2014	Chen, C; Lu, WJ; Liu, M [106]
Long-term financial performance	Relative sustainability—culture proximity	KLD	Acquirer's long-term performance is measured by one-year buy-and-hold abnormal returns (BHAR)	Significant positive returns	Positive trend	US	1992–2017	Doukas, JA; Zhang, RY [61]
		ASSET4	Impact of the target's ESG score on the acquirer's ROA change	Relieved decline		International deals	2000–2020	Feng, X [113]
		EIRIS	Change in return on asset (Δ ROA) one, two, and three years post-deal operating performance regressions	Higher long-run returns		22 developed markets	2004–2012	Alexandridis, G; Hoepner, AGF; Huang, ZY; Oikonomou, I [62]
Sustainability performance	Acquirer sustainability—cross-border activity	Rankins CSR Ratings (RKS)	Overall measure of CSR performance provided by the RKS rating agency, as in prior empirical studies	Subsequent Improvement	Positive trend	China	2009–2017	Li, Z; Wang, P [116]
		Rankins CSR Ratings (RKS)	Overall measure of CSR performance provided by the RKS rating agency	Significant increase		China	2008–2015	Chen, XM; Liang, X; Wu, H [115]
		Chinese Corporate Social Responsibilities data	Three levels of CSR scores based on existing research and the CCSR database	Positive and significant impact		China	2007–2018	Yang, N; Zhang, Y; Yu, L; Wang, J; Liu, XM [114]
Sustainability performance	Relative sustainability—target spread	IVA	Change in acquirer rating subsequent to the announcement of the M&A deal	Positively associated	Positive trend	International	1997–2007	Aktas, N; de Bodt, E; Cousin, J [30]
		ASSET4	Relative ESG performance of targets and the ratio of the change in acquirers' ESG performance	Increase following acquisition		EU	2003–2017	Tampakoudis, I; Anagnostopoulou, E [9]
		KLD	Change in acquirer's adjusted CSR scores in the year after M&As compared to those before	Higher acquirer gains		US	1995–2014	Chen, C; Lu, WJ; Liu, M [106]

Exceptions are found for acquirers' sustainability based on the view of investors' individual concerns for a study in China and an emerging market study. Only non-positive results are found. Additionally, one study indicates that deals including targets that are overinvested in sustainability negatively influence post-deal financial performance [101,107].

Examining the link between M&A activity and post-deal sustainability performance, the findings indicate mostly positive relationships. Therefore, acquirers are expected to experience increased sustainability performance in transactions through learning channels. Two potential mechanisms have been identified for knowledge transfer: on the one hand, the portability of strong sustainability from acquirers to targets [96] and, on the other hand, the learning potential from stronger sustainability targets [9,106,119]. Also, an improvement in post-deal sustainability performance is found for the cross-border transactions of Chinese acquirers. Three studies, covering two different sustainability databases, find a positive trend, providing evidence [114–116].

Comparing the research focus and number of findings, academics seem to be more interested in the topics of deal performance and financial performance. This is in line with other reviews, and consequently, more research on deal origination with a focus on target selection, bid premia, and payment method is recommended [22].

Overall, research on the role of a company's single sustainability pillars—the environment; social; and governance—provides an indication of disentangled findings on financial and sustainability performance. For announcement returns, the governance pillar of targets might be relevant [105]. Other studies on cross-border M&As show that the social contribution of businesses could significantly boost announcement returns [120]. In the context of long-term performance, post-merger revenue is found to be boosted by environmental performance [48]. For financial performance, studies indicate that the social pillar is relatively more influential from a long-term perspective [48,109].

Post-deal sustainability performance might also be primarily driven by companies' pre-deal social pillar in comparison to other pillars [47]. Therefore, studies argue that involving employees and community orientation in business development is relevant for enterprises [89]. Also, a first indication is revealed: acquirers place a high value on the target's product-related sustainability [112].

From an industry perspective, energy or carbon-intensive sectors will probably pay relatively more attention to environmental country or company characteristics [76,94], while intangible industries (e.g., service industries) might be more rewarded in transactions for social dimensions. Therefore, further disentangling of companies' sustainability pillar effects will be helpful to create transparency.

From a theory point of view, support for signaling theory in the context of bid premia and target sustainability is supported [64,65]. Target sustainability performance is perceived positively and relatively (target spread), which helps to promote better target valuation [60,68]. Looking at theory in the post-deal stage, stakeholder theory is highly supported by findings for long-term financial performance. Acquirer sustainability performance and orientation towards stakeholders seem to be value-creating elements for post-deal financial performance in M&A [48,52,108]. Evidence is also provided by target spreads and the positive implications for post-financial performance [9,106]. With respect to post-deal sustainability performance, the findings support learning theory [9,30]. The indication is that post-deal improvements can be realized by acquirers via learning and integrating sustainability practices from targets. The main results of the review are presented in Table 2.

6.2. Limitations and Future Research

The literature review has methodological limitations, which have to be mentioned. Even using the Web of Science database, which is one of the largest databases, and applying several search term combinations, it is possible that relevant studies have not been captured. Furthermore, one cannot rule out that studies using certain terms have not been covered by our search terms.

In addition, the limitation of the sample to peer-reviewed English-language journals means that relevant literature in non-English journals has not been considered. Also, we do not include unpublished studies. Therefore, a publication bias might be present, caused by the selective publishing of studies with significant or favorable results compared to nonsignificant or unfavorable findings [121].

Moreover, the categorization of the articles has been carefully performed by the authors. But one cannot rule out the false classification of articles occurring.

Looking at the current research, useful insights into the relationship between sustainability and M&A have been provided. Overall, further research and reflection are required in this context [20]. Based on the review sample, the following gaps were identified and can be closed by future research. Generally, mixed findings on the relevance of the acquirer's sustainability in offering bid premia exist. Studies find positive, negative, and non-relevance of acquirer sustainability depending on the samples analyzed. Further research could help to clarify whether non-unitary sustainability effects exist for this aspect or whether different regulations, societal preferences, and institutional factors may derive varying effects.

With respect to country or regional research gaps, further analysis of cross-border samples in international settings is a potential starting point. While, for US samples, acquirer sustainability is found to be associated with less M&A activity [63,75], the association has not yet been confirmed for cross-border samples.

Also, further analysis of US samples represents another starting point. Improvement in post-deal sustainability performance is found for the cross-border transactions of Chinese acquirers [114–116]. Since companies globally need to address sustainability improvements, it would be relevant to confirm whether this pattern is also valid for other regional acquirers and whether M&A works as a tool for promoting sustainability performance globally.

Furthermore, researchers with a regional focus on the Asia-Pacific, especially China, can contribute by confirming or rejecting the previous findings of other regions. Looking at the pre-deal stage, a positive association between target sustainability and relative target sustainability (target spread) on bid premia is revealed by US samples but has not yet been analyzed for Chinese samples [60]. To confirm that the sustainability of Chinese target companies is also positively associated with bid premia will help further the robustness of this indication. For both financial and sustainability performance, implications can be addressed. For financial performance, there should be a focus on a follow-up on the non-positive association between acquirer sustainability and short-term announcement performance [102], which currently contradicts the widely found positive results for other regions. Confirmation of the positive influence of superior target sustainability (target spread) on the post-deal sustainability performance of Chinese acquirers has yet to be confirmed. The implication is only found in EU samples and US samples [9,106].

Also, robustness checks for findings indicated by one single sustainability rating only must be performed to mitigate the variability driven by different ratings, for instance, the Refinitiv (Asset4) application for reviewing M&A activity and the association between bid premium and target spread. Additionally, the MSCI (KLD) application should be used for confirming announcement return studies indicating negative hostile takeover or economic downturn implications.

In addition, the identified gaps, several open questions provide potential avenues for future research. One of those fields is the influence of companies' single sustainability pillars. As the number of studies that analyze the influence of companies' single sustainability pillars is still limited, further disentangling of effects and the relevance of companies' single pillars provide promising options for research [8,47,48]. Studies could analyze which single pillar is relevant in which stage of M&A deals. It might be that different sustainability pillars have different relevance and implications for different M&A stages (e.g., pre- and post-deal), as indicated for the social dimension in the post-deal stage [47].

Moreover, some studies have no significant findings on international samples [66] or contradictory results compared to research conducted on different regional samples with the same research focus [86,87]. Therefore, research on the linkage between M&A and sustainability could more deeply focus on different societal preferences, regulations, and institutional factors that may induce varying effects of sustainability from country to country and shift from whether it pays to be sustainable to when it pays to be sustainable in M&A.

The non-unitary relevance of sustainability and its implications across industries might cause differing study results as well. Targeting sector-specific samples might be promising to reveal more industry-specific results. Such research could provide transparency in terms of the generalizability of sustainability implications.

The identified effect of sustainability overinvestment in M&A [107] could be more thoroughly investigated to identify optimal levels of sustainability performance and investment. The optimum level of sustainability performance and the respective optimal investment level might vary across industries and across single sustainability pillars too. Eventually, further focusing on the relative sustainability performance characteristics of acquirers and targets in deals is recommended, as research shows that sustainability implications in M&A depend (also) on relative metrics (e.g., company or country level) relative to each other [9,76,96,106].

Moreover, several ongoing developments provide potential avenues for future research. From a regulatory point of view, the introduction of new sustainability reporting standards (e.g., European sustainability reporting standards) with a greater amount of sustainability disclosure might help to overcome the current issue of non-available sustainability information. A higher amount of sustainability reporting might also help to improve the analysis of companies' single pillars [9,105]. In contrast, disagreements across sustainability ratings [41,122] might not necessarily be solved since higher sustainability disclosure is found to induce higher disagreements across ratings [123].

