

# Consequences of local social norms: A review of the literature in accounting, finance, and corporate governance

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## Abstract

We synthesise the empirical archival research on the consequences of local social norms on accounting, finance, and corporate governance outcomes in an international setting. The literature reviewed is premised on the theory that corporations do not make decisions, but managers do, and managers are likely to be influenced by the socioeconomic environment of the region in which they operate and/or by the people with whom they interact. To provide a structure to our review, we identify social capital, religiosity, gambling norms, and corruption culture, as four constructs of local social norms and link these with financial reporting and external auditing, financial, investment, and dividend decisions, capital market consequences and finally, corporate governance and corporate social responsibility behaviour of firms. We highlight some limitations of the existing research and offer some suggestions for future research.

## KEYWORDS

corruption, gambling, religiosity, social capital, social norms, social trust

## JEL CLASSIFICATION

G10, G30, G34, M41, M42

## 1 | INTRODUCTION

We provide a systematic literature review of the international literature on the consequences of local social norms on accounting, finance, and corporate governance outcomes. Social norms can be construed as ‘common standards within a social group regarding socially acceptable or appropriate

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behaviour, the breach of which has social consequences. The strength of these norms varies from loose expectations to unwritten rules [with norms being] internalized in socialization. [Although] society, its institutions, and social order depend on social norms, but within society different social groups also have their own norms. [However], the existence of social norms does not prevent them from being frequently violated' (Chandler & Munday, 2011, p. 178).

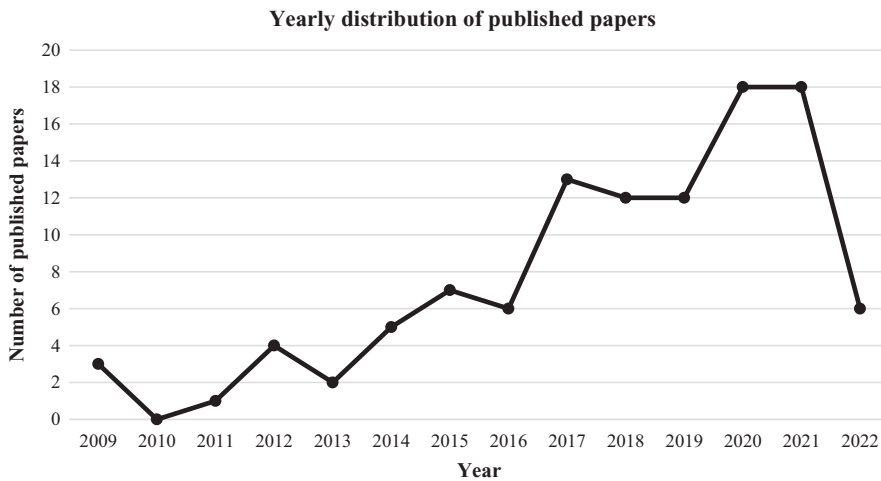
Social norms may be enforced, either by people whose interests are affected when norm violations occur, or by other parties who are unaffected by norm violations but are in a position to take actions against the violators (Coleman, 1990; Jan Piskorski & Gorbatai, 2017). Bicchieri (2006) develops a formal model that provides the necessary and sufficient conditions for activating a social norm. The model proposes that the decision to follow a social norm depends upon the belief of the existence of the norm, the belief that a large subset of people will honour the norm, and the belief that people will expect others to honour such norms in similar situations. The body of the literature to be reviewed posits that such local social norms have a discernible effect on managerial actions. The repeated interaction between one and another in the same locality creates social spillover. Based on the peer-effects view, Hong et al. (2004), for example, show that those who interact with their neighbours are more likely to invest in the stock market. Thus, managerial decisions are likely to be influenced by the spillover of local social norms.

This literature is premised on the notion that managerial actions are likely to be influenced by the socioeconomic environment of the region in which they live, or by the people with whom they interact. Marquis and Battilana (2009, p. 284) note, even the 'most cosmopolitan individuals and organizations are likely rooted in some home or headquarters location', which ensures that "local features remain salient". People work in institutions and live in the areas where local norms are consistent with their individual norms and beliefs. Local culture and norms affect individual beliefs, as individuals often engage in social interactions. Deviance from acceptable behaviour is costly, which also provides managers with incentives to comply with social norms (Akerlof, 2007).

Building on Akerlof (2007), several studies examine the role of social norms in decision-making, including financial reporting, financing, investment, and payout decisions. Owing to difficulties in measuring norm-compliance by managers, these studies often use the norms of the headquarters' region as a proxy for the norms of the firm's managers and argue that the cultural orientation of the managers is likely to be congruent with the culture of the region. To provide a structure to our review, we identified social capital, religiosity, gambling norms, and corruption culture, as four constructs of local social norms.<sup>1</sup> We choose these four norms as they affect economic behaviour in a meaningful way, as is evidenced from their impact on corporate outcomes ranging from financial reporting quality to risk-taking and to debt and stock market activities. For example, firms located in regions with high corruption incur high costs of equity, have fewer innovative activities, suffer from information asymmetry in the lending market, and have low firm value. We therefore organise our review following a simple framework whereby local social norms affect corporate outcomes. It is important to note that, although we consider these norms to be linked to the broader notion of social norm, they vary in the degree to which they capture the characteristics of local norms. For example, social capital is a very intangible, interchangeable term for a concept of social trust, compared with the more established concepts of religion and corruption, and the very tangible act of gambling.

We choose a systematic literature review approach. The advantage of systematic reviews lies in a 'replicable, scientific, and transparent process that enables the researcher to provide an audit trail, justifying his/her conclusions' (Tranfield et al., 2003, p. 218). We combine both electronic and manual

<sup>1</sup>One of the reviewers suggested that we consider political views and ties as an important part of social norms, especially within the US, because political views are contentious, yet topical, and vary by states within the US. We acknowledge that no single dimension of social norms captures the diversity of ideology perfectly, and political leanings in the US could be more nuanced than, for example, religion, and may be more representative of contemporary issues. However, while political ideology and ties affect financial reporting and capital market outcomes, we consider this stream of the literature distinct enough from social norms and hence, exclude it from our review. Especially, this strand of the literature relies on the political ideology of the CEO (e.g., Unsal et al., 2016), whereas our review focuses on the norms of the regions where the firms are headquartered.



**FIGURE 1** Number of published papers for the period 2009–2022

searches for collecting papers for inclusion in this literature review. We restrict the journal library search to papers published between the beginning of 2009 (the first published paper on religion and organisational behaviour using US county-level data by Hilary & Hui, 2009) to 2022, with a keywords search that includes ‘social norms’, ‘social capital’, ‘religion’, ‘religiosity’, ‘gambling’, ‘corruption’, ‘earnings quality’, ‘auditing’, ‘cash holdings’, ‘capital structure’, ‘corporate governance’ and ‘firm performance’.

We intend to provide an international review of the literature focusing on local social norms, in order to capture the variations in social norms within a country. This is because, as noted by Fisman and Gatti (2002), an advantage of within-country studies is that they control for institutional and other differences at the national level. Thus, we have excluded papers from our review that used social trust and religiosity data from various surveys, including the World Values Survey (WVS), and country-level corruption scores, such as the Corruption Perceptions Index (CPI) published annually by Transparency International (TI), as such sources provide a composite country-level score but do not provide within-country scores. We excluded papers where the social norm construct has been used as a control and/or mediating variable in explaining specific outcomes. Also excluded are papers that examined the relation between social norms and household behaviour instead of firm behaviour (e.g., Giannetti & Wang, 2016), and financially-motivated crimes (e.g., thefts, burglaries, robberies, and motor vehicle thefts; Holzman et al., 2021).

Our search process resulted in a total of 107 published papers that studied the consequences of social norms on accounting, finance and corporate governance outcomes using empirical archival method.<sup>2</sup> Figure 1 shows a clear upward trend in the number of publications over the years. Of the 107 papers, 46 papers have been published in A\* journals followed by 61 in A journals (Table 1), as per the 2019 version of the Australian Business Deans Council (ABDC) journal rankings (<https://abdc.edu.au/research/abdc-journal-list/>). We include papers published in journals ranked A and above to ensure a certain quality threshold. An important observation from the collection of papers being reviewed is that, outside the US, the empirical literature on the consequences of local social norms is rather limited.

<sup>2</sup>de Villiers et al. (2022) provide a systematic review of the literature into the theorisation of social capital in accounting research. The authors analyse 84 articles published in top accounting journals with 31 articles extensively discussing social capital theories/theorisation throughout the article, while the other 53 only mentioning social capital. The three interdisciplinary journals namely, *Accounting, Organizations and Society*, *Critical Perspectives on Accounting*, and *Accounting, Auditing & Accountability Journal* published 57% of the social capital articles published in accounting journals. As is evident from our review, we differ from de Villier's et al. (2022) in several aspects including, but not limited to, the scope and future research directions.

**TABLE 1** Number of papers per journal

Journal title	ABDC ranking	Number of papers
<i>Abacus</i>	A	1
<i>Accounting &amp; Business Research</i>	A	2
<i>Accounting &amp; Finance</i>	A	1
<i>Australian Journal of Management</i>	A	1
<i>Business &amp; Society</i>	A	1
<i>Contemporary Accounting Research</i>	A*	1
<i>Corporate Governance: An International Review</i>	A	1
<i>Economic Modelling</i>	A	1
<i>European Accounting Review</i>	A*	2
<i>Finance Research Letters</i>	A	1
<i>Financial Management</i>	A	1
<i>Global Finance Journal</i>	A	1
<i>International Review of Economics &amp; Finance</i>	A	3
<i>International Review of Financial Analysis</i>	A	1
<i>Journal of Accounting and Public Policy</i>	A	1
<i>Journal of Accounting Research</i>	A*	1
<i>Journal of Banking and Finance</i>	A*	8
<i>Journal of Business Ethics</i>	A	33
<i>Journal of Business Finance &amp; Accounting</i>	A*	4
<i>Journal of Business Research</i>	A	3
<i>Journal of Contemporary Accounting &amp; Economics</i>	A	3
<i>Journal of Corporate Finance</i>	A*	9
<i>Journal of Empirical Finance</i>	A	1
<i>Journal of Financial and Quantitative Analysis</i>	A*	8
<i>Journal of Financial Economics</i>	A*	4
<i>Journal of Financial Research</i>	A	1
<i>Management Accounting Research</i>	A*	1
<i>Management Science</i>	A*	1
<i>Review of Accounting Studies</i>	A*	1
<i>The Accounting Review</i>	A*	3
<i>The Financial Review</i>	A	1
<i>The International Journal of Accounting</i>	A	1
<i>The Journal of Finance</i>	A*	1
<i>The Journal of Financial Research</i>	A	1
<i>The Journal of the American Taxation Association</i>	A	1
<i>The Review of Corporate Finance Studies</i>	A*	1
<i>The Review of Financial Studies</i>	A*	1
Total number of surveyed papers		107

The general findings from the surveyed literature suggest that firms headquartered in high social capital and social trust regions provide high quality financial statements, are being perceived as low risk clients by their auditors, incur lower cost of debt and equity capital, have better corporate governance structure, and engage in value-maximising corporate social responsibility (CSR) activities than

firms headquartered in low social capital and social trust regions. Empirical evidence on the consequences of religious norms is generally consistent with those reported for social capital research. However, some studies suggest that strong religious beliefs do not necessarily imply ethical behaviour. Research on the consequences of gambling preferences provides evidence that gambling norms increase risk-taking propensities and adversely affect financial reporting quality. Finally, a high level of local corruption diminishes financial reporting quality and adversely affects audit outcomes. Firms headquartered in corrupt regions also hold more cash but pay more dividends. Firms located in regions with high corruption incur high cost of capital, suffer from heightened information asymmetry in the lending market, and have low firm value.

Our review is expected to make the following contribution. By synthesising the literature on how local social norms affect managerial behaviour, our comprehensive review will inform researchers about what has been learnt from this body of research and how this strand of the literature can be enriched further. Importantly, while reviewing the literature we have found some inconsistent findings that we highlighted in our review that future research should pay particular attention to. We have also provided several avenues for future research including, but not limited to, methodological shortcomings that are specific to research on the consequences of local social norms (see Section 7.2).

The remainder of the paper is organised as follows. Section 2 provides an overview of the theory of social norms, including the theory underpinning the four chosen norms. Section 3 summarises the empirical research on the consequences of social capital, including social trust, on accounting, finance and corporate governance outcomes. Sections 4, 5, and 6 do the same for religiosity, gambling norms, and local corruption, respectively. Section 7 highlights some shortcomings of the existing body of empirical research and offers some suggestions for future research. Section 8 concludes the paper.

## 2 | THEORY OF SOCIAL NORMS

Individuals are shaped and influenced by social norms (Cialdini & Goldstein, 2004; Sunstein, 1996); therefore, how individuals incorporate social values in their workplace has been studied intensely by social scientists. Individuals being influenced by their local environment through their social interactions is known as social identity theory (Hogg & Abrams, 1988; Tajfel, 1981). Social norms such as social capital, religiosity, corruption, and gambling tend to affect behaviours of individuals, because individuals crave for belongingness and identity. To achieve that social identity, individuals attempt to satisfy what is expected and accepted by the society as the appropriate behaviour to avoid penalties and rejection for their violation of values and beliefs (Kohlberg, 1984; Sunstein, 1996). According to the social proof heuristic, individuals conform to social norms and mould their behaviour, because their modified behaviour earns them strong social support (Cialdini, 1993). It is, therefore, expected that managers' economic behaviours are driven, not only by their self-interest, but also by ethical/moral considerations consistent with the theory of cognitive moral development (Kohlberg, 1969). For instance, a manager will be influenced by the local religious norms while making operating decisions, because the local religious social norm is crucial for them to operate successfully in that geographic region (McGuire et al., 2012). Furthermore, such norms create a moral climate, thereby, exerting a moral deterrent effect on deviant behaviours.

