Essays on access to finance: A case study of Indian firms

Rasheed Alrashidi

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Accounting Department
Essex Business School
University of Essex

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Dedication

This study is dedicated to the following people who have helped me in various ways:

To my parents, may their souls rest in peace. Thank you for encouraging me in all that I do, especially in my learning and acquisition of knowledge.

To my brothers and sisters, may they be blessed by God always. Thank you for your unconditional love, support, motivation and prayers.

To my father- and mother-in-law, thank you both for lending your support throughout my PhD and motivating me to try my best. May God bless you.

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Abstract

This thesis investigates access to finance in listed Indian firms. The Indian market offers an interesting context for my investigation. For instance, although India has one of the leading global economies, it is characterised by weak corporate governance and little investor protection. Therefore, the results found in previous studies on developed economies may not apply to India or other similar empirical settings. I aim to answer three questions. First, how audit quality impacts access to finance for Indian listed firms. Second, what is the influence of independent directors on access to finance in listed firms in India. Third, to what extent does gender diversity on boards affect access to finance in Indian listed firms. I use secondary data from $Prowess_{dx}$ database to examine these relationships. Limited attention theory is applied to interpret the results on firms' access to finance by exploring the capital providers' perceptions of these firms.

The findings show that providers of finance consider fees from both audits and non-audits to be a signal of a high-quality audit, which enhances the credibility of the financial statements and in turn has a desirable impact on firms' access to finance. Financial providers also consider the percentage of independent directors on the board to be a red flag; this can negatively affect a firm's access to finance. However, the remuneration of the independent directors has a beneficial impact on a firm's access to finance. Additionally, the finding provide weak evidence of financial providers considering the presence of female directors on boards and their participation on board committees to be a 'green flag', positively affecting firms' access to finance. The results showed consistency when additional tests were run. The implications of this thesis can assist regulatory authorities to enhance the regulations in India.

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Chapter One: Introduction

1.1 Introduction

Access to finance is a cornerstone for starting a business, surviving, remaining competitive in the market (Demirgüç-Kunt et al., 1998; Rajan & Zingales, 1998) and continuing to grow (Demirguc-Kunt et al., 2006; Malhotra et al., 2007). Although access to finance is vital for firms' progress, few studies in the literature analyse the behaviour of capital providers or their needs with the goal of helping more firms to gain access to finance. Cascino et al. (2014) confirm this lack of investigations into the needs of capital providers. At the same time, there are inadequate studies examining the capital constraints that firms face, which prevent their access to finance (Coluzzi et al., 2012; Ferrando & Mulier, 2015). A company's access to finance concerns the ease with which it is able to obtain credit and is closely related to capital constraints. If a company is unable to access financing, it is more likely to be capital constrained and will find it difficult to obtain loans, issue new shares, or realise proceeds from the sale of illiquid assets (Lamont et al., 2001: 529). Therefore, the initial idea of this thesis was to analyse capital providers' perspectives on firms. Then, I recognised the substantial need for academic studies on access to finance in the context of developing markets. Beck et al. (2006) and Fowowe (2017) state that remarkably little empirical research has been conducted on emerging markets, despite the known difficulties companies face when attempting to access finance in these countries. The aim of this thesis is to contribute to the literature on access to finance by exploring the capital providers' perspective on how firms might gain better access to finance in the emerging market of India.

1.2 Context

Emerging economies differ considerably from developed economies in terms of their history, culture, business environment, politics and infrastructure, and can have entirely

distinct features due to insufficient protection of the privileges of shareholders (La Porta et al., 2000; Claessens et al., 2002; United Nations Conference on Trade and Development, 2010; Claessens et al., 2013) and weakness in capital markets (Claessens et al., 2013). In addition, the unusual dominance of families and the government can occur in emerging economies, due to their ownership of most of the companies in those economies (Claessens et al., 2000; Lins, 2003; Claessens & Tzioumis, 2006). These substantial differences suggest that the results of a study conducted in developed countries may not apply to emerging countries. It is therefore important to conduct studies to understand the nature of these contexts.

The institutional context of India is the most appropriate context for this study for several reasons. First, India is the second-most populous country in the world with 1.3 billion people (CIA, 2020), representing 18% of the global population. India is expected to become the most populous country within a decade (United Nation, 2019). It has a unique context as a multicultural country that is characterised by several religions, languages, ethnic groups, etc. This diversity allows India to present many of the characteristics of other developing countries.

India became the fifth-largest economy in 2019 (Mayers, 2020) and is expected to become the third-largest by 2030 (Bloomberg, 2020). Also, India is a member of the Group of Twenty, which boasts two-thirds of the global population, 75% of all trade and 85% of global GDP (gross domestic product). India has a well-functioning stock market, the Bombay Stock Exchange. Established in 1875, it is one of the oldest stock markets globally and the oldest stock market in Asia (Dharmapala & Khanna, 2013). Many international investors and multinational companies operate in the Indian economy (Sharma & Singh, 2018). Thus, India is one of the most important and economically leading countries in the world.

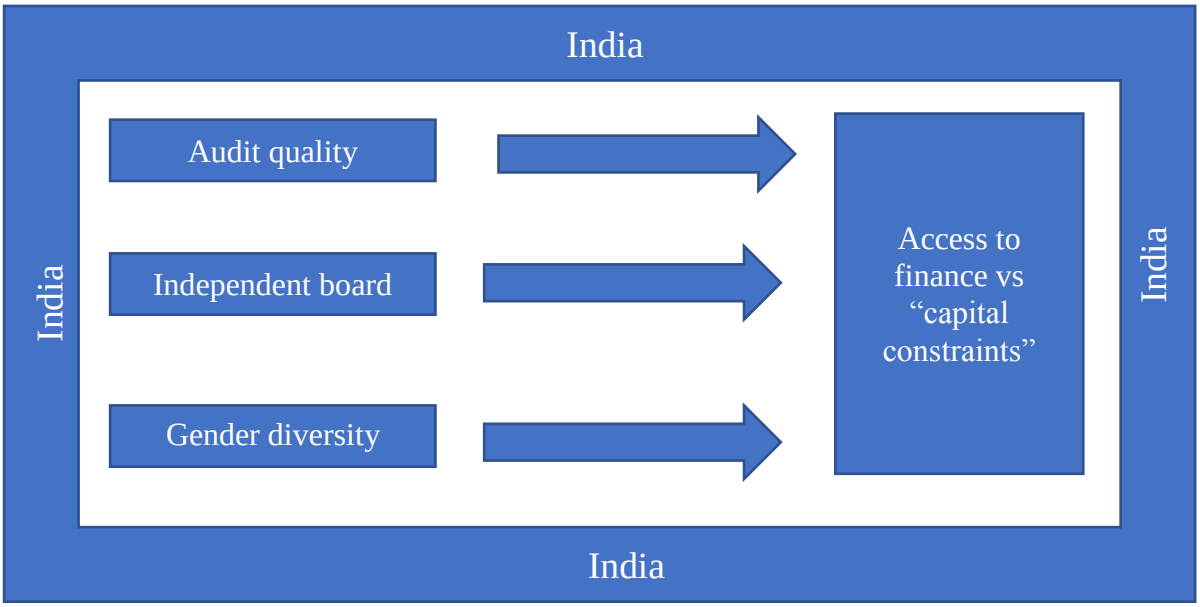
Like other developing countries, the Indian market is dominated by large family businesses (Houqe et al., 2017), which are characterised by lower levels of professionalism and high levels of nepotism. The country appears to have inadequate investor protection mechanisms and limited corporate governance practices (Narayanaswamy et al., 2012). As a result, there have been large-scale scandals, such as the Satyam scandal in 2009, which involved almost one billion US dollars and raised concerns about the roles of audit quality and corporate governance in monitoring management actions, e.g. in producing credible financial statements (Gakhar, 2014), all of which have become major concerns for capital providers. Based on the details mentioned above, I believe that India fits our investigation perfectly and presents similar issues to other developing countries (e.g. market imperfections tend to be a stronger characteristic in emerging countries, Yang et al., 2020).

1.3 Research Questions

This study explores how capital providers evaluate three firm elements, namely audit quality, board independence and gender diversity on corporate boards, in order to protect their investments in Indian listed firms. This evaluation by capital providers might affect firms' access to finance. These three elements are converted into research questions. First, what is the effect of audit quality on firms' access to finance in listed Indian firms? Second, what is the influence of board independence on firms' access to finance in listed Indian firms? Third, what is the impact of gender diversity on boards of directors and firms' access to finance in listed Indian firms? Based on these questions, this thesis examines the relationship between Indian-listed firms' access to finance and their audit quality to shed light on how audit quality impacts access to finance, it explores the association between board independence and access to finance to examine how board independence influences the firms' access to finance and it investigates the association between gender diversity on a

board of directors and access to finance in India in order to explore how the gender diversity of a board impacts financial access. Figure 1 illustrates the research questions of this thesis.

Figure 1 The research questions of this thesis



1.3.1 First research question

The first research question, What is the effect of audit quality on firms' access to finance in listed Indian firms? This thesis examines the relationship between Indian-listed firms' access to finance and their audit quality to shed light on how audit quality impacts access to finance. Capital providers look for reliable financial information when evaluating a firm's financial situation and use auditors' judgment about a firm's financial reporting quality. Ashbaugh and Warfield (2003) argue that audits provide a way to monitor firms' financial reporting processes. Audits also ensure that management actions are supervised, reducing the chance of management manipulation (Tsipouridou & Spathis, 2012). Therefore, capital providers might see high audit and non-audit fees as a sign of high audit quality. The audit fees paid could be considered a sign of commitment to the audit process (Leventis et al., 2011; Esplin et al., 2017). Indeed, Gandía and Huguet (2020) argue that, if firms attempt to signal high accounting quality, the audit fees might provide this signal, thereby reducing the

cost of debt. Non-audit fees may improve the accounting practices of companies (Choi et al., 2009). However, capital providers may not observe the difference between firms audited by the Big 4 audit firms and those audited by small firms in terms of audit quality. For example, Jeong and Rho (2004) find no significant relationship between earnings management and size of auditor in Korea; these findings are corroborated by additional studies in Canada and France (Othman & Zeghal, 2006) and in Greece (Tsipouridou & Spathis, 2012).

It is important to note that the professional accounting organisations that supervise and arrange auditing in India have been criticised for a lack of action in terms of audit errors (Chakrabarti, 2005). The big four accounting firms (PriceWaterhouseCoopers, Ernst & Young, Deloitte, and KPMG) receive significantly higher fees in India than in other countries, even though there is no difference in the quality of the audits they provide (Joshy et al., 2015). In a recent policy document, the Ministry of Corporate Affairs (MCA, 2020) suggests that the shareholders are theoretically charged with appointing auditors. In reality, auditors are appointed and dismissed by the directors.

Therefore, various attempts are being made by the Indian government to improve the quality of audits and competition among audit firms by expanding the number of auditors operating in the country, driving down the fees charged by auditors, and limiting their ability to sell non-audit services to audit clients. Most industry bodies have signalled their discomfort with the additional non-audit services that auditors routinely offer their clients (ET, 2020). Recognising the public opinion on this matter, PWC India, Grant Thornton and Deloitte have voluntarily ceased offering non-audit services to Indian companies to enhance confidence in the quality of their auditing processes and emphasise their independence.

