

# **A Systematic Literature Review Unveiling the Nexus between CSR and Financing Constraints in Different Scenarios: Facilitating, Inhibiting or Moderating?**

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## **Abstract**

Nowadays, firms are facing serious financing constraints and one of the mostly used method to alleviate this situation is to rebuild firms' reputations through increasing firms' corporate social responsibilities (CSR) performance. But the mechanisms between CSR and financial constraints are still not clearly and comprehensively demonstrated. Thus, based on above motivations, this literature is aimed at systematically reviewing the analysis of existing researches on the relationship between CSR and financing constraints by using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Keywords and Boolean operator are used to search articles in Scopus database related to this topic and the last search was done in Nov. 2023. Later, several inclusion and exclusion criteria are used to successfully identify 57 most relevant studies. This research then summaries these 57 articles, conducts bibliometric analysis and relationship analysis on them. Results indicate that there are facilitating, inhabitation and moderating effects between CSR and financial constraints. This study has some limitations such as it only searches relevant articles in Scopus, it includes articles not ranking in Journal Citation Report, it does not pose time constraints when selecting papers, it exists risk of author bias because it adopts qualitative method, and it has risks that not all of the relevant studies are included in this study. However, this study makes new contributions to existing study, providing academic contributions/implications on the thoroughly understandings of relationship and importance between CSR and financial constraints, and also providing practical contributions/implications for parties inside and outside the firms to understand how to appropriately use CSR to help alleviate financing constraints. Last but not least, several aspects that worth future research are also mentioned in the discussion part.

**Keywords:** Corporate Social Responsibility, Financial Constraints

## **Introduction**

### **Background and Rationale**

Access to finance is important for firms because unable to get access to finance will make firms' missing opportunities for profitable projects, which further influence firms' survival (Kumar & Ranjani, 2018). Financing constraints are frictions that prevent firms from financing all of their intended investments which including credit constraints, the inability to issue equity, dependence on bank loans, or asset liquidity (Lamont et al., 2001). It measures the extent to which firms are limited accessing to external finance (Samet et al., 2018). Some phenomena such as economic distress, financial distress and bankruptcy risk are not financing constraints although they are certainly correlated with financial constraints (Samet et al., 2018). Reasons for financing constraints can be explained by information asymmetry and agency problems. From information asymmetry perspective, capital providers will increase cost of debt if they have less information about the firm's situation in order to gain security for capital. And from agency problem perspective, financing costs increases with the level of higher agency conflicts (Zhao and Xiao, 2019).

Corporate social responsibility strategies can help to ease financing constraints through reducing market imperfection (Liang and Chen, 2024; Samet et al., 2018). According to Williamson et al (2014), CSR is a firm's responsibility for their impact on society and CSR disclosure represents a firm's ethical practice (Zhao and Xiao, 2019). The alleviation of CSR on financial constraints can be explained from three aspects. Firstly, CSR disclosure can reduce information asymmetry and ease agency conflicts, which further reduce financing costs. Secondly, good CSR performance help firms gain good reputation, which make them establish good relationship with capital providers, thus reducing financial costs. Thirdly, stakeholder theory indicates that participation in CSR activities can align management with stakeholder interests, which further obtain support from stakeholders and reduce financing constraints (Jones, 1995). In addition to reducing financing constraints, existing studies also indicate other benefits of fulfilling CSR such as higher firm value (Cheung et al., 2012) and improved information quality (Lopatta et al., 2015).

However, CSR engagement deteriorates financial constraints in some scenarios. CSR over-investment hypothesis indicate that management makes CSR investment for personal benefits, which finally results in financial distress for the company (Farooq and Noor, 2021). In economic recession period, firms' participation in CSR increases financial constraints (Al-Dah et al., 2018). Dahiya et al (2023) also indicate that in the early stage, financial constraints will increase with the CSR investment, but later on, after researching a certain time, financial constraints will decrease with the CSR investment. In addition to the direct impact of CSR on financing constraints, it also has moderation effect on the relationship between financing constraints and other factors. Li et al (2021) get empirical evidence that venture capital firms help invested firms to reduce financial constraints and further change the financial condition of invested firms, this relationship is more obvious if firms engage in CSR activities.

Financing constraints also have impacts on CSR. Normally, it is difficult for financially constrained firms to engage in CSR activities due to lack of financial support (Kumar et al., 2023). But in some situations, financially constrained firms increase their CSR engagement. According to Kong et al (2021), after the anticorruption campaigns, firms are suffering from financial constraints due to the loss of political affiliation, thus, they take active participation

fulfilling CSR in order to solve financial constraints dilemma. In addition to the direct impact of financing constraints on CSR, it also has moderation effect on the relationship between CSR and other factors. The relationship between CSR and factors like financial performance, survival, risks, earning manipulation, political incentive, financial forecasts, disaster resilience, economic policy uncertainty are more pronounced in financially constrained firms (Chulkov and Wang, 2023; Malik et al., 2023; Fernandes et al., 2023; Yang et al., 2022; Nguyen and Nguyen, 2021; Choi et al., 2021; Kong et al., 2021; Park et al., 2020; Wang et al., 2020; Zhao et al., 2020).

Despite of the numerous studies on the relationship between CSR and financing constrains, a systematic and comprehensive literature review regarding the specific facilitation, inhibition or moderation effects on the nexus between CSR and financing constraints is still lacking and not clearly demonstrated. Attending to the above-mentioned motivation, this study is aimed at addressing this gap and performing systematic reviews of existing literatures to illustrate the comprehensive relationship between CSR and financing constraints by adopting preferred reporting items for systematic reviews (PRISMA) method.

This review provides both academic contributions and practical contributions to existing research. From academic perspective, this review fills up the above-mentioned gap by providing a clear and structured answers to the relationships between CSR and financing constraints in different scenarios. And from practical perspective, this review provides hints for managers, government, regulators and the public in dealing with the issues related to CSR and financing constraints.

This study is organized in five sections: section 1 is introduction which includes background, rationale and purpose of conducting review. Section 2 is methods which includes search strategy, inclusion and exclusion criteria and quality assessment. Section 3 is results focusing on the summary, bibliometric analysis and relationship analysis of included studies. Section 4 is discussion on limitations, implications and future research. Section 5 is the conclusion for this review, followed by references.

### **Purpose of the Review**

It can be seen from the above background, there is no systematic literature review on the relationships between CSR and financing constraints, thus, this study is going to fill in this gap by answering the following research questions:

- (1) What kind of contents are involved in existing research on the relationship between CSR and financial constraints?
- (2) What are the trends of existing research on the relationship between CSR and financial constraints?
- (3) What are the findings on relationship between CSR and financial constraints in existing studies? To be more specifically, ① how CSR affect financing constraints? facilitate or inhibit? ② how financing constraints affect CSR? facilitate or inhibit? ③ what are the moderation effects between CSR and financing constraints?

### **Methods**

In order to solve the above-mentioned research questions, search strategy, selection criteria and quality assessment are determined to identify the existing relevant literatures.