The concept of social norms was first coined by Adam Smith in the 1700s (Smith, 1759, 1790). According to Adam Smith, ethical decision-making is about using moral judgement to evaluate whether an action is worthy of 'approval', i.e., right, or 'disapproval', i.e., wrong (Blay et al., 2018). Social norms can be construed as informal institutions that shape thought and behaviour which have passed the test of time (North, 1990). Social norms persist even when a new, conflicting rule is introduced in a society and thus can play a significant role in individuals' behaviours in the long run. Adam Smith's moral theory has later been validated by social psychology research, which proposes that social norms are shared beliefs that dictate an individual's behaviour as following the acceptable social norm in such settings (Bicchieri, 2006). According to Bicchieri (2006), adapting and follow-

ing the social norm by an individual in a social setting depends on three conditions, namely: (i) the contingency condition (the belief that a norm exists and applies to the existing situation); (ii) the empirical expectation condition (the belief that a large number of people in that social setting follow the norm); and (iii) the normative expectation condition (the belief that a large number of people in that social setting expect to follow the norm in similar contexts). Adam Smith's moral theory and Bicchieri's model together provide a framework for research on social norms in accounting, finance, and corporate governance since such research involves the principal-agent phenomenon and moral decision-making.

Additionally, the prescriptive or moral norms are pertinent for research on the effects of social norms on business outcomes. 'Prescriptive norms, such as shared notions of justice or fairness, are stronger expectations about what people ought to do. They may therefore take on additional moral or injunctive force (violators experience guilt and can expect to be punished ... and may also be viewed as less subjective and more likely to apply beyond the bounds of one's own community' (Hawkins et al., 2019, p. 159). Our choice of the four constructs fits well within this prescriptive norm notion as explained below.

## 2.1 | Social capital and social trust

Although the definition of social capital varies, Putnam (1993) considers social capital to be the tendency of individuals in a society to cooperate for an efficient outcome. Cooperation through social networking can substitute for otherwise complicated legal structures in fostering financial transactions (Arrow, 1972). Coleman (1990), on the other hand, defines social capital as available resources to individuals emanating from strong social ties. Paldam (2000) posits that the three branches of social capital include trust,<sup>3</sup> ease of cooperation, and network, which are tied together by the notion of 'reciprocity'. Generalised trust, that is, trust in strangers, lowers transaction costs and lead to faster economic growth (Uslaner, 2002). Particularised trust, on the other hand, refers as 'the belief that trust can only be applied to specific individuals or individuals associated with a certain network or group, such as family members, relatives, and friends' (Li & Wu, 2010). A high level of particularised trust results in greater reliance on the informal networks for undertaking economic transactions (Li, 2009). Regarding ease of cooperation, an individual is willing to cooperate with another individual in a society, with the expectation that when in need s/he will be helped for past cooperation (Servaes & Tamayo, 2017). High social capital regions are characterised by high levels of trust among people and a high expectation of interpersonal cooperation. Regions with high social capital also have more civic norms, and a dense social network that encourages honest behaviour. Jha and Cox (2015) note that strong networks over long periods might foster cooperative norms that are internalised over generations. The existence of more civic, social, and political organisations in high social capital counties, enables the external monitors to interact and share information with each other: actions leading to more effective monitoring and a harsher punishment for deviant behaviour.<sup>4</sup>

## 2.2 | Religion

A key feature of religion is its influence on beliefs that support certain values. For instance, all the major religions promote work efforts, honesty, ethics and, at the same time, forbid deceptive behaviour (McCleary & Barro, 2006). Religious teaching forbidding fraudulent behaviour, and punish-

<sup>3</sup>Social trust, or generalised interpersonal trust, provides many beneficial effects at both individual and societal levels and, hence, begs the question of how people's generalised trust is formed. However, the literature on trust formation is yet to provide a conclusive answer. One group of scholars argues that trust 'is a personality trait formed in early life rather than a person's reflection of experienced trustworthiness of other people in social life ... On the other hand, some scholars argue that trust is not fixed during early childhood but transformed over the course of life by social learning from the relevant experiences' (You, 2018, p. 474).

<sup>4</sup>High social capital fosters economic performance by reducing information, transaction, and monitoring costs. In higher-trust societies exploitation in economic transactions is less likely and, consequently, written contracts are used less, litigation is less frequent, formal institutions are relied upon less to enforce agreements, and governments are perceived as more trustworthy (Knack & Keefer, 1997).



ments, are likely to restrain individuals in society, including the managers of the firms operating in highly religious regions, from engaging in activities that are unethical, unscrupulous, and/or risky. Deviating from religious teaching and norms creates cognitive and emotional discomfort for religious people, including the fear of community disapproval and abandonment; thereby, they are motivated to adhere to moral behaviour. Furthermore, firms located in regions with high religiosity are likely to employ a larger proportion of religious employees and, thus, increase the possibility of whistleblowing if the firm engages in immoral activities. Prior studies also suggest that religious people are more risk-averse than non-religious people (Diaz, 2000; Miller, 2000; Miller & Hoffmann, 1995). All these arguments therefore predict a positive relationship between religious beliefs and ethical behaviour. Interestingly, this does not appear to be the case as 'empirical research in the psychology and sociology of religion ... indicates that religiosity does not automatically lead to ethical behavior, whether religiosity is defined in terms of the tenets of a specific religion or in more general terms of an individual's overall religiousness' (Weaver & Agle, 2002, p. 77). Meta-analyses conducted by Craft (2013) and Lehnert et al. (2015), too, document mixed findings on the association between religiosity and ethical decision-making. But once we incorporate a person's religious self-identity that is formed based on internalised role expectations, then a possibility of ethical behaviour emerges. This, however, is further conditioned by 'the salience of a person's religious self-identity [and] the individual's motivational orientation for being religious. These two moderating influences help to account for the variability in people's responses to religious role expectations ... But they also help to identify ways in which organizational contexts can have an influence in the process linking religious self-identity with actual ethical behavior' (Weaver & Agle, 2002, p. 90).

## 2.3 | Gambling norms

When gambling gains acceptability in the local community and becomes a social norm, it significantly affects the behaviour of market participants. According to Markowitz (1952, p. 155), some investors are likely to 'take large chances of a small loss for a small chance of a large gain'. In a gamble-prone society, taking risk is considered normal. As local gambling culture encourages risk-taking, it increases the risk-appetite of individuals residing in that region. Thus, managers who are constantly under pressure to deliver high profits are likely to demonstrate such risk-taking behaviour in making decisions. Thereby, more liberal social gambling norms lead to more speculative risk-taking activities by firms operating in those regions, as such activities are considered socially acceptable (Callen & Fang, 2020).

## 2.4 | Corruption

Corruption is often interpreted as public officials' illegal use of discretionary power for personal material gain, as in bribery or embezzlement.<sup>5</sup> Corruption has been found to be a deterrent to economic growth, although the literature advances the efficiency argument for corruption grounded on the view that corruption provides an opportunity for firms to overcome bureaucratic rules more quickly. But the inefficient view of corruption, whereby it is perceived to be a costly form of taxation affecting firm values adversely, dominates (Shleifer & Vishny, 1993; Smith, 2016). Research shows that political corruption results in slower economic growth, less efficient economic policies, a lower level of investment, an increase in business costs, a higher cost of living, an increase in inequality and poverty, and

<sup>5</sup>You (2012, p. 476) notes that 'people have different conceptions of corruption as well as different degrees of tolerance for corruption. Some may view nepotism and favoritism as intolerable corruption, while others may define corruption narrowly as illegal abuse of public office for personal material gain ... And while some people may include abuse of private power ... others may exclude corruption in the private sector from their definition of corruption. There are not only individual differences in the understanding of corruption but also societal differences in cultural norms about corruption ... Since only a small portion of corrupt acts are revealed, people may underestimate the levels of corruption. On the other hand, people may overestimate levels of corruption based on exaggerated information about alleged corruption cases'.

reduced levels of innovation and entrepreneurship (Aidt, 2003, 2009; Dimant & Tosato, 2018; Goel & Nelson, 2011; Jain, 2001). These findings are consistent with the 'grabbing hand' theory of corruption, whereby government officials exploit their public position to extract rents for the provision of public goods and services (Smith, 2016). Empirical studies using regional corruption data is premised on the notion that a firm's regulations, compliance and risk-taking usually reflect the cultural environment of the region in which it is headquartered. This may be manifested through the bribing of public officials to pass legislation that favours corporate interests, among others.

We have found that many of the surveyed papers have linked the widely used theories of agency, stakeholder, and legitimacy with social norms in investigating the consequences of local social norms. As is well-known, effective corporate governance or strong monitoring plays a crucial role in mitigating managerial self-serving behaviour stemming from agency problems (Jensen & Meckling, 1976). Social capital and religious norms act as informal sanctions in alleviating agency problems, whereas gambling preferences and local corruption culture accentuate agency problems. Stakeholder theory posits that managers as stewards have duties towards all stakeholders and are expected to formulate decisions that foster welfare of the stakeholders (Du et al., 2014). The moral duties and welfare of managers towards all the stakeholders' is aligned with social norms such as social capital and religiosity which promote altruistic behaviour among managers. The legitimacy theory suggests that as firms operate within a social system, firms need to establish congruence between organisational activities and the norms that are accepted by the society (Chircop et al., 2017, 2020; Dowling & Pfeffer, 1975). Thus, in societies where altruistic behaviour and societal welfare form the core values, firm activities that deviate from such values would create legitimacy gap leading to legitimacy crisis.

Following these theoretical underpinnings, research has developed empirical predictions of the consequences of these chosen local norms on organisation outcomes. Given that robust empirical findings hinge critically on the reliability of the data for measuring these local social norms, we first describe the data sources in the following sections and then review the relevant literature. For expositional purposes, we organise the review into the following consequences namely: (i) financial reporting and external auditing; (ii) financial, investment, and dividend decisions; (iii) capital market consequences; and (iv) corporate governance and CSR behaviour.

### 3 | REVIEW OF THE LITERATURE ON SOCIAL CAPITAL AND SOCIAL TRUST

#### 3.1 | Measurement

The multidimensional and intangible nature of social capital requires researchers to use a range of *indirect* proxies for social capital in conducting empirical research. For the US, researchers use social capital measures based on data from the Northeast Regional Center for Rural Development (NRCRD) at the Pennsylvania State University. This social capital data captures the confluence of effects from two variants of social norms and two measures of networks (Rupasingha & Goetz, 2008). The two measures of norms are the census mail response rate (RESPN) (the census response rate), and the votes cast in presidential elections (PVOTE) (the number of votes cast divided by the population above 18). The two measures of networks are the numbers of associations (ASSN), and number of non-profit organisations (NCC) (the total number of NGOs, excluding the ones with an international focus, divided by the population). Using these four indicators, a principal component analysis is conducted for each year (1997, 2005, and 2009), and the authors use the first component for each year as the social capital index. Researchers use: (i) the actual NRCRD data to estimate the social capital index for 1997, 2005, and 2009 for which NRCRD provides data for all US counties; (ii) fill in the data for the missing years using the estimated social capital index in the preceding year for which data are available; and (iii) fill in the missing values for the remaining years using the linear interpolation approach. The social capital data for 2014 is now also available from the NRCRD website.



An alternative social capital measure is based on Putnam (2000): (i) Putnam Index; (ii) Putnam Honesty; and (iii) Putnam Trust. The Putnam Index uses principal component analysis to create a state-level social capital index based on 14 different factors. Putnam Honesty is the score for each state based on the response to the survey question in Putnam (2000): ‘Agree that “Most people are honest”’. Similarly, Putnam Trust is a state-level score based on the survey question: ‘Agree that “Most people can be trusted”’. Higher values of these measures represent higher levels of social capital. Putnam Honesty and Putnam Trust are components of the overall Putnam Index (Gupta et al., 2018, p. 105).

In China, researchers use as the primary source for measuring social trust the ‘provincial index of social trust from the Chinese Enterprise Survey System in 2000’. The questionnaires were sent to over 15,000 enterprises covering 31 provinces, autonomous regions, and municipalities in mainland China. In one question, respondents were asked to both list and rank (1 to 5 where 1 represents highest and 5 represents lowest) five provinces that have the most trustworthy enterprises. Next, the provincial-level trust score was calculated as the weighted average of the ordered rankings (Gu et al., 2022; Zhang & Ke, 2002). A second proxy for social trust used by Chinese researchers is based on the China General Social Survey conducted in 2003: a joint initiative of the HKUST’s Survey Research Center and the Sociology Department of Renmin University of China. This national survey covers 125 counties from 28 provinces and consists of 5894 valid responses. Authors tend to consider the response to the question ‘Generally speaking, do you trust strangers around you?’ to formulate the trust index. The answer to this question ranges from a scale of 1 (do not trust greatly) to 5 (trust greatly). The average score of the province is considered to represent the regional trustworthiness. A third proxy used to measure social trust is based on data obtained from the 2013 Business Environment Index report, which provides magnitudes of provincial social trust for the years 2006, 2008, 2010, and 2012. The China Reformation Foundation National (Guomin) Economic Research Institute and the Chinese Entrepreneur Survey System have conducted this survey every 2 years since 2006. Survey respondents are asked to rank their perception of the local trust level on a scale of 1 (very bad) to 5 (very good). The survey comprises 29 provinces with over 4000 valid responses. The resultant social trust index is calculated based on the mean score of the province.

Other less popular proxies to measure social trust in China are: (i) provincial blood donation per capita (data available from the Chinese Society of Blood Transfusion); (ii) interest rate charged by grain lenders from 1933 to 1934 using a survey administered by the Agricultural Research Institution, covering more than one million rural households located in 23 provinces in 1934; and (iii) city-level citizen trustworthiness based on the Annual Report on Urban Competitiveness from 2001 to 2005.

## 3.2 | Empirical evidence

Table 2 includes the surveyed papers in this section, summarising the key findings and economic significance of the reported results where relevant.

### 3.2.1 | Social capital, financial reporting, and external auditing

Jha (2019) finds that firms headquartered in high social capital counties are less likely to engage in fraudulent financial reporting, report lower levels of discretionary accruals, and have much more readable annual reports. Also, the revelation of fraudulent reporting increases the probability of a CEO’s replacement almost two-fold in a high-social capital county compared with a low social capital county. Dong et al. (2018) also find similar evidence using data from China. Results remain robust after controlling for the CEO’s birthplace, because the result might have been driven by the social trust level inherited by the CEO where s/he grew up, rather than by the social trust level of the firm’s location.