As previously argued, it is possible that paying more in fees for auditing services may suggest that the quality of the audit service provided is superior, thereby limiting the scope

for management to engage in earnings management, particularly in India context it is assumed that all firms offer similar quality audits irrespective of whether or not they are a Big Four firm. Also, in the same context the absence of adequate investor protection, providers of capital will look for indications of audit quality for reassurance that any investment will not be subject to manipulation by the company's management. Therefore, I assume that the payment of sizeable audit fees is interpreted by capital providers as a reassurance, thereby encouraging them to agree to allow more access to finance by reducing capital constraints to firms because they have faith in the accuracy of the financial statements presents. Consequently, I expect that a significant positive relationship will be observed the fees that Indian firms pay for auditing services and the access that these same companies have to finance. As such, Hypothesis One is as follows:

H1: A positive relationship exists between audit fees and access to finance for listed Indian firms.

Also, it is possible that paying more in fees for non-auditing services may suggest that companies utilise an effective accounting system as a result of a knowledge spill-over. This could have the effect of making their financial statements more credible, particularly in Indian context is assumed that all firms offer similar quality audits irrespective of whether or not they are a Big Four firm. Consequently, I believe that the payment of sizeable non-audit fees will be interpreted by capital providers as reassurance that encourages them to offer more access to finance by decrease capital constraints to the firms because they believe that the financial statements are reliable and the firm is receiving effective monitoring. For this reason, it is anticipated that a positive relationship will be observed between the non-audit fees that Indian firms pay and the access that these companies have to finance. As such, Hypothesis Two is as follows:

H2: A positive relationship exists between non-audit fees and access to finance for listed Indian firms.

1.3.2 Second research question

The second research question, what is the influence of board independence on firms' access to finance in listed Indian firms? This thesis explores the association between board independence and access to finance to examine how board independence influences the firms' access to finance. Independent directors are one of the most important elements of the corporate governance of any company. For example, independent directors are significant in providing good corporate governance (Weisbach, 1988; Fich & Shivdasani, 2012). They also reduce information asymmetry (Joh & Jung, 2012; Lin et al., 2015) and improve the level of corporate disclosure (Armstrong et al., 2014). Independent directors on a board enhance the monitoring of the firm's management (Armstrong et al., 2014; Goh & Gupta, 2016), reducing the potential for management manipulation, which can lead to better financing terms (Bhojraj & Sengupta, 2003; Francis et al., 2012). Therefore, the presence of independent directors would likely increase capital providers' trust in terms of the reduction of management manipulation.

However, the context plays an important role in determining the board independence (Pascual-Fuster & Crespí-Cladera, 2020). Independent directors in India are often handpicked by a company's promoters, defined as a bulk group that owns significant shares in the company. Therefore, they often prefer to remain friendly with the management rather than act as watchdogs (Khan & Kotishwar, 2011). Independent directors are not really independent as they are chosen by the promoters or owners of businesses. Indeed, the directors' independence exists only on paper in the Indian setting, a major concern for good governance (OECD, 2019). The blurring of directors' responsibility seen in the case of Ratan Tata and

Cyrus Mistry is unique in corporate history[1]. The Companies Act of 1956 does not provide an explicit definition of the term 'independent director' and so the government is making efforts to enhance the role of independent directors on company boards through legislation such as Clause 49, Revised Clause 49, and the Companies Act of 2013. These regulations are meant to enhance management monitoring and more specifically spell out the duties of the board of directors, which could deliver a clearer picture of the financial position of firms. For example, Section 149 of the Companies Act 2013 defines the term 'independent director' and provides details regarding directors' selection, role, duties and responsibilities.

From the evidence presented, it is apparent that the notion of independent directors serving on the boards on Indian companies is a relatively new idea. What is more, the fact that many of these independent directors are selected by managers could undermine their independence and adversely affect the duties they perform. Thus, I assume that capital providers will perceive a high percentage of independent directors as a negative quality because this casts doubt on their ability to monitor effectively. Therefore, capital providers might reduce the availability of finance by increasing capital constraints for these firms. As such, it is anticipated that there will be a negative relationship between the percentage of independent directors serving on the boards of listed Indian companies and the ability of those firms to access finance. As such, Hypothesis One is as follows:

H1: There is a negative relationship between the percentage of independent members on a firm's board and access to finance for listed firms in India.

The remunerations of independent directors is important element to evaluate the board independency. The capital providers may see the remuneration of independent directors in

[1] Cyrus Mistry became chairman of the Tata group after Ratan Tata's retirement in 2012. However, Cyrus was ejected before the end of his term, which raised concerns about both corporate governance practices and the board of directors being controlled by promoters (MC & Rentala, 2018).

one of two ways. It could show a reward for friendliness with the firm management, indicating low monitoring of the management and a lack of independence in those independent directors. Goh and Gupta (2016) state that there is an inverse relationship between the independence of independent directors and their remuneration. Conversely, capital providers could interpret the high remuneration of independent directors as a reward for outstanding work. For instance, Adams and Ferreira (2008) find that it is vital to compensate independent directors appropriately for the extra tasks and duties they perform.

The remuneration of independent directors in Indian listed firms consists of two elements, sitting fees and net profit; these two factors are subject to a cap of $1,500 per meeting and 1% of the firm's annual profit (Naaraayanan & Nielsen, 2016). Capital providers may not perceive this remuneration as a negative sign in terms of independent directors' responsibilities. From a capital provider's viewpoint, remuneration may actually signal a firm's profitability, particularly because independent director remuneration consists of a percentage of the firm's annual profits. Lenders prefer profitable firms (Jiang et al., 2018) due to the low chance of default risk (Ertugrul & Hegde, 2008; Lorca et al., 2011). The same idea applies to sitting fees, which are considered a sign of an active board. Xie et al. (2003) and Ntim and Osei (2011) find that firm performance is significantly enhanced by how active the board is.

As previously argued, the independent directors serving on the boards of listed Indian companies are remunerated on the basis of sitting fees as well as an agreed percentage of the company's net profit. It is possible that capital providers may interpret the remuneration offered to independent directors as a sign of how profitable the underlying company is owing to the sum being related to the annual profits. In addition, it might indicate the activity of the board due to sitting fees is a part of the remuneration. As such, it is logical to assume that

those providing capital will be more inclined to offer more finance by reducing capital constraints if a company makes sizeable remunerations to its independent directors. On this basis, it is anticipated that the remuneration paid to the independent directors of companies listed in India will be positively related to the firm's ability to obtain finance on agreeable terms. As such, Hypothesis Two is as follows:

H2: There is a positive relationship between the remuneration of independent directors and access to finance for listed firms in India.

1.3.3 Third research question

The third research question of this thesis; what is the impact of gender diversity on boards of directors and firms' access to finance in listed Indian firms? This thesis investigates the association between gender diversity on a board of directors and access to finance in India in order to explore how the gender diversity of a board impacts financial access. The presence of women on boards of directors creates group heterogeneity. Empirical sociology research has strongly suggested that a group comprised of individuals of different backgrounds, cultures, sexes and races is likely to determine a wide range of solutions to challenges, resulting in better decision making (Hillman et al., 2007). Research also indicates that women have better listening and communication skills than their male counterparts. It is, therefore, logical to assume that women are well-suited to performing tasks that involve communicating with various groups of people (Schubert, 2006). It has also been found that women make more thorough preparations for board meetings than men (Huse & Solberg, 2006). Cardillo et al. (2020) find that female directors provide better monitoring than men. Female directors are also significant in terms of the delivery of good corporate governance (Campbell & Mínguez-Vera, 2008; Gordini & Rancati, 2017), especially in firms with weak corporate governance (Ionascu et al., 2018). As a result, women directors could help to reduce fraud (Capezio &

Mavisakalyan, 2016). It has been observed that the presence of women on firms' boards has improved the oversight and monitoring of management actions (Carter et al., 2003), encouraged firms to follow the best ethical practices (Williams, 2003), and improved voluntary disclosure (Gul et al., 2009; Alves et al., 2015; Arun et al., 2015). The relatively high attendance rate of female directors also implies their willingness to monitor activities (Adams & Ferreira, 2009). There is a growing consensus that female directors are more effective at monitoring management teams and appraising their efforts (Bennedsen & Meisner Nielsen, 2010; Alves et al., 2015).

Thus, several regulators and governments around the world have encouraged firms to appoint female members to their boards, and the Indian government has actively promoted women's empowerment and gender equality by introducing many corporate governance reforms and regulations that aim to enhance gender equality (Gandhi, 2016). One example is the Companies Act of 2013, which mandates that at least one member of a firm's board of directors must be female. However, only a small number of women smash the 'glass ceiling' and climb the corporate ladder (Ghosh, 2017); most board directorships and management positions continue to be held by men (Srivastava et al., 2018). Female directors may not perform their duties as expected if they are selected by the promoters or owner, and most new female directors are associated with promoters (Duggal, 2016). There is also a strong cultural resistance to the progress of women in India as Indian men control most of the decision-making in all aspects of life (Chauhan & Dey, 2017); women in India are significantly less empowered than women in developed countries (Jadiyappa et al., 2019).

The committees within a board of directors constitute a significant aspect of the governance process and are supposed to be created properly. They are important because the board regularly assigns tasks to the committees within it in order to more effectively manage

specialised or complex matters, and to use members' time more efficiently. The main task of a committee is to provide recommendations to the board. The presence of women on these committees, particularly monitoring committees, reduces managerial manipulation (Zalata et al., 2019) and increases the integrity of company reports (Srinidhi et al., 2011).

As previously argued, as a general rule, corporate governance among Indian companies is notoriously weak and it is possible that if more women were appointed to the board, this could enhance the monitoring of management. For this reason, it is logical to assume that the providers of capital will look more favourably upon those companies that appoint female directors and this will manifest itself in these companies being better able to obtain finance by decreasing capital constraints. Consequently, it is anticipated that the relationship between the number of female directors and the ability of companies listed in India to obtain finance will be significant and positive. As such, Hypothesis One is as follows:

H1: There is a positive relationship between the number of female directors on a firm's board and access to finance for listed firms in India.

Also, female directors of companies listed in India are less likely than their male counterparts to participate in board committees yet when women do participate in these committees, the resulting company reports have greater integrity. It is possible that those providing capital interpret the involvement of women on committees because it means that the financial statements are more credible. On this basis, it is anticipated that companies with female directors participating in committees will benefit from better access to finance by reducing capital constraints. Therefore, it is anticipated that the relationship between the participation of female directors in committees and the ability of companies listed in India to obtain funding is significant and positive. As such, Hypothesis Two is as follows:

H2: There is a positive relationship between female directors' participation in firms' board committees and access to finance for listed firms in India.

1.4 Theoretical Framework

This thesis is informed by limited attention theory. Basically, capital constraints prevent firms from accessing finance; without these constraints, firms have easy access. Indeed, Cheng et al. (2014) and García-Sánchez et al. (2019) argue that a reduction in a firm's capital constraints increases the firm's access to finance. Moreover, a firm's level of access to finance reflects how capital providers perceive it. For example, Ding et al. (2017) state that capital providers' perceptions of firms can be measured though the firms' degree of access to finance. Therefore, I've used the reverse relationship between firms' access to finance and their capital constraints to explore capital providers' perceptions of these firms (Alrashidi et al., 2021).

In this sense, Information about firms plays a vital role in determining capital providers' perceptions of them. For instance, capital providers use such information to evaluate potential risk (García-Sánchez et al., 2019), and some kinds of information improve capital providers' confidence, thereby enhancing a firm's access to finance. Indeed, Dhaliwal et al. (2012) and Bayar et al. (2018) state that certain information grabs the attention of capital providers, encouraging them to offer access to finance. Consequently, information about a firm acts as a signal to capital providers and affects their judgments, thereby impacting a firm's access to finance by reducing or increasing its capital constraints.