Therefore, the dynamic regulatory environment also represents an attractive research opportunity for harmonized sustainability performance. Findings about the positive influences of M&A activity on sustainability performance have been provided in relation to different sustainability ratings [8,47,114]. As there is no single definition of sustainability, harmonized concepts like the EU Taxonomy, which reduces measurement divergences, could be analyzed [122]. Further research could analyze to what extent M&A activity may play a role for companies in achieving high EU Taxonomy performance [8,10]. Future research might also evaluate whether the EU Taxonomy regulation and its three key performance indicators represent a motive for M&A, since M&A transactions can take place after changes in regulation as a form of efficiency-improving mechanism [118,124]. Also, research into the sustainability implications for other M&A deal stages, like deal completion or deal duration, is another option.

6.3. Contribution and Implications

This study contributes to the literature on the link between sustainability and M&A by reviewing and synthesizing sustainability implications in the pre- and post-deal stages. The following contributions and implications are provided from theoretical, managerial, and regulatory perspectives.

6.3.1. Research and Theoretical Implications

First, by systematizing the current state of research in the pre-deal as well as post-deal stages and linking the roles of acquirer and target sustainability, the literature review supports a transparent overview and understanding from both parties involved in transactions. From a research point of view, evolving interest and an increasing number of publications in recent years underline the growing interest in the field of sustainability and M&A, confirming that deal performance implications are relatively more researched by scholars in comparison to deal origination stages. There is an application of heterogeneous sustainability metrics in research, requiring transparent disclosures to enable comparability.

Secondly, our review focuses on the theoretical rationale in the examined studies and provides further insights into the theoretical basis for explaining sustainability implications. The reviewed literature provides support for the theoretical benefits of stakeholder theory. Numerous studies and results indicate that companies' orientation towards stakeholders has positive implications in M&A stages. Acquirers and targets can benefit in the deal stages if they invest adequately in sustainability performance. Also, learning theory and learning acquisition channels from sustainable targets have been identified as an underlying rationale for the post-deal sustainability improvement of acquirers, therefore supporting learning opportunities through M&A. Moreover, signaling theory seems to underlie a positive valuation for target sustainability in financial diligence. In contrast, shareholder views and the cost of sustainability are only marginal rationales in the context of acquirer sustainability, economic downturns, and overinvestment cases.

6.3.2. Practical Implications

Eventually, our study will also have managerial implications. Despite the relatively little focus on sustainability in the vast M&A research [48], this literature review indicates that sustainability plays a pertinent role in M&A deal stages. Consequently, companies involved in M&A are recommended to focus on sustainability dimensions in the pre- and post-deal stages. Based on the reviewed literature, recommendations for practitioners are as follows: With respect to pre-deal stages, potential target companies and acquirer companies have benefits if they account for sustainability aspects. For potential targets that aspire to achieve a higher valuation (bid premium), it pays off to invest in sustainability since a better pre-deal sustainability performance is expected to increase valuation. If acquirers aim to achieve a positive influence on the announcement effect on stock performance, a closer look at the sustainability performance of the target is helpful. Investing in targets with a relatively better sustainability (target spread) has positive implications for cumulative returns, as studies indicate. But acquisitions of targets that are overinvested in sustainability might come with negative market reactions. In terms of post-deal performance, the indication is that higher acquirer pre-deal sustainability will boost post-deal long-term financial performance. Therefore, improving acquirer sustainability before deals should be considered. If a company has the aspiration to improve sustainability performance via M&A, acquiring a target with stronger sustainability (target spread) may be a strategy to look into. Cross-border deals pay off for Chinese acquirers in terms of post-deal sustainability performance improvement, as studies indicate. In contrast, the identified aspects might cause sustainability not to pay off. Consequently, practitioners should keep in mind the following aspects: First, during times of economic downturn, the costs of sustainability activities tend to outweigh the possible gains and reflect negatively on the performance of sustainability. Second, market announcement reactions are negative for hostile takeovers for high-sustainability acquirers, as investors depreciate the market return of a high CSR acquirer for their opportunistic action of a hostile takeover. Even though target sustainability is mostly beneficial for performance, acquiring sustainability overinvested targets does not pay off in improving announcement and post-deal financial performance.

In the industry-specific context of labor-intensive firms, target sustainability is even more crucial for valuation. The positive effect of target sustainability on bid premia is even stronger for intangible industries [65]. Carbon risks facing manufacturing companies can be considered in cross-border deals with targets having weaker environmental regulation (pollution havens) for announcement and post-deal financial performance value creation [76,94,111]. However, from a sustainability aspiration standpoint or an image risk standpoint, this should be critically considered.

Looking at different deal types, moderating elements must be considered. Bid premia in cross-border deals are usually weakened by higher cultural and institutional distance [92]. The influence on post-deal sustainability performance increases with host country stakeholder-oriented legal origins and social norms [115]. Domestic deals reveal that business-relatedness positively facilitates acquirer sustainability and has an impact on post-deal financial performance [58,108]. Also, management capabilities and the CEO trait of non-overconfidence promote financial value creation [61,75].

Also, with respect to the evolving regulatory setting of sustainability, greater attention must be paid to sustainability issues [21]. Overall, embedding sustainability more holistically in the M&A process with sustainability due diligence processes and M&A agreements is recommended [48]. Also, strategic consideration in advance of M&A transactions to prepare and secure the best deal outcomes is recommended (e.g., managing pre-deal sustainability performance on the sell side), as is considering M&A as an instrument to shape the sustainability performance dimension.

6.3.3. Regulatory Implications

Finally, with our review, financial market participants and regulators can understand how acquirer and target sustainability performance influence deal origination stages and post-deal M&A performance from a financial as well as a sustainability performance perspective.

International frameworks address climate change and sustainable development [7]. However, looking at how sustainability is defined and measured in the reviewed studies, it becomes clear that there is no common definition of a sustainability performance metric. Considering the reviewed literature, more than ten different sources for measuring sustainability have been applied. The difference in ratings is particularly pronounced in different regions and renders comparability to some degree limited.

Higher sustainability disclosures are not appropriate for tackling this. In contrast, disagreements across sustainability ratings [41,122] might not necessarily be solved since higher sustainability disclosure is found to induce higher disagreements across ratings [123]. Therefore, a more standardized system for measuring sustainability might be helpful. Regulations like the EU Taxonomy, which standardizes six environmental goals in the EU, might be a good option.

Different regional priorities and stringencies on sustainability might limit the effectiveness of global sustainability aspirations. The indication that cross-border M&A is potentially used as a carbon risk reduction tool by carbon-intensive manufacturing firms to relocate polluting activities to developing countries indicates this [76,77,94]. Without global coordination, strengthening domestic environmental policies could create an unintended negative externality, pushing firms to pollute elsewhere [11]. Therefore, regulators should consider further harmonizing national environmental regulation to avoid regulatory arbitrage opportunities in M&A transactions in order to further support international agreements and sustainable development transformation.

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Appendix A. Literature Overview on Relevance and Implications of Sustainability in M&A

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
RQ1: How does sustainability impact target selection?								
					Acquirer sustainability			
1	M&A activity	Krishnamurti, C; Shams, S; Chowdhury, H, 2021 [63]	Australian Journal of Management	Archival	KLD	US, 1999–2016	Stakeholder theory; conflict resolution hypothesis	Financially constrained firms that engage in sustainability reduce M&A activity (trade-off); alignment of stakeholders and shareholders for value-maximization purposes
2		Gul, FA; Krishnamurti, C; Shams, S; Chowdhury, H, 2020 [75]	Journal of Business Research	Archival	KLD	US, 1996–2015	Agency and stakeholder theoretic perspectives	Sustainability activity at the firm level is negatively related to M&A activity proxying empire-building tendency; CEO overconfidence to increase acquisition activity
3	High emission; carbon risks	Bose, S; Minnick, K; Shams, S, 2021 [76]	Journal of Corporate Finance	Archival	ASSET4, CDP	31 countries, 2006–2018	Carbon risk mitigation; offshore carbon risk	Increased probabilities of acquiring foreign target for high emission bidders; cross-border M&A as a tool for diversifying carbon emissions risk
4		Guo, JQ; Cheng, H, 2023 [77]	Environment, Development and Sustainability	Archival	ASSET4	China, 2002–2021	World-systems theory	China, rather than developed countries targeted for cross-border activity by acquirers with carbon risks in place, is an effective way to reduce the high costs caused by carbon risks
5		Leon-Gonzalez, R; Tole, L, 2015 [78]	Review of Economic Analysis	Archival	Publicly available (e.g., World Bank, ISO), proprietary dataset	Mining industry worldwide, 1994–2006	Pollution haven hypothesis; environmental stringency in M&A	Countries with weak environmental standards are not attracting companies in the mining industry for foreign investment; industry should focus on policies that improve their environmental record to attract foreign investment
					Target sustainability			
6	Target probability	Gomes, M, 2019 [26]	Finance Research Letters	Archival	ASSET4	International, 2003–2014	Information asymmetry; integration cost; risk reduction	Positive relation between sustainability performance and firms' probability of being targeted in transactions; negative outcomes decreased; potential cost savings and risk reduction
7		Ma, X; Xu, XH; Jiang, MB, 2020 [79]	Asia-Pacific Journal of Accounting and Economics	Archival	Rankins CSR Ratings (RKS)	Cross-border China, 2008–2016	Agency theory; sustainability as a product differentiation device	Likelihood of being targeted in M&A in cross-border deals via enhanced sustainability; sustainability as a product differentiation device in competitive markets
8		Fairhurst, D; Greene, DT, 2022 [85]	Journal of Corporate Finance	Archival	KLD	n. a., 1996–2016	Agency theory; sustainability over- or underinvestment correction	Increasing probability of takeover induced by under- and overinvestment in sustainability; the takeover market acts as an external governance mechanism
9	Target social policy	Dicu, RM; Robu, IB; Aevoae, GM; Mardiros, DN, 2020 [84]	Sustainability	Archival	Orbis	Romania, 2010–2018	Stakeholder theory; cost of employees of a target company hypothesis	Sustainable employee policy as a central interest when acquiring (controlling) interest in a target firm; attention to achieve synergies