Jha and Chen (2015) document a robust negative relationship between US county-level social capital and audit fees, which is more pronounced if auditors reside close to the clients, and when audit

**TABLE 2** Consequences of social capital and social trust (32 studies)

Author(s)/year	Research issue	Country and sample	Main findings
Alfali et al. (2022)	Social Capital and board gender diversity	US: 53,671 firm-year observations from 2000 to 2018	Firms headquartered in higher levels of social capital regions tend to have higher percentages of women directors on the board. Firms headquartered in high social capital countries are 1.5 times more likely to have a female board director than firms located in low social capital countries
Gu et al. (2022)	Social capital and stock price crash risk	China: 3420 firm-year observations from 2010 to 2018	Firms with CEOs from high social trust regions tend to suffer from higher stock price crash risk, suggesting that high trust does not indicate ethical behaviour
Chen et al. (2021)	Social trust and CSR behaviour	China: 3785 firm-year observations during 2009–2016	Greater social trust in a region has a positive effect on CSR and that this effect is due to the expected utility mechanism rather than the social normative mechanism. The association between social trust and CSR is stronger when the focal firm's peers carry out high-level CSR and when a firm is strongly influenced by Confucianism. A one-standard deviation (SD) increase in social trust increases 14.67% of a SD in CSR
Gao et al. (2021)	Social capital, marginal value of cash holdings and acquisition returns	US: 48,886 firm-year observations from 1990 to 2019	The authors find that the marginal value of cash holdings and the capital expenditure is higher for firms headquartered in high social capital countries. Furthermore, the acquirers in the high social capital countries enjoy a significantly positive announcement-period abnormal return. The marginal value of cash (value of capital expenditure) is \$0.109 (\$0.234) higher for firms headquartered in a county in the 75th percentile of the social capital index, than those in the 25th percentile. Regarding acquisition returns, a one-SD increase in social capital increases the announcement-period abnormal return by 20.7%
Oyotode-Adebile and Ujah (2021)	Social Capital and board gender diversity	US: 14,742 firm-year observations from 1996 to 2014	Board gender diversity is higher for firms in regions with high social capital than for firms in regions with low social capital. A one-SD increase in social capital leads to a 0.042 SD change in board gender diversity
Qiu et al. (2021)	Social trust and financing violations	China: 28,262 firm-year observations for the period 2006–2016	Firms operating in regions with high social trust have fewer financing violations. This is more pronounced for firms having lower interest costs, operating in less competitive industries, located in high marketisation regions and have good internal control. A one-SD increase in social trust reduces the violation probability by 8.87%
Chen, Han, and Jebran (2020)	Social trust and tunnelling	China: 20,884 firm-year observations during 2003–2016	Social trust reduces controlling shareholders' incentives to tunnel resources for private benefits. This negative association is weaker for SOEs and for those located in regions of high legal development. A one-SD increase in social trust reduces tunnelling by 2.68% and 3.34% depending on the operationalisation of social trust proxy
Hartlieb et al. (2020)	Social capital and cost behaviour	US: 52,870 observations between 1990 and 2014	Firms headquartered in high social capital countries exhibit less cost stickiness. This finding suggests that the resource adjustment decisions of managers for firms located in high social capital countries are driven by altruistic motives. Managers of firms in high social capital countries reduce costs by 6.6 percentage points more than their counterparts in low social capital countries for a 1% decrease in sales
Hasan et al. (2020)	Social capital and corporate innovation	US: 22,010 firm-year observations spanning the period 1992–2010	A positive relation between social capital and innovation. Cross-sectional evidence indicates that geographical diversification and employee concerns is the primary driver of innovation output. A one-SD increase in social capital results in a net increase of three new patents filed in a given year

TABLE 2 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Hasan and Habib (2020)	Social capital and dividend payouts	US: 54,695 firm-year observations from 1997 to 2015	A positive relationship between social capital, and both the likelihood and the amount of cash dividend payouts. A one unit increase in social capital is related to a 2.54%–3.00% increase in the probability of cash dividend payments. Furthermore, a one-SD increase in social capital increases the amount of cash dividends by 64.8%–68.05% relative to the mean
Qiu et al. (2020)	Social trust and stock price synchronicity	China: 14,726 firm-year observations from 2006 to 2015	Firms located in high social trust regions exhibit lower stock price synchronicity. Stock price synchronicity is lower to the tune of 10.3%–17.7% relative to the sample median
Hasan and Habib (2019a)	Social capital and trade credit	US: 61,897 firm-year observations spanning the period 1997–2015	A negative relationship between social capital and trade credit. Additional analysis reveals that social capital reduces trade credit through the financing constraints channel. A one-SD increase in social capital is related to a 2.89% decrease in trade credit (a reduction of about \$3.15 million, for an average firm)
Hasan and Habib (2019b)	Social capital and idiosyncratic return volatility (IRV)	US: 40,152 firm-year observations from 1997 to 2015	Firms headquartered in high social capital countries have lower IRV. Financial reporting quality and CSR mediate the negative relationship between social capital and IRV. A firm headquartered in a county with social capital in the 75th percentile is associated with 24% less IRV compared to a firm headquartered in a county with social capital in the 25th percentile
Gao et al. (2019)	Social capital and corporate tax avoidance	US: 57,365 firm-year observations for the period 1990–2009	Managers of firms in high social capital counties engage in more tax avoidance when they are under pressure to meet earnings benchmarks, to overcome financial constraints, and have greater equity-based compensations
Hoi et al. (2019)	Social capital and CEO compensation	US: 22,246 firm-years between 1993–2014	Firms operating in counties with high social capital pay lower compensation to CEOs compared with firms in high social capital counties. An increase in county-level social capital from the 25th percentile to the 75th percentile decreases CEO total compensation by 7.97%, on average
Huang and Shang (2019)	Social capital and capital structure	US: 56,840 firm-year observations spanning 1985–2015	A negative relation between social capital and firm leverage and short-term debt ratios: a relation that is more pronounced in cases with high as opposed to low information asymmetry. A one-SD increase in social capital score is associated with a drop in book (market) leverage of 60 (57) basis points (bps)
Jha (2019)	Social capital and financial reporting quality	US: 85,743 firm year observations spanning the period 1990–2009	Firms headquartered in high social capital counties are less likely to engage in fraudulent financial reporting, have lower levels of discretionary accruals and much more readable annual reports. The revelation of fraudulent reporting increases the probability of a CEO's replacement almost twice in a high-social capital county compared with a low social capital county. A one-SD increase in social capital is associated with a 19% decrease in the probability of the SEC prosecuting such firms
Chen et al. (2018)	Social trust and audit opinion	China: 10,570 firm-year observations from 2008 to 2013	Clients from high trust regions are less likely to receive a qualified audit opinion. This negative relationship is more pronounced in cases of trust contagion (client's parent firms operating in regions with high social trust), auditor–client distance, firm characteristics, and use of discretionary accruals. Furthermore, auditors charge lower (higher) audit fees to clients from high (low) trust regions. Clients from high trust regions are 65% less likely to receive a qualified audit opinion compared with clients from low-trust regions

(Continues)

TABLE 2 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Dong et al. (2018)	Social trust and financial reporting quality	China: The sample comprises 11,350 firm-year observations from 2006 to 2012	Firms located in high social trust regions tend to have lower levels of financial reporting misconduct. This association is more prominent when media coverage is higher, and social trust alleviates both disclosure and nondisclosure-related misconduct. A firm headquartered in a province with social trust in the 75th percentile has a 19% lower likelihood of engaging in financial reporting misconduct compared with a firm headquartered in a province with social trust in the 25th percentile
Gupta et al. (2018)	Social capital and cost of equity	US: 62,410 firm-year observations spanning 1990–2012	A negative relationship between social capital and cost of equity. The negative relationship is pronounced only for firms exposed to low levels of product market competition
Hoi et al. (2018)	Social capital and CSR activities	US: 19,389 firm-year observations between 1997 and 2009	A positive and significant relationship between social capital and CSR activities. Firms undertake more positive CSR activities when their peers in the same countries do so, but no such effect is found for negative CSR activities
Li et al. (2018)	Social capital and municipal bond yields	US: 801,726 bond issues from 1998 to 2012	The authors find a significant and negative association between social capital and bond yields. The results also indicate that: (i) social capital affects the bond yields of general obligation bonds but not revenue bonds; and (ii) the impact of social capital on bond yields is greater after June 2008, a period characterised by downgrading of the major insurers. A change in social capital from the 25th to 75th percentile decreases bond yields by about 6.39%
Habib and Hasan (2017)	Social capital and corporate cash holdings	US: 67,493 firm-year observations from 1997 to 2015	Firms headquartered in high social capital countries hold significantly less cash than firms from low social capital countries. Financial constraints, financial reporting quality, systematic, and idiosyncratic risk factors mediate the relationship between social capital and cash holdings. A one-SD increase in social capital is associated with a 2.71% decrease in corporate cash holdings or about \$4.0million annually for an average firm
Hasan et al. (2017a)	Social capital and corporate tax avoidance	US: 63,807 firm-year observations for the period 1990–2012	Firms headquartered in high social capital countries engage less in tax avoidance activities supporting the notion that high social capital foster an environment where tax avoidance is viewed as a non-optimal behaviour. When the level of the country's social capital increases from the 25th percentile to the 75th percentile, annual tax expense and annual tax payment increase by \$1.40million and \$1.96million, respectively
Hasan et al. (2017b)	Social capital and debt contracts	US: 32,425 loan-year observations for the period 1990–2012	Firms headquartered in countries with higher levels of social capital incur lower bank loan spreads, enjoy less-restrictive non-price loan terms, incur lower at-issue bond spreads, and choose public bonds over bank loans. A one-SD increase in social capital decreases loan spread by 4.33 bps on average, implying a reduction in total interest expenses of roughly \$0.53million
Li et al. (2017)	Social capital and stock price crash risk	China: 20,272 firm-year observations from 2001 to 2015	A negative relationship between social trust and stock price crash risk, which is more pronounced for SOEs, firms with weak monitoring, and risk-taking firms. Firms in high social trust provinces tend to have higher accounting conservatism and fewer accounting restatements. A one-SD increase in the level of social trust leads to a 1.94% decrease in stock price crash risk
Cao et al. (2016)	Social capital and stock price crash risk	China: 16,144 firm-year observations from 2001 to 2012	Firms headquartered in high social trust regions are less prone to future stock price crash. This negative association is more pronounced for firms with higher analyst coverage and greater institutional ownership

TABLE 2 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Chen et al. (2016)	Social trust and bank loan	China: 2281 firm-year observations during 2003–2010	Private firms in high trust regions are more likely to obtain loans from banks: a relation that is more pronounced for firms without political connections, are in regions with poor legal environments and being audited by less reputable auditors. Furthermore, firms in high trust regions have a lower likelihood of default and higher financial reporting quality
Ang et al. (2015)	Social trust and the choice of investment locations	China: 7012 firm-year observations from 2001 to 2005	Social trust is positively related with foreign companies' choice of investment locations, ownership type, and R&D investment. A one-SD increase in social trust increases the probability of a province's being selected by foreign companies as a desired investment location by 15.4%
Jha and Chen (2015)	Social capital and audit fees	US: 28,634 firm-year observations spanning the years 2000–2009	The authors document a negative relationship between social capital and audit fees which is more pronounced if auditors reside close to the clients and when audit tasks are complex. Firms in high social capital counties also have shorter ARL and lower propensity for auditors to be exposed to lawsuits. A firm headquartered in a county with social capital in the 75th percentile pays 88% of the audit fees paid by a firm headquartered in a county with social capital in the 25th percentile
Jha and Cox (2015)	Social capital and CSR activities	US: 13,117 firms-year observations from 1995 to 2009	A positive effect of US county-level social capital on CSR behaviour. A one-SD change in social capital is associated with 0.08 standard deviation increase in CSR
Wu et al. (2014)	Social capital and trade credit	China: 2479 firm-year observations from 2003 to 2008	Firms located in high social trust regions tend to rely more on trade credit, extend more trade credit to customers, and have shorter receivable and payable cycles. The results are more pronounced for firms located in regions with weak protection of property rights. A one-SD increase in the level of social trust leads to a 0.56% change in accounts payable, which is 5.9% of the sample mean of accounts payable

Note: The papers are listed in reverse chronological order.

tasks are complex. The authors also document shorter audit report lag (ARL) and lower propensity for auditors to be exposed to lawsuits for firms in high social capital counties. The findings support the notion that managers of firms headquartered in high social capital counties report more credibly (Jha, 2019), and auditors factor this into their pricing decisions.<sup>6</sup> Chen et al. (2018) document that clients from high trust regions in China are less likely to receive a qualified audit opinion: a relationship that is more pronounced in cases of trust contagion, auditor–client distance, parent firm characteristics, and use of discretionary accruals. Furthermore, auditors charge lower (higher) audit fees to clients from high (low) trust regions: a finding consistent with the US evidence.

Hasan et al. (2017a) document a constraining effect of US county-level social capital on corporate tax avoidance practices: a finding suggesting that high social capital counties foster an environment where tax avoidance is viewed as a non-optimal social behaviour. Gao et al. (2019), however, find that managers of firms in high social capital counties engage more in tax avoidance to meet earnings benchmarks and to overcome financial constraints, as well as when managers have greater equity-based compensations in their compensation package. Furthermore, tax avoidance activities by firms from high social capital counties destroy firm value, but only for poorly-governed firms. These contrasting findings on the consequences of social capital are interesting but have not been tested in other research settings. Hartlieb et al. (2020) find that firms headquartered in high social capital counties exhibit less cost stickiness, suggesting that managerial resource adjustment decisions for firms located in high social capital counties are more likely to be driven by altruistic, as opposed to personal, motives.

### 3.2.2 | Social capital and financial, dividend and investment decisions

With respect to the relationship between social capital and financial policies, research reveals that firms headquartered in high social capital counties hold significantly less cash than firms from low social capital counties and make more cash dividend payouts (Habib & Hasan, 2017; Hasan & Habib, 2020). These findings are consistent with the notion that outsiders perceive corporate executives from high social capital regions as being honest and trustworthy, thereby, allowing such firms to access external finance easily and, hence, lessening the need for holding cash.

Hasan and Habib (2019a) document a negative relationship between social capital and trade credit: a relationship that is moderated by the financing constraints channel. The findings support the demand side perspective of trade credit, whereby firms located in high social capital counties can access external capital easily and hence, rely less on trade credit. Wu et al. (2014), on the other hand, document a positive relationship between social trust and trade credit for a sample of Chinese firms. One plausible explanation for the opposing findings might be the fact that the US sample consists of publicly-listed firms, whereas the Chinese sample comprises private firms: an observation that may have implications for ease of access to external financing. Generally, private firms tend to encounter higher obstacles to access external finance, compared with listed firms and hence, need to rely more on trade credit.