'Attention' refers to the "noticing, encoding, interpreting, and focusing of time and effort by organisational decision-makers on both issues and answers" (Ocasio, 1997: 189). The basic technique for paying attention involves noticing information, understanding its influence on perceptions, and then recognising the effect of those perceptions on decisions

(Ramos et al., 2020). Limited attention theory assumes that capital providers have a narrow attention span and limited processing power. Therefore, this thesis will analyse capital providers' attention/reactions toward three important firm elements in the Indian context, based on limited attention theory, in order to reflect the monitoring of a firm's management and the credibility of its financial statements. Due to regular corporate scandals, the monitoring of management actions has become essential in terms of creating better access to finance for companies. Firstly, information regarding the audit quality of Indian listed firms may draw the positive attention of capital providers because high audit quality plays an essential role in the production of credible financial statements, which are preferred by capital providers. Secondly, information about board independence, and particularly the existence of independent directors on a firm's board, may draw negative attention from capital providers because of doubts regarding the effectiveness of the role played by independent directors on the boards of Indian listed firms. Thirdly, capital providers may have a positive reaction to increased gender diversity on the boards of Indian listed firms. This is because of the perception that gender-diverse boards are better at monitoring the actions of managers. These three elements may affect financial access for Indian listed firms because of their effects on the opinions of capital providers.

1.5 Methodology

This thesis explores capital providers' attention which reflects on firms' access to finance, proxied by Indian firms' capital constraints; a company's access to finance concerns the ease with which it is able to obtain finance and is closely related to capital constraints.

By access to finance, I mean capital constraints. The term 'access to finance' refers to a company's ability to obtain finance (Cheng et al., 2014). The term 'capital constraints' refers to the restrictions on a firm's capital that are 'due to credit constraints or inability to borrow,

inability to issue equity, dependence on bank loans, or illiquidity of assets' (Lamont et al., 2001: 529). Therefore, firms face poor access to finance due to capital constraints. Indeed, reducing capital constraints places a firm in a better position to gain finance (Cheng et al., 2014; García-Sánchez et al., 2019; Malik et al., 2021). In other words, when firms have good access to finance, this is represented by reductions in their capital constraints. In the same vein, an increase in a company's access to finance (i.e. reduction in its capital constraints) indicates that capital providers have a positive attitude toward the company; otherwise, they would reduce the company's access to finance. The degree of a firm's access to finance thus reflects capital providers' perception of the firm (Ding et al., 2017). Therefore, I measure a firm's access to finance as a proxy for its capital constraints to explore the perceptions of capital providers (Alrashidi et al., 2021). Two well-known proxies have been used to measure capital constraints in the literature. The first is the KZ-index, created by Kaplan and Zingales (1997), which serves as a proxy for the extent of financial constraints to which a given company is subject. The second measurement is the WW-index, created by Whited and Wu (2006), which determines the financial constraint status of each company. The more capital constrained a firm is, the higher is the value of each index (Cheng et al., 2014). Data were obtained from secondary sources found in the $Prowess_{dx}$[2] database of the Centre for the Monitoring of the Indian Economy (CMIE), which has data on stock prices, accounting numbers and corporate governance reports for companies that have stocks listed in the Mumbai & National Stock of India (Aswani, Chidambaran, & Hasan, 2021; Elango & Pattnaik, 2007; Mal & Gupta, 2020; Pinto & Rastogi, 2019). This provided the necessary financial data for individual companies as well as supplementary background information on their operations.

[2] the $Prowess_{dx}$ database is available in the following link https://prowessdx.cmie.com/

In sum, the purpose of this thesis is threefold. First, it examines the relationship between audit and non-audit fees and a firm's access to finance in India. Second, it examines the relationship between the percentage of independent directors on a firm's board, their remuneration, and the company's access to finance in India. Finally, it explores the relationship between female directors on a firm's board, their participation in board committees, and the company's access to finance in India.

1.6 Key Findings

First, I empirically tested the hypothesis that audit and non-audit fees increase firms' ability to access finance by reducing their capital constraints. The results revealed that both audit and non-audit fees have significant negative associations with capital constraints. The results indicate that, despite the scepticism toward the audit process in India, capital providers might view audits (audit and non-audit fees) as a vital sign of the reliability and credibility of companies' financial statements, positively affecting access to finance.

Next, I tested the relationship between independent directors on firms' boards and access to finance. A negative relationship between the percentage of independent members on a firm's board and access to finance by increasing their capital constraints, for listed firms in India, was hypothesised, as was a positive relationship between the remuneration of independent directors and those firms' access to finance by reducing their capital constraints. The results show that a higher proportion of independent directors on a firm's board is related to the firm having a reduced ability to access finance, because the independence of directors is questionable due to the particular Indian institutional setting (Kumar & Singh, 2012). Therefore, capital providers might evaluate the existence of independent directors on firms' boards as a sign of ineffectiveness and low independence. However, greater remuneration of

the independent directors increases firms' ability to access finance because it indicates that the company has higher sitting fees and net profits (Naaraayanan & Nielsen, 2016).

Finally, I tested whether the presence of female board directors and their participation on board committees positively affects firms' ability to access finance in India by reducing capital constraints. The findings provide weak evidence about the providers of financing consider female directors on boards and their participation in board committees to be a 'green flag' because their presence indicates that the board directors will fulfil their duties from the capital providers' perspective, which positively affects the firms' access to finance. Therefore, I failed to approve that more gender diversity on firms' boards produces a positive reaction from the capital providers.

1.7 Contributions

The results of this study make some contributions to the literature on both access to finance and the limited attention theory. First, this thesis contributes to the literature on access to finance by providing insights on factors that influence financing decisions. Also, this thesis responds to calls for an understanding of the needs of capital providers (Cascino et al., 2014). Furthermore, most of the literature exploring access to finance focuses on developed countries; little attention has been paid to developing countries. As mentioned earlier, developing countries differ greatly from developed countries in many ways, and these contexts need to be studied in order to improve our understanding of access to finance. Furthermore, to the best of my knowledge, no study has explored the factors that influence access to finance in the Indian context; the present study aims to fill this gap by introducing evidence that highlights capital providers' attitudes in the unique institutional setting of India.

First contribution, there is little exploration in the literature of the impact of audit quality on firms' access to finance in emerging markets. Unlike previous studies that have

focused on various aspects of audits and finance in developed economies (Larcker & Richardson, 2004; Srinidhi & Gul, 2007; Dhaliwal et al., 2008; Nam & Ronen, 2012), this investigation focuses on India and is motivated by concerns regarding the quality of audit services offered even by the big four accounting firms (Joshy et al., 2015), as well as by actions taken by professional accounting organisations to address audit errors and deficiencies (Chakrabarti, 2005).

The second contribution of this thesis is its examination of the effect of independent directors on a company's board, as well as the effect of their remuneration, on the company's ability to access finance in India (Chapter 5). This part of the thesis examines in depth how capital providers react to and perceive the percentage of independent directors on a firm's board and the remuneration that those independent directors receive. There is remarkably little understanding of this relationship (Lorca et al., 2011) although previous research conducted in developed markets has focused on the effect that independent directors have on finance (Sengupta & Bhojraj, 2003; Anderson et al., 2004a; Ertugrul & Hegde, 2008). However, the impact of independent directors may be different in the Indian context (Lorca et al., 2011). Thus, this study aims to fill this gap by presenting evidence from India to show the attitude of capital providers toward the percentage of independent directors on a firm's board and the remuneration that those independent directors receive.

The third contribution of this thesis relates to the findings showing weak evidence regards the presence of female directors on companies' boards affects their ability to access finance in India. More specifically, the study investigates how capital providers perceive the number of female directors on boards and their participation in board committees, and how those perceptions determine their responses in terms of capital constraints (Chapter 6). There is little understanding of this relationship (Arun et al., 2015) and the extant research has

largely examined the effects that directors have on financing in developed contexts (Adams & Ferreira, 2009; Arun et al., 2015; Li & Zhang, 2019). However, the impact of female directors might differ according to the country context because corporate governance falls short in emerging markets (Liedong & Rajwani, 2018); thus, the current study helps close this gap by highlighting the attitude of capital providers towards the number of female directors on firms' boards and their participation in board committees.

This study also makes a theoretical contribution. Most of the existing studies regarding access to finance employ the agency theory (Sengupta & Bhojraj, 2003; Filatotchev & Wright, 2011; Barroso et al., 2018). Another theory often used in the literature is the pecking order theory (Hernandez-Nicolas et al., 2015; Benkraiem et al., 2018). Also, is the signalling theory (Koonce et al., 2016; Alsos & Ljunggren, 2017). Yet, the findings of the studies are inconclusive and provide contradictory results. For instance, numerous corporate governance researchers believe that the agency theory is not adequate in terms of providing a thorough grasp of the main corporate governance issues in emerging markets because of the prevalence of ineffective capital markets and concentrated ownership structures (Siddiqui, 2010; Htay & Salman, 2013; Al-Hiyari, 2017). These diverse findings provide a great opportunity to use a new theoretical framework to provide new insights. Therefore, this study aims to broaden the understanding of access to finance by applying limited attention theory and attempting to provide an alternative description of the relationships between audit fees, non-audit fees and the financial constraints of a company (Chapter 4), the percentage of independent directors on a firm's board, their remuneration and the firm's financial constraints (Chapter 5), and female directors on a firm's board, their participation in board committees and the firm's financial constraints (Chapter 6). To my knowledge, no other study has applied limited attention theory in this context. Previous research incorporating this theory has focused on investors' attention (Hirshleifer & Teoh, 2003; Hirshleifer et al., 2004; Barber & Odean, 2008) or debtors'

perceptions of advertising expenses (Ding et al., 2017). Therefore, this thesis extends the application of limited attention theory in order to interpret capital providers' feelings on audits, independent directors on firms' boards, and gender diversity in firms' boards in India.

1.8 Structure of the Thesis

This thesis contains eight chapters as follows:

Chapter 1 is an introduction section which highlights the key points of the thesis, and offers a brief discussion of the research context, theoretical framework, research questions, research methodology, key findings, contributions and structure of the thesis.

Chapter 2 provides a brief discussion of access to finance, beginning by explaining the definition of access to finance and then discussing the advantages and disadvantages of better access to finance. In addition, it discusses the context of the investigation, India, in order to provide background information on the economic, social and political context, the developing financial system, and corporate governance in the country. This chapter also reviews and discusses the audit quality in India, the role of board independence in India, and gender diversity in India. The second part of the chapter discusses the previous theories that have been used to interpret capital providers' attention/reaction, and its relation to access to finance. The theory employed in this investigation, limited attention theory, is then introduced.

Chapter 3 is the methodology chapter that discusses the philosophical position applied in the thesis. It also provides the research methodology and the method of data analysis employed.

Chapter 4 discusses the first research question, which involves examining the association between audit and non-audit fees and access to finance for Indian listed firms. The literature is explored and the hypotheses are developed. The three steps of the research design are also discussed: sample selection, measuring variables and model specification. The results are then presented and the findings discussed before the chapter is concluded.

Chapter 5 explores the second research question regarding independent directors on boards and access to finance for Indian listed firms. This chapter discuss the previous literature on this topic and two hypotheses are developed. The selection of the sample, variable measurements and model are then explained, followed by the findings, discussion thereof and conclusion.

Chapter 6 presents the final research question, exposing the association of boards' gender diversity with firms' access to finance for Indian listed firms. Prior findings on this topic are discussed and two hypotheses are developed. The research methodology, namely sample selection process, variable measurements and model, is explained followed by the results and a discussion. Finally, the chapter is concluded.

Chapter 7 concludes the thesis by highlighting the key findings, contributions, implications for policy makers and regulators, limitations, and guidelines for future research.