### Search Strategy

This study uses Boolean operators to search in Scopus database because Scopus database is often used for social science subject and it is one of the most extensively database used in literature search (Mongeon and Paul-Hus, 2016; Abrizah et al., 2013; Chadegani et al., 2013). In addition, it also provides more detailed and specific searches than other databases (Yasmin et al., 2022). The search strings performed in database are indicated below in table 1. Search of articles are performed using combination of keywords in the title, abstracts and keywords of articles. These search strings reflect the subject scope and main concepts of this study: this study is conducted within the subject of social science; economics, econometrics and finance; business, management and accounting, and the main concepts of this research are corporate social responsibility and financial constraints. In addition, terminological variety is also considered in order to get a comprehensive study. For example, “CSR” can be substitute with “corporate social responsibility”, “corporate social responsibilities”, “sustainable development”, “sustainability”, “CSR performance”, “corporate social responsibility disclosure”, “corporate social performance”, “CSR awareness” and “CSR activities”. Similarly, “financial constraints” can be substitute with “financing constraints”, “financial constraint” and “financial distress”. The final search is finished in Nov. 2023 and 70 initial results are derived and they are stored in the bibliographic management software Mendeley.

Table 1

*Search procedure performed in database*

<i>Database</i>	<i>Search strings</i>
Scopus	TITLE-ABS-KEY (“CSR” AND “financial constraints”) AND (((LIMIT-TO (SUBJAREA, “SOCIAL SCIENCE”)) AND (LIMIT-TO (SUBJAREA, “ECONOMICS, ECONOMETRICS AND FINANCE”)) AND (LIMIT-TO (SUBJAREA, “BUSINESS, MANAGEMENT AND ACCOUNTING”)))

### Inclusion/Exclusion Criteria

After the initial results are derived, following inclusion and exclusion criteria (table 2) are applied to artificially filter the initial 70 results and get the most relevant articles. Firstly, only peer-reviewed academic journals are included in this study due to quality requirement (Moher et al., 2015), books, book chapter, working papers are dropped. Secondly, this research mainly discusses the relationship between corporate social responsibility and financial constraints, thus, papers including both CSR and financial constraints will be included and papers only related to one factor will be excluded. Thirdly, only empirical studies will be included, literature reviews, commentaries and meta-analysis should be excluded because empirical studies are free from personal influence and are supported by empirical evidence, which is more persuasive. Fourthly, articles at all publication dates are included in this study because there is no systematic literature review regarding this topic before, thus, it is reasonable to include papers at all publication dates. Fifthly, only papers with full text available online will be included because full text will provide more detailed information if the abstract is ambiguous to make judgement whether it is relevant to this topic. Finally, articles written in English are included in this study and papers in other language are excluded because of the language skills of the author and readers.

Table 2

*Selection criteria of relevant literatures*

<i>Inclusion</i>	<i>Exclusion</i>
Peer-reviewed academic journals.	Books, book chapters, working papers, conference papers.
Papers related to corporate social responsibility and financial constraints at the same time.	Papers only related to corporate social responsibility or financial constraints.
Empirical studies.	Literature reviews, commentaries, or meta-analysis.
All publication dates	Papers not available in full text.
Full text available online	Written in other language
Written in English	

**Quality Assessment**

After deciding the above selection criteria, literature selection process following PRISMA guidelines (figure 1) are conducted by applying the inclusion and exclusion criteria to make sure the overall quality of these selected papers. Among the initial 70 results, 9 papers are identified to be irrelevant to this topic, 3 papers are book chapters and 1 paper is conference paper, finally 57 good quality papers are derived to be included in this systematic literature review.

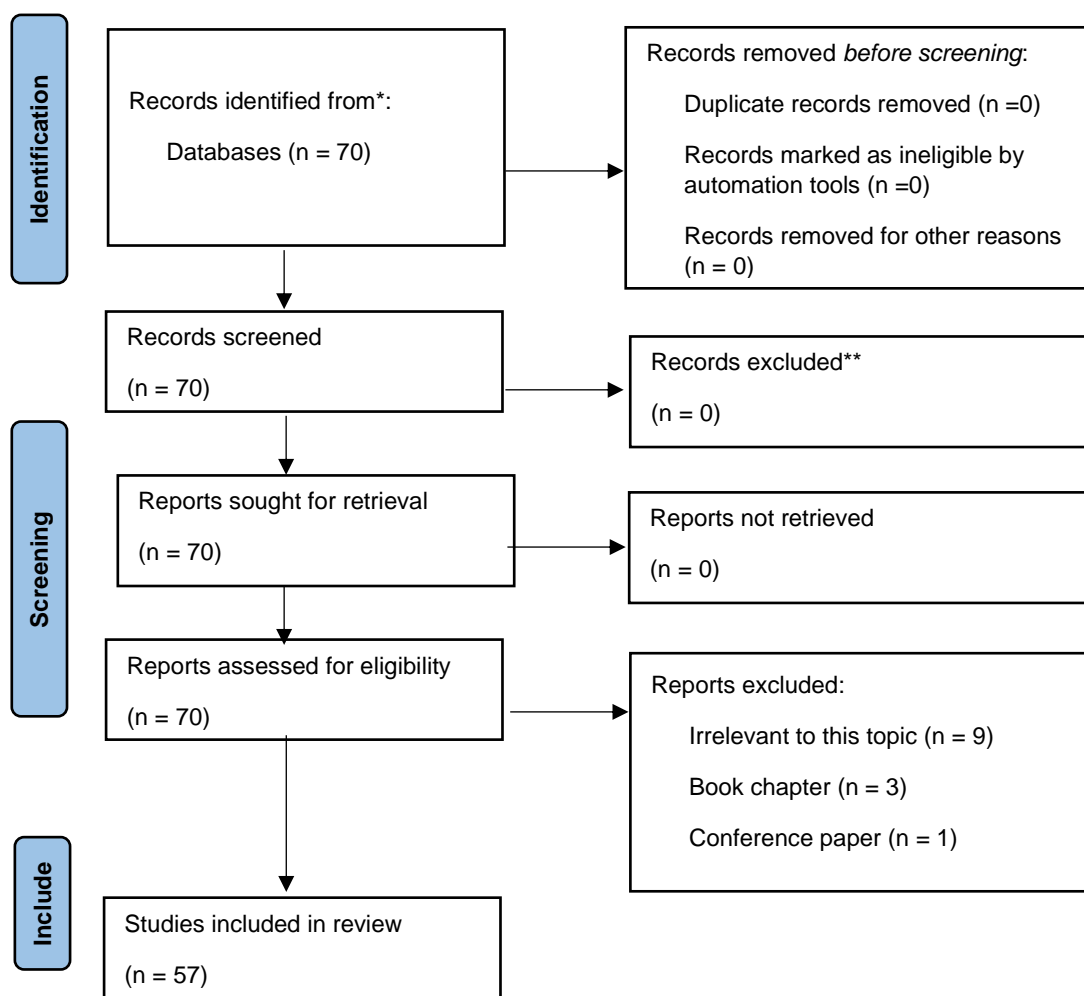


Figure 1: PRISMA flow diagram of selecting literatures

## Results

After the 57 good quality papers are identified, content analysis is conducted to get the research results of these papers to answer three above-mentioned research questions. The results will be divided into three parts: summary of the included studies, bibliometric analysis and relationship analysis.