Consistent with the theoretical literature that high social capital fosters cooperation and reduces agency problems, Gao et al. (2021) find that the marginal value of cash holdings and the capital expenditure are higher for firms headquartered in high social capital counties. Furthermore, the acquirer firms in the high social capital counties enjoy a significantly positive announcement-period abnormal return. Hasan et al. (2020, p. 3) find a positive relation between social capital and innovation, driven primarily by the geographical diversification and employee concerns channels. Results are consistent with the notion that ‘social capital facilitates within-firm contracting for collective

<sup>6</sup>The authors, however, did not control for financial reporting quality in the baseline regression, despite prior findings that audit fees increase for firms having high levels of earnings management. As Jha (2019) documents that earnings management is relatively low for firms domiciled in high social capital counties, the interactive effect of social capital and earnings quality vis-à-vis audit fees should have been investigated.



innovation processes by reducing employees' perception of expropriation risk in innovation, or by improving employees' perception of executive trustworthiness'. Qiu et al. (2021) document that firms headquartered in regions with high social trust commit fewer financing violations. This finding supports the notion that informal institutions are effective in protecting shareholder and lender's interests. Huang and Shang (2019) document that social capital has a negative relation with both firm leverage and short-term debt ratios. This relation is more pronounced in cases with high as opposed to low information asymmetry. Li et al. (2018) find a significant and negative association between social capital and municipal bond yields. Finally, Chen et al. (2016) find that privately controlled firms in trust-intensive regions are more likely to obtain loans from banks, have fewer collateral requirements, longer maturity, and lower interest rate spread.

### 3.2.3 | Social capital and capital market consequences

Hasan et al. (2017b) find that firms headquartered in the US counties with higher levels of social capital incur lower bank loan spreads, enjoy less-restrictive non-price loan terms, incur lower at-issue bond spreads, and choose public bonds over bank loans. Firms headquartered in high social capital counties also enjoy lower costs of equity (Gupta et al., 2018), and have lower idiosyncratic return volatility (IRV) (Hasan & Habib, 2019b): a finding supporting the view that high social capital reduces risk, future cash flow uncertainties and, thus, IRV.<sup>7</sup> Qiu et al. (2020) document that Chinese firms located in high social trust regions exhibit lower stock price synchronicity.

Several studies have investigated the relationship of both stock price crash risk and stock price informativeness with social trust, using data from China. Cao et al. (2016) show that firms headquartered in high social trust regions are less prone to future stock price crash. This negative association is more pronounced for firms with higher analyst coverage and greater institutional ownership. Li et al. (2017) document results similar to those of Cao et al. (2016). Contrary to the findings of Cao et al. (2016) and Li et al. (2017), Gu et al. (2022) document that firms with CEOs from high social trust regions tend to suffer from higher stock price crash risk. The key distinction between Gu et al. (2022) and the other two studies is that the former relies on individual-level trust (i.e., CEOs hometown social trust), while the other two studies use the social trust of the firm's headquarters location. Gu et al. (2022) interpret their result as CEO trust exploitation, i.e., CEOs tend to exploit trustworthiness, and high trust does not indicate ethical behaviour.

### 3.2.4 | Social capital, corporate governance and CSR

Afzali et al. (2022) document a positive association between county-level social capital and board gender diversity. Firms located in high social capital regions tend to achieve a critical mass (i.e., three or more) of female directors; female directors hold memberships on audit, compensation, and/or nomination committees; and serve as chairs of audit and nomination committees. Oyotode-Adebile and Ujah (2021) provide similar finding. Regarding executive compensation, Hoi et al. (2019) document a negative relationship between social capital and CEO pay including opportunistic option grant awards, supporting the notion that high social capital mitigates managerial rent extraction in CEO compensation. Local trustworthiness plays a critical role when foreign companies' select investment locations, ownership type, and R&D investment (Ang et al., 2015). Chen, Han, et al. (2020), Chen, Che, et al. (2020) document a negative association between social trust and tunnelling in China.

<sup>7</sup>It should, however, be noted that higher IRV represents incorporation of more firm-specific information into stock prices, thus, making stock price more informative. The authors did not perform empirical tests to suggest whether the social capital-IRV relationship is a manifestation of market efficiency or risk.

Research on the relation between social capital and CSR activities provide consistent evidence that firms headquartered in regions with high social capital engage more in CSR activities than firms located in regions with low social capital. This relationship is stronger for geographically concentrated firms, because of the strong alignment between the corporate culture and the regional culture (Jha & Cox, 2015). Hoi et al. (2018), too, document a positive and significant relationship between social capital and CSR activities. Firms undertake more positive CSR activities when their peers in the same counties do so, but no such effect is found for negative CSR activities. Finally, positive CSR activities improve firm performance more for firms in high social capital counties than for firms in low social capital counties. Negative CSR activities, on the other hand, worsen firm performance for firms in high social capital counties.<sup>8</sup> Chen et al. (2021) also document a positive relationship between social trust and CSR in China that is driven mainly by the expected utility mechanism rather than the social normative mechanism.

### 3.2.5 | Section summary

The general findings from this stream of the literature suggest that firms headquartered in high social capital and social trust regions are perceived as being more trustworthy and hence, take actions that are beneficial for stakeholders. This is manifested in firms in high social capital regions producing financial statements of better quality and being perceived as low risk clients by their auditors than firms headquartered in low social capital regions. Studies also document that higher social capital results in more transparent governance, greater trustworthiness, and higher propensity to honour obligations: characteristics that reduce default risk and hence, the debt contracting costs for firms domiciled in high social capital and social trust regions. Social trust also acts as an informal sanctioning mechanism by discouraging controlling shareholders to divert the firm's resources for personal benefits. The beneficial effect of social capital is also reflected in firm's commitment to engaging in value-maximising CSR activities. Although the overwhelming evidence finds that social capital is beneficial, some evidence suggests that even CEOs of firms headquartered in high social capital regions engage in unethical behaviour when they are under pressure to meet earnings targets.

The distinction between social and religious influences is important in assessing the validity of many of the empirical findings. In general, 'religious' can be defined as faith in God and active involvement in religious pursuits (see Section 2), whereas social capital is the propensity to honour obligations as well as other norms that facilitate social cooperation and generate trust. Therefore, some studies identify religious activities as a source of social capital (e.g., Smidt, 1999). However, certain studies also find that social capital and being religious are not connected (e.g., Berggren & Bjornskov, 2011; McCleary & Barro, 2006).

## 4 | REVIEW OF THE LITERATURE ON RELIGIOSITY

### 4.1 | Measurement

The majority of papers surveyed for this review collected data on religiosity from the Association of Religion Data Archive (ARDA). The Glenmary Research Center collects data by surveys on religious affiliation at the county-level across the US once every decade; thereby, capturing geographical variation in religious composition across the US. Like social capital data, values of religious affiliation for the missing years are filled in using the linear interpolation approach. The ARDA distributes the religiosity data collected by the Glenmary Research Center. The ARDA website contains files titled "Churches and Church Membership" which covers county-level statistics for 133 Judeo-Christian

<sup>8</sup>A caveat is in order for interpreting the social capital-CSR research. The research reviewed here used social capital and CSR as two distinct concepts, whereas Lins et al. (2017) use a firm's CSR activities as a measure of its social capital, arguing that a firm's CSR activities generate social capital and trust.

church bodies. The surveys provide information on the number of churches, the number of members of each church, and rates of adherence per 1000 of population in every county: commonly used religiosity measures. Catholics, Mainline Protestants, and Evangelical Protestants are the three major Christian denominations. Mainline Protestants are considered to be the least conservative and most tolerant of progressive views. Another widely used source for capturing religiosity is the Gallup organisation database. Gallup conducted telephone interviews on religious adherence with over 610,000 randomly selected participants. Authors using this database based their measure on answers to three questions: (i) are you affiliated to a particular religion? (cognitive); (ii) is religion important in your daily life? (affective); and (iii) do you attend religious services weekly? (behavioural). The drawback of this database, however, is self-selection bias of the interviewees.

Few non-US studies examine the effect of religious norms on corporate outcomes. Chinese scholars measure religiosity by using the 1983 version of the national, famous Buddhist monasteries and/or Taoist temples issued by the State Council. Other sources of similar statistics include a list consisting of 148 religious facilities from a report on religious facilities in China issued by the State Council of the People's Republic of China, and another list consisting of "Outstanding Institutions and Individuals in Establishing Harmonious Religious Facilities" awarded by the Chinese State Administration for Religious Affairs in the year 2010 (Cai et al., 2020).<sup>9</sup> In Italy, religiosity is measured as the percentage of population over five years who attended church at least once a week in the previous 12 months in the region where the firm is headquartered. Data of church attendance is obtained from The National Institute of Statistics (<https://www.istat.it>).

## 4.2 | Empirical evidence

Table 3 includes the surveyed papers in this section, summarising the key findings and economic significance of the reported results where relevant.

### 4.2.1 | Religiosity, financial reporting, and external auditing

Dyreng et al. (2012) find a positive association between religiosity and financial reporting quality. The findings of this study hold overall and separately for both Catholic and Protestant groups. Since the authors did not include region-level control variables and did not control for county-fixed effects, omitted variable bias remains a major concern. McGuire et al. (2012) find that religiosity results in a lower incidence of financial reporting irregularities, accounting irregularity-related lawsuits, and restatements. Ma et al. (2020) find that firms located in regions with higher levels of religiosity exhibit greater accounting conservatism, and this positive relationship is driven by the religious environment of the region, rather than the personal religious belief of a CEO. Du et al. (2015) document a negative association between local religiosity and earnings management for a sample of Chinese listed companies. Contrary to the findings of Du et al. (2015), Cai et al. (2020) find a positive (negative) relation between religiosity and real (accrual) earnings management: a finding that is more pronounced for firms with lower litigation risk and less reputable auditors.

Chourou et al. (2020) find that US firms headquartered in counties with higher religiosity issue higher quality management earnings forecasts which is evident for both the Catholic and Protestants group. Chourou (2020) documents a positive association between religiosity and the value relevance of fair-valued assets, but only for firms that have high fair value exposure. The positive relationship is

<sup>9</sup>According to Cai et al. (2020) these two sources cover 118 Protestant churches (21.38%), 44 Catholic churches (7.97%), 73 Muslim mosques (13.22%), 259 Buddhist temples (46.92%), 57 Taoist temples (10.33%), and one other facility (0.18%) in 23 provinces of China. The authors use Google-earth maps and an equation from the geographic information system, to count the number of religious sites within a given kilometres' radius around a firm's registered location. The equation is used to measure the distance between a firm and every Buddhist monastery and/or Taoist temple according to their longitudes and latitudes.

**TABLE 3** Consequences of religious norms (43 studies)

Author(s)/year	Research issue	Country and sample	Main findings
Duh et al. (2022)	Engagement partner's religious beliefs and audit quality	Taiwan: 154 partners and 3845 observations during 2011–2015	Engagement partner's individual religious adherence is associated positively with audit quality but not the religious norms of auditor location. Discretionary accruals reduce by 0.122 (a 57% reduction relative to sample mean) when a firm's lead and concurrent partner adheres to religious beliefs
Zhao et al. (2022)	Religiosity and CSR performance	China: 23,046 firm-year observations from 2010 to 2018	Firms with qualified foreign institutional investors from high religiosity areas tend to have superior CSR performance
Amin et al. (2021)	Local religiosity, workplace safety and firm value	US: 72,287 establishment-year observations and 1615 unique firms during 2002–2010	Employees of the establishments in more religious countries get less injured than those in less religious countries. Firms whose establishments are in high religiosity countries are less likely to violate workplace conduct and more likely to take workplace safety measures. Finally, firms with more work-related injuries exhibit poorer firm performance. A one-SD increase in local religiosity leads to a 1.50% reduction in cases of work-related injuries
Khedmati et al. (2021)	Religious norm and labour investment efficiency	US: 36,309 firm-year observations during 1983–2010	Firms headquartered in regions with strong religious norms make more efficient labour investments. A one-SD increase in religiosity is associated with approximately 4% decrease in inefficient labour investment
Ma et al. (2021)	Religiosity and cost stickiness	US: 106,712 firm-year observations from 1971 to 2010	Negative impact of religiosity on cost stickiness. Protestants and Orthodox Christians show a more marked effect on cost stickiness compared with Catholics. The religiosity-induced decrease in cost stickiness increases firm value. An increase in religiosity score by 1% decreases cost stickiness by 43%
Zolotoy et al. (2021)	Religiosity and acquisition returns	US: 6577 M&A announcements from 1990 to 2011	A positive relationship between M&A announcement returns and religiosity score. However, strong CSR credentials of the acquirer firms attenuates this positive relationship. M&A announcement return increases by 0.40% for a one-SD increase in religiosity score
Cai et al. (2020)	Religiosity and earnings management	China: 16,980 firm-year observations from 2001 to 2015	Positive (negative) relation between religiosity and real (accrual) earnings management: a finding that is more pronounced for firms with lower litigation risk and less reputable auditors
Chantziaras et al. (2020)	Religiosity and CSR reporting	US: 1785 bank-year observations from 2002 to 2015	Positive relation between religious adherence and banks issuing a standalone CSR report after controlling for bank visibility, number of analysts following, legal system, social capital, political affiliation, and institutional ownership
Chircop et al. (2020)	Religiosity and risky investments	US: 91,020 VC-backed firms for the period 1980–2014	VCS headquartered in more religious counties make less risky investments. A one-SD increase in religiosity leads to increase in syndication by approximately 2.4%. The corresponding increase in the likelihood of investment in the expansion stages compared to more risky seed and early-stage investments is 2.7%

