

Review

# Environmental, Social, and Governance Integration into the Business Model: Literature Review and Research Agenda

Alaa Aldowaish <sup>1,\*</sup>, Jiro Kokuryo <sup>1</sup>, Othman Almazyad <sup>2</sup> and Hoe Chin Goi <sup>3</sup>

<sup>1</sup> Graduate School of Media and Governance, Shonan Fujisawa Campus, Keio University, Fujisawa 252-0882, Japan; jiro.kokuryo@keio.jp

<sup>2</sup> Department of Business Administration, School of Political Science and Economics, Shonan Campus, Tokai University, Hiratsuka 259-1292, Japan; almazyad.othman@tsc.u-tokai.ac.jp

<sup>3</sup> NUCB Business School, Nagoya University of Commerce and Business, Nagoya 460-0003, Japan; goi\_hc@gsm.nucba.ac.jp

\* Correspondence: alaa@keio.jp

**Abstract:** Environmental, social, and governance (ESG) integration as a socially responsible investment (SRI) from a financial perspective has been discussed extensively. However, few studies discuss its impact on firms' internal operations from the perspective of sustainable development (SD). This study aims to examine the integration of ESG into the currently prevailing business model. Twenty-nine studies were systematically reviewed. Our analysis used an input–process–output model to identify the integration process and the outcomes. The findings show that only two papers explain the implementation steps or transition process of ESG integration, while 27 papers discuss ESG integration as an outcome, including integration behaviors, advantages, practices, and critical views. Our research aims to highlight that firms adopt ESG as a response to pressure from financial markets rather than as a serious effort to integrate sustainability into their core operations. We state the need for more research into the integration process to motivate firms to reform their business models, foster sustainability, and enhance financial performance.

**Keywords:** ESG integration; business model; socially responsible investment; sustainable development; systematic search and review



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## 1. Introduction

Since its introduction by the United Nations in 2004 [1], environmental, social, and governance (ESG) integration has been considered one of the latest and most widely adopted sustainability yardsticks worldwide [2]. The pressure from official regulations, investors, and stakeholders on firms to disclose their ESG performance has impacted company attitudes toward sustainability. This has led to issues such as the manipulation of firms' ESG performance and the emergence of notions such as greenwashing, value washing, and blue washing, aimed to attract funds and satisfy stakeholders. Greenwashing refers to the manipulation of sustainability reporting [3], value washing relates to the misrepresentation of value outcomes [4], and blue washing alludes to unethical behaviors in using the United Nations Compact for gaining legitimacy [5].

Two views of ESG integration exist in the literature. The first view is that of socially responsible investment (SRI), which discusses ESG from the perspective of investment; and the second view has evolved from sustainable development (SD) and considers ESG from the perspective of firms' operations. However, to date, while the literature has focused extensively on examining ESG integration from the viewpoint of SRI, there has been little discussion of the integration of ESG factors into core business operations.

Thus, while an increasing number of firms are adopting ESG compliance, there remains a paucity of knowledge regarding the impact of ESG on the business model, which is required to address the sustainability of firms and society. The integration of ESG into

the business model means considering ESG issues in the existing business model, which is defined by four factors: value proposition, value creation, value delivery, and value capture [6].

Thus, the purpose of this study is to systematically review the literature and examine the relationship between ESG and the prevailing business model. We divide the literature on ESG integration along the lines of outcome and process, where process stands for a change, shift, or transition in a firm's business model operations in terms of ESG issues.

The study used the search, appraisal, synthesis, and analysis (SALSA) framework [7] in its systematic search and review, involving 29 journal papers related to ESG and business models. First, in the "search" phase, we conducted comprehensive data research on ESG and business models using the Scopus, Web of Science, and JSTOR databases. Second, we applied a quality assessment to the search results. Third, we used a thematic synthesis of ESG and business models. Finally, we used MAXQDA 2020 software to support our analysis by systematically coding each paper and presenting the ESG and business model literature focus.

As indicated, our review presents two critical views of the literature, conceptualizing the relationship between ESG and the business model. We examined the impact of ESG on business model outcomes and on the process of integration.

The results show the need for more research on the integration process to explain how it occurs in different contexts and provide guidelines on how to integrate it into the present business model. This should also address integration issues, such as the lack of ESG standardization [8].

The main practical implication is that unless the world gives serious consideration to the integration of ESG into the business model, the current promotion of ESG may turn out to have been unfounded.

We suggest further studies to develop business model archetypes that integrate ESG to enhance financial performance, reduce environmental burdens, and address social and governance issues.

Further, more qualitative research, such as case studies, would assist firms in resolving conflicts and trade-offs when integrating ESG factors into their business models.

The paper proceeds as follows: Section 2 discusses the literature review of ESG integration through socially responsible investment (SRI) and sustainable development (SD); Section 3 discusses our research methodology; Section 4 presents our findings; and, finally, Section 5 concludes the paper.

## 2. Literature Review

### 2.1. Socially Responsible Investment

SRI is defined as an investment philosophy that combines ethical or environmental goals with financial goals [9]. While the historical origin of SRI stems from religious roots that date back two millennia [10], the demand for its implementation has increased sharply since the global financial crisis of 2008/2009 [11].

The development of SRI has resulted in the emergence of different terminologies that focus on specific dimensions of investment strategies, such as responsible investing, ethical investment, and green investment. For example, green investment is considered a new subset of SRI, focusing on environmental issues [12], and is defined as the investment necessary to reduce greenhouse gas and air pollutant emissions without significantly reducing the production and consumption of non-energy goods [13]. Terminological differences can be explained in terms of their cultural aspects. For example, references to responsible investment are commonly used in the United Kingdom, but avoided in France and the United States because they ignore important social aspects [14].

Much of the literature focuses on comparing the financial performance of traditional investments with SRI. A review of SRI between 1986 and 2012 found that most papers indicate that SRI performance equals that of traditional investments and positively affects SRI activities and financial results [15]. A recent literature review of SRI covered a more

extended period (1981–2018) and found five thematic foci: the comparison of SRI with traditional investments, investor behavior, SRI compared with corporate social responsibility, institutional investors, and the construction of an SRI portfolio [16]. In addition, a systematic review of SRI [17] identified three themes, mostly falling into SRI performance studies, followed by investor behavior and SRI development studies. Another study [18] extended the work of Widyawati by finding eight common keywords in the SRI literature: corporate sustainability performance measurement, organizational studies, market reporting and perspective on SRI, governmental and stakeholder perspective, firm strategy and sustainability, corporate financial perspective, methods and books, ethical/sustainable mutual funds. Another study [19] classified SRI into four types: socially based investments that focus on solving social issues, environmental investment, socio-environmental investment, and sustainability.