Chapter Two: Access to finance, context and the theoretical framework

2.1 Introduction

The purpose of this chapter is to provide background about India and discuss the theoretical framework that will be used in this thesis. Thus, this chapter is divided into three sections. The first section discusses the 'access to finance' literature, starting with a definition of access to finance, and then offering some factors that might affect a firm's access to finance. This is followed by a presentation of the literature on the advantages for firms having better access to finance (e.g. expansion, growth). After that, I will present some literature in regards to the disadvantages of firms having difficulties accessing finance (e.g. preventing firms from making the most of profitable opportunities and forcing firms to exit the market). Finally, I refer to the literature on the effects of firms' access to finance at the international and macroeconomic level.

The second section of this chapter discusses and reviews the background of India's institutional setting and justifies why it is important to study this context. This section consists of four parts. The first part demonstrates and explains the motivation for conducting such a study in an emerging market. The second part describes the Indian context and particularly the political, historical, population and economic background of the country. Then, the development of financial systems in India is reviewed. In the final part of this section, the development of corporate governance regulations and codes in India is presented.

The third section in this chapter deals with the theoretical framework. The main purpose of this section is to review and evaluate the main theories applied in the literature on access to finance. It starts with a discussion of the agency theory and its main assumptions. After that, the reasons why the agency theory is not the most suitable for this study are

explained. The second part of the section is a review of the pecking order theory. In this part, I review its main assumptions and suitability. Then, the limited attention theory is discussed and reviewed, and I explain why I chose this theory for this study. Finally, a conclusion to the chapter is provided.

2.2 Access to Finance

2.2.1 What is access to finance?

Consensus has yet to be reached on a precise definition of access to finance, but it is usually assumed that the term refers to the ability of a company to obtain quality financial services at a reasonable cost (Claessens, 2006). A definition such as this is open to interpretation because perceptions of what constitutes quality and a reasonable cost will vary from one person to another (Bae et al., 2012). The interpretations of what constitutes access to finance and usage of finance can easily be confused (Claessens & Tzioumis, 2006). However, I will define access to finance as fewer capital constraints, i.e., fewer of those market frictions that may prevent a firm from funding all its desired investments (Cheng et al., 2014).

Modigliani and Miller (1958) argue that, if credit markets and capital markets operate perfectly, then a company's investment behaviour will have no bearing on its financing decisions. However, if the market does not operate perfectly, the company's investment decisions will be governed by the financial constraints that it faces. The extent to which a company is experiencing financing constraints can be inferred from whether internal funds affect the sensitivity of investment. This is based on the assumption that there is a higher cost associated with external funds than with internal funds, owing to the effect of information asymmetries (Claessens & Tzioumis, 2006). If investment is particularly sensitive to internal funds, then the company is prone to financing constraints.

2.2.2 Advantages of access to finance

If a company has ready access to finance, then it has the wherewithal to continue expanding. The finance industry plays a central role in stimulating economic growth by ensuring that the finite amount of credit is made available to the companies that are most deserving. It has been well established in the empirical literature that financial development has a significant positive effect on firm growth and especially among the companies that are considered to be most deserving of funding (Demirgüç-Kunt et al., 1998; Rajan & Zingales, 1998). If companies are able to access funding as required then this will help to mitigate liquidity constraints and enhance resource allocation (Wurgler, 1999; Love, 2003).

In other words, when companies pursue potentially profitable investment opportunities, they hope to realise benefits in the form of a competitive advantage or better performance. However, these investments require financial investment that is only available if the capital constraints to which a firm is subject do not prevent funding being made available. It is a company's profit maximisation that determines the investment function. The investment function assumes that investment will be forthcoming if the interest rate, tax rate and marginal productivity of capital are all conducive (Summers et al., 1981). However, it has also been suggested that a firm's cash flow is significantly related to whether or not investment can be made (Blundell et al., 1992; Whited, 1992).

If capital-constrained firms are prevented from pursuing profitable ventures, this will not only stymie their performance, but could even threaten their very survival. It is only because of financing frictions that these positive-net-present-value investments are not pursued. Therefore, other things being equal, if capital constraints could be relaxed, firms would be able to take advantage of the profitable investments available to them, thereby enhancing their performance. Demonstrating this, Faulkender and Petersen (2012) use the

American Jobs Creation Act (AJCA) of 2004 as a natural experiment to examine the effect of a shock to the cost of internal finance. Their research indicates that the AJCA triggered a surge in corporate investment, albeit only among those firms that had previously been credit constrained.

Another strand of the empirical literature considers the effect capital constraints have on firms' decisions to enter or exit markets. For instance, Holtz-Eakin et al. (1994a) study the personal tax returns of entrepreneurs to confirm that positive wealth shocks resulting from an inheritance are significantly positively related to the probability of becoming an entrepreneur. The same authors reveal that companies founded by people who have inherited a particularly large sum of money are more likely to survive, thereby inferring that these firms are less likely to be capital constrained (Holtz-Eakin et al., 1994b).

Levine (2005) distinguishes between new-entrant firms and incumbents, confirming that newly established, small and high-risk companies are disproportionately affected by capital constraints Klapper et al. (2006) indicate that better access to finance results in more start-up companies being established. Consequently, economies are able to benefit from higher rates of growth if they have an efficient financial system that helps to mitigate constraints. Furthermore, it has been claimed in the empirical literature that the reason why small companies experience lower rates of growth, pay lower dividends and are relatively highly geared stems from the constraints they experience (Cooley et al., 2001; Cabral & Mata, 2003).

Indeed, Carpenter and Petersen (2002) assert that it is the constraining effect of their internal capital that explains why small US companies experience relatively poor asset growth. Moreover, they state that there is a significant positive relationship between the rate of growth and the ability to raise external funds. Similar results are obtained for a sample of

Indian companies by Becchetti and Trovato (2002). Also, Desai et al. (2008) reveal that this relationship holds even in the midst of a currency crisis. Furthermore, Beck et al. (2005) obtain survey data for companies operating around the world and conclude that small firms are disproportionately adversely affected by financial constraints, owing to the fact that they are subject to particularly tight restrictions.

In addition, it has been consistently reported in the empirical literature that financially constrained companies are significantly less likely to invest in a broad spectrum of strategic activities (Hubbard, 1998; Campello et al., 2010) such as investment in inventory (Carpenter et al., 1998), hoarding labour during market downturns (Sharpe, 1994), research and development (Himmelberg & Petersen, 1994; Hall & Lerner, 2010) and market share pricing (Chevalier, 1995). By imposing limits on investment of this nature, financial constraints are effectively responsible for suppressing companies' ability to expand over time.

The empirical literature also provides insights at the international and macroeconomic level. For instance, Banerjee and Duflo (2014) examine firms that were customers of an Indian bank to evaluate the effect of eligibility for a directed credit programme on their growth. Once the directed credit programme became operational, these firms started to grow at a faster rate, indicating that they had previously been credit constrained. Importantly, access to finance helps all companies to expand by exploiting opportunities that present themselves (Beck et al., 2006). Moreover, efforts to tackle financial exclusion encourage innovation and result in more efficient asset portfolios (Ayyagari et al., 2011). Therefore, there is ample evidence in the empirical literature to suggest that relaxing 'capital constraints' and thereby granting better access to finance would not only benefit firm-level performance but other factors as well.

2.3 Context

2.3.1 Why emerging markets?

Emerging markets are distinct from developed economies in many ways, such as their culture, regulatory environments and economic infrastructure. Consequently, several researchers have recognised the need for further investigations in emerging markets (Mellahi et al., 2016; Liedong & Rajwani, 2018). However, the vast majority of the empirical literature is concerned with developments in the US, UK and other advanced economies (Claessens & Tzioumis, 2006). This provides a rationale for conducting the current study in an emerging market as it deals with a topic of importance, worthy of investigation.

Unfortunately, the difficulties that companies operating in emerging markets experience when attempting to access funding, and the cost of that finance if it is available, represent significant obstacles to economic growth and development (Aryeetey, 1998; Beck et al., 2006). One possible reason for these difficulties could be the credibility of the firms' financial statements, which are supposed to reflect the firms' financial performance and status. Indeed, even large private companies and listed companies based in emerging markets often produce financial statements that are relatively unreliable in comparison to those compiled in advanced economies (Claessens & Tzioumis, 2006). Therefore, in developing countries, in order to gain an accurate perception of the issues faced by companies when seeking funding, it is necessary to conduct firm-level surveys to gain further insight into the financing constraints experienced in a particular location.

In different contexts, there might be different reactions to audits. More interestingly, even within a single country there are often regional cultural and environmental differences. For example, Kharuddin et al. (2019) assert that the UK market for auditing is likely to differ considerably between cities. This is because each region of the country has its own culture.

Moreover, it is noted by Humphrey et al. (2009) that, at the height of the 2008 global financial crisis, international regulators required improvements in accounting capability and capacity in emerging economies, a sign of the differences that exist between cultures. In addition, it has been revealed that the way auditors behave with regards to earnings management differs markedly across the countries in which they operate, and this is likely to reflect the unique institutional setting and economic environment of each territory (Arnedo et al., 2008).

Another difference in the business environment between developed and developing economies relates to the board of directors. In advanced economies, the board of directors is the main internal governance mechanism (Fama & Jensen, 1983), and is supposed to monitor the management, which affects the credibility of information produced in the financial statements. Thus, appointing independent directors to the board is supposed to improve corporate governance (Su & Lee, 2013; Wei et al., 2018). However, the standard of corporate governance in emerging markets often lags behind that in more advanced economies because the board of directors is less likely to monitor the management of the company in the absence of appropriate institutional support (Young et al., 2008). Moreover, Liedong and Rajwani (2018) consider whether corporate governance failings in emerging markets may be able to explain the problems experienced with debt financing.

Also, considering the importance of the composition of the board of directors to corporate governance, the presence of females on the board is supposed to have a significant effect. For instance, Adams and Ferreira (2009) argue that the inclusion of females on the board could impact corporate governance in many significant ways. Society in emerging markets is becoming increasingly gender-inclusive, and regulators are making a concerted effort to ensure that women are able to work in industries that have traditionally been male-

dominated. Within individual companies, there is a general increasing trend in the proportion of the workforce comprised of women. Be that as it may, top-level management positions and the board of directors continue to be overwhelmingly dominated by men. For instance, women account for just 22.8% of directors in the UK, 19.2% in the US, 18.2% in Spain, 9.5% in India and 3.1% in Japan (Catalyst, 2015). Given that the composition of the board is known to have a bearing on corporate governance, it is logical to assume that the appointment of female directors could have a significant effect, especially in India. It is known that corporate governance institutions are not as strong in emerging markets as they are in advanced economies, and this effectively enables companies to raise equity to help fund investments that generate small returns. In countries that have excellent corporate governance standards, firms are more inclined to fund investments using retained earnings or internal cash flow. As such, it is apparent that the standard of corporate governance in a country can explain the choice of funding for investment purposes, as well as the rate of return generated from those investments.

Thus, it is important to highlight the effects of audit quality, board independence and gender diversity on the board's role in enhancing access to finance in emerging markets. Thus, the current study considers these elements in the setting of the emerging market of India. In the next few sections, I will explain my motivation for choosing India as the context for this investigation

2.3.2 Background

India is one of the most important countries in the world. It is located in South Asia, surrounded by the Arabian Sea and Bengal Bay, between Pakistan and Burma, and has a total land area of around 3,287 square kilometres. Its geographic location is of strategic importance, contributing to its emerging power (CIA, 2020). Indeed, India has great

significance among other countries due to its location which helps it approach other countries and maintain trading with Europe, Africa and West Asia. Thus, India is considered to be in a central location and offers a link from East to West and North to South.