TABLE 3 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Chourou (2020)	Religiosity and value-relevance of fair-valued assets	US: 12,626 firm-year observations from 2008 to 2016	A positive association between religiosity and the value-relevance of fair-valued assets, but for firms which have high fair value exposure
Chourou and Zhong (2020)	Religiosity and management earnings forecasts	US: 4655 firm-year observations between 2001 and 2014	Firms headquartered in countries with higher religiosity issue higher quality management earnings forecasts, the pessimistic bias in management earnings forecasts is mitigated in such firms, and forecasts issued by firms in more religious areas trigger stronger stock price reactions than those issued by other firms. A one-SD increase in religiosity is associated with a 13.8% (9.6%) decrease in optimistic (pessimistic) bias
Ji (2020)	Religiosity and formal financial services	US: data for the year 2013 (49 observations)	A negative association between US states with high religiosity, and the usage and adoption of formal financial services. A one-SD increase in the religiosity score decreases the usage of both savings and check accounts by about 8.22 percentage points
Ma et al. (2020)	Religiosity and accounting conservatism	US: 124,984 firm-year observations for the period 1971–2010	Firms located in regions with strong religious beliefs exhibit greater accounting conservatism. This effect is through the channel of engaging managers in activities that emphasise firms' long-term growth, concern stakeholder interests, and avoid the risk of litigation
Cai and Shi (2019)	Religiosity and bond yield spread	US: 18,867 firm-year observations from 1990 to 2010	Bond yield spread declines and credit ratings increases for firms headquartered in high religious countries. Bond yield spread declines by 8.3 bps and credit ratings increases by 12% for an inter-quartile increase in religiosity score
Harjoto and Rossi (2019)	Religiosity and CSR activities	Italy: 156 Italian firms from 2002 to 2014	Positive association between firms located in high religiosity regions and CSR activities. A 1% increase in religiosity leads to an approximately 0.0367 increase in their ordinal CSR measure, and a 0.0147 increase in the probability of receiving a high CSR rating
Hu et al. (2019)	Religiosity and cash holdings	US: 80,709 firm-year observations between 1980 and 2010	US firms located in Protestant dominated regions hold less cash reserves, invest in more profitable and lower-risk projects, and pay more dividends
Zolotoy et al. (2019)	Religiosity and CSR	US: 19,636 firm-year observations from 1995 to 2010	Strong local religious norms in the area surrounding firms' headquarters attenuate the positive effect of CSR on firm value. Cross-sectional analysis reveals that the attenuating effect is stronger for firms with heightened litigation risk. Further, strong religious norms attenuated the positive association between CSR and abnormal stock returns during the 2008–2009 financial crisis. A one-SD increase in the strength of local religious norms, on average, mitigates the impact of CSR on firm value by 0.077

(Continues)

TABLE 3 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Gul and Ng (2018)	Religiosity and audit fees	US: 25,872 firm-year observations between 2003 and 2012	Religiosity of the auditees is associated with low audit fees. This negative association is weaker in firms with higher proportions of institutional ownership, and higher levels of debt
Jiang et al. (2018)	Religiosity and credit ratings	US: 22,720 firm-year observations from 1986 to 2011	Firms in higher-religiosity regions have better credit ratings and lower debt costs. The loan spread declines by 10bps for an average firm when religiosity score moves from the first to the third quartile
Leventis et al. (2018)	Religiosity and audit fees	US: 10,176 firm-year observations between 2003 and 2010	Auditee religiosity decreases audit fees. A 1% increase in religiosity score results in approximately 22% decrease in audit fees
Omer et al. (2018)	Religiosity and GCOs	US: 30,965 firm-year observations between 2004 and 2012	Audit offices located in highly religious metropolitan statistical areas render more GCOs, particularly by non-Big 4 audit offices, to clients with high litigation risks, and greater audit risks than are other audit offices. The likelihood that a client will receive a GCO increases by 38% when religiosity of the audit office score shifts to the median from the first quartile
Attig and Brockman (2017)	Religiosity and CSR activities	US: 4276 firm-year observations from 2001 to 2007	Firms are less likely to engage in CSR initiatives when they are headquartered in areas with large religiously affiliated groups
Chen et al. (2017)	Religiosity and acquisition announcement returns	US: 17,086 firm-year observations spanning 1990–2010	Acquirer announcement returns, and total synergy are larger in the US counties where Mainline Protestants are dominant. A move from the 25th percentile to the 75th percentile of Mainline Protestant ratio leads to a 35bps higher announcement returns
Chintrakam et al. (2017)	Religiosity and anti-takeover defences	US: 14,963 firm-year observations from 1990 to 2006	High religiosity leads to more anti-takeover defences. A one-SD increase in religiosity results in an additional one and a half antitakeover provisions
Chircop et al. (2017)	Religiosity and risk-taking	US: 7831 observations for the period 2000–2010	Bank branch-level religiosity (banks with branches in Protestant dominant regions) has negative impact on bank's risk-taking
Gao et al. (2017)	Religiosity and hedge fund return volatility	US: 7173 hedge funds between 1996 and 2013	A negative impact of religiosity on hedge funds' total return volatility and IRV. Hedge funds from high religious adherent regions are likely to hold less risky stocks, and to diversify the risk across industries: actions that decrease hedge fund return volatilities. A one-SD increase in religiosity reduces total risk by 0.08% representing 2.6% of the SD in total risk
Adhikari and Agrawal (2016b)	Religiosity and risk-taking	US: 11,063 bank-year observations between 1994 and 2010	Banks headquartered in more religious counties take less risk. The banks located in high religious counties were found to be less likely to default and remained less vulnerable to crises. A one-SD increase in religious adherence decreases total risk by 0.0007, which is 4.1% of its SD



TABLE 3 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
He and Hu (2016)	Religiosity and bank loan terms	US: 8355 loan observations for the period 1987–2007	Counties with a high level of religiosity pay lower interest rates, have larger loan amounts, and fewer loan covenants. The coefficient on religiosity suggests an 8.9 bps reduction in loan spread for firms in the high compared with the low religious areas
Ucar (2016)	Religiosity and dividend payout	US: 80,049 firm-year observations from 1990 to 2010	Compared with firms in Catholic dominated regions, US firms located in Protestant dominated regions are more likely to pay dividends, initiate dividends, and have higher dividend yields. A one-SD increase in the proportion of Protestants leads to a 34% increase in the likelihood of paying dividends
Wu et al. (2016)	Religiosity and CSR activities	US: 19,580 firm-year observations between 1991 to 2010.	Firms located in counties with more senior residents and/or higher levels of religiosity exhibit more pro-CSR behaviour. Net CSR rating increases by 0.23–0.25 unit, for a one-SD increase in the religiosity score
Callen and Fang (2015)	Religiosity and stock price crash risk	US: 80,404 firm-year observations between 1971 and 2000	Firms in high religious counties experience fewer stock price crashes. A move from the 25th to the 75th percentiles of the distribution of religiosity, is associated with a 4.99% reduction in price crash risk relative to the sample mean.
Cui et al. (2015)	Religiosity and CSR	US: 22,600 firm-year observations from 1991 to 2011	Firms headquartered in regions with high Christian religious values exhibit less positive environmental initiatives. A one-SD increase in religiosity leads to a 0.017 SD decrease in predicted environmental initiatives
Du (2015)	Religiosity and minority shareholder expropriation	China: 12,061 firm-year observations from 2001 to 2011	Negative association between Confucianism and minority shareholder expropriation, measured as other receivables deflated by total assets. A one-SD increase in Confucianism leads to a decrease in minority shareholder expropriation by about 7.75%
Du et al. (2015)	Religiosity and earnings management	China: 11,357 firm-year observations from 2001 to 2011	A negative association between local religiosity and earnings management. A one-SD increase in local religiosity score decreases discretionary accruals by approximately 14.13%
Du (2014)	Religiosity and tunnelling	China: 10,170 firm-year observations covering the period 2001–2010	Firms located in regions with a greater number of Buddhist monasteries within a certain radius, are negatively associated with tunnelling (expropriation of cash through intercorporate loans). A one-SD increase in religiosity leads to a decrease in tunnelling by about 0.32%
Du et al. (2014)	Religiosity and CSR	China: 2104 firm-year observations between 2008 and 2010	Buddhism induces more CSR friendly activities. A one-SD increase in the religiosity score increases environmentally responsible activities by about 1.73%
Boone et al. (2013)	Religiosity and tax avoidance	US: 33,000 firm-years observations between 1992 and 2010	Negative association between religious norms and tax avoidance activities. A one-SD increase in religiosity score leads to a 0.48 percentage points increase in the effective tax rates

(Continues)

TABLE 3 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Du (2013)	Religiosity and agency cost	China: 10,363 firm-year observations from 2001 to 2010	Firms located in high religiosity regions have lower owner-manager agency costs (proxied by expense ratio and asset utilisation ratio). This negative relationship is weakened for firms with strong external monitoring mechanisms
Dyreng et al. (2012)	Religiosity and financial reporting quality	US: 45,278 firm-year observations from 1990 to 2008	Negative association between religiosity and the likelihood of financial restatements. High religiosity leads to better quality accruals. The findings of this study hold for overall and separately for both Catholics and Protestants groups. The predicted likelihood of restatement increases by 21.8% for one-SD decrease in the religiosity score
El Ghoul et al. (2012)	Religiosity and cost of capital	US: 36,105 firm year observations for the period of 1985–2008	A negative and significant relationship between religiosity and cost of equity capital. The cost of equity capital declines by 13 bps when the religiosity distribution moves from the 10th to the 90th percentile
McGuire et al. (2012)	Religiosity and financial reporting quality	US: 11,576 firm-year observations between 2006 and 2008	Religiosity results in lower incidence of financial reporting irregularities, accounting irregularity-related lawsuits, and restatements. This negative relationship is more prominent in the absence of external monitoring: a finding suggesting that religious social norms represent a mechanism to reduce costly agency conflicts. However, firms located in regions with high religiosity engage in REM, but not AEM, when meeting earnings targets become important. A one-SD increase in religiosity leads to a 35.2% (9.8%) reduction in lawsuits (restatements)
Shu et al. (2012)	Religiosity and mutual fund return volatilities	US: 15,013 fund-year observations for the period 1988–2008	Protestants (Catholics) dominated regions exhibit negative (positive) mutual fund return volatilities. A shift from the lowest to the highest decile of the Protestant (Catholic) ratio decreases (increases) IRV by 0.10% (0.13%)
Hilary and Hui (2009)	Religiosity and risk exposure	US: 130,241 firm-year observations between 1971 and 2000	A negative relationship between religiosity and the degrees of risk exposure. The relationship is stronger in Protestant dominated counties, although Catholics, too, impart a significant effect. A one-SD increase in religiosity score increases risk exposure proxied by StdRet and StdRoa are 1% and 1.2%, respectively

Note: The papers are listed in reverse chronological order.

more pronounced for firms with lower audit quality, lower institutional ownership, and a lower analyst following. Boone et al. (2013) document a negative association between religious norms and tax avoidance activities. The findings support the theoretical notion that religion encourages moral behaviour and inhibits unethical or opportunistic behaviour, including tax avoidance. Ma et al. (2021) document a negative impact of religiosity on cost stickiness in the US, manifested through a risk-aversion channel mitigating managerial overconfidence about future demand change, and an ethical norm channel promoting managerial compliance with their fiduciary responsibilities.

Omer et al. (2018) find that audit offices located in highly religious metropolitan statistical areas render more going concern opinions (GCOs), particularly by non-Big 4 audit offices to clients with high litigation risks and greater audit risks, than do other audit offices. However, Duh et al. (2022), using data from Taiwan, reveal that the individual religious beliefs of engagement partners (both the lead and the concurrent partner) are associated with audit quality, whereas local religious norms are found to be insignificant. Gul and Ng (2018) document that audit clients' intrinsic religiosity is negatively related to audit fees after controlling for clients' extrinsic religiosity, auditor religiosity, social capital, firm-specific characteristics, and county-specific characteristics in the US.<sup>10</sup> Similar to Gul and Ng (2018), Leventis et al. (2018) show that auditee religiosity decreases audit fees. The authors also show that auditor expertise does not affect this relation: instead, an auditor's location and religious adherence dictate audit fees.

#### 4.2.2 | Religiosity, financial, dividend and investment decisions

Hilary and Hui (2009) find evidence of a negative relationship between religiosity and degree of risk exposure. The theoretical argument is based on prior studies, which document that religious individuals tend to be to risk averse (Diaz, 2000; Miller & Hoffmann, 1995). These firms tend to have lower investment rates and less growth; however, the market reacts positively to the announcements of new investments by such firms. Further analysis suggests that when CEOs switch jobs, they tend to join firms with a religious environment similar to that of their previous firm. Studies documenting a negative relationship between religiosity and banks' risk-taking propensities include Adhikari and Agrawal (2016b) and Chircop et al. (2017). Chircop et al. (2020) find that venture capitalists (VCs) headquartered in more religious counties make less risky investments: a relation that varies cross-sectionally as a function of the agency conflicts between the VCs and the start-up firm. Hu et al. (2019) show that US firms located in Protestant-dominated regions hold lower cash reserves, invest in more profitable and lower-risk projects, and pay more dividends. This relation is more pronounced for firms with weak corporate governance and firms with single geographic segments. Ucar (2016), too, finds similar evidence with respect to dividend policies.

#### 4.2.3 | Religiosity and capital market consequences

Several studies have investigated the capital market and debt market consequences of religious norms. Research shows that US firms in high religious counties experience fewer stock price crashes (Callen & Fang, 2015). This relation is stronger for firms with high risk, and firms with poor governance: findings that support the notion that religious norms play an external monitoring role. Shu et al. (2012) document that Protestant (Catholic)-dominated regions exhibit negative (positive) mutual fund return volatilities. Gao et al. (2017) document a negative impact of religiosity on hedge funds' total return volatility and IRV: a relation that is more pronounced during the financial crisis periods in the US. El Ghoul et al. (2012) find a negative and significant relationship between religiosity and cost of

<sup>10</sup>The authors use the natural logarithm of the number of county-level religious institutions to measure auditee *extrinsic* religiosity while the intrinsic religiosity of the auditees is measured by the county-level total number of adherents as a percentage of total population.

equity capital in the US. This negative relationship is more pronounced in the absence of alternative monitoring mechanisms: a finding confirming the informal governance role of religion. Corporate borrowers located in US counties with a high level of religiosity pay lower interest rates, have larger loan amounts, have fewer loan covenants, have better credit ratings, and lower bond yield spreads (Cai & Shi, 2019; He & Hu, 2016; Jiang et al., 2018).

Studies investigating the relation between religious norms and acquisition returns show that acquirer announcement returns, and total synergy are larger in US counties where Mainline Protestants are dominant (Chen et al., 2017), but find no significant impact in regions dominated by conservative religious adherents. Zolotoy et al. (2021) find that merger and acquisition (M&A) announcement return increases with an increase in religiosity score but is weakened by strong CSR credentials of the acquirer firms, is stronger during 2008–2009 financial crisis, and when the M&A deal is perceived to have a prominent economic significance for the acquirer. Authors consider religiosity and CSR credentials to have a substitution effect and, thus, in the presence of CSR credentials, investors put less weight on religiosity.<sup>11</sup> Unlike that of Chen et al. (2017), this paper does not find variation in results across Catholics and Protestants. Findings suggest that, although M&A benefits are often derived through downsizing the employee pool, firms in high religiosity regions refrain from such practices.