### Summary of Included Studies

57 included literatures in systematic review are presented in the following table which specifies author, date, keywords, sample and size, and the findings. Due to words limit, the following table only shows the parts of the keywords and findings that are relevant to the topic of this study. From table 4, the contents involved in existing research on the relationship between CSR and financial constraints are shown and the research question 1 can be answered.

Table 4

#### *Summary of the included studies*

<i>NO.</i>	<i>Authors and date</i>	<i>Keywords relevant to the topic of this study</i>	<i>Sample and size</i>	<i>Findings relevant to the topic of this study</i>
1	Liang and Chen (2024)	Corporate social responsibility, mandatory CSR disclosure, financial constraints.	Listed companies in China from 2006-2013.	Companies with mandatory CSR reporting experience greater financial constraints following mandatory reporting.
2	Do et al. (2023)	Corporate social responsibility	Leverage adjustment in U.S. firms during 1991-2014.	The positive impact of CSR on speed of adjustment is more pronounced in firms with high financial constraints.
3	Attig (2023)	Financial constraints, debt capacity.	Annual observations for 20,437 U.S. firms for the period 1991-2010.	Relaxing financial constraints increases CSR.
4	Sun et al. (2023)	CSR, financial constraints.	listed companies in U.S. from 1991 to 2013.	Green finance policies can contribute to firms' ESG performance and ESG performance is higher for firms with smaller financial constraints.
5	Ma et al. (2023)	Corporate social responsibility	Not mentioned	CSR can serve as a buffer against financial constraints in emergencies.
6	Xiong et al. (2023)	Corporate social responsibility	Listed companies in China from 2010-2018.	Institutional investors significantly enhance CSR and this relationship is more profound for firms with lower financial constraints.



7	Buertey et al. (2023)	CSR	114 companies listed on the Johannesburg Stock Exchange in South Africa.	The effect of CSR on dividend payout differs between high and low financial constraint firms.
8	Fernandes et al. (2023)	Not mentioned.	2,426 Chinese companies between 2011-2019.	Under financial constraints, firms' CSR has positive effects on its survival.
9	Kumar et al. (2023)	Corporate social responsibility; Financial constraints.	1,496 companies listed on NSE in India from 2014-2020.	It is difficult for firms with financial constraints to engage in CSR activities.
10	Lin et al. (2023)	CSR performance	Chinese A-share listed companies from 2009-2018.	The effect of internal whistleblowing on a company's CSR performance is more pronounced in companies with fewer financial constraints.
11	He et al. (2023)	CSR, financial constraints.	Listed companies in China for the period 2011-2020.	Appointment-based CEO linkages have a positive effect on CSR, and this effect is stronger for firms with lower financial constraints.
12	Dahiya et al. (2023)	Corporate social responsibility	Top 500 companies listed on National Stock Exchanges from 2008 to 2019.	CSR is positively related to dividend payout, and lower financial constraints may be a contributing factor to this relationship.
13	Hendijani et al. (2023)	Corporate social responsibility, financial constraints.	Standard & Poor's 500 Index companies for the period 2012-2018.	Higher CSR transparency helps firms to reduce financial constraints.
14	Cheng et al. (2023)	corporate social responsibility	Chinese listed firms from 2010-2017.	Venture capital firms improve invested firms' corporate social responsibility by reducing their financial constraints
15	Su and Lu (2023)	Corporate social responsibility, financial constraints.	Chinese firms from 2010-2018.	Corporate social responsibility helps to ease financial constraints.
16	Chen (2023)	Corporate social responsibility, financial constraints.	Listed companies in China from 2012-2019.	The growth of the digital economy has eased corporate finance constraints, thereby promoting corporate social responsibility.
17	Theiri and Alareeni (2023)	CSR	60 French tourism companies from 2014 to 2019.	There is positive impact of managerial characteristics on

18	Shen and Zheng (2023)	Corporate social responsibility, financial constraints.	Chinese listed firms from 2010-2020.	the practice of CSR activities under financial constraints. The entry of foreign banks has significantly unlocked the financial constraints of firms and improved their corporate social responsibility.
19	Zhao and Peng (2023)	Financial constraints, sustainable development.	Listed companies in China from 2010-2019.	Accelerated depreciation policy improves CSR performance by easing corporate finance constraints.
20	Banker et al. (2023)	Corporate social responsibility	2,887 U.S. companies between 1995 and 2015.	Financial constraints moderate the positive relationship between firms' differentiation strategies and CSR performance.
21	Chulkov and Wang (2023)	Corporate social responsibility	U.S. listed companies from 1991-2018.	Companies with higher CSR scores have more accurate financial forecasts, fewer earnings surprises, and more coverage by financial analysts. This positive relationship is more pronounced for companies that do not face financial constraints.
22	Malik et al. (2023)	Corporate social responsibility	471 natural disasters from 1995–2015.	Firms that fulfil environmental CSR are more resilient to the effects of natural disasters than those that do not, and this positive effect is more pronounced when firms have low financial constraints.
23	Agyei-Boapeah et al. (2023)	Financial constraints	8,500 enterprises in 24 emerging market countries from 2003-2020.	Companies' environmental endeavors mitigate their financial constraints more than other key aspects of CSR.
24	Xu et al. (2023)	Corporate social responsibility	Chinese firms from 2010–2018.	Minority shareholder activism improves CSR through monitoring mechanisms, especially when companies face financial constraints.
25	Farooq and Noor (2023)	Corporate social responsibility, financial constraints.	137 listed firms on Pakistan Stock Exchange from 2010-2019.	CSR has a negative impact on financial constraints.
26	Sibisi and Makka (2022)	Corporate social responsibility, financial constraints.	Three NPOs from Johannesburg.	Financial constraints are a major obstacle to the successful implementation of CSR initiatives by South African non-profit organizations.



27	Yang (2022)	Corporate social responsibility	4565 firms listed on the mainland and Hong Kong stock markets before 2013.	Financial relaxation is a credible channel for stock market liberalization to improve CSR.
28	He et al. (2022)	CSR	Listed companies in China for the 2011-2019.	Firms with higher financial constraints have a greater incentive to increase their CSR activities in the immediate aftermath of a natural disaster.
29	Sun (2022)	Corporate social responsibility, sustainable development.	555 Chinese real estate companies from 2015 to 2019.	The early and growth stages of CSR fueled financial constraints of Chinese real estate firms, while the mature stage of CSR had a dampening effect and reduced financial constraints.
30	Zhou and Gan (2022)	Corporate social responsibility	Enterprise data in China from 2012-2019.	Institutional investor site visits improve a company's CSR performance, and this positive effect is particularly pronounced in companies with more financial constraints.
31	Kong et al. (2022)	CSR, financial constraint.	6269 firms in China during 2008-2018.	Tax incentives favor CSR disclosure by enterprises, with the rational mechanism of reducing the financial burden.
32	Hong et al. (2022)	Corporate social performance	Not mention.	Increase in corporate social responsibility varies with financial constraints.
33	Haryanto et al. (2021)	Corporate social responsibility, financial constraints.	77 manufacturing firms listed on the Indonesian Stock Exchange between 2012 and 2014.	Companies with non-financial constraints increase their CSR investments to increase firm value. However, companies with financial constraints need to carefully examine the impact of CSR on firm value when making CSR-related decisions.
34	Yan (2021)	Corporate social responsibility, financial constraints.	Listed companies in China from 2007-2018.	Co-owned enterprises can ease their financial constraints when investing or increasing their investments in social responsibility.
35	Farooq and Noor (2021)	Corporate social responsibility, financial distress.	139 companies listed on the Pakistan Stock Exchange during 2008-2019.	CSR has a significant positive effect on financial distress.