According to the Global Sustainable Investment Review in 2020, which provides a global perspective on investment strategies growth of SRI, ESG integration ranks first, followed in order by negative/exclusionary screening, corporate engagement and shareholder action, norms-based screening, sustainability-themed investing, positive/best-in-class screening, and, lastly, impact/community investing [2]. A review [20] examined an investment strategy, mainly referring to ESG integration, in 190 academic papers from 1975 to the middle of 2009. The authors found that ESG integration is frequently mentioned in the SRI literature.

### ESG Integration

Concerns about the environment have raised global awareness of sustainability issues, thereby shifting traditional investments directed toward profit maximization to those that support sustainability. The current tendency of the integration of sustainability and ESG in the financial market is termed SRI [17,21]. SRI refers to ESG integration based on an explicit and systematic consideration of environmental, social, and governance factors in the investment decision-making process [2]. The definition of ESG can be broken down in terms of three factors. Environmental factors consider how a company performs as a steward of the natural environment. Social factors examine how a company manages its relationships with its employees, suppliers, customers, and the communities in which it operates. Governance factors include a company's leadership, executive pay, internal controls, audits, and shareholder rights. These factors are used as a set of standards to assess a company's operations when screening for investments [22].

Empirical research shows that the effects of ESG on financial markets, as represented in firms' financial performance and value, are being debated in terms of both positive and negative impacts.

A study of more than 2000 empirical findings revealed that most ESG research findings indicate a positive impact of ESG on firms' corporate financial performance [23]. In addition, a positive relationship was found between ESG disclosure and profitability in European firms [24]. A survey of empirical research in accounting and finance literature spanning 45 years also found a positive link between ESG and financial performance [25].

However, other findings indicate a negative impact of ESG on financial performance [26,27].

Most of the literature provides mixed signals regarding the positive and negative market values of ESG reporting. One author argues that a socially responsible market leads to an increased number of stakeholders [28]. Others find a negative impact on market value and recommend improving report quality to mitigate this [29].

Investors play an essential role in supporting ESG and ethical practices, which is reflected in the literature in terms of the investor-based integration of ESG in decision-making [30], the process of investing in managing risks [31], and improvements to the investment process [32]. However, research has also identified negative effects of investor integration of ESG, such as lack of consideration of the core issues that drive business models and finance [33], the lack of a business case, poor quality of data, and the absence of clear standards and definitions [34].

There are references to the manager-based integration of ESG into investment strategies at different levels, ranging from full integration to low integration [35], and using ESG reporting for reducing risk rather than for maximizing value [36].

## 2.2. Firm Sustainability

Addressing sustainability at firm level includes aspects such as the state of product recycling, sustainability issues within operations, strategies and business routines, and business models. Sustainability reputation significantly affects customer perception [37]. For instance, a study reported a positive impact of sustainability (CSR and ESG) on a firm's reputation [38]. Another study suggested that public awareness motivates firms to develop sustainability capabilities [39]. Firm sustainability has been defined as successful adaptation to change and findings opportunities to offer valuable services—delivered efficiently and effectively—by achieving corporate sustainability through environmental, social, and economic factors to enhance efficiency [40]. The management pillars that specifically address sustainability can be classified as follows: (1) corporate strategy, (2) management of human resources, (3) knowledge and innovation management, (4) measurement, (5) disclosure of independent assurance, and (6) integrated management systems [41].

The importance of integrating sustainability into a firm's strategy is discussed in the literature. For instance, it has been suggested that greenwashing occurs because of the absence of knowledge of the process of integrating sustainability into business routines and strategies [42]. The authors examined the integration of economic, environmental, and social factors into different firm strategies, which they classified into an introverted strategy for risk mitigation, an extroverted strategy for legitimization, a conservative strategy for efficiency, and a holistic visionary strategy. In addition, another study provided a conceptual framework for linking sustainability strategies with Porter generic strategies. [43]. They suggest that radical innovation in sustainability initiatives leads to positive financial performance. A further study investigated the factors involved in the successful implementation of a corporate sustainability strategy related to organizational structure, culture, leadership, management control, employee motivation and qualifications, and internal and external communication [44].

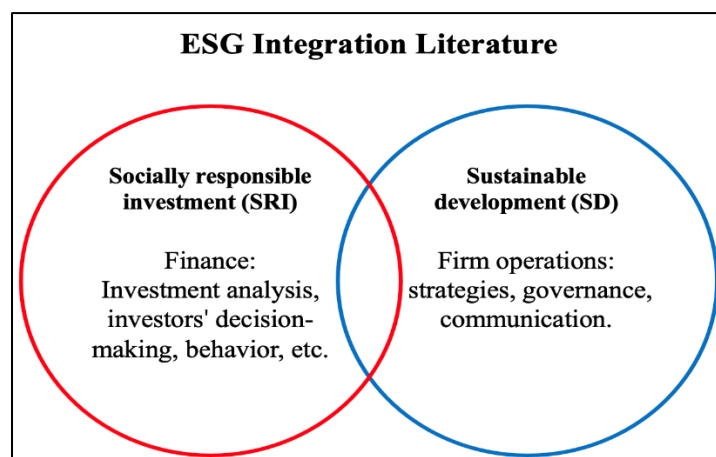
The literature on the integration of sustainability into the business model concentrates on identifying features [45,46] and frameworks [47], developing archetypes [6], and visualizing [48] and simulating sustainable business models [49].

### ESG Integration into Firms: Sustainable Development

The integration of sustainability and ESG into firm operations is referred to as SD. SD has been defined in corporate activities as balancing current sustainability with economic, environmental, and social aspects while also addressing company systems, such as operations and production, the organizational system, governance, assessment, and communication [50].

Few empirical studies have examined the impact of ESG on firm operations. The discussion is mostly limited to the positive impact of strategies that consider ESG performance [51], as well as corporate governance and ESG reporting [52–55]. A positive impact of regulation on reporting strategies and governance practices is noted in firms becoming proactive in addressing sustainability through communication, transparency, stakeholder engagement, and the improvement of relationships with external resources [56].