#### 4.2.4 | Religiosity, corporate governance and CSR

Research on the relation between religious social norms and corporate governance outcomes has provided some interesting insights. For example, Chintrakarn et al. (2017) find that high religiosity leads to more anti-takeover defences: a finding consistent with strong religious norms weakening the monitoring strength of the alternative governance mechanisms. However, the authors should have examined whether firms characterised by poor performance and equity undervaluation, but operating in high religious regions, are more likely to adopt such provisions. Ji (2020) finds evidence for a negative association between US states with high religiosity, and the usage and adoption of formal financial services.<sup>12</sup> Ji (2020) concludes that religiosity creates an informal, strong social tie that reduces the use of formal channels of finance. Du (2013) documents that firms located in high religiosity regions in China have lower owner-manager agency costs (proxied by expense ratio and asset utilisation ratio). This negative relationship is weakened for firms with strong external monitoring mechanisms. Du (2013) decomposes religiosity into Buddhism and Taoism and finds that the negative association persists for Buddhism only, indicating that different religious beliefs tend to have asymmetric effects on agency costs. Strong religious norms reduce both tunnelling (expropriation of cash through intercorporate loans) (Du, 2014) and minority shareholder expropriation (Du, 2015) in China.

Research on the relation between religious norms and CSR activities provides mixed evidence. Chantziaras et al. (2020), for example, document a positive relation between religious adherence and bank standalone CSR report issuance. Attig and Brockman (2017), in contrast, find that US firms are less likely to engage in CSR initiatives when they are headquartered in areas with large religiously-affiliated groups. According to the authors, such contradictory findings can be attributed to strong reputational concerns emanating from the self-reported generosity, as opposed to the prosocial behaviour, of religious people. The authors find that CSR activities lead to corporate value creation only if they conform to local norms. Wu et al. (2016) document that US firms located in counties with more senior residents and/or higher levels of religiosity show more pro-CSR behaviour. This association is more prominent for financially sound firms. Zolotoy et al. (2019) find that local religious norms

<sup>11</sup> However, it is more likely that the CSR credential, which is a firm level variable, has better and more explanatory power than religiosity, a macro-level variable. Moreover, the authors' conclusion about a substitution effect is questionable because the authors find a significant and positive coefficient for the low CSR group but find insignificant coefficient for the high CSR group.

<sup>12</sup> Financial services or financial inclusion is measured by Ji (2020) as the percentage of those with any account(s) at a federally insured depository institution, and the percentage of those with both savings and chequing accounts at a federally insured depository institution.

amplify the insurance value of CSR, that is, the CSR provides protection to firms against stakeholder reactions to negative events. Cui et al. (2015) document that firms headquartered in regions with high Christian religious values exhibit less positive environmental initiatives. The results support the 'dominion hypothesis' which implies that Christianity disregards concerns over environment.<sup>13</sup> Du et al. (2014) document that Buddhism induces more CSR friendly activities. Zhao et al. (2022) show that firms with qualified foreign institutional investors from high religiosity areas tend to have superior CSR performance. Harjoto and Rossi (2019) find evidence of a positive association between firms located in high religiosity regions and CSR activities. Amin et al. (2021, p. 2) find that employees of the establishments in more religious counties get less injured than those in less religious counties: a finding that is consistent with the view that 'employee behaviors and performance in the workplace are positively affected by cooperative relationships and mutual trust within organizations'. Khedmati et al. (2021) document that firms headquartered in more religious regions make more efficient labour investments. This finding is consistent with religion discouraging dishonest behaviour as manifested in inefficient labour investment which affects shareholder wealth adversely.

#### 4.2.5 | Section summary

The general findings of this strand of the literature suggest that firms headquartered in regions with strong religious beliefs tend to produce more credible financial statements. However, some studies find that firms located in regions with high levels of religiosity engage in opportunistic earnings management, when meeting earnings targets becomes important suggesting that managers consider such actions as being less risky (McGuire et al., 2012 in the US and Cai et al., 2020 in China). These findings therefore suggest that strong religious beliefs do not necessarily imply ethical behaviour. Audit offices located in strong religious regions in the US render more credible audit reports but in the non-US setting individual religious beliefs of engagement partners are associated with audit quality, whereas local religious norms are found to be insignificant. This is an interesting finding and paves way for future research in the US as US regulators now require disclosure of the identity of the audit partners. Research shows that firms in high religious counties take fewer risks, experience fewer stock price crashes, enjoy lower cost of equity capital, and cost of debt. Strong religious norms act as an informal governance mechanism and reduces agency costs but interestingly this is not evident for all religious groups. So, research on religious norm is unique in that researchers can theorise and develop alternative hypotheses for the same research question but for different religious groups and can test whether the findings vary across religious groups. CSR reporting has been examined from both the social capital and religiosity angles. Although all studies from the social capital angle find a strong positive relation between social capital and CSR activities, including CSR reporting, results from the CSR-religiosity nexus are quite mixed. The theoretical underpinning to exploration of CSR activities and/or reporting from both the social capital and religiosity perspectives, relies on the notion of engaging in socially cooperative actions and ethical behaviour. Hence, religiosity-based mixed findings are somewhat surprising. Future research is warranted to reconcile these conflicting findings.

## 5 | REVIEW OF THE LITERATURE ON GAMBLING NORMS

### 5.1 | Measurement

Since direct measures of people's gambling preferences are hard to find in sufficient detail over time, research on local gambling norms examines the heterogeneity of gambling preferences in firms' local

<sup>13</sup>Data sources for religious beliefs varied in the above studies. Chantziaras et al. (2020), Cui et al. (2015) and Wu et al. (2016) collected data from the ARDA; whereas, Attig and Brockman (2017) collected data from the Association of Statisticians of American Religious Bodies.

communities, induced by their religious beliefs (Adhikari & Agrawal, 2016a, p. 230). The measurement of gambling norms is quite similar to the measurement of the religiosity construct (see Section 4.1 above). For example, Catholics-to-Protestants ratio (CPRatio) is used to proxy for gambling in the US. The rationale behind using CPRatio, is that Protestants are considered stricter regarding religious teaching and condemn any form of gambling, compared with Catholics, who are more tolerant towards gambling activities. To measure gambling norms in China, the researchers use provincial-level per capita welfare lottery spending, where the firm is headquartered.

## 5.2 | Empirical evidence

Table 4 includes the surveyed papers in this section, summarising the key findings and economic significance of the reported results where relevant.

### 5.2.1 | Gambling norms, financial reporting and external auditing

Christensen et al. (2018) document that local gambling norms are positively associated with financial restatements: an association that is more prominent when managers face pressures for misreporting, such as meeting earnings benchmarks, experiencing financial downturns, and/or underinvestment-related pressure. Alharbi et al. (2020) show a positive relation between local gambling preferences and corporate tax avoidance activities, driven primarily by a high risk-taking channel, and most pronounced for financially constrained firms. Alharbi et al. (2020) also find that greater oversight, courtesy of better alignment of owner-manager interests, strengthens this positive relationship, since tax avoidance activities also enhance shareholder wealth. Callen and Fang (2020) find that liberal gambling norms result in higher audit fees, a longer ARL, and heightened litigation risk for client firms located in liberal gambling norms counties.

### 5.2.2 | Gambling norms, investment decisions, and capital market consequences

Chen et al. (2014) show that firms located in regions with more liberal gambling norms invest more in innovation and, consequently, generate greater innovative output. Adhikari and Agrawal (2016a) too, document that US firms headquartered in more gambling-prone regions are likely to be more innovative. The authors extend Chen et al. (2014) by identifying two channels, namely, managers and local investors, through which local gambling preference affects innovation. Kumar et al. (2011) find that in the US, regions with higher CPRatios, institutional investors hold more lottery-type stocks, broad-based employee stock option plans are more popular, the initial day return after an IPO is higher, and the magnitude of the negative lottery-stock premium is larger. The evidence is consistent with the relative tolerance towards gambling risks of Catholics compared with Protestants. Kumar et al. (2016) find strong return co-movements among lottery-type stocks, which are strongest among lottery stocks located in the US regions where investors show stronger gambling tendencies. Ji et al. (2021) document that Chinese firms located in regions with high gambling preferences suffer from greater stock price crash risk, owing to aggressive strategies and speculative accounting practices.

### 5.2.3 | Section summary

Taken together, research on the consequences of gambling preferences provides evidence supporting the view that gambling norms adversely affect financial reporting quality and increase risk-taking propensities. However, unlike research on the consequences of social capital and religious norms on



TABLE 4 Consequences of gambling norms (8 studies)

Author(s)/year	Research issue	Country and sample	Main findings
Ji et al. (2021)	Gambling norms and stock price crash risk	China: 18,525 firm-year observations from 2008 to 2017	Firms located in regions with high gambling preferences suffer from greater stock price crash risk owing to aggressive strategies and speculative accounting practices. A one-SD increase in gambling preference leads to an increase of 3.9%–5.2% increase in average stock price crash risk.
Alharbi et al. (2020)	Gambling norms and corporate tax avoidance	US: 19,381 firm-year observations between 1980 and 2010	Document a positive relation between local gambling preference and corporate tax avoidance activities. A one-SD increase in gambling decreases the cash effective tax rates by 6.49%
Callen and Fang (2020)	Gambling norm and audit fees	US: 17,651 firm-year observations between 2000 and 2013	Document a positive relationship between gambling norms and audit fees, a longer ARL and heightened litigation risk for client firms. A move from the 25th to the 75th percentiles of the distribution of local gambling norms is associated with approximately 9% increase in average audit fees
Christensen et al. (2018)	Gambling norm and financial restatements	US: 19,109 firm-year observations spanning the period 1994–2008	Document a positive association between local gambling norms and financial restatements. Firms headquartered in high gambling countries have a 0.88% higher likelihood of misreporting: a finding that is significant given the unconditional probability of misreporting of 2.2%
Adhikari and Agrawal (2016a)	Local gambling norms and corporate innovation	US: 32,424 firm-years observations from 1980 to 2006	Document a significant and positive association between local gambling norms and corporate innovation. LnPatent increases by 0.127 when LnCPRatio moves from the 25th percentile to the 75th percentile: an increase of about 17%
Kumar et al. (2016)	Gambling norms and return co-movement	US: 66,752 stock-year observations from 1980 to 2005	Document strong co-movement among lottery-type stocks, which is strongest among lottery stocks located in the regions where investors show stronger gambling tendency. About 14.27% of stocks have a significant exposure to gambling-induced sentiment
Chen et al. (2014)	Local gambling norms and corporate innovation	US: 34,097 firm-year observations from 1980 to 2006	Document a positive association between local gambling norms and corporate innovation. A one-SD increase in gambling variable leads to over 20% increase in R&D scaled by total assets relative to mean R&D. The corresponding increase in log of patent count and patent citation is about 8% and 12%, respectively
Kumar et al. (2011)	Gambling norms and lottery-type stocks	US: 101,377 quarter-institution observations from 1980 to 2005	In regions with stronger preference for gambling norms, institutional investors hold more lottery-type stocks, broad-based employee stock option plans are more popular, IPO underpricing is lower, and the magnitude of the negative lottery-stock premium is larger. A one-SD change in the CPRatio leads to a 0.67% increase in the weight assigned to lottery-type stocks which have an unconditional mean of 9.49%

Note: The papers are listed in reverse chronological order.

corporate governance and CSR, we did not find empirical research on gambling norms' effects on CSR activities, for example.

## 6 | REVIEW OF THE LITERATURE ON LOCAL CORRUPTION

### 6.1 | Measurement

Our surveyed papers used the number of corruption-related convictions by each local US Attorney's Office district from 1990 to 2011. These data are available from the US Department of Justice's (DOJ's) Public Integrity Section Reports. The Public Integrity Section focuses on 'crimes involving abuses of the public trust by government officials' (U.S. Department of Justice, 2007; <https://www.justice.gov/criminal-pin>). These conviction data are an objective, instead of a perception-based measure of the corruption. As these data are based on convictions of public officials, they are considered to be a conservative benchmark for the actual level of corruption (Glaeser & Saks, 2006). A survey-based corruption score has also been used by some studies. For example, Dass et al. (2016) use the State Integrity Index (<http://www.stateintegrity.org>), which ranks each US state from one to 50, based on ratings by experienced journalists of the corruption risk in each state. Another survey-based corruption measure has been developed by Boylan and Long (2003) who compared corruption across the states surveying State House reporters. Butler et al. (2009) used data from the Better Government Association (BGA), a Chicago-based 'civic watchdog' group, which produces an Integrity Index based on the quality of state laws regarding freedom of information, whistle blowing, campaign finance, gifts/trips/honoraria, and conflict of interest disclosures. Money laundering-related offence data can be collected from the US Sentences Commission ([ussc.gov](http://ussc.gov)), which provides a primary offence category of 33 offences for each state/circuit, including money laundering offences. However, the annual report presents the data for all sentences reported in the federal courts for both individual and corporate offenders. Therefore, the number of money laundering cases involving individual offenders needs to be subtracted from the aggregate money laundering cases to determine the number of corporate money laundering sentences for each state in each year (Habib et al., 2018, p. 433).

In China, researchers collect information manually on high-level Chinese government officials who were convicted for corruption from China Prosecutorial Yearbooks, China Statistical Yearbooks, and the website of the Central Commission for Discipline Inspection of the Communist Party of China. The high-level Chinese government officials of interest include party committee secretaries and mayors in the municipalities.

### 6.2 | Empirical evidence

Table 5 includes the surveyed papers in this section, summarising the key findings and economic significance of the reported results where relevant.

#### 6.2.1 | Local corruption, financial reporting, and external auditing

Xu et al. (2022) find that firms headquartered in more corrupt regions tend to disclose less readable financial reports, regardless of the level of firm performance.<sup>14</sup> This positive association is amplified for firms with more able managers, who may be better able to shield their resources from corrupt officials' rent seeking. Parsons et al. (2018) find evidence that US city-level political corruption explains

<sup>14</sup>The results support the 'grabbing hand' theory of corruption, whereby government officials exploit their public position to extract rents for the provision of public goods and services and hence, motivate managers to devise protective mechanisms, including less readable annual reports.