Politically, prior to 15 August 1947, India was under British rule, but on this date it gained its independence, becoming a federal parliamentary republic. India's constitution was written prior to its independence, in 1935, with the final draft being produced on 4 November 1949. The constitution was formally adopted on 26 November and came into effect on 26 January 1950. Both the Council of States and the House of the People may propose amendments to the constitution. In order for an amendment to be passed, more than half of the total membership of both houses must participate in the discussion a minimum of two-thirds of the voting members of both houses must vote in favour it, and then it must receive assent from the country's president. If the constitutional amendment procedures are to be amended, any such proposal will need to be ratified by a minimum of half of the country's state legislatures prior to receiving presidential assent; since 1950, the constitution has been amended on numerous occasions, the most recent being in 2019 (CIA, 2020).

India operates a common-law legal system based on the English approach. Legislative acts are subject to judicial review and there are distinct personal law codes that are applicable to Hindus, Muslims and Christians. India's legislative branches are bicameral, the first being the Sansad or Parliament, which comprises the Rajya Sabha/Council of States. The Council of States has a total of 245 seats and 233 of the members are elected indirectly on the basis of proportional representation by territorial and state assemblies, with a further 12 members selected directly by the president. All 245 members serve terms of six years. Meanwhile, the Lok Sabha or House of the People has a total of 545 seats and all but two of its members are elected directly on a majority basis to represent constituencies. The other two members are

selected directly by the president and all 545 members serve terms of five years. The highest court in India is the Supreme Court, which comprises 28 judges, one of whom is the chief justice. The president appoints all judges and they serve until retirement at the age of 65 years. India's other courts include High Courts, Labour Courts and District Courts. In an attempt to eradicate corruption among the judiciary and alleviate a build-up of cases, in 2011 the Cabinet agreed on a National Mission for Justice Delivery and Legal Reform.

From the demographic perspective, India is the second-most populous country, with 1.3 billion people (many of whom are young) (CIA, 2020). Women represent approximately 48 percent of the population (The World Bank, 2019). India is considered a multicultural country, consisting of a number of ethnic groups, such as Indo-Aryan, Dravidian and others. There are many languages spoken in India (e.g. Hindi, Bengali, Marathi etc). The largest religious group is Hindu, representing about 80%, followed by Muslim with around 15% of the population. There is a large educated population, many of whom are fluent in English.

India's economy has emerged as one of the largest and fastest-growing in the world, resulting in its accession to the Group of Twenty (G20), which is regarded as the leading international forum for economic cooperation on a global basis. Collectively, the members of the G20 boast two-thirds of the global population, 75% of all trade and 85% of global GDP, but also the majority of all people living in poverty. The leaders of the G20 nations meet on an annual basis at the G20 Summit (Department of Foreign Affairs and Trade, 2020). Initially formed in 1999, the summit G20 is essentially a forum for discussion and consultation between the central bank governors and finance ministers of the respective member countries (G20, 2021).

The Indian economy is truly diverse, spanning subsistence farming, modern agricultural practices, small-scale manual manufacturing and various modern industries and service-

sector firms. Almost half of the population works in agriculture but the most notable engine of growth is the service sector, which generates two-thirds of GDP despite employing less than a third of the workforce. Just a few decades ago, India was gripped by poverty but now the domestic economy has been overhauled, with thriving research and development producing innovations, a large number of people skilled in computer software services, a successful film industry and widespread entrepreneurialism. India's large English-speaking population has helped it to emerge as a key player in computer software, information technology and business outsourcing. Whilst there are clear signs of India becoming an open-market economy, it is also apparent that it has yet to shake off the autarkic policies of the past. During the early 1990s, India initiated a series of economic reforms that helped to deregulate industry, privatise public-sector companies and relax restrictions on international trade and investment. This has had a positive impact on economic growth, which has averaged almost 7% per annum in the twenty years to 2017. What is more, the country has one of the world's oldest stock markets, founded in 1875 (Dharmapala & Khanna, 2013).

It is very worth noting that the Indian economy has undergone major market-oriented reforms, and restructuring has created a reliable investment environment during the early 1990s. This has helped to set India's economy in a new direction and to produce a country that is increasingly self-confident, with a global mindset and a population that has become materialistic over time. This has led to the country gaining increasing significance due to the entry of huge international investors and multinational companies (Sharma & Singh, 2018).

Having said that, whilst the country can look forward to a promising future, it continues to face difficulties, including corruption, environmental degradation, widespread poverty and the fact that one third of all the malnourished people in the world live in India (CIA, 2020). Moreover, India suffers from major challenges in its regulations and laws regarding capital

provider protection. For instance, Narayanaswamy et al. (2012) mention its inadequate investor protection and limited corporate governance practices. Furthermore, India suffers from weak civil justice and regulatory enforcement, which could limit the capital provider's ability to approve financing decisions based on audit reports alone. Indeed, the country ranked 77th out of 113 jurisdictions in terms of regulatory implementation in 2016, and 93rd out of 113 in terms of civil justice (World Justice Project, 2016). Chakrabarti et al. (2008) state that, although on paper the structure of the Indian legal system is considered to have some of the best investor protection in the world, execution is a major issue due to the slow functioning of the courts and many cases of corruption. In addition, the Indian economy suffers from strong intervention by business groups/promoters. Although business groups are a common feature of emerging economies, the strength of their control in India is unique (Houqe et al., 2017). Business groups own over 60% of the total market capitalisation according to Chakrabarti et al. (2008). Given the above, India is an interesting context worth exploring.

2.3.3 Development of financial system in India

The Indian banking sector is considered the core of the Indian financial system. It plays a vital role in financing huge projects, along with serving other financial functions in India (Nataraj & Ashwani, 2018; Gaur & Mohapatra, 2020). Moreover, the Indian bank sector's development has affected the growth of the Indian economy positively (Tripathy & Pradhan, 2014). In other words, India boasts a sizeable economy and it has a well-developed financial system with services offered mainly by banks. The financial system is bank-based, which is the result of the belief that banking offers the most effective means of delivering economic development and serving the needs of companies operating in various sectors of the economy (Shahbaz et al., 2018). As of 2018, aggregate bank assets were approaching $2 trillion, which equates to approximately 80% of the GDP. Moreover, at that time, the sector recorded loan

growth of 11% and deposit growth of 13% (Ghosh, 2021). There has been considerable expansion in the Indian banking sector over time, and by early 2020, there was a total of 22 private-sector banks, 20 public-sector banks (PSBs), 44 regional banks, 94,384 co-operative banks operating in rural areas, 1,542 co-operative banks operating in urban areas and 44 foreign lenders (Dhameja & Arora, 2020).

The formation of the General Bank of India in 1786 marked the creation of the country's formal banking sector. It was not until India gained independence from Great Britain that controls were imposed on interest rates and reserve requirements were raised from unusually low levels (Demetriades & Luintel, 1996). With the country having gained independence, policymakers set about nationalising the banking sector and imposing stricter regulations, with the intention of ensuring that credit was better distributed and economic development was promoted. The Banking Regulation Act was implemented in 1949, through which policymakers embarked on efforts to restructure commercial banks and formally recognised the Reserve Bank of India (RBI) as the country's central bank (Dossani & Kenney, 2001). The Act also hiked liquidity requirements, implemented lending rate controls and created development banks for agriculture and industry (Demetriades & Luintel, 1996). Indeed, the Indian government attempted to adopt the best regulations from advanced economies to enhance the efficiency of the banking sector (Nataraj & Ashwani, 2018).

During 1969, Prime Minister Indira Gandhi oversaw the nationalisation of the fourteen largest Indian banks, giving the government control over 90% of bank assets (Dossani & Kenney, 2001). Government ownership of banks has been shown to have a positive impact on the provision of financial services (Arun & Turner, 2002). Following nationalisation, India's banking sector became the fastest-growing in the world (Banerjee et al., 2004). Nationalisation helped to tackle the problem of financial exclusion, with in excess of 58,000

branches opened between 1969 and 2003, and US$187.8 billion amassed in deposits (Banerjee et al., 2004). Gradualist reforms implemented in 1991 continued to benefit the financial sector well into the 21st century (Reddy, 2005). The diversity of the banks operating in India makes the sector particularly interesting (Sathye, 2003), especially given that the country is the largest in South Asia, with an extensive financial system. The types of banks currently operating in India include old private, new private, public sector and foreign.

Companies operating in India were severely limited in their choice of capital structure prior to the 1980s. Access to the equity market was governed by the Controller of Capital Issues and this served to severely limit companies' funding options. Many companies relied on development finance institutions as a source of business loans (Bhaduri, 2002). It was only following the initiation of a programme of economic reforms in July 1991 that the situation started to improve in a meaningful way (Chakraborty, 2018). The Controller of Capital Issues was abolished in May 1992 and this afforded companies greater access to the equity market. The National Stock Exchange was established in 1994, providing stock trading across the whole country that was conducted electronically, with modern clearing and settlement facilities. This development prompted the Bombay Stock Exchange to also offer electronic trading from 1995 onwards (Chakraborty, 2018).

At the same time, efforts were made to reform the banking sector and this provided companies with a wider range of options when seeking debt. The first stage of the reform process saw the deregulation of interest rates and this was followed shortly afterwards by the liberalisation of the statutory liquidity ratio (SLR) and the cash reserve ratio (CRR). Chakraborty (2018) states that, prior to 1991, the SLR had been set at 40% and the CRR at 25% but by 2010 they had been reduced to 24% and 5% respectively. It was also in 1991 that foreign banks were invited to enter the Indian market. This resulted in the number of foreign

banks operating in India increasing from 21 in 1991 to 33 by 2004. Meanwhile, the number of private banks increased from 23 in 1991 to 30 in 2004. Furthermore, the Basel Committee on Banking Supervision's uniform prudential norm was adopted in March 1996. As of 1991, only a very small minority of banks operated with a capital adequacy ratio up to 8%. By 1998, however, only one of India's 28 public banks had not achieved this standard (Ahluwalia, 2000). Furthermore, as part of the reforms, concerted efforts were made to tackle the problem of non-performing assets and by 2008 these had been reduced to 1.3% (Chakraborty, 2018).

The country began implementing a programme of financial liberalisation, privatisation and globalisation in 1991 that continues to this day (Dhameja & Arora, 2020). The programme of reform was needed to better utilise the resources of the banking sector so that more credit could be made available to the domestic economy. In addition, it resulted in a banking sector that is more secure, transparent and accessible to the average customer. As an example of the steps being taken, ten PSBs were consolidated into four institutions in April 2020 by order of the national government to ensure that PSBs were better able to serve the needs of the economy (Geetha & Priya, 2020). In addition, it was envisaged that these larger PSBs would be better able to compete in an era of globalisation. Combining the capital of the ten PSBs helps to ensure that additional loans can be made available in the domestic economy whilst simultaneously increasing the capital base. Another notable development was the Reserve Bank of India's decision during July 2014 to introduce the 5:25 flexible finance scheme whereby banks are able to offer loans of up to 25 years in accordance with the cash flows of the projects being funded, and they can refinance these loans on a five-year basis (Dhameja & Arora, 2020). Over the course of 2019, the Reserve Bank cut the repo rate on six occasions by a total of 135 basis points to stand at 5.15%, whilst the reverse repo rate stood at 4.90% (Geetha & Priya, 2020).

At a time when many companies were financially constrained, they benefited greatly from the development of the capital market and the banking sector (Shahbaz et al., 2018). As a result of the reforms initiated since 1991, the Indian banking sector has become increasingly dynamic. Reflecting the new business setting, banks operating in India currently experience numerous types of risk, including market risk, operational risk, regulatory risk and credit risk (Mishra, 2020). When faced with large numbers of loan applications, loan officers at the banks may only have limited time and resources to devote to assessing the creditworthiness of applicants (Miller, 1956). Given that individuals have a limited ability to process information, when they are faced with overwhelming demands to do so, it is understandable that they will become less productive (Washburn & Bromiley, 2012). This is the same problem facing banks and other lenders when attempting to determine the creditworthiness of numerous loan applicants. Consequently, when faced with a large number of loan applications, there is a distinct possibility that banks will inadvertently overlook certain details (e.g., the number of years that the company has been trading). However, the current study sets out to clarify whether there are certain features of companies that help them to stand out when applying for funding, such as the number of independent directors, the remuneration directors receive, the sums paid by the company in audit and non-audit fees, female representation on the board of directors and the participation of female directors on board committees.