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|----|-------------------------------|---|---|--|
| 36 | Kong et al. (2021)            | Corporate social responsibility                         | Listed companies in China from 2009-2016                                | CSR performance improves for firms facing financing constraints after anti-corruption campaigns.   |
| 37 | Anagnostopoulou et al. (2021) | Corporate social responsibility                         | All of the Compustat North American firms after the year 2000.          | In a situation of financial constraints, catering to capital providers through conservative reporting becomes a priority for managers rather than engaging in CSR.                 |
| 38 | Nguyen and Nguyen (2021)      | Corporate social responsibility, financial constraint.  | Vietnam commercial banks during 2008-2017.                              | CSR activities reduce banks' risk-taking, and this relationship exists only for financially constrained banks.   |
| 39 | Choi et al. (2021)            | CSR, financial constraint.                              | 3940 companies listed on the Korean stock market from 2009-2017.        | CSR weakens the positive impact of financial distress on earnings management.  |
| 40 | Zhu et al. (2021)             | Corporate social responsibility                         | Listed firms in China from 2010-2019.                                   | Financial constraints are a potential transmission mechanism for the link between customer concentration and CSR performance.  |
| 41 | Leong and Yang (2021)         | Corporate social responsibility, financial constraints. | Sample of firms constructed by propensity score matched from 1991-2013. | Firms with financial constraints pay significantly more attention to CSR.  |
| 42 | Kong et al. (2021)            | Corporate social responsibility                         | Listed companies in China from 2009-2013.                               | Political incentives can significantly improve corporate social responsibility, and this relationship is particularly evident in firms with relatively high financial constraints. |
| 43 | Li et al. (2021)              | CSR   | Venture capital firms in China from 2011-2017.                          | CSR of invested firms enhances the mitigating effect of financial constraints imposed by VC firms on invested firms.   |
| 44 | Dumitrescu et al. (2020)      | CSR, Financial distress.                                | 3724 U.S. firms from 1991-2015.   | CSR increases the likelihood that firms will fall into financing constraints in the future.  |
| 45 | Park et al. (2020)            | CSR activities, financial constraints.                  | 19,367 U.S. companies from 1994-2016.                                   | CSR activities undertaken by financially unconstrained companies can be detrimental to shareholder value in the  |

				long run due to overconfident CEOs.
46	Wang et al. (2020)	Not mention.	Listed firms on the Shanghai and Shenzhen stock exchanges from 2012-2017.	CSR can improve a company's financial performance, which is more evident in financially constraint companies.
47	Zhao et al. (2020)	Corporate social responsibility	Companies with A-share listings on the Shanghai Stock Exchange and Shenzhen Stock Exchange in China from 2010-2018.	The dampening effect of economic policy uncertainty on CSR is stronger for firms facing severe financial constraints.
48	Liu et al. (2019)	Financial constraints, social responsibility information disclosure.	A-share listed companies in Shanghai and Shenzhen Stock Exchange in China from 2013-2017.	CSR disclosure has a negative impact on financial constraints.
49	Zhao and Xiao (2019)	Corporate social responsibility, financial constraints.	A-share listed companies in Shanghai and Shenzhen Stock Exchange in China from 2010-2016.	CSR engagement is negatively related to financial constraints for firms in the growth, maturity and decline phases of the life cycle.
50	Samet et al. (2018)	Corporate social responsibility, financial constraints.	397 European companies listed in the STOXX Europe 600 Index from 2009-2014.	Firms with higher CSR performance have lower financial constraints.
51	Al-Dah et al. (2018)	Social and environmental disclosure	Companies listed on the FTSE 350 from 2007-2012.	Poor corporate expertise on the part of outsiders, coupled with poor accounting performance of firms, created additional financial constraints on firms engaging in CSR activities during the recession.
52	Bello et al. (2017)	Corporate social responsibility	12 large hotels in the main cities of Malawi.	Financial constraints are one of the major impediments to CSR.
53	Chan et al. (2017)	Corporate social responsibility, financial constraints.	Firms listed in the US market from 1992-2010.	There is a significant negative correlation between CSR activities and the level of financial constraints.
54	Śmiechowski and Lament (2017)	Corporate social responsibility	69 Dutch companies from 2009 to 2011.	Small businesses are less motivated to engage in CSR, largely due to financial constraints.

55	Sahut et al. (2016)	Not mentioned.	486 large U.S. and European firms, spanning the period 2002-2011.	The main determinant of CSR is governance under financial constraints.
56	Shen et al. (2015)	Barriers of CSR	Firms in textile industries in southern India.	Financial constraints a major barrier to CSR implementation in Indian textile industry.
57	Choi and Kawk (2015)	Corporate financial constraints, corporate social responsibility.	1,584 Korean enterprises from 2002-2011.	There is a significant negative relationship between corporate financial constraints and CSR.

### Bibliometric analysis of included studies

Based on the above 57 literatures, bibliometric analysis which includes journal impact factor, number and cumulative percentage of studies published in different years, number of publications of per journal, geographic distribution of articles, study method choice and industrial sector will be conducted to have in depth understanding about the trend of existing studies (Caiado et al., 2017). Thus, research question 2 can be answered.

Firstly, journal impact factor analysis of the included studies. Above 57 literatures come from 40 different journals and their journal impact factor are measured by Journal Citation Reports (JCR), which is published annually by Thomson Reuters. Among these 40 journals, only 4 journals (African Journal of Hospitality, Tourism and Leisure, Global Business and Finance Review, Pacific Basin Finance Journal, Tourism and Leisure, Universal Journal of Accounting and Finance) are not listed on JCR, which also indicates that most of the journals included in this study is of high quality. For the remaining 36 journals, this study derives their 2022 journal impact factor and average journal impact factor of recent 5 years from the JCR and the results are indicated in figure 2. It should be noted that for some journals, average journal impact factor for the last 5 years is not indicated in JCR, therefore only 2022 journal impact factor of these journals are shown in figure 2. It can be seen from the figure 2 that Energy Economics is the journal with the highest impact factor in 2022 and its average 5 years' journal impact factor is 7.69.