TABLE 5 Consequences of local corruption (24 studies)

Author(s)/year	Research issue	Country and sample	Main findings
Al-Hadi et al. (2022)	Local corruption and corporate tax avoidance	US: 36,078 firm-year observations from 1998 to 2014	A significant and positive association between US state-level corruption and firm tax avoidance. A one unit increase in the corruption score reduces GAAP tax expense by around US\$0.93 million per firm-year
Xu et al. (2022)	Local corruption and the readability of financial reports	US: 12,742 firm-year observations between 2006 and 2014	Firms headquartered in more corrupt regions tend to disclose less readable financial reports, regardless of the level of firm performance. This positive association is moderated by managerial ability as more able managers may be better able to shield their resources from corrupt officials' rent seeking
Bermpel et al. (2021)	Local corruption and bank lending activity	US: 875,867 quarterly bank observations from 1985 to 2013	A negative relationship between local corruption and bank credits. A bank headquartered in the most corrupt state grants 0.55% less credit than a bank in the least corrupt state, which translates into a dollar loan value of \$3.52 million for the average bank
Brown et al. (2021)	Local corruption and firm value	US: 69,673 firm-year observations between 1996 and 2013	The negative association between corruption and firm value (Dass et al., 2016) is exacerbated when firms in corrupt states operate in more competitive industries. The negative relation persists when they hire a high-quality auditor and are confined in states where one party controls the state legislature, but the relation is attenuated when management issues more earnings guidance. A one-SD increase in corruption decreases firm value by 3.6% for firms facing high product market competition
Dass et al. (2021)	Local corruption and the behaviour of local firms	US: 21,649 firm-year observations surrounding 7-day window around the passage of FCPA in 1977	Firms located in high corruption states experience a greater negative CAR and a greater decline in profitability around and after the passage of the FCPA. The 7-day CAR around the passage of the FCPA is 0.5% more negative for firms located in high corruption states. In the 3 years following the passage of the FCPA, firms in more corrupt states experienced an 5.8% (8.6%) greater decline in ROA (Tobin's <i>Q</i> ) relative to other firms
Hossain et al. (2021)	Local corruption and dividend payouts	US: 58,865 firm-year observations between 1998 and 2017	US firms operating in more corrupt states pay higher dividends: a result that may explain less cash holdings by firms in more corrupt states as documented by Smith (2016). An increase in the level of corruption for an average firm between the 5th least corrupt and 5th most corrupt state leads to a 2.61% increase in dividends (approximately \$0.73 million for an average firm).
Hossain and Kryzanowski (2021a)	Local corruption and acquisition returns	US: 15,106 deals undertaken by 4995 unique acquirers from 1990 to 2014	Document a negative and significant announcement period CAR suggesting that managers in corrupt environment use 'acquisitions' as a shielding strategy against rent-seeking by politicians. Negative and significant announcement period CAR (about 0.9%, or almost \$57.4 million)
Hossain and Kryzanowski (2021b)	Local corruption and cost of equity capital	US: 29,569 firm-year observations from 1998 to 2017	A positive association between political corruption and cost of equity capital which is pronounced for firms with lower leverage, higher residual free cash flows, and lower institutional ownership. An increase in the level of corruption between the fifth least corrupt and the fifth most corrupt states is associated with a 5.3% increase in a firm's cost of equity capital

TABLE 5 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Huang and Yuan (2021)	Local corruption and innovation activities	US: 65,222 firm-year observations spanning 1990–2010	A negative relation between corruption and the quantity and quality of corporate innovation. Firms located in more corrupt states are 4.6% less innovative both in terms of the number of patents and patent citations
Jha et al. (2021)	Local corruption and audit outcomes	US: 49,390 firm-year observations from 2000 to 2014	A positive relationship between US regional corruption level and audit fees. Also, firms domiciled in more corrupt regions experience an increase in ARL, an increase in ICW, an increase in foreign official bribing, and an increase in earnings restatements. A firm in the 25th percentile of corruption pays 2.0%–7.96% less audit fees than a firm in the 75th percentile
Wang and Song (2021)	Local corruption and IPO underpricing	China: 1,373 IPO firms from 2010 to 2017	Firms located in highly corrupt regions suffer from IPO underpricing. However, reputable underwriters and auditors weaken the IPO underpricing
Chen, Che, et al. (2020)	Local corruption and financial reporting quality	China: 6632 firm-year observations from 2000 to 2018	Accounting quality has improved significantly after the arrest of corrupt top officials. This association is more pronounced when the arrested corrupt officials had greater power over the firm, and when the affiliated firms were more dependent on local corrupt officials. Firms with improved accounting quality issued more seasoned equity offerings (SEO) and had lower cost of capital
Ellis et al. (2020)	Local corruption and corporate innovation	US: 103,191 observations during 1978–2006	A negative relation between corruption and the quantity and quality of corporate innovation. An interquartile increase in the corruption score leads to a 17.4% (15.2%) reduction in the number of patents (number of citations)
Hossain et al. (2020)	Local corruption and cost of bank loans	US: 32,269 loan-facility observations between 2000 and 2015	Banks charge higher loan spreads to firms in the US states with higher corruption. This relation is more pronounced for financially constrained firms, but less so for firms with better external monitoring. An increase in the level of corruption between the fifth least corrupt and the fifth most corrupt states is associated with an 8.41 bps increase in loan spread, on average
Nguyen et al. (2020)	Local corruption and acquisition of target firms	US: 77,338 firm-year observations between 1986 and 2014	Increased corruption leads to the acquisition of target firms located in less corrupt areas. Although the announcement period CAR is negative and significant for acquirers in corrupt states, the interaction between corruption and excess cash is positive, suggesting that M&A-induced shielding mechanism is viewed favourably by shareholders. A one-SD increase in corruption score leads to 0.75% increase in acquisition probability
Cao et al. (2019)	Local corruption and stock price crash risk	China: 20,693 firm-year observations during 2004–2017	Firms headquartered in high corruption regions experience greater stock price crash risk owing to over-investment in value-destroying projects. A one-SD increase in corruption score increases stock price crash risk by about 1.5%
Xu et al. (2019)	Local corruption and audit fees	US: 15,126 firm-year observations from 2006 to 2014	A positive relationship between audit fees and US regional corruption level. ARLs are longer for clients located in more corrupt regions. Such clients also have a higher likelihood of receiving GCOs. Audit fees increase by 4.33% for a one-SD increase in corruption convictions per capita

TABLE 5 (Continued)

Author(s)/year	Research issue	Country and sample	Main findings
Habib et al. (2018)	Money laundering sentences and audit fees	US: 46,801 firm-year observations between 2000 and 2014	Audit fees increase with an increase in money laundering sentences, thereby supporting the notion that money laundering leads to heightened overall business risk, which in turn increases audit fees. Audit fees increase by about 2.2% for a one-SD increase in money laundering sentences
Parsons et al. (2018)	City-level political corruption and corporate misconduct	US: Sample period 1970–2010	Geographic variation in social norms accounts for a large part of disproportionate clustering of financial misconduct in certain cities, whereas regional differences in enforcement or firm characteristics do not. Holding all else equal, the coefficient on corruption suggests that Miami (5.4 political convictions per 1 million people) would report 23% more cases of financial misconduct than Seattle (1.4 per 1 million people)
Brushwood et al. (2016)	Property crimes and reporting outcomes	US: 123,280 firm-year observations during the period 1978–2011	Firms located in states with higher property crime rates have more volatile and less persistent earnings, have less accurate analysts' earnings forecasts, and exhibit high analyst forecast dispersion. Higher crime rates increase both the cost of equity and debt capital. Earnings volatility increases by 5.0% over the following three years for a one-SD increase in crime rate
Dass et al. (2016)	Local corruption and firm value	US: 72,757 firm-year observations from 1990 to 2011	A strong negative effect of corruption on firm value: a finding consistent with corruption weakening economic activity. However, this effect is less pronounced for firms that are more dependent on the government sector. An increase in the level of corruption capturing the difference between the fifth least corrupt and fifth most corrupt states is associated with a 5% decrease in Tobin's $Q$
Smith (2016)	Local corruption, firm leverage and corporate cash holdings	US: 122,304 firm-year observations between 1980 and 2009	A positive (negative) relationship between corruption and cash holding (leverage). The positive relation is amplified for firms with less geographical segmentation, suggesting that politicians can exert more power to expropriate firms operating in a single location, compared with firms operating in multiple locations. A firm located in a high corruption region has a cash (leverage) ratio 0.60 (1.26) percentage points less (more) than a firm located in a low corruption region
Fan et al. (2014)	Local corruption and earnings informativeness	China: 143 firms from 1996 to 2007	Compared with the matched control firms, the treatment firms exhibited a substantial increase in earnings informativeness following the public exposure of a scandal in order to attract lenders. A change in earnings response coefficients for the control firms before and after the 5 years of the corruption scandals is reported
Butler et al. (2009)	Local corruption and bond market outcomes	US: 127,976 firm observations spanning 1990–2004	Local corruption lowers bond rating, leads to higher yields to maturity, reduces the likelihood for investment banks to charge higher fees, and increases the use of lower quality underwriters by the issuers. Yields to maturity increases by 6.6 to 10.4bps depending on the regression specifications

Note: The papers are listed in reverse chronological order.

corporate misconduct. Using China's municipal level data on corruption, Chen, Che, et al. (2020) show that, after the arrest of corrupt top officials of the municipality, accounting quality improved significantly. Such enhanced financial reporting quality is more prominent when the arrested corrupt officials had greater power over the firm, and when the affiliated firms were more dependent on local corrupt officials. Fan et al. (2014) find that, compared with the matched control firms, the treatment firms exhibited a substantial increase in earnings informativeness following the public exposure of a scandal designed to attract lenders.<sup>15</sup> Al-Hadi et al. (2022) find a significant and positive association between US state-level corruption and firm tax avoidance. They find the relation is moderated by low levels of litigation risk. The findings are consistent with the notion that managers of firms in high-corruption states perceive the risk of tax avoidance outweighing the associated benefits.

Habib et al. (2018) document a positive relationship between money laundering sentences and audit fees. The authors do not find any evidence that financial reporting quality mediates the positive relationship and, therefore, conclude that money laundering leads to heightened overall business risk which, in turn, increases audit fees. Firms operating in highly corrupt regions invest less in internal monitoring and decrease the quality of financial reporting, thereby paying higher audit fees, exhibiting longer ARL, a higher likelihood of receiving GCOs, an increase in internal control weakness (ICW), an increase in foreign official bribing, and an increase in earnings restatements (Jha et al., 2021; Xu et al., 2019).

## 6.2.2 | Local corruption, financial, dividend and investment decisions

Research on the relation between local corruption and financial policies documents a positive (negative) relationship between corruption and cash holding (leverage) (Smith, 2016). The findings are consistent with the notion that firms try to protect their resources from political rent-seeking. Hossain et al. (2021) extend Smith (2016) by showing that US firms operating in more corrupt states pay higher dividends: a result that may explain the lower cash holdings of firms in more corrupt states as documented by Smith (2016). Also, the marginal value of dividends is higher for firms in corrupt states. With respect to the research on the consequences of local corruption for acquisitions and corporate innovation, Hossain and Kryzanowski (2021a) provide evidence of a negative and significant announcement period cumulative abnormal returns (CAR), suggesting that managers in corrupt environment use 'acquisitions' as a shielding strategy against rent-seeking by politicians. The value discount results from valuation uncertainty, higher informational and agency problems, and the shielding attractiveness of the target firm. Nguyen et al. (2020) find that increased corruption leads to the acquisition of target firms located in less corrupt areas. The result confirms that acquiring firms in more corrupt states use M&A to convert their liquid assets into assets that are more difficult to expropriate. Ellis et al. (2020) document a negative relation between corruption and the quantity and quality of corporate innovation, thus, supporting the 'costly corruption' hypothesis. This hypothesis posits that frequent interactions with powerful government officials by innovative firms enable the former to extort innovative firms and, thereby, impede innovation activities. Huang and Yuan (2021) also find similar evidence.<sup>16</sup>

## 6.2.3 | Local corruption and capital market consequences

Several studies have investigated the consequences of local corruption for the costs of debt and of equity. Butler et al. (2009), for example, find that corruption is negatively related with bond rating,

<sup>15</sup>Prior to the exposure of corruption or the conviction of these political high officials, the connected firms had received loans from banks on preferential terms. However, upon exposure of the corruption cases, the ties with banks were broken and firms faced challenges in obtaining loans on preferential terms.

<sup>16</sup>A positive association between corruption and innovation is also plausible, since corruption can help firms overcome bureaucratic rigidities, and provide access to resources that, otherwise, would have been unavailable.



suggesting that widespread state-level corruption increases the possibility of defaulting on bonds and hence, of lowering bond ratings. Bermpei et al. (2021) document a negative relationship between corruption and bank lending activity that is found to be less pronounced for banks relying more on relationship-based lending and exerting greater monitoring efforts. Hossain et al. (2020) find that banks charge higher loan spreads to firms in the US states with higher corruption, thus, supporting the harmful corruption environment hypothesis. This relation is more pronounced for financially constrained firms, but less pronounced for firms with better external monitoring. Hossain and Kryzanowski (2021b) find a positive association between political corruption and cost of equity capital: a finding that is stronger for firms with lower leverage, higher residual free cash flows, and lower institutional ownership. Cao et al. (2019) document that firms headquartered in high corruption regions in China experience greater stock price crash risk, owing to over-investment in value-destroying projects. Finally, using US state-wide property crime rates from the Bureau of Justice Statistics, Brushwood et al. (2016) document that higher crime rates increase both the cost of equity and debt capital, since crime rates increase the exposure to systematic risk (Korniotis & Kumar, 2013).

The consequences of local corruption for firm value have also received significant research attention. Dass et al. (2016) find a strong negative effect of corruption on firm value: a finding consistent with the notion that corruption weakens economic activity. This negative impact is less pronounced for firms that are more dependent on the government sector, thus, supporting the notion that such firms bribe government officials to receive political favours. Brown et al. (2021) extend Dass et al. (2016) by documenting that the negative association between corruption and firm value is exacerbated when firms in corrupt states operate in more competitive industries. Dass et al. (2021) find that firms located in high corruption states experience a greater negative CAR and a greater decline in profitability around and after the passage of the Foreign Corrupt Practices Act (FCPA). The findings are consistent with the notion that state-level corruption mirrors a common local culture or norm that is ingrained in managerial behaviour in such states, as manifested in their willingness to engage in corrupt practices, such as bribing foreign officials. Wang and Song (2021) find that firms located in highly corrupt regions in China tend to suffer from IPO underpricing. However, reputable underwriters and auditors weaken the association between high corruption and IPO underpricing.

