Themes	Papers addressing the themes	Key Findings
Applicability /Relevance of GRI Standards	Dienes et al. (2016)	Firm size, media visibility and ownership structure are the main determinants of sustainability reporting.
	Galani et al. (2012)	GRI reporting and industry membership are two important factors influencing firms' environmental ratings.
	Legendre and Coderre (2013)	Industry has significant influence on firms' adoption of GRI Guidelines. In high-risk industries, the old GRI application level was used to manage reputation.
	Yadava and Sinha (2016)	Companies based in developing countries lack reporting skills.
	Tauringana (2020)	GRI Standards have had limited impact on increasing sustainability reporting in developing countries.
	Dissanayake (2020)	Due to huge economic, social, and environmental differences between developed and developing countries some KPIs in GRI Standards may not be relevant to the settings in developing counties.
Nature of adoption of GRI Standards by report preparers	Fernandez-Feijoo et al. (2014)	Listed firms tend to disclose more, but less credible, CSR information. European firms tend to disclose more CSR information. Firms in different industries have different levels of disclosure.
	Talbot and Boiral (2018)	Companies tend to use disclosure to manage firm's image by only partially disclosing information on carbon emissions.
	Chiarini (2017)	Companies put different levels of emphasis on different indicators, as they pay more attention to suppliers' compliance to regulations.
	Gaudencio et al. (2020)	There's a lack of full adherence to GRI Guidelines in Brazilian oil and gas companies and a need to develop sector specific indicators.
	Yadava and Sinha (2016)	Companies' reporting on economic dimension is comparatively better than on social and environmental dimensions.
	Wells et al. (2021)	Selective and unbalanced reporting along with symbolic management undermines the legitimacy of sustainability efforts by LVMH and Kering.
Materiality assessment in GRI reporting	Boiral and Henri (2017)	The main causes of measurability and comparability problems are unclear, ambiguous, or incomplete answers, qualitative and non-comparable data, unspecific information, heterogeneous measurement units, report complexity and opacity, overemphasis on positive elements, and so forth.
	Font et al. (2016)	Cruise companies are likely to over-report immaterial issues and underreport material issues and less likely to respond to stakeholders' requests.
	Siew (2015)	Comparability of sustainability reporting difficult. Firms use sustainability reporting tools (SRTs) to manipulate stakeholders' perceptions rather than disclosing actual performance.
	Toppinen and Korhonen-Kurki (2013)	The overall quality of sustainability reporting from 2005 to 2009 has followed GRI Guidelines and improved. Companies tend to have different interpretations about social impacts based on GRI Guidelines. The adoption of GRI does not improve the comparability of the reports or transparency of practices.
	Hussain et al. (2018)	There is a lack of inter-linkage between different sustainability dimensions of stand-alone reporting frameworks.
	Font et al. (2016)	Materiality analysis can play an important role in being more inclusive of the needs of stakeholders.
	Machado et al. (2021)	The organisations fail to identify and disclose all material issues, which may be a result of conflicting interpretation of GRI indicators and being unclear about the process of the materiality assessment.
Level of understanding	Alazzani and Wan-Hussin (2013)	Oil and gas companies followed GRI Guidelines and made reasonable efforts to disclose their environmental performance. GRI

of GRI Standards		Guidelines is a proper tool for reporting firms' environmental performance due to its robustness and comprehensive coverage of environmental issues.
	Wagner and Seele (2017)	There is a lack of guidance/understanding on ‘‘how’’ to apply GRI principles. The democratic control mechanisms of transparency, accountability, and discourse were only partially enabled by G4.0. Negative aspects are mainly related to the lack of comparability and standardization, leading to a lack of stakeholder empowerment. Only if all reporting processes are fully transparent can companies be reliable participants in a global governance system.
	Yadava and Sinha (2016)	GRI may need to put greater emphasis on enhancing the reporting skills of companies in developing countries.
	Safari and Areeb (2020)	GRI approaches to stakeholder relations, communication strategies, and measurement techniques appear to be ambiguous.
The voluntary nature of GRI Standards	Adams et al. (2014)	The comprehensive implementation of sustainability reporting are unlikely to be adopted in the public sector while they remain voluntary. There is no competitive advantage in the adoption of such measures. Either the reporting needs to be made mandatory or the non-competitive nature of their operations needs to change, for example by tying resources to sustainability performance measurement.
	Khan et al. (2020)	Mandatory regulations and GRI usage help to improve the quality of sustainability reporting in Bangladesh banks.
	Kaspereit and Lopatta (2016)	Sustainability ranking and sustainability reports complying with GRI Guidelines are positively associated with market valuation.
Quality of assurance	Boiral et al. (2019)	Although the GRI provides a description of each reporting principle and a short checklist to verify its application (GRI 2006), their substantial integration into the assurance process can be tedious and more guidance is required to support verification.
	Michelon et al. (2015)	There's a need for a assurance guidelines to increase the credibility of assurance.
	Karaman et al. (2021)	External assurance can signal firms' superior sustainability performance and firms that adopt GRI are more likely to seek external assurance.
	Safari and Areeb (2020)	Many organisations regard external assurance as a costly and non-value-added activity. Therefore, organisations, especially those at the early stage, are more likely to use alternative ways, such as internal audits and consultant assurors to ensure the reliability of sustainability disclosure.