However, ESG as an indicator of sustainability is criticized for not showing the position of firms with regard to the sustainability and trustworthiness of ESG data [57]. Figure 1 illustrates ESG integration in the literature in terms of both investment and internal operations.



**Figure 1.** ESG integration literature.

### 3. Research Methodology

To provide a comprehensive and transparent view of the relationship between ESG and business models, we followed the guidelines proposed in a previous study [7], which are characterized by a systematic search and review based on the SALSAs framework. Our review addressed broad questions by combining a comprehensive search process with a critical review (Table 1). First, our search aimed for an exhaustive, comprehensive overview. Second, our appraisal had the option of including a quality assessment. Third, the synthesis was based on a minimal narrative and a tabular summary of studies. Finally, our analysis presents what is known, shows limitations, and provides recommendations for practice.

**Table 1.** Details of the adopted SALSAs framework.

SALSAs Framework	Methods Used
Search	ESG and business model literature
Appraisal	Quality assessment involves examining claims and generalizability of findings.
Synthesis	Thematic synthesis: ESG and business model conceptualization
Analysis	ESG and business model analysis: Outcome: The impact of ESG on the business model; concepts. Process: Change, shift or transition in the business model, considering ESG factors in their operation. Using MAXQDA software to analyze ESG and business model discussions: Coding based on how each paper represents ESG and business model.

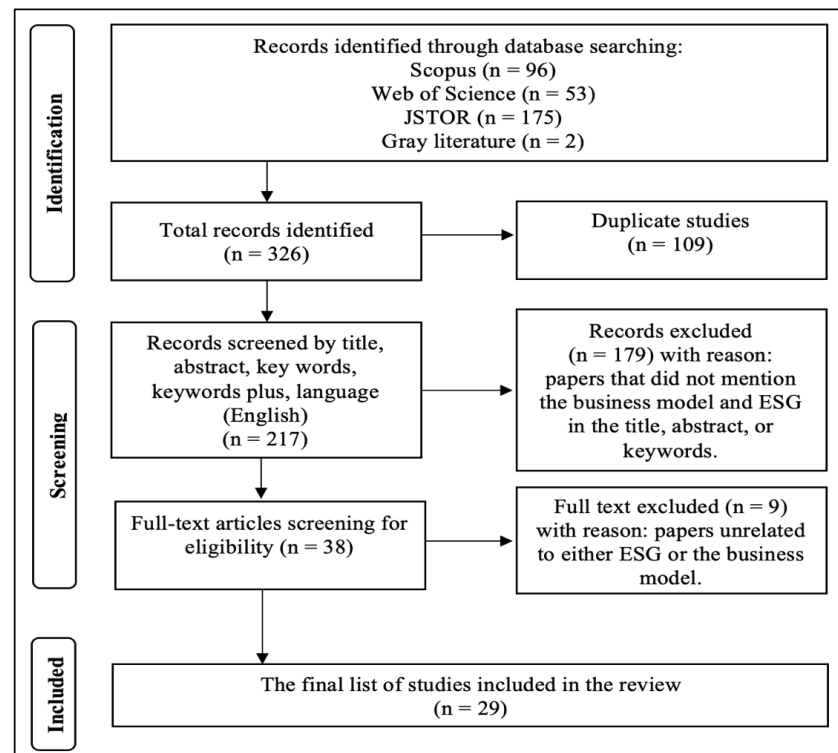
Source: Our elaboration.

The review's scope was to examine how ESG and business models were identified in the literature. We used combinations of keywords for searching scientific databases, such as ESG and "business model \*", "environmental, social and governance" and "business model \*", "ESG investing" and "business model \*", and "environmental, social and governance investing" and "business model \*". The asterisk (\*) wildcards were used to obtain both singular and plural instances of the search keywords.

We employed two search methods. First, we examined articles by document type, such as articles in the press, reviews, and conference papers in the three databases of Scopus, Web of Science, and JSTOR. Second, we extended our search by examining bibliographies, reference lists, and gray literature. The search was performed from 11 July–10 August 2021. The inclusion criteria were applied in two stages, as shown in Figure 2. The first stage included English papers, ESG, and business models, as described in the title, abstract,



keywords, or keywords-plus. The second stage included a full scan of all the papers resulting from the first stage, using the same search terms.



**Figure 2.** PRISMA flowchart of literature review process, adapted from ref. [58]; edited from previous literature [59,60].

Our analysis shows that only 29 papers are related to ESG and business models following a full paper analysis. The analysis is based on the system logic of input–process–output models, in which the interconnections between different factors are considered [61] and applied in a systematic literature review of corporate social responsibility in family firms [62]. We assumed that ESG adoption would impact the integration process and the outcome.

In addition, we used MAXQDA 2020, a qualitative data analysis software [63,64] that represents the ESG and business model discussion in the papers in codes and displays the frequencies of these codes.

Our results demonstrate the extent of the literature discussion on the ESG integration process and the integration outcomes in the business model. The integration process addresses the transition process, or implementation steps, through which ESG factors integrate into the dimensions of business models, such as value proposition, value creation, value delivery, and value capture. By contrast, the integration outcomes were defined by the impact of ESG on the firms' business models.

#### 4. Findings

Figure 3 shows the results of the discussion of ESG and the business model. We analyzed the 29 papers on the basis of process and outcomes and distinguished them based on ESG integration along the lines of SRI and SD.

We found that 27 papers conceptualized ESG into the business model as an outcome; they included 10 papers along the lines of SRI, 16 papers following the view of SD, and 1 paper that addressed both SRI and SD. The papers provided only a general conception of the relationship between ESG and business models with no details of how the integration actually occurred. We grouped similar integration outcomes into four dimensions: (1) integration behaviors of ESG, in which the literature discusses the impact of government

regulations, investors, and banks on integration behavior; (2) the advantages of ESG integration for firms and investors; (3) ESG practices, such as an examination of current cases addressing ESG in the business model; and (4) critical views of ESG in the business model.