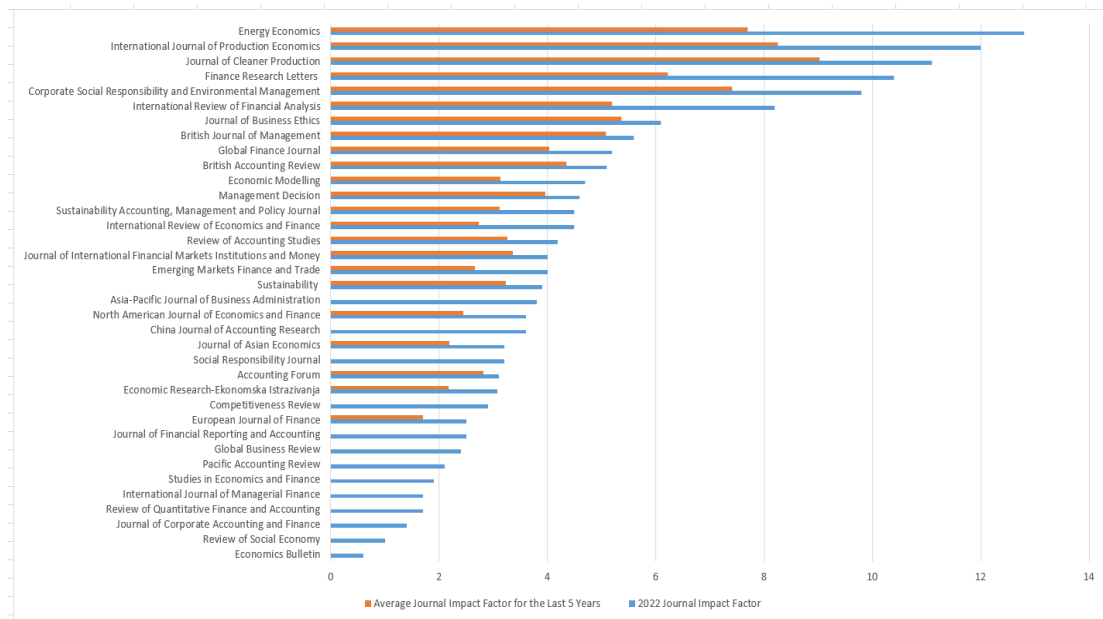


Figure 2: Journal Impact Factor of the Included Studies

Secondly, analysis of number and cumulative percentage of articles included in this study published in different years. From figure 3, it can be seen the number and cumulative percentage of publication during the year between 2015 and 2024. The overall trend is fluctuated increase and reaches the greatest numbers in 2023 with the number of 23 publications. It indicates that the topic about CSR and financing constraints is gradually getting more attention for the researchers.

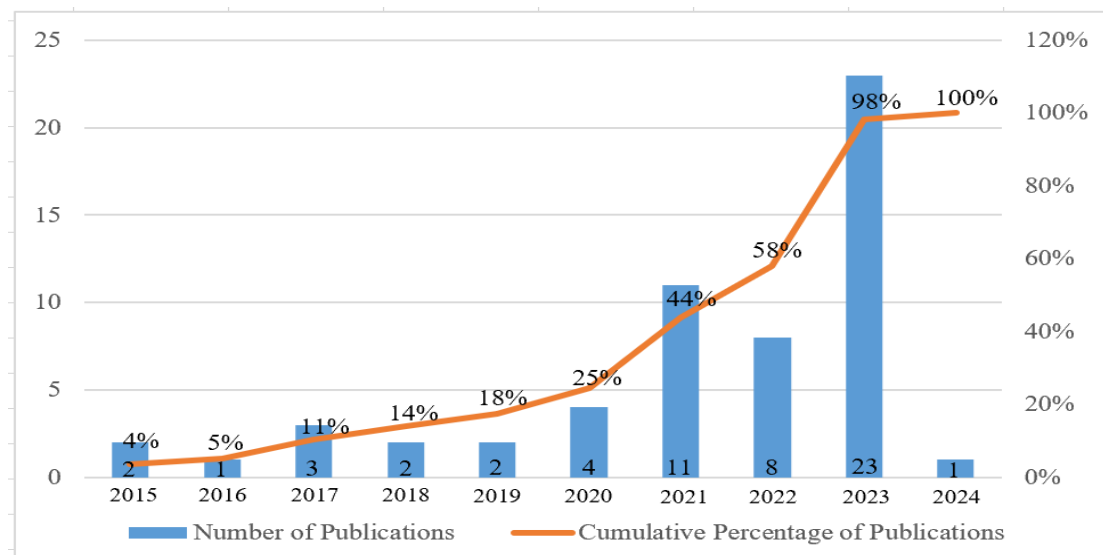


Figure 3: Number and Cumulative Percentage of Included Studies Published in Different Years

Thirdly, analysis about the number of publications of per journal for included studies. From figure 4 it can be seen most of the journals are published in Sustainability (11%), International Review of Economics and Finance (7%), Economic Modelling (5%) and Finance Research Letters (5%), together they account for about 30 per cent of total publications. It indicates that above mentioned four journals contribute to the topic concerning the relationship between CSR and corporate financial constraints.

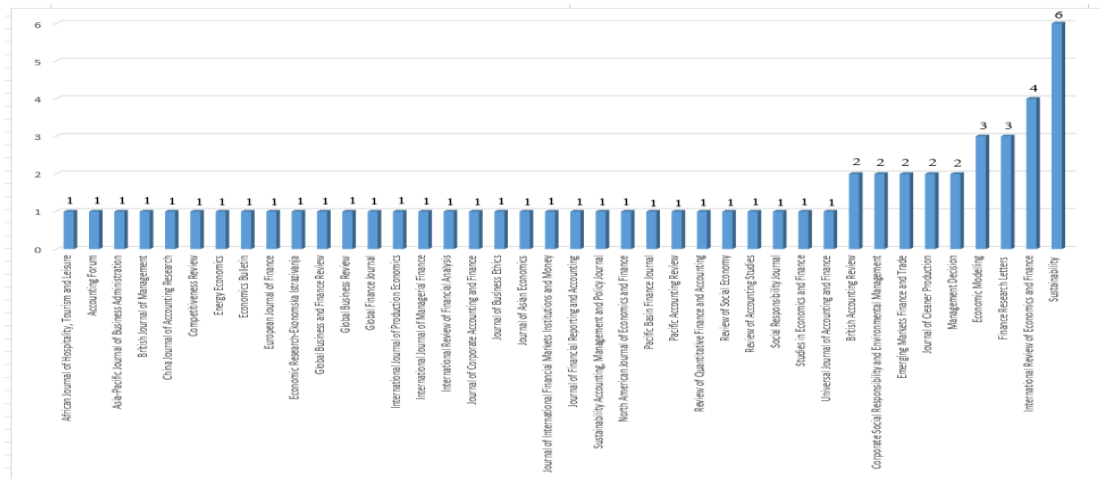


Figure 4: Number of Publications of per Journal for Included Studies

Fourthly, analysis of geographic distribution of articles included in this study. Figure 5 shows the countries that are interested in the topic concerning the relationship between CSR and financial constraints. Among these studies, nearly a half of the research (47%) are conducted in China which indicates that Chinese capital market may suffer from this problem seriously. For other countries that there is less research, it shows that firms in these countries may not realize the important influence of CSR on financial constraints, or it can attribute to reasons that firms in these countries have good performance in CSR, thus will not confront the financial constraints caused by poor CSR performance. In addition, most of the researches focus on one country, but still 6 articles are conducted in multiple countries context and also there is 1 article not specifying the country that the research is done.