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
					Relative sustainability			
10	Target proximity	Krishnamurti, C; Shams, S; Pensiero, D; Velayutham, E, 2019 [86]	Pacific-Basin Finance Journal	Archival	ASSET4	Australia, 2000–2016	Stakeholder theory: minimize social and environmental risks	Higher likelihood of acquiring targets with sustainability practices by sustainability-oriented bidders; better cultural fit; and lower social and environmental risks as motives
RQ2: How does sustainability impact bid premia?								
					Acquirer sustainability			
1	Shareholder expense	Hussaini, M; Hussain, N; Nguyen, DK; Rigoni, U, 2021 [87]	Finance Research Letters	Archival	MSCI	US, 1992–2014	Agency theory; shareholder expense view	Higher takeover premia paid by acquirers with high sustainability performance; personal objectives as a motivation for management's sustainability engagement
2	Ethical attitude	Krishnamurti, C; Shams, S; Pensiero, D; Velayutham, E, 2019 [86]	Pacific-Basin Finance Journal	Archival	ASSET4	Australia, 2000–2016	Agency theory; ethically oriented CEOs	Lower likelihood of bid premia by socially responsible firms; ethical attitude of CEOs as a source for high sustainability scores
3	Trade-off	Krishnamurti, C; Shams, S; Chowdhury, H, 2021 [63]	Australian Journal of Management	Archival	KLD	US, 1999–2016	Stakeholder theory; conflict resolution view	Companies deciding to trade off between sustainability and M&A investment pay a lower bid premium to target firms for value-creation purposes for acquiring shareholders; the interests of shareholders and stakeholders are aligned by socially responsible managers to promote sustainability while M&A investment levels remain low
4	Topical complexity	Jost, S; Erben, S; Ottenstein, P; Zulch, H, 2022 [66]	Finance Research Letters	Archival	ASSET4	International, 2003–2018	Complexity cannot be fully explained by shareholder or stakeholder theory alone	Size of M&A premia impacted by neither acquirers' nor targets' sustainability performance alone; mitigation potential of agency concerns as M&A premia negatively associated with acquirers' governance quality and sustainability performance
					Target sustainability			
5	Information asymmetry	Gomes, M; Marsat, S, 2018 [64]	Finance Research Letters	Archival	ASSET4	International, 2003–2014	Information asymmetry; mitigate the amount of additional risk	Targets' overall sustainability performance is positively associated with acquisition premium (positive signals, lower specific risk); only in cross-border deals impacted by social performance
6	Competitive advantage	Qiao, L; Wu, JF, 2019 [92]	Sustainability	Archival	KLD	International cross-border, 1991–2016	Resourced-based view; better social image; and larger social networks	Higher likelihood of acquisition premium in cases of socially responsible target (sustained competitive advantage); increasing number of fellow acquisitions; institutional and cultural distance to weaken effect

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
7	Signaling	Ozdemir, O; Binesh, F; Erkmen, E, 2022 [65]	Review of Managerial Science	Archival	KLD	US Service industry, 1996–2018	Signaling theory; intangibility of industry	Sustainability performance of targets with increasing effect on deal premia; intangibility of industry to strengthen relations (service firms with more profound effects compared to non-service firms)
				Relative sustainability				
8	Target spread	Cho, K; Han, SH; Kim, HJ; Kim, S, 2021 [60]	Corporate Social Responsibility and Environmental Management	Archival	KLD	US, 1993–2016	Stakeholder theory: knowledge will increase or maintain relations	Stronger target sustainability performance relative to the acquirer (target spread) to induce a higher premium; takeovers by well-governed acquirers to pronounce sustainability effect in valuation
9	Synergy and insurance	Li, K; He, CH; Dbouk, W; Zhao, K; 2021 [68]	Sustainability	Archival	China Stock Market and Accounting Research (CSMAR)	China, 2007–2018	Synergy and post-merger effects; risk mitigation (insurance)	Higher payment of prices and acquisition premia for socially responsible targets; high-sustainability performance of acquirers to reinforce the effect
10	Pollution haven	Ahmad, MF; Aziz, S; Michiels, Y; Nguyen, DK, 2023 [94]	European Financial Management	Archival	Environmental Performance Index (EPI)	International cross-border, 1991–2016	Resourced-based view; pollution haven hypothesis	With greater environmental differences between acquirer and target countries, acquirer firms pay higher merger premiums; association is reinforced for both the acquirer and the target firm when deals are conducted in polluting industries
RQ3: How does sustainability impact payment methods?								
				Acquirer sustainability				
1	Agency cost; risk reduction	Krishnamurti, C; Shams, S; Pensiero, D; Velayutham, E, 2019 [86]	Pacific-Basin Finance Journal	Archival	ASSET4	Australia, 2000–2016	Stakeholder value maximization view	Cash-only payments in acquisitions have a higher likelihood when the acquirer is a high-sustainability firm
2		Hussaini, M; Rigoni, U; Perego, P, 2023 [67]	Business Strategy and the Environment	Archival	KLD	US, 1992–2014	Information asymmetry	The likelihood of cash offers increasing with the sustainability coverage of acquirers and a positive relationship between cash offers and acquirer sustainability concerns
3	Regional investor preference	Li, K; He, CH; Dbouk, W; Zhao, K, 2021 [68]	Sustainability	Archival	China Stock Market and Accounting Research (CSMAR)	China, 2007–2018	Information asymmetry; agency theory; deal risks	Equity payments are preferred by acquirers with high sustainability performance; there is a higher probability of financing being performed as cash payments when the target company has higher sustainability performance
4	Economic downturn	Kanungo, RP, 2021 [95]	Industrial Marketing Management	Archival	CSRHub database	UK, 2007–2010	Information asymmetry	Choice of payment is influenced by the financial crisis; the likelihood of stock payments is higher for sustainability-pursuing acquirers during crises

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
					Target sustainability			
5	Information asymmetry, investor concerns	Hussaini, M; Rigoni, U; Perego, P, 2023 [67]	Business Strategy and the Environment	Archival	KLD	US, 1992–2014	Information asymmetry	Cash offers are positively associated with sustainability when covered by targets (incremental information reduces information asymmetry); there is no effect of target sustainability strength on payment type
6		Li, K; He, CH; Dbouk, W; Zhao, K, 2021 [68]	Sustainability	Archival	China Stock Market and Accounting Research (CSMAR)	China, 2007–2018	Information asymmetry; agency theory; risk	Equity payments are preferred by acquirers with high sustainability performance; there is a higher probability of financing being performed as cash payments when the target company has higher sustainability performance
					Relative sustainability			
7	Portability; exposure to governance standards	Hussain, T; Shams, S, 2022 [96]	International Review of Financial Analysis	Archival	Refinitiv	International, 2003–2016	Portability theory: stock deals as an instrument for governance changes	Bidder companies with better pre-deal sustainability than the target company use stock payments to enable governance changes in line with the portability of good sustainability standards
8	Culture fit; uncertainties	Alexandridis, G; Hoepner, AGF; Huang, ZY; Oikonomou, I, 2022 [62]	British Accounting Review	Archival	EIRIS	22 International markets, 2004–2012	Corporate cultural divergence; cultural clash hypothesis	Higher probability of cash payments for deals when divergence of corporate social culture between acquirer and target is widening
RQ4: How does sustainability impact short-term announcement (financial) performance?								
					Acquirer sustainability			
1	Stakeholder view	Deng, X; Kang, JK; Low, BS, 2013 [52]	Journal of Financial Economics	Archival	KLD	US, 1992–2007	Stakeholder theory	Higher merger announcement return realization by high-sustainability acquirers: the value-weighted portfolio of the acquirer and the target realize higher announcement returns
2		Shi, JY; Yu, CH; Li, YX, 2022 [100]	Emerging Markets Finance and Trade	Archival	China Stock Market and Accounting Research (CSMAR)	China cross-border, 2010–2018	Stakeholder and shareholder theory complementarity; two long competitive theories	Higher CAR realization by acquirers having extremely low or high levels of sustainability; non-linear U-shaped relation around the announcement of cross-border deals; net reaction to be interpreted as the net result of positive and negative reactions
3		Arouri, M; Gomes, M; Pukthuanthong, K, 2019 [98]	Journal of Corporate Finance	Archival	ASSET4	International M&A, 2004–2016	Stakeholder theory	Market M&A outcome assessment is influenced by sustainability; perceived risk surrounding M&A operations is determined by sustainability; strong sustainability reduces M&A completion risk
4		Li, JJ; Wu, XM, 2022 [120]	Applied Economics Letters	Archival	Hexun Finance: divided CSR into four dimensions	China cross-border, 2010–2019	Theory of stakeholder interests	Non-unitary impact of sustainability on returns of cross-border M&As in China; promotion of acquirer returns for suppliers; consumer responsibility and social contribution of firms; negative effects of shareholder responsibility and environmental responsibility