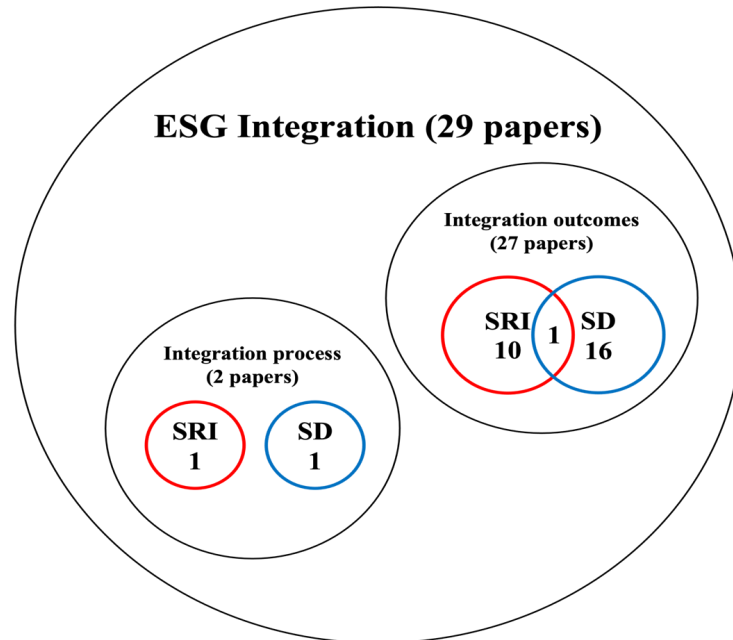


Figure 3. Paper analysis results of ESG integration process and outcomes.

Of the remaining two papers, the first examined the integration process based on the SRI view, while the second paper addressed the integration in terms of SD. The latter dealt with a firm integrating the concepts of sustainability and circular economy into its business model through value proposition, value delivery, value creation, and value capture.

In Figure 4, we present the code frequency analysis using MAXQDA 2020 to summarize the major findings from the text analysis. For instance, most studies refer to pressure from stakeholders, shareholders, investors, international media, and environmental issues; others refer to regulations or the maintenance of the firm’s existence as a driver of ESG adoption. The figure also shows the process of ESG integration into the business model’s elements, as well as its outcomes in terms of business continuity and long-term value creation.

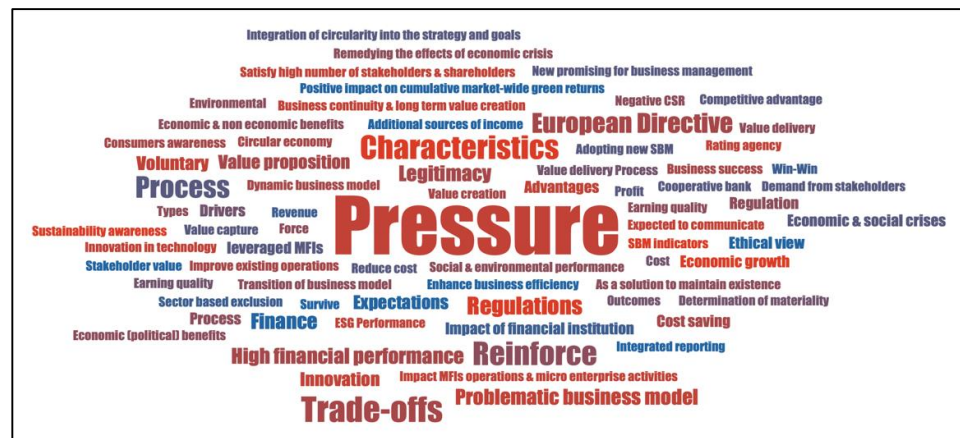


Figure 4. Code frequency analysis using MAXQDA 2020.

Finally, Table 2 summarizes the paper’s conceptualization of ESG and business model. We attached a separate interpretation to each textual discussion.

**Table 2.** Summary of conceptualization of ESG and business model (BM) in the literature.

	Author	Paper Focus	ESG Integration Type	ESG and BM Concept	Literature Discussion of ESG and BM	Interpretation of the Relationship between ESG and BM
1	(Schramade, 2016)	Integration of ESG into valuation models and investment decisions	SRI	Process	Evaluating firms' ESG performance by linking ESG to BM	Implementation steps
2	(Corral-Marfil et al., 2021)	Sustainable and circular business model of a bicentennial company	SD	Process	Impact of recycling on BM components (value proposition, value delivery, value creation and value capture)	Transition process
3	(Camilleri, 2018)	Theoretical reasoning of ESG disclosure and explanation of integrative reporting purpose	SD	Outcome	Firms are expected to communicate BM in IR reporting	Behavior
4	(Muñoz-Torres et al., 2019)	Whether the rating agency favors BM that promotes a more sustainable development	SD	Outcome	Rating agencies' sustainability assessment does not support a sustainable BM (holistic integration of ESG)	Behavior
5	(Di Tullio et al., 2020)	Impact of the European directive on the BM of 46 European firms	SRI	Outcome	Firms' behavior in addressing ESG in BM: reluctant acceptance, avoidance, and dismissiveness	Behavior
6	(Hill, 2019)	Problematic BM	SRI	Outcome	The investor's role involves holding firms accountable for their reputations when considering their ESG issues in problematic BM.	Behavior
7	(Hoepner and Schopohl, 2018)	Analysis of investors' behavior in excluding firms because of their BM	SRI	Outcome	Investors' behavior in excluding firms because of their BM	Behavior
8	(La Torre et al., 2021)	ESG performance and financial performance	SRI	Outcome	Recommendation forcing banks to adopt a new ESG BM	Behavior
9	(Sushchenko, Volkovskiy, Fedosov, and Ryazanova, 2020)	Impact of environmental risks on SD * conditions through Human Development Index and GDP per capita	SD	Outcome	Regulation impacts adoption	Behavior
10	(Ziolo, Bak, Cheba, and Spoz, 2020)	Impact of banks on enterprise BM	SRI	Outcome	Banks impact firms with ESG in BM	Behavior
11	(Lee, 2020)	Exploration of the role of green finance in achieving sustainable development goals in China	SRI	Outcome	The transition occurred due to investors and financial institutions	Behavior
12	(Rezae and Tuo, 2019)	Relationship between quality and quantity of sustainability disclosure and earning quality of corporate value and culture	SD	Outcome	Earning quality	Advantage



Table 2. Cont.