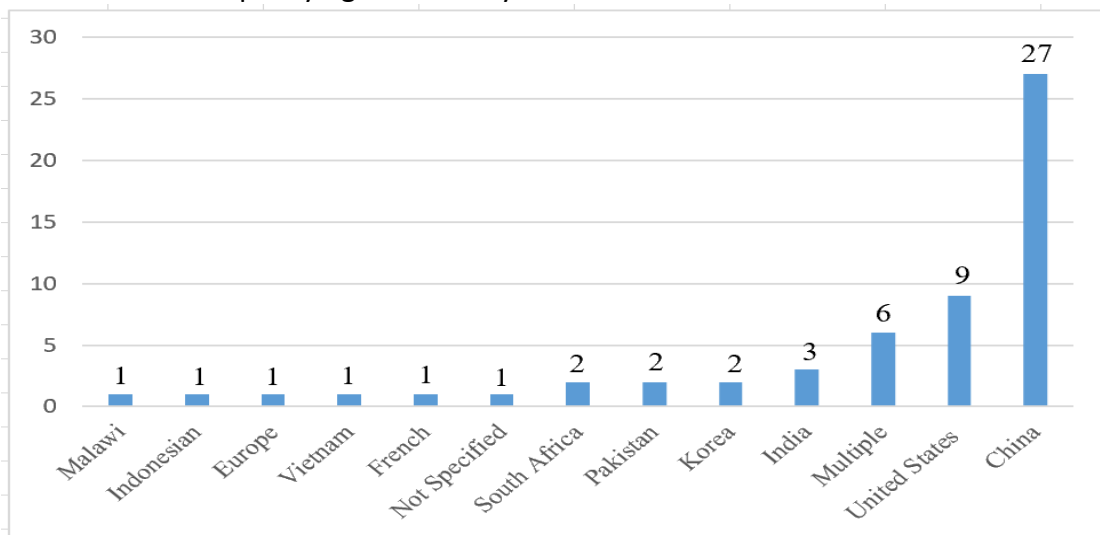


Figure 5: Geographic Distribution of Articles included in this Study

Fifthly, analysis of study method choice for included studies. It can be seen from figure 6 that 54 researches are empirical research and it takes account for almost 95% of the included studies. It indicates that most of the existing studies regarding the relationship between CSR and financial constraints are data-supported, thus they are convincing and objective to some extent. In addition, there are also three studies using qualitative method like interview and model to conduct the research, but they only take account for about 5% of the included studies.

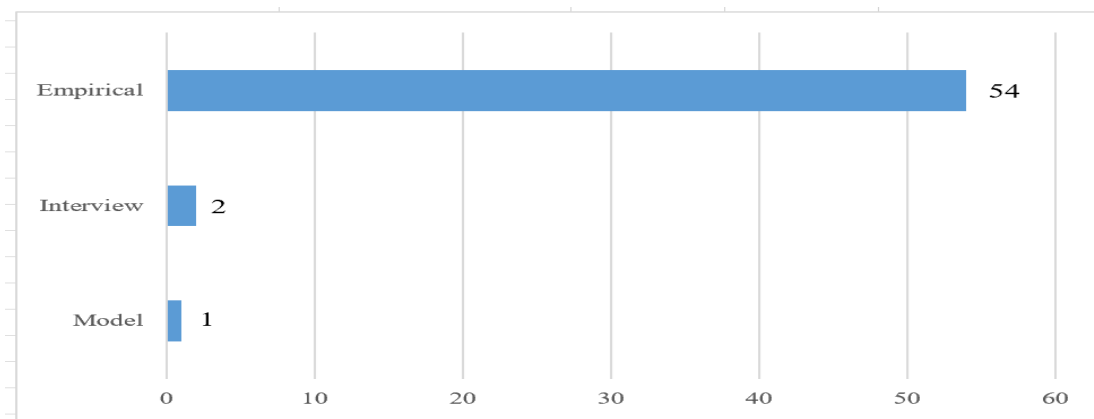


Figure 6: Study Method Choice for Included Studies

Finally, industry sector analysis of included studies. The distribution of industry sector for included studies are shown in figure 7. It can be seen that 47 out of 57 studies with a percentage of 83% focus on mixed industry. Remaining articles focus on single industry, among them 3 studies relate to manufacturing industry and 1 study relate to non-profit organization, hospitality, commercial bank, real estate, tourism, tanning industry and textiles respectively. The wide range of industry sector distribution of existing studies indicate that the issue regarding the relationship between CSR and financial constraints are common in many industries.

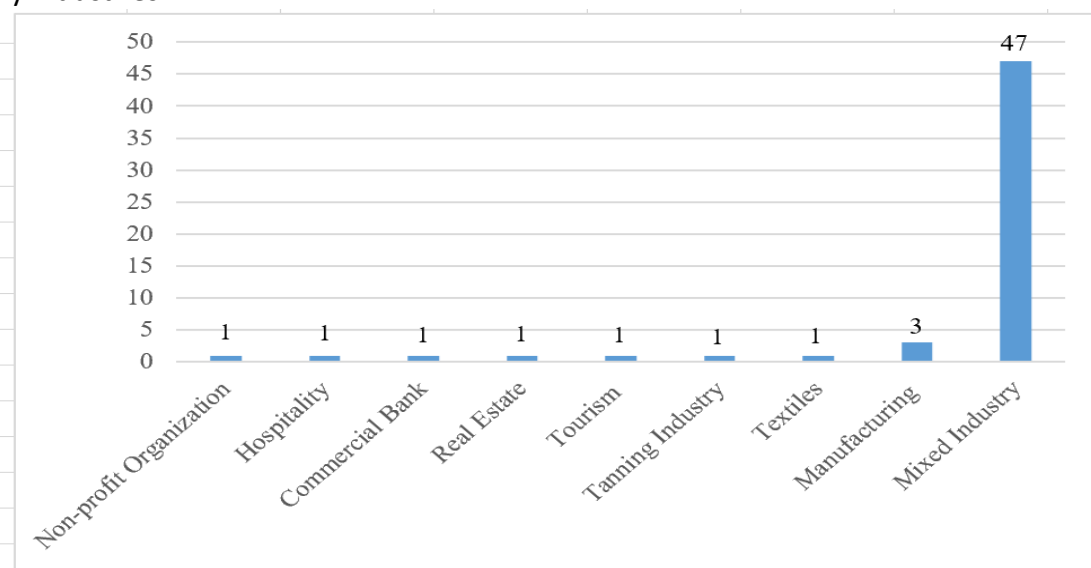


Figure 7: Industry Sector Analysis for Included Studies

### Analysis of relationship between CSR and financial constraints in included studies

After the summaries and bibliometric analysis of included studies are presented, then this study will make analysis on the relationship between CSR and financial constraints of included studies, and then research question 3 can be answered.