2.3.4 Indian corporate governance

Corporate governance in India is supposedly based on international best practice, combining elements of the German and Anglo-American models. Companies operating in India can be categorised as either public, private or public-sector undertakings (e.g. banks, financial institutions, government companies and statutory companies). Each category of companies has its own form of share ownership. For instance, private companies are typically

family-owned. However, listed companies' regulations are the responsibility of the Securities and Exchange Board of India (SEBI) and the Ministry of Corporate Affairs (MCA) (Deloitte, 2020). Clause 49 of the stock exchange listing agreement authorises the SEBI to assume responsibility for the corporate governance of listed firms. The regulatory requirements of the SEBI are relatively onerous and the exchange is the largest in the world in terms of the number of trades. Clause 49 also specifies what is required with regards to the composition of the board of directors, specifying a maximum tenure of ten years for directors and limiting an individual to serving on no more than seven boards of listed firms as an independent director or three firms on a full-time basis. In addition, Clause 49 requires all listed firms to operate a team responsible for risk management. In the event that the roles of chairman and chief executive officer are performed by the same person, at least half of the directors comprising the board have to be independent and protection is in place to protect whistle-blowers. The compensation offered to all directors is agreed by the board but must be approved through a shareholder vote. At least one member of the audit committee is required to be financially numerate and this individual will usually be a member of the Institute of Company Secretaries of India (ICSI) or the Institute of Chartered Accountants of India (ICAI).

Clause 49 also compels listed firms to provide details of their risk management activities, accounting departments and treatments, and related party transactions. They are also required to produce an annual report specifying trends, risks, opportunities, directors' compensation, offering proceeds, the adequacy of internal controls, corporate governance reports, adoption of requirements, a compliance record for the previous three-year period, an assessment of the effectiveness of internal controls, certifications of the financial statements by the chief finance officer and chief executive officer, and certifications of corporate governance and compliance by the company secretary or auditors.

Prior to the implementation of Clause 49 of the listing agreement (2014), very little attention was paid to corporate governance in India. Between 1947 and 1991, the providers of equity capital and debt faced considerable judicial delays if they sought to exercise oversight over the managers of a company. However, when India suffered a fiscal crisis in 1991, it was apparent that corporate governance practices would need to be reformed in order for the country to attract much-needed investment. This process was initiated with the implementation of the Confederation of Indian Industry (CII) Code (Black & Khanna, 2007). Moreover, introducing Clause 49 of the SEBI guidelines on corporate governance helped to transform the approach taken towards corporate governance in India by enhancing the disclosures made to shareholders and other stakeholders, thereby helping to greatly reduce problems relating to information asymmetry (OECD, 2014). India has also introduced major corporate governance reforms in the recent past, such as the Companies Act 2013. It sets out the regulatory requirements regarding the incorporation of companies in India, as well as the responsibilities of firms and directors. It also specifies how companies should be dissolved. Implemented on 29 August 2013 (Deloitte, 2020), the Companies Act superseded the previous Companies Act of 1956. In the same vein, India maintains an ongoing amendment process for its regulations to enhance the corporate governance standards (e.g. the recommendations of the Kotak Committee) (Popescu, 2019).

India's economy is already one of the largest among the emerging market nations but the Satyam crisis laid bare the failings in corporate governance in the country. In 2009, this scandal, known as the 'Enron of India', revealed accounting fraud of almost one billion US dollars, which caused suspicion about management manipulation and raised questions regarding the firm's board of directors and its roles, such as the monitoring of management[3].

[3] The questions raised over accounting practices in India will not have been helped by news of an accounting fraud at Satyam, which involved not only earnings being inflated but also asset values. Therefore, further investigation of auditing practices in India is likely to be worthwhile.

In the same vein, some suspicions have arisen about the directors' duties in the board war between Ratan Tata and Cyrus Mistry, which has shown up the weak corporate governance practices and strong control of firm's boards of directors by promoters (MC & Rentala, 2018).

2.3.4.1 Family influence on firms' corporate governance

If corporate governance is effective, it will offer the ability to resolve disputes that may arise between controlling and minority shareholders as well as between the owners of the firm and the other stakeholders. Investors benefit from corporate governance that offers protection against managers serving their own interests as a result of activities such as fraud, theft or insider-dealing (Dalton & Daily, 1999). Be that as it may, if a firm has a concentrated ownership structure, a blockholder may attempt to direct the actions of management, thereby depriving other stakeholders of their ability to access information. There is the potential for a blockholder to exert excessive influence over managers to serve their own interests whilst simultaneously harming other shareholders (Bhojraj & Sengupta, 2003). Additionally, if the ownership structure of a firm is concentrated, there is the potential for blockholders to benefit themselves at the expense of minority shareholders and, consequently, they are inclined to delay the release of relevant information. As such, those with a controlling stake are less inclined to freely disclose all relevant information in a timely manner, and they may not have sufficient incentive to operate transparently (Berglöf & Pajuste, 2005). In effect, such blockholders exploit their power to extract rent from other stakeholders. Moreover, it is possible that those with a controlling stake will manipulate performance reports to obscure the impact that their expropriation is having on the firm. In practical terms, this is likely to involve them exerting influence over the company's directors and blocking monitoring systems, thereby adversely affecting the quality of corporate disclosures. Crucially, if there is

a greater risk of expropriation, controlling shareholders have a greater incentive to encourage opacity and deter monitoring (Bozec & Bozec, 2007).

Founding families often retain large shareholdings in many of the largest listed firms in emerging markets, such as India. This often results in concentrated ownership among a single family and their associates (Phani et al., 2004). Due to the prevalence of family-owned firms in India, promoters play an important role in terms of incorporating and organising these companies (Kumar & Singh, 2013). Despite these firms being listed on stock exchanges and having public shareholders, promoters continue to exercise considerable influence (Varottil, 2010). Indeed, there is a high concentration of promoters in Indian firms (Chakrabarti et al., 2008). Back in 2001, controlling shareholders had median holdings of 42.94% across the NIFTY 50 index, but by 2011 this had risen to 56.24% (Balasubramanian & Anand, 2013).

The prevalence of concentrated family stakes and promoter dominance is significantly greater among Indian firms than in the majority of other emerging markets and, therefore, the corporate governance challenges in India are quite distinct (Jackling & Johl, 2009). According to Houqe et al. (2017), large family companies in India typically lack professionalism and have a high prevalence of nepotism. This has been attributed to a number of corporate scandals, including one involving Satyam during 2009, which laid bare the audit and corporate governance failings that effectively allowed managers to operate as they wished. Indeed, Gakhar (2014) reported that 52% of auditors had found signs of earnings management among Indian firms. In the same study, it was found that auditors believe that the auditors, the chief financial officer, senior management and promoters were all culpable for the failings at Satyam (Gakhar, 2014). In addition, it is often the case that directors in such companies are closely aligned with the controlling family, who typically have a say when appointing board members. It is often the case that promoters will select independent

directors to serve on the boards of Indian firms and, consequently, they are less likely to hold management to account (Khan & Kotishwar, 2011). If promoters or business owners are involved in the appointment of independent directors, it is unlikely that these board members will truly be independent. Indeed, it has been claimed that the appointment of independent directors in India is merely a box-ticking exercise, and this threatens to undermine corporate governance (OECD, 2019). Worryingly, the majority of female directors at Indian firms are chosen by owners or promoters, and there is a close association between newly appointed female directors and promoters (Duggal, 2016).

As such, it is distinctly possible that the influence of promoters and family ownership in India could undermine efforts to ensure effective auditing and corporate governance mechanisms, resulting in greater information asymmetry as well as giving managers free rein to manipulate the financial statements. Consequently, shareholders in Indian companies should be alert to doubts concerning the quality of audit assessments and the application of corporate governance codes. For this reason, it is necessary to take into consideration family ownership when interpreting the results of the current study. However, that was not possible owing to a lack of relevant data.

2.3.5 Audit in India

Accounting bodies have expanded their operations in India, thereby helping to supervise the auditing process. However, despite this, many people remain sceptical regarding the quality and effectiveness of accounting and auditing processes in the country. It is a requirement of the Company Act 1956 that firms be audited by a member of the The Institute of Chartered Accountants of India (ICAI). The ICAI is charged with determining India’s auditing standards, making it the country's preeminent professional accounting body. As such, members of the ICAI are required to ensure that companies comply with accounting

standards when compiling their financial statements (Sinha et al., 2013). Any failure by members to report non-compliance will lead to disciplinary action being taken in accordance with the Chartered Accountants 1949 Act (Houqe et al., 2017). However, in practice, the ICAI has proved ineffectual at taking action when non-compliance is observed (Chakrabarti, 2005) and this has contributed to suspicions regarding the credibility of the audit process. What is more, there is considerable evidence to suggest that Indian firms routinely engage in accrual-based earnings management practices (Gakhar, 2014). The falsifying of Satyam's accounts which came to light in 2009 did not help, revealing an accounting scandal in which almost US$1 billion could not be accounted for. This has raised questions regarding auditors' judgment of financial statement credibility and likely affects capital providers' attitudes towards external auditors' efforts.

It was initially anticipated that IFRS would be formally adopted in India from 1st April 2011, but owing to a number of outstanding taxation and legal issues, the decision was taken to defer implementation (Bedia & Shrivastava, 2016). It was later decided that rather than adopting IFRS on a specified date, India would instead seek to converge its standards with IFRS over time. Consequently, the Institute of Chartered Accountants of India (ICAI) devised the Indian Accounting Standards (Ind AS) to help facilitate convergence with IFRS (Rao, Bedia, & Shrivastava, 2020). This is an important development because adopting IFRS will enable Indian firms to benefit from a single accounting language, which will also drive down auditing fees (Puri & Singh, 2020) and make the process of auditing and accounting less time-consuming (Zala, 2020). Moreover, funds can be raised at a significantly lower cost, and there will be no need to prepare two sets (e.g., GAAP & IFRS) of financial statements (Ojha, 2021).

However, there is a detrimental effect on the quality of the audit process since the ICAI applies IFRS in the absence of appropriate guidance for auditors. For instance, Indian companies need to apply fair value accounting for IFRS in the absence of suitable guidance; at present, auditors apply cost concept accounting (Singh & Kumar Srivastava, 2019). For this reason, it is unlikely that the auditing authorities will be able to operate in full compliance with the Companies Act 2013. Moreover, this makes it particularly difficult for auditors in India to train their staff, recruit new employees, agree suitable procedures, and provide reassurances that they will be sufficiently knowledgeable to conduct audits in accordance with IFRS.

2.3.6 The role of the independent director in India

The bulk of the firms in India are promoter constructed; these promoters own the majority of a firm's shares and mostly sit on the firm's board of directors (Sarkar & Sarkar, 2009; Gill & Kaur, 2015). The controlling privileges of promoters afford them an influence over the selection of the independent members of the board (Kumar & Singh, 2012). This domination by business groups could influence the management and the duties of the board of directors. For instance, in family-controlled companies, the independent directors may not be fully committed to their monitoring duties, either due to the affecting power of the promoters or because of their relationship with them (Chen & Jaggi, 2000). Moreover, as the independent directors are frequently selected by the firms' promoters, they prefer to stay friendly with the firm's board instead of acting as watchdogs (Khan & Kotishwar, 2011). In reality, the independent directors are not fully independent due to the influence of the promoters over their appointment. It has been remarked that the independent directors are only independent on paper (OECD, 2019). This might increase the manipulations of firms' management teams. Indeed, a large body of research suggests that Indian companies are actively involved in accrual-based earnings management (Gakhar, 2014). Therefore, there are

doubts about the actual role and duties of independent directors in the Indian context (OECD, 2019).