	Author	Paper Focus	ESG Integration Type	ESG and BM Concept	Literature Discussion of ESG and BM	Interpretation of the Relationship between ESG and BM
13	(Zubeltzu-Jaka et al., 2018)	Relationship between CSR * and CG * through ESG indicators	SD	Outcome	Necessity of ESG in BM; ESG positively impacts stakeholders and shareholders by improving the transparency, accountability, compliance, and honesty of firm's practices.	Advantage
14	(Kluza et al., 2021)	The role and influence of ESG factors in firms building of sustainable business models	SD	Outcome	A positive relationship between innovation and ESG (SBM *)	Advantage
15	(Cassely, Ben Larbi, Revelli, and Lacroux, 2021)	Impact of 2008 economic crisis on corporate social performance	SD	Outcome	Economic crises cause firms to change their CSR practices and conceptualize their BM as they consider CSR/ESG in their BM to gain legitimacy	Advantage
16	(Rabaya & Saleh, 2021)	Effect of IR * adoption on the relationship between ESG and firms' competitive advantage	SD	Outcome	BM integration into IR, strength as a competitive advantage	Advantage
17	(Herciu, 2018)	Nature of the relationship between sustainability and profitability in BM	SRI	Outcome	Firms that have BM addressing sustainability and ESG are financially profitable	Advantage
18	(Ashraf, Rizwan, and L'Huillier, 2021)	Micro-financial institution (MFI) integration of ESG	SD	Outcome	High-leverage MFIs and the presence of women on the board of directors contribute positively to ESG integration in firm operations	Advantage
19	(Sabbaghi, 2011)	Green traded funding impact on cumulative market-wide return	SRI	Outcome	Green traded funding has a positive cumulative market-wide return, and BM has positive ESG characteristics	Advantage
20	(Turan, Johan, and Omar, 2018)	Systematic sustainability assessment (SSA) to achieve sustainability	SD	Outcome	Long-term continuity and value creation	Advantage
21	(R. G. Eccles and Serafeim, 2013)	ESG performance and financial performance	SRI and SD	Outcome	BM innovation leads to high ESG performance and high financial performance	Advantage
22	(Olatubosun et al., 2021)	Examination of fashion business owners and analysis of policy documents demonstrate implementation of technology to achieve circular BM	SD	Outcome	Examination of how ESG issues affect the luxury fashion business	Practices
23	(Venanzi and Matteucci, 2021)	Sustainability characteristics of a large European cooperative bank	SRI	Outcome	Situation in Europe (stable business model); cooperative bank BM characteristics	Practices

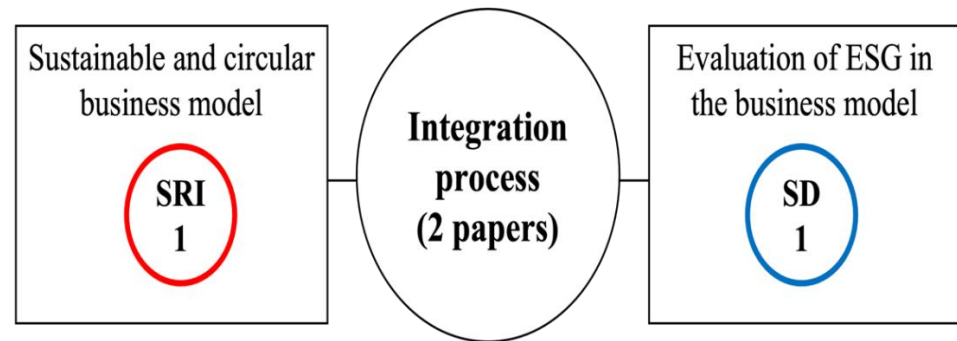
Table 2. Cont.

	Author	Paper Focus	ESG Integration Type	ESG and BM Concept	Literature Discussion of ESG and BM	Interpretation of the Relationship between ESG and BM
24	(Clegg, 2020)	Role of innovation in developing technology strategies	SD	Outcome	Innovation in technology to create new BM to address stakeholder needs on ESG issues.	Practices
25	(Hizarci-Payne and Kirkulak-Uludag, 2018)	Sustainability practices in Turkey by launching BIST, the first sustainability index	SD	Outcome	Turkish firms are addressing sustainability in their business model based on sector type	Practices
26	(Serwinowski and Marshall, 2010)	Observation of sustainability in the oil and gas industry	SD	Outcome	Business-case frame: environmental and social integration	Practices
27	(Jasni et al., 2019)	ESG practices in four telecommunication business strategies	SD	Outcome	BM dynamic in coping with economic activities and delivering ESG issues to stakeholders	Practices
28	(Maniora, 2017)	Effectiveness of using integrative reporting as a tool to integrate ESG into BM	SD	Outcome	IR * only superior mechanism to integrate ESG into BM when compared with other ESG reporting strategies	Critical view
29	(Isaksson and Woodside, 2016)	Corporate social performance and financial performance	SRI	Outcome	Negative corporate social performance using ESG and negative CFP *	Critical view

Source: Our elaboration. \* Abbreviations: SRI, socially responsible investment; SD, sustainable development; SBM, sustainable business model; CSR, corporate social responsibility; CG, corporate governance; IR, integrated reporting; CFP, corporate financial performance.

#### 4.1. ESG Integration: The Integration Process

Figure 5 shows the two papers that discussed the ESG integration process. The first deals with the integration process from the SRI perspective and supports the evaluation of the firms' ESG performance through their ESG and business model links. The second discusses sustainability from an SD perspective in terms of the four ESG business model elements, value proposition, creation, delivery, and capture. In this case, the business model fosters sustainability.



**Figure 5.** Integration process.

The first study [65] proposed a value driver adjustment approach to solve the issues of ESG integration into the investment decisions of asset managers and financial institutions. This occurs through an evaluation of the firm's ESG performance, based on how it integrates ESG into its business model. The value driver adjustment consists of three steps.

The first is understanding the nature of the business, its stakeholders, and the most significant issues. The second is assessing the firm's performance on those issues through indicators, policies, and strategies compared to their peers in the same industry. The third is determining whether the company derives a competitive advantage or disadvantage from these issues. The competitive advantage a firm derives from ESG is reflected in its value drivers and positively impacts its financial performance. However, this is where the author observed a knowledge gap in the mechanism of linking material issues with value drivers and in putting forward the optimal conditions for linking ESG issues to value drivers.