### Impact of CSR on financing constraints

Most of the existing studies indicate that increase in CSR helps to alleviate financial constraints. Samet et al. (2018) find that there is a negative relationship between CSR and financial constraints, and this alleviation effect is attributed by mitigation of agency conflict of free cash flow and information asymmetry. Yan (2021) shows that co-owned enterprises



can benefit by easing financial constraints when they increase socially responsible investments. Ma et al (2023) conclude that after pollution emergency, firms choose to increase CSR to gain reputation and further ease financial constraints. Liang and Chen (2024) indicate that under a mandatory CSR reporting system, firms with political connections or located in more market-oriented regions can reduce their financial constraints. Kumar et al. (2023) get empirical evidence that increase in CSR spending help to reduce financial constraints for firms. Farooq and Noor (2023) indicate that there is a negative relationship between CSR and financial constraints, but when powerful institutional investors appear, the negative relationship between CSR and financial constraints disappear. Hendijani Zadeh (2023) show that higher CSR transparency help firms to reduce financial constraints, which further reduce the need to hoard cash. Zhou and Gan (2022) conclude that site visits of institutional investors help to increase CSR, which further help firms to reduce financial constraints. Choi et al (2021) find that increase in CSR will help firms to alleviate financial constraints, thus firms do not need to manipulate earnings even if they are in financial distress. Li et al (2021) get empirical evidence that increase in CSR help to amplifies the alleviation effect of venture capital firms' investment on invested firms' financial constraints. Su and Lu (2023) show that CSR helps to relief financial constraints and enables firms to make more investment in financial assets.

However, some studies indicate that increase in CSR will aggravate financial constraints. Al-Dah et al (2018) find that under the economic recession period, increase in CSR will increase firms' financial constraints. Farooq and Noor (2021) show that managers overinvestment in CSR in order to get personal benefits, thus the financial constraints will increase as well. Meanwhile, there is also research combining the above two opposite opinions and concluding that the relationship between CSR and financial constraints depends on firms' life cycle, positive relationship between CSR and financing constraints exists in firms' initial stage of life cycle, but negative relationship between CSR and financial constraints exists in firms' growth, mature and declining stage (Dahiya et al., 2023). Thus, based on the above synthesis, first research question can be answered, CSR can both facilitate and inhibit financing constraints.

### **Impact of financing constraints on CSR**

Prevailing review show that decreases in financial constraints will increase CSR and increases in financial constraints leads to decrease in CSR. Firstly, look at the effects of decreased financial constraints on increased CSR. According to Attig (2023), relaxing financial constraints increases CSR and this relationship is more pronounced for firms with stronger financial constraints, more dispersed analysts and more volatile cash flows. Sahut et al (2016) indicate that the determinant of CSR is the governance under financial constraints, firms with less financial constraints will increase their CSR. Chulkov and Wang (2023) find that firms which have fewer financial constraints will have better CSR performance and further enable firms to get more accurate financial forecasts and fewer earnings surprises. Cheng et al (2023) conclude that investments of venture capital firms help invested firms reduce financial constraints and finally increase invested firms' CSR performance. Chen (2023) show that the development of digital economy helps to reduce financial constraints and environmental uncertainty and they further have stimulating effects on CSR development. Kong et al (2022) get empirical evidence that tax incentives help to reduce financial constraints which further increase CSR disclosure.

Secondly, look at the effects of increased financial constraints on decreased CSR. Zhu et al (2021) show that suppliers will weigh benefits and costs to engage in CSR activities in order to response to customer risks, thus if they are financially constraint, they will strategically reduce the CSR investment. Sibisi and Makka (2022) indicate that non-profit organizations are facing financial challenges, thus it is difficult for them to CSR projects successfully. Bello et al (2017) find that financial constraints and lack of CSR awareness are the main impediment for firms to engage in CSR activities. Leong and Yang (2021) conclude that financial constraints will significantly hamper firms' CSR performance in all dimensions. Chan et al (2017) get empirical evidence that firms experiencing financial constraints will not engage in CSR activities. Zhao et al (2020) show that economic policy uncertainty will increase firms' financial constraints then reduce their CSR behavior.

However, some researchers have opposite opinions and they believe the increase in financial constraints helps to increase firms' CSR. Kong et al (2021) show that firms with serious financial constraints will strategically increase CSR investment to establish good relationships with local governments and then get more subsidy benefits. Kong et al (2021) indicate that firms face financial constraints after anti-corruption campaigns, thus they will increase CSR to build good reputations in order to solve financial distress. Therefore, based on the above synthesis, second research question can be answered, financing constraints can both facilitate and inhibit firms' corporate social responsibilities.

### **Moderation effects between CSR and financing constraints**

Included studies indicate that financial resources have moderating effects on the relationship between CSR and other factors. Park et al (2020) show that there is a positive relationship between CSR and long-term performance and this positive relationship will be more obvious for financial constraint firms. Xu et al (2022) conclude that minority shareholder activism help firms increase corporate social responsibility and this positive relationship will be more obvious for moderate financial constraint firms. Yang et al (2022) get empirical evidence that stock market liberalization facilitate firms' CSR performance in China, and this positive relationship will be less obvious for financial constraint firms. Xiong et al (2023) find that institutional investors significantly increase firms' CSR and this positive relationship is more obvious for non-financial constraint firms. Wang et al (2020) indicate that CSR investment can increase firms' financial performance and this positive relationship is more obvious for financial constraint firms. Fernandes et al (2023) show that CSR has positive impact on firms' survival, and this relationship is less significant for state owned entities with financial constraints. Lin et al (2023) conclude that internal whistleblowing system has positive impact on firms' CSR, and this positive relationship is more obvious in less financial constraint firms. He et al (2022) get empirical evidence that firms choose to engage in CSR activities after the natural disaster happen, and this action is quicker in financial constraint firms. Nguyen and Nguyen (2021) find that CSR engagement help banks to reduce risks and this relationship is more obvious for financial constraint firms. He et al. (2023) indicate that appointment-based CEO connectedness has positive impact on firms' CSR, and this positive relationship is more obvious for low financial constraints firms. Theiri and Alareeni (2023) show that managers' characteristics such as education level, management experience and ethical behavior have positive impact on firms' CSR practice, and this positive impact is more obvious in financial constraint firms. Zhou and Gan (2022) conclude that site visits of institutional investors increase firms' CSR performance, and this relationship is more obvious in high financial

constraint firms. Choi et al (2021) get empirical evidence that better CSR performance help to reduce earnings management manipulation and this relationship is more significant for financial constraints firms. Kong et al (2021) find that political incentives have significant positive relationship on firms' CSR, and this relationship is more obvious in high financial constraint firms. Chulkov and Wang (2023) indicate that good CSR performance help firms to increase financial forecast accuracy, decrease earnings surprises and increase financial analysts' coverage, and these relationships are more significant for non-financial constraints firms. Malik et al (2023) show that the after the natural disaster happen, CSR increase firms' performance and this relationship is more obvious for low financial constraint firms. Zhao et al (2020) conclude that increase in economic policy uncertainty will decrease firms' CSR participation, and this negative relationship is more significant for severe financial constraint firms.

There is also 1 article mentioning the moderating effects of corporate social responsibility on the relationship between financing constraints and other factors. According to Li et al (2021), venture capital firms help invested firms to reduce financial constraints and further change the financial condition of invested firms, this relationship is more obvious if firms engage in CSR activities. Hence, based on the above synthesis, third research question can be answered, financing constraints has moderating effects on the relationship between CSR and other factors, and CSR also has moderating effects on the relationship between financing constraints and other factors.

### **Discussion**

Based on the above systematic literature review, this study provides a thorough understandings about the relationship between CSR and financial constraints of existing studies, but there are still several limitations in this study. In addition, the analysis of included studies also provides contributions/implications for practice and academy, and also indicate future research direction.