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
5	Investor preferences, no sustainability consideration	Li, MH; Lan, FQ; Zhang, F, 2019 [101]	Sustainability	Archival	Hexun Finance	China, 2010–2017	Systematic and idiosyncratic risk; investor preferences	There is no significant sustainability impact on CAR; M&A premia are not reduced by better levels of the acquirer's sustainability; Chinese financial market investors without consideration of sustainability prior to M&A deals
6		Yen, T.; André, P., 2019 [89]	Quarterly Review of Economics and Finance	Archival	ASSET4	23 Emerging markets, 2008–2014	Investor cost–benefit: neither the positive stakeholder nor the negative shareholder view alone can explain the effects	Response to M&A events driven by the own cost–benefit concerns of investors for acquirers' pre-merger sustainability performance effects: acquirers' pre-merger sustainability performance is not considered a signal announcement by market investors with sustainability agency concerns
7		Zhang, F; Li, MH; Zhang, ML, 2019 [102]	Sustainability	Archival	Hexun Finance	China, 2010–2017	Effectiveness of China's securities market	Acquirers possessing lower sustainability performance in the year prior to a deal are more likely valued by the Chinese investor market; short-term profits of enterprises are in focus, and long-term sustainability is out of focus
8	Economic downturn	Tampakoudis, I; Noulas, A; Kiosses, N; Drogalas, G, 2021 [103]	Corporate Governance	Archival	ASSET4	US, 2018–2020	Shareholder theory; costs of sustainability activities	Acquiring shareholders experience negative valuation impacts for sustainability performance for the whole sample period and negative impacts exacerbated by the COVID-19 crisis; economic downturns indicate an outweighing of the cost of sustainability activities versus possible gains
9	Complexity, integration lead time	Caiazza, S; Galloppo, G; Paimanova, V, 2021 [47]	Journal of Cleaner Production	Archival	ASSET4	Hospitality sector for targets, 2000–2019	Complexity of the post-merger integration; integration problems	Sustainability and non-sustainability companies are not distinguished by investors on announcements; corporate sustainability capital is a process-winning strategy only for cases with long-term focus and consideration
10		Huang, CJ; Ke, WC; Chiang, RPY; Jhong, YC, 2023 [48]	Journal of Cleaner Production	Archival	Refinitiv	American acquirer, 2003–2020	Stakeholder theory; complexity of M&A operations	Synergy does not come immediately, and for short-term performance, sustainability is irrelevant; only one to three years after the announcement of M&A is sustainability relevant
11	Hostile takeover	Zhang, TT; Zhang, ZY; Yang, JY, 2022 [99]	Journal of Business Ethics	Archival	ASSET4	23 developed economies, 2002–2012	Stakeholder theory; insurance prevention; hostile takeover as a negative signal	Acquirer returns around announcement windows enhanced with pre-announcement sustainability engagement of an acquirer (insurance-like effect of sustainability engagement); offsetting of the insurance-like effect of the acquirer's high sustainability in case of hostile takeovers
					Target sustainability			
12	Learning opportunity	Aktas N; de Bodt E; Cousin J; 2011 [30]	Journal of Banking and Finance	Archival	Intangible Value Assessment (IVA); two components of the IVA score: environmental and social ratings	International, 1997–2007	SRI value-enhancing; learning hypothesis	Positive relation between acquirer abnormal returns and targets' social and environmental performance; the better the target's performance on environmental and social dimensions, the higher the gain for shareholders of acquirers

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
13	Stakeholder preservation	Tong, L; Wang, HL; Xia, J, 2020 [104]	Academy of Management Journal	Archival	KLD	US, 2000–2012	Stakeholder theory; stakeholder preservation perspective	Positive relation between the target sustainability and the abnormal return of the acquirer upon the announcements of acquisitions; association reinforced by higher levels of stakeholder value congruence and reduced by higher business similarity of transaction parties
14	Overinvested target	Wang, ZK; Lu, WJ; Liu, M, 2021 [107]	International Review of Financial Analysis	Archival	KLD (MSCI)	US, 1996–2007	Agency theory	Significantly declining market reactions to M&A announcements of acquirers when purchasing sustainability-overinvesting targets
					Relative sustainability			
15	Portability channel	Hussain, T; Shams, S, 2022 [96]	International Review of Financial Analysis	Archival	Refinitiv	International, 2003–2016	Portability theory	Portability of good sustainability standards in mergers as the takeover market works as a vehicle for it; positive stock-market reaction to announcements while distribution of returns is asymmetric for merging firms; bidders gain and targets lose value
16	Target spread	Teti, E; Dell'Acqua, A; Bonsi, P, 2022 [105]	Corporate Social Responsibility and Environmental Management	Archival	ASSET4	International, n.a.	Stakeholder theory: value creation taking over a target of higher sustainability performance	Acquisition of targets with higher sustainability beneficial for bidders (target spread); from the perspective of the stock market, a higher sustainability score to generate value; superior standards in corporate governance with a positive impact on takeover performance
17		Chen, C; Lu, WJ; Liu, M, 2022 [106]	Asia-Pacific Journal of Accounting and Economics	Archival	KLD	US, 1995–2014	Sustainability spread and synergy gain; learning from the target's CSR practices	Acquirer shareholders gain by investing in higher sustainability targets; the higher the acquirer gains, the stronger the target's sustainability performance relative to the acquirer firm
18	Carbon risk; pollution haven	Bose, S; Minnick, K; Shams, S, 2021 [76]	Journal of Corporate Finance	Archival	ASSET4	Across 31 countries, 2006–2018	Cost of carbon risk, carbon risk mitigation, and offshoring carbon risk	Acquirers with higher carbon emissions have lower announcement returns (emissions proxies are negative and statistically significant); cross-border acquisition announcement returns are expected to increase for high-carbon emitters acquiring targets located in weak regulation and governance countries with lower prosperity
19		Ahmad, MF; Aziz, S; Michiels, Y; Nguyen, DK, 2023 [94]	European Financial Management	Archival	Environmental Performance Index (EPI)	International cross-border, 2011–2020	Pollution haven hypothesis: an indicator of a firm's commitment or exploitation	Higher cumulative abnormal returns around merger announcements are realized with greater environmental sustainability differences between the acquirer and target countries

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
20	Culture; corporate proximity	Doukas, JA; Zhang, RY, 2021 [61]	Journal of Corporate Finance	Archival	KLD	US, 1992–2017	Cultural similarity/proximity; managerial ability	M&A synergies are constituted by corporate cultural similarity; higher cultural similarity levels lead to strong positive market reactions
21		Alexandridis, G; Hoepner, AGF; Huang, ZY; Oikonomou, I, 2022 [62]	British Accounting Review	Archival	EIRIS	22 international markets, 2004–2012	Corporate cultural divergence	Lower acquirer announcements and synergistic gains are triggered by a wider divergence between the sustainability corporate cultures of the acquiring and target entities
RQ5: How does sustainability impact long-term financial performance?								
					Acquirer sustainability			
1	Stakeholder view: marked-based performance	Deng, X; Kang, JK; Low, BS, 2013 [52]	Journal of Financial Economics	Archival	KLD	US, 1992–2007	Stakeholder value maximization view	Portfolios of high-sustainability acquirers realizing significantly positive abnormal returns for holding periods of two and three years indicate larger improvements in post-merger long-term operations; acquirers' social performance is identified as an important determinant of merger returns
2		Bettinazzi, ELM; Zollo, M, 2017 [108]	Strategic Management Journal	Archival	ASSET4	US, 2002–2010	Stakeholder-based view	Acquisition performance is positively associated with acquirers' stakeholder orientation; performance is positively moderated by business-relatedness (importance of knowledge transfer)
3		Qiao, MZ; Xu, SW; Wu, GD, 2018 [58]	Sustainability	Archival	Rankins CSR Ratings (RKS)	China, 2012–2014	Stakeholder and social contracts; geographical differences; synergy and spillover; learning effects	Acquirer's sustainability performance with a significant and positive effect on long-term M&A performance in China; more significant sustainability effects on M&A performance for related-party M&As; significant differences present across geographical regions in the association context
4		Zheng, ZG; Li, JR; Ren, XZ; Guo, JM, 2023 [109]	Pacific-Basin Finance Journal	Archival	Sino-Securities Index (SSI) ESG Rating	China, 2011–2019	Instrumental stakeholder theory: post-merger synergy creation	Acquirers' sustainability rating is positively associated with post-M&A performance; sustainability upgrade and downgrade effects depend on sustainability initial levels
5		Huang, CJ; Ke, WC; Chiang, RPY; Jhong, YC, 2023 [48]	Journal of Cleaner Production	Archival	Refinitiv	American acquirer, 2003–2020	Stakeholder theory: long-term synergy creation	Long-term M&A success by acquirers fulfilling environmental and social responsibility such as human rights, working conditions, health and safety, and career development and training; financial performance in M&A mostly impacted by social pillar