The second study [66] examined the business model's recycling role and ESG links using a case study of a Catalan bicentennial company, a leader in copper recycling technology. Based on sustainability reporting and interviews, an analysis of the business model was conducted and the ESG performance was observed from 2015–2018. The company operates on the basis of a circular business model. Sustainability and ESG in the business model were addressed in terms of its four basic elements, as follows. (1) Value propositions, such as providing technical support services, recycling technology transfer, recovery services, such as packaging and wooden reels, a take-back service, and the opening of the Copper Museum. (2) Value creation processes, such as the recycling of scrap, the upcycling of scrap, designing products and materials through research and development, obtaining certifications related to quality management, health, and safety. (3) Value delivery, as experienced by B2B customers, as well as the delivery of educational value to internal visitors of the Copper Museum, including clients, suppliers, and workers, and to external visitors, such as tourists, academia, and school students. (4) Value capture in terms of revenues and the Copper Museum's regular satisfaction level survey.

The two papers provide only a brief understanding of ESG's integration into the business model. The first study assessed ESG performance in the business model, which demonstrated how the evaluation of the ESG integration process is conducted through the implementation steps of the value driver adjustment.

In addition, the second study allowed us to briefly observe the transition process of ESG's integration into the business model to foster sustainability. First, it dealt with past accomplishments in addressing substantiality, such as the implementation of recycling

technology in 1986, quality certifications, collaboration with research centers at universities in 1988, and the opening of the Copper Museum. Second, it discussed how value creation due to improving ESG performance from 2015–2018 strengthened the firm’s sustainability. For instance, 5% net profit was allocated to research and development to design products and processes that maximized energy efficiency and minimized negative environmental impact. In addition, they also obtained additional certifications, such as for integrating quality, environmental, and health and safety management systems. Finally, they implemented personal policies, such as employment equality, work–life balance, training, diversity, and flexibility for social impact, resulting in high workforce stability and low workforce turnover.

#### 4.2. ESG Integration: Outcomes

Figure 6 presents the details of our findings on the ESG integration outcomes; we found nine papers related to integration behaviors, ten related to the advantages of ESG integration, six to practices of ESG, and two papers related to critical views.

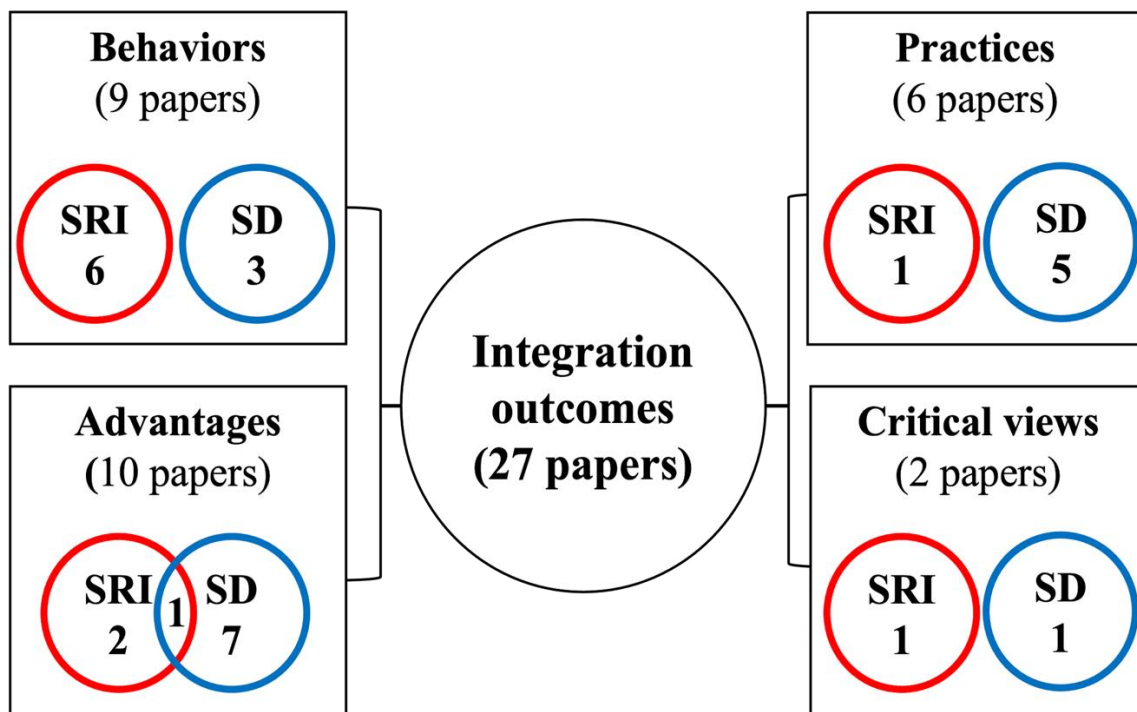


Figure 6. Integration outcomes.

##### 4.2.1. Integration Behaviors

ESG was examined as an outcome in terms of firms’ ESG integration behavior from two perspectives. First, six studies examined the impact of regulation, investors, and the banking sector from the perspective of SRI.

Second, three studies addressed behavior in terms of the extent to which (1) business models are communicated in IR reporting, (2) rating agencies fail to support firms that holistically integrate ESG, and (3) firms handle the impact of regulations in their transition to new business models based on SD.

Studies based on SRI have referred to pressure from regulations [67], investors [68], shareholders [69], and climate change [70] as drivers of ESG adoption.

For instance, a study examined ESG integration in the business models of 46 European firms through their reports [67]. The reports were published in both 2016 and 2017, in response to the European directive 2014/95, which requires firms to describe their business model in corporate reporting and classify their reaction in communicating their business model based on the legitimacy theory. First, some firms were compliant and accepted

the new regulations to protect their legitimacy. However, only one firm explained the ESG indicators in their business model, whereas the other firms did not clearly state the connection between ESG factors and their business model. Second, avoidance behavior was observed in three firms that reported the same information in both years, but presented it differently. Third, almost half of the firms engaged in dismissive behavior by not providing information about their business model at all. Another study explored the role of green finance in achieving sustainable development goals. The author indicated the need for a transitioning business model due to investor interest in how green bonds contribute to both the transition strategy and to the understanding of recent changes in the business model [70]. Furthermore, a study examined 44 banks in 14 European countries that voluntarily implemented ESG [69]. The author explained the current behavior of bank authorities in promoting the transition to sustainability by forcing banks to adopt a new ESG business model.