2.3.7 The role of female directors in India

Female directors on firms' boards may also not fulfil their duties as expected if they are appointed by the promoters/owner. New women directors are often connected with promoters (Duggal, 2016); indeed, it is likely that a firm's board might appoint an unprofessional or unenthusiastic female family member as a director (Balasubramanian & Mohanty, 2015). Another major reason for choosing India as the study context is that Indian women are significantly less empowered than women in developed nations (Jadiyappa et al., 2019). In Indian companies, it has been stated that it could take 130 years to achieve the level of appointments of females to boards seen in Norway (Sikand et al., 2012). India has been ranked very low on the Global Gender Gap Index (113 among 135 nations) and even worse on the Economic Participation and Opportunity sub-index, according to which it is classified as 131 out of 135 nations (World Economic Forum, 2011).

As a result, the Indian government is committed to combating gender bias issues on many fronts (Mehrotra & Chand, 2012) and its dedicated efforts to support women's empowerment and gender equality are notable (Gandhi, 2016). For instance, the literacy rate gap between women and men has dropped from 21% to 16% due to the implementation of government regulations supporting women's rights (Arora & Kumar, 2016). However, only a very small proportion of women have reached the top level of management or begun to climb the corporate ladder thus far (Arora & Kumar, 2016; Ghosh, 2017); for instance, as of 2010, only 5.3% of executive directors in BSE-100 companies were female, whereas the equivalent figure for FTSE-100 companies was 12.2% and that for Fortune 500 companies 14.5% (Banerji et al., 2010). This is because Indian society has a strong cultural resistance to

women's rights, with Indian men controlling the decision-making in most aspects of life (Chauhan & Dey, 2017) and Indian traditions supporting gender inequality in its perceptions of women (Raju, 2014).

Briefly, then, India delivers a unique context for this investigation due to its emerging, but quickly growing and large economy. However, the Indian case is also characterised by the unique control of large family business groups, major cases of board directors' failure to ensure proper governance, an inadequate litigious system in which the legal penalty against firms' manipulation is relatively low and major scandals. It is therefore important to observe the effects of audits, independent directors on firms' boards and gender diversity on firms' boards.

2.4 Theory

A combination of economic, political and social factors shapes capital providers' perceptions of borrowing firms and, therefore, these factors must be considered when selecting theories as the basis for a framework to elucidate such perceptions in a particular country. It is quite possible that certain theories explaining these perceptions may be better suited to some business environments than others. This is due to the different cultures, economies and politics of each individual jurisdiction. However, many theories have been used to explain these phenomena. One of the most used in the literature on access to finance is agency theory (Sengupta & Bhojraj, 2003; Barroso et al., 2018). Another is the pecking order theory (Hernandez-Nicolas et al., 2015; Benkraiem et al., 2018). Also, is the signalling theory (Koonce et al., 2016; Alsos & Ljunggren, 2017).Therefore, I will discuss these theories briefly, before discussing in more depth my chosen theory, the limited attention theory.

2.4.1 Agency theory

Agency theory is concerned with the issues that can arise when the ownership of a firm is separate from its oversight. More specifically, agency theory suggests that managers have an incentive to exploit their unique insight regarding the firm to serve their own interests, at the expense of the owners (shareholders) (Fama, 1980; Fama & Jensen, 1983). Agency problems arise when there is a discrepancy between the objectives of the principal and agent, and when the principal cannot easily verify how the agent is acting (Eisenhardt, 1989). As such, there is a clear need to monitor the activities of managers and numerous governance mechanisms have been proposed in the empirical literature to mitigate agency problems. These governance mechanisms are intended to reduce the scale of agency costs, serve shareholder interests and better align the interests of agents and principals (Davis et al., 1997).

For many firms, debt comprises a large proportion of their financing (Maresch et al., 2016). Given the reliance on debt, a large body of empirical literature has investigated the determinants of credit contracting. It is a firm's creditworthiness that primarily determines its ability to access credit and the contract terms that will be imposed (Sengupta & Bhojraj, 2003; Filatotchev & Wright, 2011). Namely, if a company poses a greater risk of default, creditors will respond by charging a higher rate of interest and/or imposing more stringent contractual terms, thereby reducing access to finance (Rajan & Winton, 1995).

The probability of default is closely related to a firm's agency costs. According to Ge et al. (2012), there are two distinct ways in which the agency conflict presents itself. First, there is a conflict of interests between the managers and lenders if the managers serve their own interests at the expense of the lenders. If such a conflict of interest becomes evident to the lender, they are likely to anticipate a greater probability of default (Lin et al., 2014). Second,

agency conflict could manifest itself in conflicts of interests between owners and debtors. Once debt funding has been secured, it is in the interests of the shareholders for the firm to pursue projects that are high risk but have the potential for substantial returns (Jensen & Meckling, 1976). This is logical because, if the project succeeds, the majority of the profits will be distributed to the shareholders but, if the scheme fails, it is the lender who will be left out of pocket (John & Senbet, 1998). The actions of the shareholders effectively undermine the position of the creditor because the company is now at greater risk of default.

The empirical literature indicates that corporate governance mechanisms have a bearing on the likelihood of agency conflict arising. It is therefore possible that corporate governance mechanisms may also influence the price a firm is charged for credit or the non-price terms of loan contracts. It is logical to assume that, if corporate governance mechanisms result in a firm becoming more transparent, this should help to minimise the potential for agency conflict between managers and lenders. This relationship between corporate transparency and the cost of funding has been examined by Sengupta (1998) and Cumming and Knill (2012). In addition, it has been found that there is a negative relationship between the independence of company directors and the cost of debt (Anderson et al., 2004a). This implies that the composition of the board of directors is associated with the reliability of corporate reports and, in turn, the scope for agency conflict to arise. Furthermore, it has been observed in the empirical literature that firms will experience less onerous financing constraints if their financial reports are considered to be credible (Hope et al., 2011). For instance, agency theory supports the appointment of independent directors to the board in order that they can effectively hold executives to account. The rationale behind this assumption is that their independence means they will prioritise maintaining their own good reputation (Fama & Jensen, 1983).

Having said that, some empirical studies have concluded that corporate governance mechanisms do not help to mitigate agency problems between managers and creditors. They assert that corporate governance mechanisms are initiated to serve the interests of shareholders and, therefore, they are not necessarily conducive to serving the interests of creditors. Indeed, it has been found that corporate governance mechanisms that serve shareholder interests have a detrimental effect on credit ratings (Ashbaugh-Skaife et al., 2006; Chava et al., 2009; Qi et al., 2011; Jiraporn et al., 2013). Given that corporate governance mechanisms can be designed in ways that serve shareholders or creditors, if inside directors wield excessive power, there is a distinct possibility that the monitoring of the board's actions will prove ineffective.

Also the agency theory states that improved monitoring efforts can address the problems associated with the contrasting incentives of managers and debtholders (Jensen & Meckling, 1976). Supporters of agency theory also believe that a major device for mitigating agency conflicts can be to hire independent external auditors (Barroso et al., 2018). In general, it is argued that the employment of external auditors might improve the fairness and quality of the financial statements produced by the management, due to their capabilities for detecting misleading reporting. Indeed, auditing services play a vital role in providing confidence in financial statements and help to minimise agency costs by providing an independent check on the performance and information produced by the agents (Jensen & Meckling, 1976; Johnson & Lys, 1990). Therefore, to reduce any agency issues, companies need to appoint external auditors to audit their financial books, as their opinion can enhance the credibility of financial reporting (Gul et al., 2013; Habbash & Alghamdi, 2017).

If the capital provider believes in the credibility of the financial reporting produced by a company, that might reduce the issues between them. For instance, issues between capital

providers and owners arise because of investment opportunities and shareholders' financing decisions (Damodaran, 1997). The shareholders attempt to make investments in risky projects, where they expect to get a higher return. The risky investments increase the cost of finance and reduce the value of the outstanding debt, which might affect the capital providers. If the investment is successful and makes a profit, the owners will receive the profits, while the capital providers will get only a specific amount of interest according to their fixed interest percentage. However, if the investment fails, then the capital providers will be required to undertake some of these losses.

Having said that, the agency theory can be applied to explain the phenomena that occur in developed economies because these economies are characterised by effective corporate governance mechanisms, strong justice systems and greater transparency. However, in India, the context for this investigation, the corporate governance is far behind that in the developed markets, and is accompanied by a high level of corruption and a weak justice system (Narayanaswamy et al., 2012). These differences raise concerns about the effectiveness of applying agency theory to this investigation. In support of this, Al-Hiyari (2017) and Htay and Salman (2013) state that, due to developing market characteristics, the agency theory would be insufficient for interpreting the relationships in these markets.

2.4.2 Pecking order theory

According to pecking order theory, firms operate with an order of preference regarding their choice of financing sources, owing to the costs associated with adverse selection (Myers, 1984; Myers & Majluf, 1984). What underpins pecking order theory is the problem of asymmetric information between managers and the providers of financing. As such, a company would elect to use retained earnings rather than debt; short-term debt rather than long-term debt; and debt rather than equity.

The managers have a better appreciation of the firm's prospects than external finance providers. Consequently, it may be necessary to miss out on profitable business opportunities if the company is required to seek external funding. However, if the firm has sufficient retained earnings, it will be possible to commit to new projects when profitable opportunities arise. In the event that the firm can access credit and it is offered risk free, then this opportunity can be accepted. If the firm can access credit and it is risky then it is logical to opt for this rather than issuing equity because it is less sensitive to the costs associated with adverse selection (Myers, 1984). Consequently, due to information asymmetries, pecking order theory explains why firms prefer retained earnings rather than debt, and debt rather than equity. Each provider of financing is privy to different levels of information about the firm, and their ability to monitor how the company behaves also varies. Consequently, it does matter to a firm who provides its financing (MacKie-Mason, 1990).

Harford et al. (2008) claim that governance and debt perform essentially the same function and can be treated as substitutes. However, it has also been claimed that more independent boards are associated with firms operating with higher levels of debt. Berger et al. (1997) find that firms operate with lower gearing if the chief executive is not subject to pressure from the owners or active monitoring. Corporate goverance has been widely researched (Fama, 1980; Fama & Jensen, 1983; Hermalin & Weisbach, 1998), and numerous empirical studies have concluded that good corporate governance practices are associated with better information disclosure and fewer issues relating to information asymmetry (Vafeas, 2000; Klein, 2002; Ajinkya et al., 2005; Karamanou & Vafeas, 2005; Kanagaretnam et al., 2007; Petra, 2007; Dimitropoulos & Asteriou, 2010).

Therefore, it is expected that a good corporate governance mechanism will help to tackle the problem of information asymmetry that exists between the management of a firm

and creditors. In turn, this should help to improve a firm's access to finance. This is because obtaining financing involves managers justifying to creditors why the money is required, and this exposes them to monitoring by the creditors, as part of their decision over whether to grant access to more financing (Frank & Goyal, 2009).

As such, it is conceivable that the pecking order theory could be used to determine which corporate governance elements provide better access to finance by reducing capital constraints. The same theory could be applied to capital providers' evaluations of firms that have high audit quality. However, in this investigation, I deal with a context suffering from high information asymmetry. For instance, firms produce less reliable financial statements in emerging markets compared to advance markets (Claessens & Tzioumis, 2006). In this case, use the pecking order theory would be ineffective at explaining capital providers' attitudes simply through firms' financing choices (e.g. retained earnings, debt or equity). This is because the capital providers in the Indian context might accept that, given the level of information asymmetry, firms' financing choices are an unreliable signal of their access to finance. Thus, the pecking order theory might not be suitable for the purposes of this research. However, capital providers' attitudes/attention as a measure of firms' financing obstacles could offer a good explanation of firms' access to finance. Thus, I will apply the limited attention theory to explain the reactions of capital providers to certain firm elements, namely audit quality, the independence of the board and gender diversity on the board.