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
6	Stakeholder view: accounting-based performance	Caiazza, S; Galloppo, G; Paimanova, V, 2021 [47]	Journal of Cleaner Production	Archival	ASSET4	Hospitality sector for targets, 2000–2019	Complexity of the post-merger integration	In the long run, stronger social and sustainability capital involvement is likely associated with an improvement in corporate performance
7		Kim, BJ; Jung, JY; Cho, SW, 2022 [110]	Borsa Istanbul Review	Archival	KCGS ratings	Korean cross-border, 2012–2018	Stakeholder theory; business efficiency	Business performance in cross-border M&A is positively impacted by better sustainability engagement, overcoming diversification discounts through a friendly channel of sustainability engagement
8		Zheng, ZG; Li, JR; Ren, XZ; Guo, JM, 2023 [109]	Pacific-Basin Finance Journal	Archival	Sino-Securities Index (SSI) ESG Rating	China, 2011–2019	Instrumental stakeholder theory: post-merger synergy creation	Acquirers' sustainability rating is positively associated with post-M&A performance; sustainability upgrade and downgrade effects depend on sustainability initial levels
9		Huang, CJ; Ke, WC; Chiang, RPY; Jhong, YC, 2023 [48]	Journal of Cleaner Production	Archival	Refinitiv	American acquirer, 2003–2020	Stakeholder theory: long-term synergy creation	Long-term M&A success by acquirers fulfilling environmental and social responsibility such as human rights, working conditions, health and safety, and career development and training; financial performance in M&A mostly impacted by social pillar
10	Trade-off	Krishnamurti, C; Shams, S; Chowdhury, H, 2021 [63]	Australian Journal of Management	Archival	KLD	US, 1999–2016	Stakeholder theory; conflict resolution view	Linking negative sustainability–M&A relation (trade-off) to value creation proved by long-run stock returns; the tendency of sustainability firms' low engagements in M&A investments is valid only for firms with no financial slack; firm performance further positive impact of sustainability engagement on Tobin's Q when firm-level sustainability commitments increase alongside a reduction in the number of M&As
11	No long-term improvement: shareholder view; passive sustainability	Li, MH; Lan, FQ; Zhang, F, 2019 [101]	Sustainability	Archival	Hexun Finance	China, 2010–2017	Systematic and idiosyncratic risk; passive sustainability	M&A without improvement in the company's ROA for a long time; within one year after M&A, sustainability only increases the return on assets of the firm
12		Yen, T.; André, P., 2019 [89]	Quarterly Review of Economics and Finance	Archival	ASSET4	23 Emerging markets, 2008–2014	Shareholder and synergy hypothesis: short-term market performance based on investors' rational expectations	In the long run, cross-border deals conducted by emerging market sample acquirers fail to reveal significantly improving post-merger financials; there is a negative association between operating improvements and pre-merger sustainability performance

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
				Target sustainability				
13	Host country carbon emission: accounting performance	Liu, K; Wu, SY; Guo, N; Fang, QL, 2021 [111]	Journal of Cleaner Production	Archival	WDI (World Development Indicators) database	Chinese listed companies cross-border, 2007–2016	Pollution paradise hypothesis; environmental Kuznets curve (EKC) hypothesis	Host country carbon emissions as a source of acquirer performance are evidenced by significant positive ΔROE1, ΔROE2; significant negative association of carbon emission intensity, per capita income, carbon emission intensity, and environmental vulnerability, with indication of increasing environmental vulnerability of the host country to inhibit country carbon emissions as a cross-border M&A performance source
14	Host country carbon emission: market performance	Liu, K; Wu, SY; Guo, N; Fang, QL, 2021 [111]	Journal of Cleaner Production	Archival	WDI (World Development Indicators) database	Chinese listed companies cross-border, 2007–2016	Pollution paradise hypothesis; environmental Kuznets curve (EKC) hypothesis	Host country carbon emissions as a source of acquirer performance are evidenced by a significant positive BHAR and a significant negative association of carbon emission intensity, per capita income, carbon emission intensity, and environmental vulnerability, with an indication of the increasing environmental vulnerability of the host country to inhibit country carbon emissions as a cross-border M&A performance source
15	Overinvested target	Wang, ZK; Lu, WJ; Liu, M, 2021 [107]	International Review of Financial Analysis	Archival	KLD (MSCI)	US, 1996–2007	Agency theory: sustainability expenditure exceeding the optimal level	Significantly deteriorating financial performance for acquirers when purchasing sustainability-overinvesting targets; combined firm with unnecessary sustainability assets and future company also overinvest in sustainability (value destruction)
				Relative sustainability				
16	Target spread	Tampakoudis, I; Anagnostopoulou, E, 2020 [9]	Business Strategy and the Environment	Archival	ASSET4	EU, 2003–2017	Stakeholder theory	Evidence partially provides for a positive association between the post-merger market value of the acquirer firm and the acquisition of a target with superior sustainability (target spread)
17		Choi, G; Kim, TN, 2022 [112]	Business and Society Review	Archival	KLD	US, 1995–2013	Stakeholder theory: a supportive relationship with the target's diverse stakeholders	Higher post-announcement stock returns than others when acquirer firms are supporting targets' superior overall sustainability
18		Chen, C; Lu, WJ; Liu, M, 2022 [106]	Asia-Pacific Journal of Accounting and Economics	Archival	KLD	US, 1995–2014	Sustainability spread and synergy gain; learning from the target's practices	Acquisitions of targets with higher sustainability document subsequent acquirer's improvements in market performance; value generation by learning from their targets with respect to sustainability practices and experiences

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
19	Culture proximity; post-deal integration	Doukas, JA; Zhang, RY, 2021 [61]	Journal of Corporate Finance	Archival	KLD	US, 1992–2017	Cultural similarity and proximity	Tendency of target acquisition with similar corporate social culture by high-level sustainability companies led by talented managers; significant positive post-merger returns indicate synergy creation in M&A due to cultural similarity
20		Feng, X, 2021 [113]	Green Finance	Archival	ASSET4	International, 2000–2020	Corporate culture similarity; integration cost	Exacerbated ROA decline for low-sustainability acquirers in comparison to relief for high-sustainability acquirers; temporary integration costs are higher for low-sustainability acquirers than for high-sustainability peers in cases where the target's sustainability level increases
21		Alexandridis, G; Hoepner, AGF; Huang, ZY; Oikonomou, I, 2022 [62]	British Accounting Review	Archival	EIRIS	22 international markets, 2004–2012	Corporate cultural divergence; cultural clash hypothesis	Lower long-term returns as well as lower synergistic gains are related to a greater divergence between the sustainability corporate cultures of the acquiring and target firms; moreover, increases in the time required for deal finalization
RQ6: How does M&A impact sustainability performance?								
				M&A impact on acquirer sustainability				
1	Stakeholder view; strategic perspective	Caiazza, S; Galloppo, G; Paimanova, V, 2021 [47]	Journal of Cleaner Production	Archival	ASSET4	Hospitality sector for targets, 2000–2019	Stakeholder theory	Up to three years later, the merger acquirer's sustainability is strongly influenced by the merger; the impact of sustainability on maximizing value for shareholders in the short term is irrelevant
2		Barros, V; Matos, PV; Sarmento, JM; Vieira, PR, 2022 [8]	Technological Forecasting and Social Change	Archival	ASSET4 (Refinitiv)	41 countries, 2002–2020	Strategic perspective of M&A and motivation for increasing sustainability	M&A deals significantly increasing sustainability performance the year following the transaction are considered on their own (not in the year of the deal); similar results for the single pillars of environmental, social, and governance
3	Knowledge channel cross-border deals	Li, Z; Wang, P, 2023 [116]	Journal of Business Finance and Accounting	Archival	Rankins CSR Ratings (RKS)	China cross-border, 2009–2017	Legitimacy and institutional theories	Improvement in acquirers' subsequent sustainability performance following cross-border M&A activities; sustainability as a vehicle for acquirers from a country possessing low institutional quality to bond themselves for a better reputation
4		Chen, XM; Liang, X; Wu, H, 2023 [115]	Journal of Business Ethics	Archival	Rankins CSR Ratings (RKS)	China cross-border, 2008–2015	Signaling theory	Post-cross-border M&A increase in sustainability performance and sustainability spending; via cross-border M&As signaling commitment through cross-border M&As and sustainability know-how obtained
5		Yang, N; Zhang, Y; Yu, L; Wang, J; Liu, XM, 2022 [114]	International Review of Economics and Finance	Archival	Chinese Corporate Social Responsibilities Database (CCSR)	China cross-border, 2007–2018	Learning theory	Chinese acquirers' sustainability as well as detailed dimensions post-deal are positively impacted by cross-border M&As; regional cultural diversity reinforces the effect as a positive moderator

#	Sustainability Focus and Cluster	Authors	Journal	Research Method	Sustainability Rating	Sample	Theory and Perspectives	Finding
6	Green M&A; green technology	Choi, G; Kim, TN, 2022 [112]	Business and Society Review	Archival	KLD	US, 1995–2013	Green technology acquisition	Acquirers generally do support the target's better environmental and product sustainability; any of the target's greater sustainability issues are not corrected by acquirers
7		Zhao, XY; Jia, M, 2022 [117]	Environmental Science and Pollution Research	Archival	Calculated rating proxy	China heavy-polluting firms, 2009–2017	Legitimacy theory	Environmental management improved via corporate green M&A activity; positive associations were alleviated for firms in localities under considerable media scrutiny; state-owned enterprises (SOEs) weakened the relationship
				M&A impact on acquirer sustainability relative to target sustainability				
8	Target spread	Aktas N; de Bodt E; Cousin J, 2011 [30]	Journal of Banking and Finance	Archival	Intangible Value Assessment (IVA); two components of the IVA score: environmental and social ratings	International, 1997–2007	Learning hypothesis	Positive relation between the rating spread (between the target and the acquirer) and the change in acquirer rating following M&A; learning channel for acquirers via target's SRI experiences and practices
9		Tampakoudis, I; Anagnostopoulou, E, 2020 [9]	Business Strategy and the Environment	Archival	ASSET4	EU, 2003–2017	Stakeholder theory: learn and incorporate target practices	Acquirers' post-merger sustainability performance is positively affected by the pre-merger relative target/acquirer sustainability performance; in the post-merger stage, integration of the target's sustainability practices into the acquirers' sustainability
10		Chen, C; Lu, WJ; Liu, M, 2022 [106]	Asia-Pacific Journal of Accounting and Economics	Archival	KLD	US, 1995–2014	Learning theory	The stronger the target spread (target's sustainability performance relative to the acquirer), the higher the created acquirer gains as well as synergy for acquirers; gain by learning from their targets considering sustainability experiences and practices