In addition, another study examined the impact of banks on enterprises that only implemented sustainable business models and recommended that they implement ESG risk-reduction measures [71]. The author observed three different behaviors in 60 enterprises. One group of firms did not see the advantages of collaboration with banks or the need for changes in their business model or reporting. Another group acknowledged the benefits of collaborating with banks in risk reduction and investments by having a sustainable business model and adopting changes, such as implementing social and environmental measures. The third group did not have a sustainable business model and believed that collaboration with banks did not mitigate risks.

Other authors recommend pressure from institutional investors to solve problematic business conduct. Hill explained that a problematic business model develops when a firm takes advantage of incapacity, limited information, arguments to the effect that reputation solves these problems, and pressure to avoid business models and practices where investors hold firms accountable for their reputation when considering ESG issues [68]. An empirical study addressed one of the SRI approaches, called exclusionary screening [72], which analyzes investor behavior to exclude firms if the nature of their business model permits environmental pollution and the violation of human rights and international norms. The authors examined the impact of exclusionary screening on the performance of investment funds in Norway's government pension fund and Sweden's AP-funds and found that exclusion did not harm the funds' performance.

By contrast, examining ESG integration behavior based on the SD perspective, one study observed eight rating agencies favoring business models that promote more sustainable development through corporate sustainability assessments and linked it with sustainable value creation based on the sustainable business model [73].

The authors found that the rating agencies' sustainability assessment did not support a sustainable business model that holistically integrated ESG in the short or long term.

In addition, ESG and business models are considered a part of integrated reporting (IR). Another study examined the theoretical reasoning behind both ESG disclosures and provided an explanation of the integrated report's purpose and cost [74]. The author suggested that investors and other financial actors are the primary critical stakeholders in firms. Moreover, the author indicated that firms are expected to communicate their business models through IR.

However, given the SD view of shifting toward a new business model, regulations have also impacted the integration of ESG into the business model. Based on the Human Development Index and the GDP per capita of European and non-European firms, a study examined the impact of environmental risks on sustainable development conditions [75]. The authors found that the impact of climate regulations, such as higher taxes, forced economic agents to shift their voluntary ESG reporting to a new environmental and social business model as part of their corporate social responsibility strategy.

The aforementioned studies did not show how firms have shifted to a business model that addresses ESG issues.

#### 4.2.2. Advantages of ESG Integration

In terms of SRI, we identified two studies that saw ESG integration as an advantage by providing a positive return on assets and equity, as well as a profit indicator.

By contrast, seven papers discussed the advantages of ESG integration from an SD perspective, such as ESG adaptation positively impacting the business model, business continuity, and long-term value creation. In addition, one study discussed the advantages of both the SRI and SD perspectives.

Other studies discussed the advantages of ESG integration from the SRI perspective in terms of profit- and market-wide returns. One study examined the relationship between sustainability and profitability by analyzing the 2017 corporate sustainability reports of 94 firms in different industries [76]. The analyses were based on the return on assets, return on investment, and ESG scores. The author found a correlation between the most sustainable firm, addressing ESG and profitability based on different business models, stakeholders, and investment approaches. Another study examined green exchange-traded funds and found a positive impact on cumulative market-wide returns [77]. The author noted that the 15 chosen green index funds positively measured the global environment in their business model and revealed positive ESG characteristics.

Other studies have also discussed the advantages of SD by addressing the positive impact of ESG on business models. A study on Malaysian firms in the hydropower sector found a low level of sustainability [78]. Additionally, their assessments were limited to environmental issues. By contrast, the authors refer to ESG integration into the business model as an outcome that supports business continuity and long-term value creation for both stakeholders and society. Another study examined the integration of ESG into micro-financial institutions over the years 2017 and 2018, using a cross-national sample of 2064 firms from 94 countries [79]. They found that large and highly leveraged micro-financial institutions did not hesitate to integrate ESG into their business models and could also indicate a high level of integration of environmental issues. Moreover, the presence of female directors positively contributed to ESG integration. A study of 187 international firms from 2009–2019 explored whether the voluntary adoption of the International Integrated Reporting (IR) framework affected the relationship between ESG and firms' competitive advantage [80]. A positive association between ESG disclosure and the strength of a firm's competitive advantage was found.

Furthermore, other researchers have studied the role and influence of ESG factors in building a sustainable business model. For instance, a comprehensive literature analysis of 72 studies examined the impact of ESG factors and innovation on sustainable business models [81]. A positive relationship was found between innovation and ESG in Europe due to the action by European Union in creating a list of environmentally sustainable activities. This was in addition to the robust positive relationship identified between innovation and social factors in the sustainable business model. Another literature review shows a positive relationship between corporate social responsibility (CSR), corporate governance (CG), and ESG [82]. The authors noted that CSR, CG, and ESG were fundamental in establishing new business models, and that integrating ESG positively impacted stakeholders and shareholders by enabling transparency, accountability, compliance, and honesty in firms' practices. One quantitative study recorded 35,110 firm-related observations between 1999 and 2015 [83]. The authors examined the relationship between the quality and quantity of sustainability disclosure and the earning quality of corporate values and cultures. They classified earning quality into innate earning quality types, such as the production function, business model, competitive environment, and discretionary earning. They found that disclosure quantity was positively associated with innate earning quality and negatively associated with reducing managerial earnings manipulation and unethical reporting behavior. Qualitative tests show that sustainability disclosure can strengthen the positive relationship between reporting and innate earnings. In addition, it can reduce the negative relationship between discretionary earnings quality and sustainability disclosures. Other studies observed the impact of the 2008 economic crisis on corporate social performance



in coordinated and liberal market economies. They found that economic crises cause firms to change their CSR practices, suggesting that firms rethink their business models by considering the inclusion of CSR and ESG in their business models to gain legitimacy [84].

One study [85] addressed ESG advantages from both the SRI and SD viewpoints in improving financial performance and sustainable development in business model innovation. An econometric analysis of more than 3000 firms from 2002–2011 showed that significant innovation leads to both high ESG performance and high financial performance.

The advantages of SRI are consistent with the literature on the positive impact of ESG on financial markets. However, the advantages of SD do not explain the impact of ESG integration on business models.

#### 4.2.3. Practices

Our findings show the current practices of ESG in business models of different sectors based on the SRI and SD perspectives. One study examined sustainability at banks from the SRI perspective, and five studies discussed ESG practices in the business model related to SD.

From the SRI perspective, one study [86] examined the sustainability characteristics, including ESG risks, of eight large European cooperative banks, and found that they had a satisfactory financial sustainability model and a stable business model.