### **Limitations**

There are several research limitations in this study. Firstly, this study only focuses on the academic journals in Scopus database due to the comprehensive search it provides and subject characteristics it has, thus journals included in other databases but not included in Scopus may be omitted. Secondly, this study does not only include articles ranking in Journal Citation Report, but also includes studies not ranking in Journal Citation Report, thus the quality of some articles is not good. Thirdly, this study adopts qualitative content analysis, thus this research may exist bias in some aspects due to the authors' perceptions. Fourthly, this study does not pose time constraints on selecting papers, thus some of the articles may not update with most recent knowledge. Finally, 57 included studies of this research are filtering by keywords in keywords, titles and abstracts, there is possibilities that some of the relevant studies are not included in this research because of the lack of keywords in these articles' keywords, titles and abstracts.

### **Implications**

This study provides both academic and practical implications which also are regarded as the contributions to existing study. In general, the relationship between CSR and financial constraints makes academics and managers realize the importance of CSR and the reasons

for firms' financial constraints. To be more specific, from academic implication aspect, this study is benchmarking for future analysis of CSR and financing constraints. It can be used as a guide to build knowledge in systematic way and fulfill the gap in the literature by providing a comprehensive overview of the research agenda developed in the period of 2015 to 2023, pointing out interrelationship between CSR and financial constraints, considering a glimpse of the current situation of CSR and financial constraints.

From practical implications aspect, firstly, included studies indicate that CSR has positive or negative influence on firms' financing constraints in different scenarios, thus it provides implications for managers about using CSR to strategically reduce financing constraints, managers should have thorough understandings about firms' situation when they are facing financial constraints problems and decide whether it is appropriate to integrate CSR into firms' strategy to solve the issue. Secondly, included studies show that increase in financial constraints sometimes facilitate firms' CSR but sometimes inhabit firms' CSR. Therefore, it provides implications for managers that if firms do not have sufficient financial resources, they need to think about whether keep on engaging in CSR activities. Thirdly, included articles indicate that CSR/financing constraints have moderating effects on the relationship between financing constraints/CSR and other factors. Hence, managers should notice that CSR and financial constraints can be tools to solve other problems exists in firms. In addition, this study also provides practical implications for parties outside firms, such as government, regulators and public. From the relationship between CSR and financing constraints, these outside parties should realize that sometimes firms' CSR investment is only a method used by firms to resist the financial distress and get out of the financial constraints' dilemma. While this mechanism can also be utilized by government and regulators to facilitate firms to take active participation in corporate social responsibility activities, which further facilitate the harmony and stable development of capital market.

### **Future Research**

Based on the systematic literature review of existing studies, future research can be conducted from following aspects. Firstly, 47% of the existing research concerning the relationship between CSR and financing constraints are in Chinese context, thus future research can choose other countries or regions as the background to investigate whether results are consistent or not. Secondly, analysis show that quantitative method dominated the field and there is no existing systematic literature review on the relationship between CSR and financial constraints. According to Crane et al (2018), there is significant cause for concern related to the measurement accuracy in quantitative research. Thus, future research can adopt more qualitative method about this topic in order to overcome the weakness of quantitative method. Thirdly, bibliometric analysis indicates that most of the included researches concerning the relationship between CSR and financial constraints are focusing on mixed industries, it is necessary to conduct research in other specific industries to see whether there is sector heterogeneity regarding this topic. Fourthly, more than half of the researches show there is negative relationship between CSR and financial constraints, while only about 10% of the studies indicate the positive relationship between CSR and financing constraints. Hence, more research can be conducted to discuss about the above-mentioned positive relationship.

**Conclusion**

Financial resources are important for firms' survival and future development (Kumar & Ranjani, 2018). It is different and expensive for Chinese firms to obtain finance because China has not yet established a sound financing system (Wang, 2020). The prevailing financial constraints in Chinese entities attribute to information asymmetry and agency problems, creditors will increase cost of debt if they have less information about firms' situation (Jones, 1995). However, corporate social responsibilities can be strategically used as tools to help reduce information asymmetry and further reduce financial constraints (Liang and Chen, 2024), but some researches also indicate that CSR can deteriorates financial constraints in some scenarios (Dahiya et al., 2023; Farooq and Noor, 2021; Al-Dah et al., 2018). In addition, financing constraints also have significant reverse effects on CSR (Kumar et al., 2023; Kong et al., 2021). Based on the motivations of deriving a comprehensive understanding about the nexus between CSR and financing constraints, this systematic literature review is conducted by adopting PRISMA method. To be more specifically, this study is aimed at answering following three questions: (1) What kind of contents are involved in existing research on the relationship between CSR and financial constraints? (2) What are the trends of existing research on the relationship between CSR and financial constraints? (3) What are the findings on relationship between CSR and financial constraints in existing studies?

Following are the methods used to search and filter the included studies in this study. Firstly, this study uses key words "CSR" and "financing constraints" in the title, abstracts and keywords of articles combining Boolean operators such as "AND" and "OR" to search in Scopus database within the social science, economics, econometrics and finance; business, management and accounting subjects. Last search is finished in Nov. 2023 and 70 initial results are identified. Then several inclusion criteria (peer-reviewed academic journals; papers related to corporate social responsibility and financial constraints at the same time; empirical studies; appears with all publication dates; full text available online; written in English) and exclusion criteria (books, book chapters, working papers, conference papers; papers only related to corporate social responsibility or financial constraints; literature reviews, commentaries, or meta-analysis; papers not available in full text; written in other language) are applied to artificially filter the articles in order to get the most relevant articles. After applying above inclusion and exclusion criteria, 9 papers are identified to be irrelevant to this topic, 3 papers are book chapters and 1 paper is conference paper, thus, 57 good quality papers are derived to be included in this study.

Based on the above 57 papers, results are provided through content analysis in order to answer the above three research questions. The results are divided into three parts. Firstly, summary of the 57 literatures, it includes authors, date, keywords, sample and sample size, and findings of included studies. Secondly, bibliometric analysis, above 57 studies come from 40 different journals and among these journals, Energy Economics is the journal with the highest impact factor in 2022. These journals are published within the period 2015-2024 and the overall publication trend is fluctuated increase, reaching the greatest numbers in 2023 with the number of 23 publications. Most of the journals are published in Sustainability (11%), International Review of Economics and Finance (7%), Economic Modelling (5%) and Finance Research Letters (5%), taking accounts of about 30 per cent of total publications. Moreover, half of these studies are conducted in China, 95% of the studies are empirical study, and most of the studies are focusing on mixed industries. Thirdly, analysis of findings for included

studies, it indicates that CSR and financing constraints have both positive, negative and moderating impact on each other.

This study has some limitations such as this study is only focus on academic journals in Scopus database without time limitation and some of the included articles are not ranking in JCR, bias of qualitative content analysis method may exist, also there is risk that some relevant studies are not included in this research because of the search strategy. In addition, this systematic literature review provides both academic and practical contributions/implications for researchers and practice. Future research can focus on this topic in other countries and specific industries by using quantitative method, while positive relationship between CSR and financing constraints are also worth further discussion.

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