References

1. Kastrinos, N.; Weber, K.M. Sustainable Development Goals in the Research and Innovation Policy of the European Union. *Technol. Forecast. Soc. Chang.* **2020**, *157*, 120056. [CrossRef]
2. Leal Filho, W.; Tripathi, S.K.; Andrade Guerra, J.B.S.O.D.; Giné-Garriga, R.; Orlovic Lovren, V.; Willats, J. Using the Sustainable Development Goals towards a Better Understanding of Sustainability Challenges. *Int. J. Sustain. Dev. World Ecol.* **2019**, *26*, 179–190. [CrossRef]
3. Allen, C.; Metternicht, G.; Wiedmann, T. Initial Progress in Implementing the Sustainable Development Goals (SDGs): A Review of Evidence from Countries. *Sustain. Sci.* **2018**, *13*, 1453–1467. [CrossRef]
4. United Nations Transforming Our World: The 2030 Agenda for Sustainable Development. Available online: https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981 (accessed on 20 December 2023).
5. United Nations The Paris Agreement. Available online: https://unfccc.int/process-and-meetings/the-paris-agreement (accessed on 20 December 2023).
6. Eliasson, K.; Wibeck, V.; Neset, T.S. Opportunities and Challenges for Meeting the Un 2030 Agenda in the Light of Global Change-A Case Study of Swedish Perspectives. *Sustainability* **2019**, *11*, 5221. [CrossRef]
7. Farisyi, S.; Al Musadieq, M.; Utami, H.N.; Damayanti, C.R. A Systematic Literature Review: Determinants of Sustainability Reporting in Developing Countries. *Sustainability* **2022**, *14*, 1022. [CrossRef]
8. Barros, V.; Verga Matos, P.; Miranda Sarmento, J.; Rino Vieira, P. M&A Activity as a Driver for Better ESG Performance. *Technol. Forecast. Soc. Chang.* **2022**, *175*, 121338. [CrossRef]
9. Tampakoudis, I.; Anagnostopoulou, E. The Effect of Mergers and Acquisitions on Environmental, Social and Governance Performance and Market Value: Evidence from EU Acquirers. *Bus. Strateg. Environ.* **2020**, *29*, 1865–1875. [CrossRef]
10. Velte, P. Determinants and Financial Consequences of Environmental Performance and Reporting: A Literature Review of European Archival Research. *J. Environ. Manag.* **2023**, *340*, 117916. [CrossRef]
11. Ben-David, I.; Jang, Y.; Kleimeier, S.; Viehs, M. Exporting Pollution: Where Do Multinational Firms Emit CO_2? *Econ. Policy* **2021**, *36*, 377–437. [CrossRef]
12. Salvi, A.; Petruzzella, F.; Giakoumelou, A. Green M&A Deals and Bidders' Value Creation: The Role of Sustainability in Post-Acquisition Performance. *Int. Bus. Res.* **2018**, *11*, 96. [CrossRef]
13. BCG. *Green Deals Gain Steam | The 2022 M&A Report*; BCG: Boston, MA, USA, 2022.
14. Li, M.; Tian, Z.; Liu, Q.; Lu, Y. Literature Review and Research Prospect on the Drivers and Effects of Green Innovation. *Sustainability* **2022**, *14*, 9858. [CrossRef]
15. Cellier, A.; Chollet, P. The Effects of Social Ratings on Firm Value. *Res. Int. Bus. Financ.* **2016**, *36*, 656–683. [CrossRef]
16. Yan, S.; Ferraro, F.; Almandoz, J. The Rise of Socially Responsible Investment Funds: The Paradoxical Role of the Financial Logic. *Adm. Sci. Q.* **2019**, *64*, 466–501. [CrossRef]
17. Zaccone, M.C.; Pedrini, M. ESG Factor Integration into Private Equity. *Sustainability* **2020**, *12*, 5725. [CrossRef]
18. Carroll, A.B. Corporate Social Responsibility: The Centerpiece of Competing and Complementary Frameworks. *Organ. Dyn.* **2015**, *44*, 87–96. [CrossRef]
19. Abad-Segura, E.; Cortés-García, F.J.; Belmonte-Ureña, L.J. The Sustainable Approach to Corporate Social Responsibility: A Global Analysis and Future Trends. *Sustainability* **2019**, *11*, 5382. [CrossRef]
20. González-Torres, T.; Rodríguez-Sánchez, J.-L.; Pelechano-Barahona, E.; García-Muiña, F.E. A Systematic Review of Research on Sustainability in Mergers and Acquisitions. *Sustainability* **2020**, *12*, 513. [CrossRef]
21. Franklin, J. ESG Now a Key Factor in M&A. *Int. Financ. Law Rev.* **2019**.
22. Ahammad, M.F. The Role of Sustainability in Mergers & Acquisitions: A Literature Review. In *Advances in Mergers and Acquisitions*; Emerald Publishing Limited: Bingley, UK, 2023; Volume 22, pp. 19–30.
23. Junni, P.; Teerikangas, S. Mergers and Acquisitions. In *Oxford Research Encyclopedia of Business and Management*; Oxford University Press: Oxford, UK, 2019.
24. Gomes, E.; Angwin, D.N.; Weber, Y.; Yedidia Tarba, S. Critical Success Factors through the Mergers and Acquisitions Process: Revealing Pre- and Post-M&A Connections for Improved Performance. *Thunderbird Int. Bus. Rev.* **2013**, *55*, 13–35. [CrossRef]
25. Ahammad, M.F.; Glaister, K.W. The Pre-Acquisition Evaluation of Target Firms and Cross Border Acquisition Performance. *Int. Bus. Rev.* **2013**, *22*, 894–904. [CrossRef]
26. Gomes, M. Does CSR Influence M&A Target Choices? *Financ. Res. Lett.* **2019**, *30*, 153–159. [CrossRef]
27. Ciambotti, M.; Aureli, S.; Demartini, P. Italy: Demand for Social Responsibility in Mergers and Acquisitions. *J. Corp. Account. Financ.* **2011**, *22*, 45–50. [CrossRef]
28. Varaiya, N.P. Determinants of Premiums in Acquisition Transactions. *Manag. Decis. Econ.* **1987**, *8*, 175–184. [CrossRef]
29. Betton, S.; Eckbo, B.E.; Thorburn, K.S. Corporate Takeovers. In *Handbook of Empirical Corporate Finance*; Elsevier: Amsterdam, The Netherlands, 2008; pp. 291–429.
30. Aktas, N.; de Bodt, E.; Cousin, J.G. Do Financial Markets Care about SRI? Evidence from Mergers and Acquisitions. *J. Bank. Financ.* **2011**, *35*, 1753–1761. [CrossRef]
31. Zollo, M.; Meier, D. What Is M&A Performance? *Acad. Manag. Perspect.* **2008**, *22*, 55–77. [CrossRef]
32. Kirkulak Uludag, B. Mergers and Acquisitions. In *Encyclopedia of Corporate Social Responsibility*; Springer: Berlin/Heidelberg, Germany, 2013; pp. 1652–1658.