Regarding to the practice of ESG integration into business models from the SD perspective, another study [87] examined sustainability practices in Turkey a year after the first sustainability index (BIST) was launched in 2014 for investors and companies to consider ESG issues. The authors selected six firms from different sectors in the banking, manufacturing, food, energy, and aviation industries. They found that companies scored high on social and, subsequently, environmental aspects, indicating that they were shifting to a sustainable business model archetype. The social factors were rated higher than the environmental factors because of the strong stakeholder view of customer and supplier engagement, which is part of Turkey's collectivistic culture. The authors discovered a sustainable business model for Turkish firms in each sector and identified common characteristics between firms, such as having a strong relationship with stakeholders and receiving feedback from employees and suppliers. Another study [88] examined the effect of ESG issues on luxury fashion businesses by analyzing the policy documents of 10 fashion business owners, demonstrating a form of technology implementation aimed at achieving a circular business model. The analysis shows sustainability awareness and the implementation of a circular economy in the value system. A conference paper [89] observed the role of innovation in developing technology strategies that address stakeholders' needs regarding ESG issues. The adoption of innovation changes the existing business model or gives rise to a new model. Another conference paper [90] observed sustainability in the oil and gas industry, providing a business-case frame for assessing social responsibility strategies. The study discussed the integration of ESG into the business model only in terms of environmental and social issues, relying on laws and regulations, stakeholders' expectations, and emerging issues. Sustainability in the oil and gas industry is a replication of the business model and the indicators of sustainable business models in this sector through production, reserve replacement percentage, gas sales, capacity, and sales. An investigation of ESG practices in the telecommunications business strategies of four Malaysian companies in 2015—using the content analysis methodology of annual reporting—described the business model as a dynamic model that copes with economic activities and presents ESG issues to stakeholders [91].

The use of ESG practices in the business model demonstrate the outcomes of ESG integration, leading to different business-model types in different countries and industries.

However, studies on ESG practices in the business model did not explain how firms transformed, their reasons for adopting the new business model, or the impact of addressing ESG in the internal operation of the business model.

#### 4.2.4. Critical Views

We found one study that provided a critical view of ESG from the SRI perspective and another that examined IR from the SD perspective in a case where ESG is part of the core business model.

From the SRI perspective, six interviews were conducted with Swedish firms to analyze 82 annual corporate reports [92]. ESG was considered a part of corporate social performance. However, the findings indicate not only negative corporate social performance but also negative corporate financial performance. The study supports the view that poor management practices (business models) result in poor financial outcomes.

From the SD perspective, another study examined the effectiveness of using IR as a tool to integrate ESG into the business model by comparing it with different ESG reporting types, such as no ESG reporting, ESG in IR, stand-alone ESG reporting, and ESG reporting in annual reports [93]. The author suggested that ESG in IR supports ESG practices from a theoretical perspective, but not a practical one.

However, critical views do not show how a business model leads to negative financial performance. Moreover, the use of ESG in IR did not explain how ESG was integrated into the core business model.

## 5. Conclusions

This study systematically examined the literature on ESG and business models. Our review found only 29 studies related to this topic. Our findings show that most papers discussed ESG integration into the business model as an outcome, as seen in integration behaviors, advantages, practices, and critical views.

By contrast, only two papers discussed the ESG integration process, merely providing a brief understanding of ESG integration from the perspectives of SRI and SD.

The literature provides only a conceptual understanding of the relationship between ESG and business models. There is neither an actual detailed case of the integration process nor an explanation of how firms can fully integrate ESG, transform, or improve their business model to resolve trade-offs [94], and enforce profit and sustainability. Moreover, there has been no discussion of ESG integration into core business models.

Our results suggest that the pressure to integrate ESG leads to reluctant ESG adoption without a holistic integration of ESG into the business model. The integration process motivates firms to adopt ESG and assists them in reforming their business models to address sustainability.

Our study is the first to specifically focus on how ESG and the business model are related. We also highlight the knowledge gap regarding the impact of ESG integration into the business model, particularly in the integration process. Finally, we argue that firms adopt ESG because of pressure from financial markets without exerting serious efforts to integrate sustainability into core operations.

This study has the following implications for different stakeholders. First, governments should use guidelines and examples of optimal practices to show how firms can integrate ESG in their business models. Policymakers should provide education on ESG integration into the business model to assist firms that face difficulties in ESG adoption and are at risk of falling into greenwashing behaviors. Finally, firms should increase ESG-related consumer awareness in their business models.

Our study has three limitations. First, although we adopted this review approach to be as systematic as possible in our analysis, we may have limited the scope of the search and missed important literature. Therefore, it should be understood as an analysis of the tendencies in the discussions in major research forums rather than an exhaustive search for related literature. In addition, we only used ESG and business model search keywords. There may be an alternative explanation, with different search words, to clarify the broader scope of the relationship between sustainability and the business model, such as sustainability, sustainable development goals, and other indicators. Second, this study is limited to the discussion of existing literature, which may differ from firms' actual practices.

Finally, our findings and interpretations were limited to the scope of the data examined. Nevertheless, we do assume the existence of other factors that have not been examined in the literature, but may impact ESG's integration into the business model.

We offer the following two directions for future research. First, through our literature review, we found only limited discussion of ESG and business models; we noticed the need for a holistic understanding of ESG's impacts on the business model from the perspective of internal organizational culture, business routines, strategies, operations, as well as external customers and other stakeholder perceptions. Additionally, we need to compare firms' business model performances in relation to sustainability before and after ESG adoption. Second, our study found only a brief explanation of the integration process; future research is encouraged to provide a theoretical understanding of the ESG integration process by exploring the original concept of sustainability, as found in the sustainability literature and in different disciplines.

Finally, we offer three research agendas for future research. First, we found a gap in the empirical knowledge of the process of ESG integration into the business model. This study addresses the need for future research on developing business model archetypes that integrate ESG to enhance financial performance, reduce the environmental burden, and address social and governance issues. Second, the findings feature little discussion on resolving trade-offs [95] or exploiting them to reinforce profit and sustainability [96] without a minimal level of compromise. This shows the need for research on solving trade-offs when integrating ESG into the business models. Third, our literature review shows the positive impact of ESG on business models—as previously discovered [81]—using a quantitative methodology. However, this review does not explain the mechanisms of this occurrence. Therefore, we recommend qualitative research to help us understand the complexity of the process of ESG integration into the business model.

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