#### 6.2.4 | Section summary

The general findings from this strand of the literature are that a high level of local corruption diminishes financial reporting quality and hence, firms headquartered in high corruption regions pay higher audit fees and are being perceived as riskier by audit firms. Firms headquartered in corrupt regions are likely to hold more cash but tend to pay more dividends. Regional corruption leads to firms investing less in R&D, incurring high costs on equity, and have low firm value. Corruption facilitates information asymmetry in the lending market, thereby hindering local development by reducing bank credit. Local corruption also stifles innovation which can be one of the underlying reasons for low firm value. As innovation is often associated with utilising unanticipated opportunities and ‘outside the-box’ technologies or knowledge, bearing with uncertain outputs and risks, and tolerating the possibility of failure (Davila et al., 2009), a culture of corruption creates an environment where ‘exploration’ is perceived as less rewarding. Taken together, the empirical literature reviewed in this sub-section strongly supports the view that a local corruption culture legitimises unethical behaviour.

## 7 | LIMITATIONS OF EXISTING RESEARCH AND SUGGESTIONS FOR FUTURE RESEARCH

Despite the valuable insights provided by existing research into the consequences of social norms for financial reporting quality, external auditing, investment decisions, financing decisions, and payout

policies, the studies suffer from some shortcomings, including, but not limited to, alternative interpretations of the findings and methodological shortcomings. We discuss these concerns below.

## 7.1 | Alternative interpretation of the existing findings

Our survey of the research on the consequences of social capital has provided overwhelming evidence that high levels of county-level social capital will make CEOs headquartered in those regions honest, trustworthy and cooperative. Similar arguments hold for religious norms. But these assumptions, although quite intuitive, may not always hold. Managers headquartered in high social capital regions and regions with strong religious beliefs may behave contrary to accepted norms. Existing research on this important issue is rather scant. Some notable exceptions include Gao et al. (2019) who find that, even firms headquartered in high social capital counties, engage in more tax avoidance activities when CEOs are under pressure to meet earnings targets, among others. Similarly, McGuire et al. (2012) find that firms located in regions with high religious adherence engage in earnings management when faced with capital market pressure to meet earnings targets. Therefore, under such capital market pressure, managers might engage in some dishonest activities to meet the target but act honestly enough to avoid breaching those local social norms that could lead to penalty. With respect to research on the synergistic gain from M&As, prior research documents that the value created through M&As is achieved by reduction in the total workforce and/or the extraction of greater rents from employees through lower wages (Fulghieri & Sevilir, 2011; Lee et al., 2018; O'Shaughnessy & Flanagan, 1998). But firms located in areas with strong religious norms are expected to refrain from such practices owing to religious teaching involving ethical behaviour. Whether this holds, irrespective of capital market pressure on merged entities to meet earnings targets, remains unexplored. We believe this remains a fruitful avenue for future research. We also note that studies document conflicting findings as to whether regional norms or individual personal religious beliefs affect organisational outcomes. For example, Ma et al. (2020) find that religious beliefs of the region where the firm is headquartered rather than the CEO's personal religious beliefs affects accounting conservatism in the US, whereas Duh et al. (2022) find the opposite with respect to audit quality, using data from Taiwan. This latter finding appears to support Barro and McCleary (2003), who posit that the mechanism through which religion can influence economic outcomes operates more via individuals than through social norms.

Furthermore, although a high level of social capital promotes a dense social network, such close networks might prevent the flow of useful outside information, thereby, generating a 'cognitive lock-in', that is, adaptation and innovation may become less relevant (Pillai et al., 2017). We need more research to understand the dark side of social capital or costs associated with social norms for organisation outcomes. Surprisingly, no research yet explores whether firms domiciled in high social capital regions perform better and enjoy higher market values compared with firms headquartered in regions with low social capital. Although we would intuitively expect a positive effect from high social capital, based on the theoretical arguments of the bright side of social capital, research in management has found the negative effects of social capital on firm performance (see Pillai et al., 2017).

A key concern with existing studies of various social norm constructs in accounting, finance and corporate governance is that the studies often overlook the interrelatedness among the constructs. For instance, there is a strong link between religiosity and trust (Bègue, 2002) and prior studies document that religious people are likely to consider others as altruistic and truthful (Lupfer & Wald, 1985; Schoenfeld, 1978). Therefore, research documenting a negative relationship between local religious norms and audit fees, for example, interprets the findings as firms located in high religious regions behave more ethically, thereby, reducing clients' business risk and hence, audit fees. However, the question remains as to where does trust fit in this setting. It is equally plausible to argue that it is trust in the organisation that is driving the result, rather than the local religious norms. In a similar vein, the Hilary and Hui's (2009) finding that religiosity is negatively associated with measures of firm

risk, investment, and growth can have alternative explanation. This research is based on the implicit assumption that senior executives have similar religiosity to the population surrounding where the firm is headquartered. However, if managers are chosen based on ability and not their religious inclinations, then unless religiosity is correlated with ability, it seems unlikely that executive religiosity would be similar to the area near the firm's headquarters.

## 7.2 | Methodological shortcomings

Our review of the literature shows that many of the studies on local social norms suffer from a series of methodological shortcomings, including, but not limited to, inherent endogeneity and the correlated omitted variables problem. We acknowledge that these problems are not *specific* to the research on the consequences of local social norms, but unless adequately addressed, future studies may fail to provide robust evidence on the consequences of local social norms. For example, the headquarters relocation test has been performed in many studies reviewed to establish causality: a test that is not common in other capital market and corporate governance research settings. It is, therefore, imperative that we understand the problems inherent in such a test.

The endogeneity concerns arise, because the literature takes the state-level data for granted and does not explore possible reasons for variation in state-level data on social norms. For example, Servaes & Tamayo, (2017) review the determinants of state-level social capital (also see Glaeser et al., 2002). Reverse causality, therefore, becomes one of the primary sources of endogeneity. For example, Gupta et al. (2018, p. 2), in their test of the effect of social capital on firm-level cost of equity capital, argue that 'the cost of equity for firms headquartered in a given region would impact the level of social capital in that region. A possible scenario that could yield such an outcome is if financially distressed firms self-select their headquarters into a given region, such that poor workplace conditions and low employee morale translates into both higher costs of capital for the firms and low levels of social capital in the region'. It is also possible that corporate actions can have a broader spillover effect on local social norms. For example, Holzman et al. (2021) document that financially-motivated crimes in cities increase following the revelation of major corporate accounting misconduct. However, their research does not investigate firm-to-firm effects.

Correlated omitted variables might also bias the ordinary least square regression results (both upward and downward bias). Many studies have used region-specific fixed effects, along with region-level control variables, to account for unobservable factors that might be correlated with both the dependent and the independent variables. However, the state-level proxies for social norms are cross-sectional in nature and, hence, using state fixed effects becomes questionable. Jha (2019) also makes a similar observation, arguing that, given the limited variation in social capital within a state, the inclusion of state-fixed effects in the regression models can remove a large part of social capital's effect on managers' behaviour (p. 589). Actually, fixed effects are not always appropriate and can lead to spurious inferences, especially in the presence of measurement error (Angrist & Pischke, 2009; Griliches & Hausman, 1986). This happens, because including fixed effects in the regression specification may remove variation not related to measurement error in the independent variable(s). This results in measurement error comprising a greater percentage of the residual variation in the independent variable. Some authors have used 'changes in headquarters relocation' as a plausible solution to the reverse causation problem.

However, the 'headquarters relocation test' needs accurate data on firm headquarters locations because data on social norms are available only at state-level. A well-known limitation of Compustat data, is that it provides only the latest headquarters locations and hence, creates a backfilling problem. Jennings et al. (2022) measure the extent to which this backfilling introduces measurement error in the historical state of headquarters. The authors benchmark Compustat data against the true state of corporate headquarters listed on the firm's annual 10-K filing on Electronic Data Gathering, Analysis, and Retrieval (EDGAR) and find that error rates on the 2019 Compustat file exceed 10%

and approach 20% as one goes back further in time. To mitigate this problem, some researchers supplement Compustat HQ data with the actual state of headquarters extracted from electronic 10-K filings on the Securities and Exchange Commission's (SEC) EDGAR website, using the programming language PHP (e.g., Brushwood et al., 2016), or else use the historical state of incorporation data from firms' 10-K reports on EDGAR that are available on Bill McDonald's website: <https://sraf.nd.edu/data/augmented-10-x-header-data/>. We encourage future researchers using state-level data to take every possible measure to ensure that the headquarters location data is correct, so that the social norm data for a particular state is actually mapped onto firms that have their headquarters in that state.

Many of the state-level data on social norms is unavailable on an annual basis, since the researchers conducted the relevant surveys only in certain years (e.g., Rupasingha and Goetz (2008) developed the state-level social capital index for 1997, 2005, and 2009). This naturally presented researchers with the limited option of using data for those particular years only or using linear interpolation to fill in the values of social capital for the missing years. However, linear interpolation is the least sophisticated and least accurate interpolation method and is subject to estimation inefficiency (Kidner et al., 1999). Measurement error related to the key independent variable is also a serious threat to the validity of the findings. For example, the corruption studies we reviewed used state convictions of corruption to capture the extent of corruption. However, Goel and Nelson (2011) observe that the studies that use conviction data did not consider the state-level regulatory environment: a key environment considered by the US DOJ in allocating resources for detecting corruption (Glaeser & Saks, 2006). Also, researchers can work only with data on observed convictions. The criminology literature provides strong evidence that the number of reported crimes (e.g., corruption) is a function of: (i) the actual number of corruption cases; and (ii) the ability of the authorities to detect such cases (Smit et al., 2004). Given the scarcity of resources available to detect all cases, it is unsurprising that the actual instances of cases far exceed the number of reported cases.

The method of clustering the standard errors of the regression coefficients in this strand of the literature poses an econometric challenge. Although the conventional solution to alleviating serial correlation is to cluster standard errors by firms, this may not be suitable for research using state-level data. For example, convictions data are retrieved from the DOJ database, which is a federal source of data. Ellis et al. (2020, pp. 9–10) note that as 'firms are nested within judicial districts, which are nested within states, clustering standard errors by states is more conservative than clustering by firm, as it accounts for any correlation in the standard errors across firms within states'. This is also supported by the fact that the judicial district level corruption data is perfectly correlated across firms within the same judicial district. Furthermore, Mackinnon and Webb (2017) suggest that, in cases of unbalanced cluster sizes, researchers need a substantially greater number of clusters than the number of US states to obtain consistent standard errors.

### 7.3 | Alternative research design choices

Prior research on social norms has found that social norms can motivate institutional investors not to invest in 'sin' stocks: stocks seen as violating a CSR ethos (Hong & Kacperczyk, 2009), but can incentivise institutions to invest more in firms with better CSR performance (Cahan et al., 2017). However, these studies examine the effects of social norms at the firm level, thereby, remaining silent on the mechanisms by which social norms influence corporate governance decisions at the individual level, which can be addressed in experimental studies that allow researchers to observe interactive human behaviours. Some such studies include the effect of the social norms for responsibility and honesty on audit quality (Blay et al., 2019), the effect of social norms for gender diversity on the inclusion of members to corporate boards (Chang et al., 2019), and the role of social norms for fairness on board members' voting behaviour (Yin et al., 2021).

We encourage further research using experimental research design in order to enrich our understanding of how effective social norms are, as corporate governance mechanisms.<sup>17</sup> This is important, because our review is strongly premised on the notion that firms headquartered in regions with strong social norms will behave ethically. However, as Yin et al. (2021, p. 130) demonstrate, social norms may act as a two-edged sword:

norm heterogeneity of independent directors greatly reduces bargaining power with insiders ... so that insiders have no incentive to maintain a good reputation. On the other hand, the bad reputation of insiders drives independent directors to believe that management is self-interested and may create unfair outcomes. This will drive independent directors who have information asymmetry and value social norms for fairness to deny the project regardless of project quality, thus damaging the overall wealth as well as the shareholder wealth.

Experimental research in this kind of setting is more insightful than the traditional archival research, given that data on norm heterogeneity of independent directors may not be readily available. Another example is Douthit et al. (2017), who adapt Bicchieri's (2006) model to provide a new insight, that managers can motivate employees to lower budgetary slack by inducing empirical and normative expectations for the trustworthiness norm. The experimental method is superior to traditional archival research in measuring the intervening processes and psychological factors (Libby et al., 2002) that could shed light on such issues as whether individual personality characteristics moderate the relation between local norms and corporate outcomes.

## 7.4 | Dearth of international research

As is evident from our review, research on the consequences of local social norms in the areas of accounting, finance and corporate governance is dominated by US research, followed by some from China. Although social capital research in the context of Italy has attracted considerable interest from economists (Guiso et al., 2004), we did not find any empirical papers that examined the effect of variation in Italian social capital on accounting information quality. Guiso et al. (2004) use electoral turnout and blood donation to measure provincial-level social capital in Italy, and document that households invest a smaller proportion of their financial wealth in cash and a bigger proportion in stock in areas with high levels of social capital. We believe the existing research on the consequences of local social norms would be enriched if the US and Chinese research could be replicated in other countries varying in different dimensions of local social norms, for example, India, the Gulf Cooperation Council, and other European countries.

## 8 | CONCLUSION

The objectives of this systematic literature review of the consequences of local social norms were three-fold. First, we have provided a theoretical overview of social norms in general, and why and how such norms are likely to affect corporate outcomes. Second, we have summarised existing research on the consequences of local social norms in the accounting, finance, and corporate governance domains. Finally, based on the theoretical underpinnings and the empirical findings, we have offered some suggestions for future researchers. We believe our review will be useful to researchers who intend to

<sup>17</sup>For a detailed review of the literature using an experimental approach to the application of social norm theory in accounting, see Blay et al. (2018).



extend this stream of research, incorporating hitherto unexplored consequences and addressing the issues raised in Section 7.

We started by providing a theory of social norms in general and then, explained the theoretical underpinnings of the four local social norms, namely, social capital including social trust, religiosity, local gambling norms, and local corruption culture, that have provided the structure for this review. In order to facilitate understanding of the empirical literature and discussion in the subsequent sections, we discussed data sources and measurement issues pertinent to these four constructs in Sections 3–6. Each section covers thematic discussion of the consequences of the local social norms (for example, financial reporting and auditing, financial policies and investment decisions, and corporate governance outcomes). In Section 7, we discussed a range of issues, including alternative interpretations of the existing findings and methodological shortcomings.

## DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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