33. Calipha, R.; Tarba, S.; Brock, D. Mergers and Acquisitions: A Review of Phases, Motives, and Success Factors. In *Advances in Mergers and Acquisitions*; Emerald Publishing Limited: Bingley, UK, 2010; Volume 9, pp. 1–24.
34. Purvis, B.; Mao, Y.; Robinson, D. Three Pillars of Sustainability: In Search of Conceptual Origins. *Sustain. Sci.* **2019**, *14*, 681–695. [CrossRef]
35. Dahlsrud, A. How Corporate Social Responsibility Is Defined: An Analysis of 37 Definitions. *Corp. Soc. Responsib. Environ. Manag.* **2008**, *15*, 1–13. [CrossRef]
36. van Marrewijk, M. Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *J. Bus. Ethics* **2003**, *44*, 95–105. [CrossRef]
37. Huang, X.B.; Watson, L. Corporate Social Responsibility Research in Accounting. *J. Account. Lit.* **2015**, *34*, 1–16. [CrossRef]
38. Bansal, P.; Song, H.C. Similar but Not the Same: Differentiating Corporate Sustainability from Corporate Responsibility. *Acad. Manag. Ann.* **2017**, *11*, 105–149. [CrossRef]
39. Freeman, R.E. *Strategic Management: A Stakeholder Approach*; Cambridge University: Cambridge, UK, 1984; ISBN 978-0273019138.
40. Chatterji, A.K.; Durand, R.; Levine, D.I.; Touboul, S. Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers. *Strateg. Manag. J.* **2016**, *37*, 1597–1614. [CrossRef]
41. Berg, F.; Kölbel, J.F.; Rigobon, R. Aggregate Confusion: The Divergence of ESG Ratings. *Rev. Financ.* **2022**, *26*, 1315–1344. [CrossRef]
42. Jámbor, A.; Zanócz, A. The Diversity of Environmental, Social, and Governance Aspects in Sustainability: A Systematic Literature Review. *Sustainability* **2023**, *15*, 13958. [CrossRef]
43. Servaes, H.; Tamayo, A. The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness. *Manag. Sci.* **2013**, *59*, 1045–1061. [CrossRef]
44. Flammer, C. Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach. *Manag. Sci.* **2015**, *61*, 2549–2568. [CrossRef]
45. Ioannou, I.; Serafeim, G. The Impact of Corporate Social Responsibility on Investment Recommendations: Analysts' Perceptions and Shifting Institutional Logics. *Strateg. Manag. J.* **2015**, *36*, 1053–1081. [CrossRef]
46. Dhaliwal, D.S.; Radhakrishnan, S.; Tsang, A.; Yang, Y.G. Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure. *Account. Rev.* **2012**, *87*, 723–759. [CrossRef]
47. Caiazza, S.; Galloppo, G.; Paimanova, V. The Role of Sustainability Performance after Merger and Acquisition Deals in Short and Long-Term. *J. Clean. Prod.* **2021**, *314*, 127982. [CrossRef]
48. Huang, C.-J.; Ke, W.-C.; Chiang, R.P.-Y.; Jhong, Y.-C. Which of Environmental, Social, and Governance Pillars Can Improve Merger and Acquisition Performance? *J. Clean. Prod.* **2023**, *398*, 136475. [CrossRef]
49. Aerts, W.; Cormier, D.; Magnan, M. Corporate Environmental Disclosure, Financial Markets and the Media: An International Perspective. *Ecol. Econ.* **2008**, *64*, 643–659. [CrossRef]
50. Cormier, D.; Magnan, M. The Impact of Social Responsibility Disclosure and Governance on Financial Analysts' Information Environment. *Corp. Gov.* **2014**, *14*, 467–484. [CrossRef]
51. Hitt, M.A.; King, D.; Krishnan, H.; Makri, M.; Schijven, M.; Shimizu, K.; Zhu, H. Creating Value Through Mergers and Acquisitions. In *The Handbook of Mergers and Acquisitions*; Faulkner, D., Teerikangas, S., Joseph, R.J., Eds.; Oxford University Press: Oxford, UK, 2012; pp. 71–113.
52. Deng, X.; Kang, J.-K.; Low, B.S. Corporate Social Responsibility and Stakeholder Value Maximization: Evidence from Mergers. *J. Financ. Econ.* **2013**, *110*, 87–109. [CrossRef]
53. Jensen, M.C.; Meckling, W.H. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *J. Financ. Econ.* **1976**, *3*, 305–360. [CrossRef]
54. Harford, J. What Drives Merger Waves? *J. Financ. Econ.* **2005**, *77*, 529–560. [CrossRef]
55. Garfinkel, J.A.; Hankins, K.W. The Role of Risk Management in Mergers and Merger Waves. *J. Financ. Econ.* **2011**, *101*, 515–532. [CrossRef]
56. Homberg, F.; Rost, K.; Osterloh, M. Do Synergies Exist in Related Acquisitions? A Meta-Analysis of Acquisition Studies. *Rev. Manag. Sci.* **2009**, *3*, 75–116. [CrossRef]
57. Bauer, F.; Friesl, M. Synergy Evaluation in Mergers and Acquisitions: An Attention-Based View. *J. Manag. Stud.* **2022**, *61*, 37–68. [CrossRef]
58. Qiao, M.; Xu, S.; Wu, G. Corporate Social Responsibility and the Long-Term Performance of Mergers and Acquisitions: Do Regions and Related-Party Transactions Matter? *Sustainability* **2018**, *10*, 2276. [CrossRef]
59. Friedman, M. The Social Responsibility of Business Is to Increase Its Profits. *New York Time Magazine*, 13 September 1970; pp. 32–33.
60. Cho, K.; Han, S.H.; Kim, H.J.; Kim, S. The Valuation Effects of Corporate Social Responsibility on Mergers and Acquisitions: Evidence from U.S. Target Firms. *Corp. Soc. Responsib. Environ. Manag.* **2021**, *28*, 378–388. [CrossRef]
61. Doukas, J.A.; Zhang, R. Managerial Ability, Corporate Social Culture, and M&As. *J. Corp. Financ.* **2021**, *68*, 101942. [CrossRef]
62. Alexandridis, G.; Hoepner, A.G.F.; Huang, Z.; Oikonomou, I. Corporate Social Responsibility Culture and International M&As. *Br. Account. Rev.* **2022**, *54*, 101035. [CrossRef]
63. Krishnamurti, C.; Shams, S.; Chowdhury, H. Evidence on the Trade-off between Corporate Social Responsibility and Mergers and Acquisitions Investment. *Aust. J. Manag.* **2021**, *46*, 466–498. [CrossRef]

64. Gomes, M.; Marsat, S. Does CSR Impact Premiums in M&A Transactions? *Financ. Res. Lett.* **2018**, *26*, 71–80. [CrossRef]
65. Ozdemir, O.; Binesh, F.; Erkmen, E. The Effect of Target's CSR Performance on M&A Deal Premiums: A Case for Service Firms. *Rev. Manag. Sci.* **2022**, *16*, 1001–1034. [CrossRef]
66. Jost, S.; Erben, S.; Ottenstein, P.; Zülch, H. Does Corporate Social Responsibility Impact Mergers & Acquisition Premia? New International Evidence. *Financ. Res. Lett.* **2022**, *46*, 102237. [CrossRef]
67. Hussaini, M.; Rigoni, U.; Perego, P. The Strategic Choice of Payment Method in Takeovers: The Role of Environmental, Social and Governance Performance. *Bus. Strateg. Environ.* **2023**, *32*, 200–219. [CrossRef]
68. Li, K.; He, C.; Dbouk, W.; Zhao, K. The Value of CSR in Acquisitions: Evidence from China. *Sustainability* **2021**, *13*, 3721. [CrossRef]
69. Fink, A. *Conducting Research Literature Reviews: From the Internet to Paper*; SAGE: Thousand Oaks, CA, USA, 2014.
70. Tranfield, D.; Denyer, D.; Smart, P. Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *Br. J. Manag.* **2003**, *14*, 207–222. [CrossRef]
71. Daugaard, D.; Ding, A. Global Drivers for ESG Performance: The Body of Knowledge. *Sustainability* **2022**, *14*, 2322. [CrossRef]
72. Pranckutė, R. Web of Science (WoS) and Scopus: The Titans of Bibliographic Information in Today's Academic World. *Publications* **2021**, *9*, 12. [CrossRef]
73. Hinze, A.-K.; Sump, F. Corporate Social Responsibility and Financial Analysts: A Review of the Literature. *Sustain. Account. Manag. Policy J.* **2019**, *10*, 183–207. [CrossRef]
74. Krüger, P. Corporate Goodness and Shareholder Wealth. *J. Financ. Econ.* **2015**, *115*, 304–329. [CrossRef]
75. Gul, F.A.; Krishnamurti, C.; Shams, S.; Chowdhury, H. Corporate Social Responsibility, Overconfident CEOs and Empire Building: Agency and Stakeholder Theoretic Perspectives. *J. Bus. Res.* **2020**, *111*, 52–68. [CrossRef]
76. Bose, S.; Minnick, K.; Shams, S. Does Carbon Risk Matter for Corporate Acquisition Decisions? *J. Corp. Financ.* **2021**, *70*, 102058. [CrossRef]
77. Guo, J.; Cheng, H. Acquirers' Carbon Risk, Environmental Regulation, and Cross-Border Mergers and Acquisitions: Evidence from China. *Environ. Dev. Sustain.* **2023**. [CrossRef]
78. Leon-Gonzalez, R.; Tole, L. The Determinants of Mergers & Acquisitions in a Resource-Based Industry: What Role for Environmental Sustainability? *Rev. Econ. Anal.* **2016**, *7*, 111–134. [CrossRef]
79. Ma, X.; Xu, X.; Jiang, M. Does a Firm Have to Be Socially Responsible to Become a Target in Cross-Border M&As: Evidence from China. *Asia-Pacific J. Account. Econ.* **2022**, *29*, 1417–1438. [CrossRef]
80. Fisman, R.; Heal, G.; Nair, V.B. *A Model of Corporate Philantyropy*; Columbia University: New York, NY, USA, 2006.
81. Dhaliwal, D.S.; Li, O.Z.; Tsang, A.; Yang, Y.G. Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting. *Account. Rev.* **2011**, *86*, 59–100. [CrossRef]
82. van Duuren, E.; Plantinga, A.; Scholtens, B. ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. *J. Bus. Ethics* **2016**, *138*, 525–533. [CrossRef]
83. Cho, S.Y.; Lee, C.; Pfeiffer, R.J. Corporate Social Responsibility Performance and Information Asymmetry. *J. Account. Public Policy* **2013**, *32*, 71–83. [CrossRef]
84. Dicu, R.M.; Robu, I.-B.; Aevoae, G.-M.; Mardiros, D.-N. Rethinking the Role of M&As in Promoting Sustainable Development: Empirical Evidence Regarding the Relation Between the Audit Opinion and the Sustainable Performance of the Romanian Target Companies. *Sustainability* **2020**, *12*, 8622. [CrossRef]
85. Fairhurst, D.; Greene, D.T. Too Much of a Good Thing? Corporate Social Responsibility and the Takeover Market. *J. Corp. Financ.* **2022**, *73*, 102172. [CrossRef]
86. Krishnamurti, C.; Shams, S.; Pensiero, D.; Velayutham, E. Socially Responsible Firms and Mergers and Acquisitions Performance: Australian Evidence. *Pacific Basin Financ. J.* **2019**, *57*, 101193. [CrossRef]
87. Hussaini, M.; Hussain, N.; Nguyen, D.K.; Rigoni, U. Is Corporate Social Responsibility an Agency Problem? An Empirical Note from Takeovers. *Financ. Res. Lett.* **2021**, *43*, 102007. [CrossRef]
88. Hubbard, T.D.; Christensen, D.M.; Graffin, S.D. Higher Highs and Lower Lows: The Role of Corporate Social Responsibility in CEO Dismissal. *Strateg. Manag. J.* **2017**, *38*, 2255–2265. [CrossRef]
89. Yen, T.Y.; André, P. Market Reaction to the Effect of Corporate Social Responsibility on Mergers and Acquisitions: Evidence on Emerging Markets. *Q. Rev. Econ. Financ.* **2019**, *71*, 114–131. [CrossRef]
90. Spence, M. *Market Signaling: Informational Transfer in Hiring and Related Screening Processes: Informational Structure of Hiring and Related Processes*; Harvard University Press: Cambridge, MA, USA, 1974; ISBN 978-0674549906.
91. Godfrey, P.C.; Merrill, C.B.; Hansen, J.M. The Relationship between Corporate Social Responsibility and Shareholder Value: An Empirical Test of the Risk Management Hypothesis. *Strateg. Manag. J.* **2009**, *30*, 425–445. [CrossRef]
92. Qiao, L.; Wu, J. Pay for Being Responsible: The Effect of Target Firm's Corporate Social Responsibility on Cross-Border Acquisition Premiums. *Sustainability* **2019**, *11*, 1291. [CrossRef]
93. Casado-Díaz, A.B.; Nicolau-Gonzálbez, J.L.; Ruiz-Moreno, F.; Sellers-Rubio, R. The Differentiated Effects of CSR Actions in the Service Industry. *J. Serv. Mark.* **2014**, *28*, 558–565. [CrossRef]
94. Ahmad, M.F.; Aziz, S.; Michiels, Y.; Nguyen, D.K. Tracing Environmental Sustainability Footprints in Cross-border M&A Activity. *Eur. Financ. Manag.* **2023**. [CrossRef]
95. Kanungo, R.P. Payment Choice of M&As: Financial Crisis and Social Innovation. *Ind. Mark. Manag.* **2021**, *97*, 97–114. [CrossRef]

96. Hussain, T.; Shams, S. Pre-Deal Differences in Corporate Social Responsibility and Acquisition Performance. *Int. Rev. Financ. Anal.* **2022**, *81*, 102083. [CrossRef]
97. Hawn, O. How Media Coverage of Corporate Social Responsibility and Irresponsibility Influences Cross-border Acquisitions. *Strateg. Manag. J.* **2021**, *42*, 58–83. [CrossRef]
98. Arouri, M.; Gomes, M.; Pukthuanthong, K. Corporate Social Responsibility and M&A Uncertainty. *J. Corp. Financ.* **2019**, *56*, 176–198. [CrossRef]
99. Zhang, T.; Zhang, Z.; Yang, J. When Does Corporate Social Responsibility Backfire in Acquisitions? Signal Incongruence and Acquirer Returns. *J. Bus. Ethics* **2022**, *175*, 45–58. [CrossRef]
100. Shi, J.; Yu, C.; Li, Y. Beyond Linear: The Relationship between Corporate Social Responsibility and Market Reactions to Cross-Border Mergers and Acquisitions. *Emerg. Mark. Financ. Trade* **2022**, *58*, 638–654. [CrossRef]
101. Li, M.; Lan, F.; Zhang, F. Why Chinese Financial Market Investors Do Not Care about Corporate Social Responsibility: Evidence from Mergers and Acquisitions. *Sustainability* **2019**, *11*, 3144. [CrossRef]
102. Zhang, F.; Li, M.; Zhang, M. Chinese Financial Market Investors Attitudes toward Corporate Social Responsibility: Evidence from Mergers and Acquisitions. *Sustainability* **2019**, *11*, 2615. [CrossRef]
103. Tampakoudis, I.; Noulas, A.; Kiosses, N.; Drogalas, G. The Effect of ESG on Value Creation from Mergers and Acquisitions. What Changed during the COVID-19 Pandemic? *Corp. Gov. Int. J. Bus. Soc.* **2021**, *21*, 1117–1141. [CrossRef]
104. Tong, L.; Wang, H.; Xia, J. Stakeholder Preservation or Appropriation? The Influence of Target CSR on Market Reactions to Acquisition Announcements. *Acad. Manag. J.* **2020**, *63*, 1535–1560. [CrossRef]
105. Teti, E.; Dell'Acqua, A.; Bonsi, P. Detangling the Role of Environmental, Social, and Governance Factors on M&A Performance. *Corp. Soc. Responsib. Environ. Manag.* **2022**, *29*, 1768–1781. [CrossRef]
106. Chen, C.; Lu, W.; Liu, M. Corporate Social Responsibility Learning in Mergers and Acquisitions. *Asia-Pacific J. Account. Econ.* **2022**, *29*, 53–76. [CrossRef]
107. Wang, Z.; Lu, W.; Liu, M. Corporate Social Responsibility Overinvestment in Mergers and Acquisitions. *Int. Rev. Financ. Anal.* **2021**, *78*, 101944. [CrossRef]
108. Bettinazzi, E.L.M.; Zollo, M. Stakeholder Orientation and Acquisition Performance. *Strateg. Manag. J.* **2017**, *38*, 2465–2485. [CrossRef]
109. Zheng, Z.; Li, J.; Ren, X.; Guo, J.M. Does Corporate ESG Create Value? New Evidence from M&As in China. *Pacific-Basin Financ. J.* **2023**, *77*, 101916. [CrossRef]
110. Kim, B.-J.; Jung, J.-Y.; Cho, S.-W. Can ESG Mitigate the Diversification Discount in Cross-Border M&A? *Borsa Istanbul Rev.* **2022**, *22*, 607–615. [CrossRef]
111. Liu, K.; Wu, S.; Guo, N.; Fang, Q. Host Country's Carbon Emission and Cross-Border M&A Performance: Evidence from Listed Enterprises in China. *J. Clean. Prod.* **2021**, *314*, 127977. [CrossRef]
112. Choi, G.; Kim, T.N. Effect of Acquisitions on Target Firms' Stakeholder Welfare: Evidence from Corporate Social Responsibility. *Bus. Soc. Rev.* **2022**, *127*, 493–529. [CrossRef]
113. Feng, X. The Role of ESG in Acquirers' Performance Change after M&A Deals. *Green Financ.* **2021**, *3*, 287–318. [CrossRef]
114. Yang, N.; Zhang, Y.; Yu, L.; Wang, J.; Liu, X. Cross-Border Mergers and Acquisitions, Regional Cultural Diversity and Acquirers' Corporate Social Responsibility: Evidence from China Listed Companies. *Int. Rev. Econ. Financ.* **2022**, *79*, 565–578. [CrossRef]
115. Chen, X.; Liang, X.; Wu, H. Cross-Border Mergers and Acquisitions and CSR Performance: Evidence from China. *J. Bus. Ethics* **2023**, *183*, 255–288. [CrossRef]
116. Li, Z.; Wang, P. Cross-Border Mergers and Acquisitions and Corporate Social Responsibility: Evidence from Chinese Listed Firms. *J. Bus. Financ. Account.* **2023**, *50*, 335–376. [CrossRef]
117. Zhao, X.; Jia, M. Sincerity or Hypocrisy: Can Green M&A Achieve Corporate Environmental Governance? *Environ. Sci. Pollut. Res.* **2022**, *29*, 27339–27351. [CrossRef]
118. Martynova, M.; Renneboog, L. A Century of Corporate Takeovers: What Have We Learned and Where Do We Stand? *J. Bank. Financ.* **2008**, *32*, 2148–2177. [CrossRef]
119. Aktas, N.; De Bodt, E.; Roll, R. Market Response to European Regulation of Business Combinations. *J. Financ. Quant. Anal.* **2004**, *39*, 731–757. [CrossRef]
120. Li, J.; Wu, X. The Effect of CSR on Acquirer Returns of Cross-Border M&As in an Emerging Market—A Bane or a Boom? *Appl. Econ. Lett.* **2022**, *30*, 2607–2612. [CrossRef]
121. Marks-Anglin, A.; Chen, Y. A Historical Review of Publication Bias. *Res. Synth. Methods* **2020**, *11*, 725–742. [CrossRef]
122. Dumrose, M.; Rink, S.; Eckert, J. Disaggregating Confusion? The EU Taxonomy and Its Relation to ESG Rating. *Financ. Res. Lett.* **2022**, *48*, 102928. [CrossRef]
123. Christensen, D.M.; Serafeim, G.; Sikochi, A. Why Is Corporate Virtue in the Eye of The Beholder? The Case of ESG Ratings. *Account. Rev.* **2022**, *97*, 147–175. [CrossRef]
124. Ovtchinnikov, A.V. Capital Structure Decisions: Evidence from Deregulated Industries. *J. Financ. Econ.* **2010**, *95*, 249–274. [CrossRef]