2.4.3 Signalling theory

Signalling theory is used to describe how two parties behave when they do not have the same information. It is usually the case that the party sending the information will need to decide if they are to send it and how it will be communicated. The party receiving the information must decide how the signal will be interpreted. The basic assumption

underpinning signalling theory is that the party who signals has access to information that is not in the public domain or that the receiving party is unaware of (Spence, 1973).

According to Connelly et al. (2011), signalling theory involves four main constructs: the party who signals, the party receiving the signal, the signal itself and the feedback. Those signalling are insiders who are privy to information that others are unaware of. Insiders might include directors, managers (Lester et al., 2006) or entrepreneurs (Elitzur & Gavious, 2003) who would like to issue equity. The parties receiving this information are external to the firm and require additional information about it. These actors include venture capitalists (Busenitz et al., 2005; Mueller et al., 2012), investors in IPOs (Cohen & Dean, 2005; Lester et al., 2006) and others who may consider investing in the company. Thanks to the signal, the receivers obtain information about the standing of the venture that they would not otherwise be privy to. In turn, the recipient of the signal provides feedback to the sender to explain how effective the signal was. Signallers can use this feedback to adjust the signals they send in the future and, if necessary, re-signal previously disclosed information. Therefore, signalling can be regarded as the means by which signals are conveyed, received, understood and replied to, ultimately resulting in further signals and understandings.

Signals differ in terms of their strength, honesty and reliability (Connelly et al., 2011), as well as their relevancy and the richness of the information they contain (Busenitz et al., 2005). Moreover, the value that the recipient assigns to signals is primarily governed by the degree to which the recipient is actively seeking signals (Connelly et al., 2011). If a capital provider applies strict criteria when on the lookout for signals (Mason & Stark, 2004), it is possible that they will overlook any signals that do not precisely match those criteria. Furthermore, it is not sufficient to merely receive a signal; rather, the recipient must translate and interpret what the signal means. To do so reliably, they may require certain knowledge or an appreciation of the dominant social context (Connelly et al., 2011). Signals offer the

ability to compensate for any limitations regarding access to capital; therefore, they help to improve the likelihood of receiving funding. For this reason, there will be differences in the signals that are transmitted to capital providers based on the cognitive, spatial and social proximity limitations that entrepreneurs face compared to them (Mueller et al., 2012).

Signalling theory has been adopted in the literature to explain various elements of the venture finance process. For instance, the theoretical basis for investment decisions has been explained with reference to signalling theory (Alsos & Ljunggren, 2017). Similarly, the theory has been used to explain how the release of information by managers influences the actions of investors (Koonce et al., 2016). Relatively few studies have considered the importance of feedback, though some have recognised that feedback helps to make subsequent signals more effective (e.g., Connelly et al., 2011; Alsos & Ljunggren, 2017). Indeed, feedback significantly contributes to the decision-making process in the relationship between entrepreneurs and providers of capital, with the result that entrepreneurs' prospects improve over time (Gulati & Higgins, 2003). By re-signalling, entrepreneurs can enhance their legitimacy in the eyes of capital providers and demonstrate that what they are offering satisfies the latter's criteria.

Therefore, signalling theory could be used to explain the effect of information about audit quality, the independence of directors, and gender diversity among directors on capital providers' perceptions, thereby affecting Indian listed firms' access to finance. However, this thesis applies limited attention theory to interpret these phenomena, which shares elements with signalling theory but is better suited to explain the rationale behind how capital providers perceive and react to firms' information. The following subsection provides a brief discussion of limited attention theory.

2.4.4 Limited attention theory

Diverging from the conventional method of applying agency theory to understand audit quality (Habbash & Alghamdi, 2017; Barroso et al., 2018), the independence of the independent directors (Ashbaugh-Skaife et al., 2006; Francis et al., 2012; Goh & Gupta, 2016) and gender diversity on firms' boards (Carter et al., 2003; Adams & Ferreira, 2009; Li & Zhang, 2019)[4], another theory often used in the access to finance literature is the pecking order theory (Hernandez-Nicolas et al., 2015; Benkraiem et al., 2018), this study applies the limited attention theory to interpret the impact of information relating to audit quality, the independence of independent directors and gender diversity on firms' boards on capital providers' perceptions, thereby affect firms access to finance by measuring their capital constraints. Although, signalling theory is usually used to interpret signal information (Connelly et al., 2011; Alsos & Ljunggren, 2017; Yasar et al., 2020). The limited attention theory is more suitable for explaining this phenomenon because it offers more detailed explanations and justifications for how capital providers act after receiving signals from firms. It suggests how such signals impact their actions step by step. For instance, Ramos et al. (2020) explain the basic technique for paying attention, which includes noticing information, understanding its influence on perceptions, and then recognising those perceptions' effects on decisions. Limited attention theory assumes that capital providers have a narrow attention span and limited processing power (Ding et al., 2017). Therefore, not all information about firms grabs their attention. Certain information, however, will attract their attention—whether positive or negative—thereby affecting their decisions to provide firms access to finance or leave them suffering from capital constraints.

[4] The agency theory is not sufficient for applying to developing markets due to these markets being associated with weak capital markets and elevated levels of ownership concentration (Htay & Salman, 2013; Al-Hiyari, 2017).

‘Attention’ refers to the “noticing, encoding, interpreting and focusing of time and effort by organisational decision-makers on both issues and answers” (Ocasio, 1997: 189). The basic technique of paying attention involves noticing information, its impact on perceptions, and perceptions’ influence on decisions (Ramos et al., 2020). According to this theory, there is an assumption that capital providers' attention and processing capabilities are limited. Therefore, in this model, owing to capital providers’ limited attention, information relating to audit quality, the independence of independent directors and gender diversity on firms’ boards is assumed to indicate the monitoring role of the firms’ boards and the credibility of their financial statements. Due to the cases of corporate fraud in India, the practice of monitoring management activity as they compile financial reports has been undermined and this presents difficulties for the providers of capital. Irrespective of the size of the company, the financial statements of emerging market firms are unlikely to be as reliable as those of companies based in advanced economies, thereby deterring creditors from advancing money (Claessens & Tzioumis, 2006). For this reason, it is deemed that limited attention theory will be suitable for interpreting the relationship between audit fees and non-audit fees, the proportion of independent directors on a board and their remuneration, and female directors on firms’ boards and their participation in board committees, as capital providers’ ‘attention grabbers’, and companies’ access to finance.

Due to the considerable number of loan applications capital providers receive, their ability to devote attention to the allocation of funds is limited (Miller, 1956). Given that people have limited capacity to process information, when they are overwhelmed with information, their output will decline (Washburn & Bromiley, 2012). The same is true of capital providers when they are attempting to select which companies are most deserving of capital among the many applications for funding they have received. In another example, it is commonplace for investors to choose stocks on the basis that they offer a certain quality that

is deemed desirable (Barber & Odean, 2008). It is for this reason that investors pay greater attention to companies that are highly prominent in some way. Therefore, applying the same premise to the providers of capital, it is conceivable that, when presented with countless loan applications, there are certain features of the applicants that lenders may overlook, such as the length of time the firm has been functioning in the market. However, this study posits that audit fees and non-audit fees, the proportion of independent directors on the board and their remuneration, and female directors on firms' boards and their participation in board committees all act as capital providers' attention grabbers.

Based on these assumptions, companies that have their financial statements audited are more likely to attract capital providers' attention because it suggests that the accuracy of their financial figures has been verified by an independent third party. For example, it is conceivable that capital providers may consider audit and non-audit fees to be significant indicator of credibility of a company's financial statements. If the fees are significant, this could be interpreted as the auditor having performed a comprehensive assessment of the firm (Chen et al., 2016). Meanwhile, Choi et al. (2009) assert that high non-audit fees are associated with a reduction in the likelihood of a firm engaging in earnings management. Thus, these audit elements could increase financial reporting reliability, and reduce the likelihood of earnings management by a firm. It is logical that capital providers will favour these positive qualities, and thus that firms with these qualities will be less likely to experience capital constraints. This is especially relevant in the Indian setting, where it is known that investor protection is weak and the ICAI offers ineffective supervision. For this reason, companies that are not audited and do not pay non-audit fees might find it more difficult to obtain loans. In line with this, DeYoung et al. (2008) state that companies that do not have high audit quality might not obtain loans.

Applying limited attention theory, it seems likely that the proportion of independent directors on a firm's board and their remuneration will influence capital providers' cognitive processes by verifying the accuracy of the information the firm provides. Thus, firms with a high percentage of independent directors on their boards and which provide information on their members' remuneration are more likely to attract capital providers' attention when the firms apply for finance. For instance, capital providers might evaluate independent directors on a board and their remuneration as one of the main indicators of the monitoring of the firm's management. However, due to India's unique institutional setting, capital providers may observe a higher number of independent directors on a board as a sign of reduced board independence that may affect the directors' duties in monitoring the management. In India, the management hires the independent directors (Arora & Sharma, 2016), and the management continues to control the firm (Bhatt & Bhattacharya, 2015). Therefore, it is quite conceivable that more independent directors on a firm's board will negatively grab capital providers' attention, thus increasing the capital constraints and reducing access to finance. However, capital providers might perceive the remuneration of independent directors as a green flag that indicates a company's profitability. For instance, the remuneration of independent directors in listed firms in India consists of two parts: the sitting fees and a proportion of net profit (Naaraayanan & Nielsen, 2016). The capital providers may pay positive attention to the remuneration of independent directors, facilitating a reduction of capital constraints and better access to finance in India.

Next, according to the limited attention theory, female directors on firms' boards, and their participation in board committees, are also likely to send capital providers a signal about the accuracy of the information the firm provides. Firms that appoint more female directors to their boards, and encourage their participation in board committees, send signals that they are performing the expected board duties, and thus are more likely to attract capital providers'

positive attention when applying for financing. Capital providers might evaluate these female-director-related factors as an important element of the monitoring of the firms' management. Although India's unique institutional setting provides less empowerment for women compared to developed countries (Jadiyappa et al., 2019), capital providers perceive increased numbers of female directors on firms' boards as a sign of good board performance, and enhanced monitoring of the firms' management. For instance, they might believe that women should be appointed to boards because they are skilled in monitoring and evaluating how managers act (Nielsen & Huse, 2010), as well as having confidence in the efficiency and transparency with which they present information to managers and shareholders (Alves et al., 2015). Along the same lines, Adams and Ferreira (2009) state that female board members provide more intense monitoring of a situation because they are less likely to be caught up in an 'old boys club' mentality. Women are more likely than men to attend meetings and to take up positions on monitoring committees (Adams & Ferreira, 2009). It is apparent that the appointment of women to firms' boards can improve the effectiveness of monitoring activities, indicating that the gender of a firm's directors is associated with their monitoring role, reflecting the credibility of companies' financial reports and, in turn, influencing their access to finance. Hope et al. (2011) state that companies will have fewer financing constraints imposed on them if their financial statements are considered to be credible; therefore, it is quite conceivable that more female directors on firms' boards will grab capital providers' positive attention, encouraging them to reduce capital constraints and provide more access to finance in India.

The limited attention theory will thus be used to explain capital providers' attitudes to the three aforementioned important elements of audit quality, independent directors on firms' boards and gender diversity on firms' boards, for Indian listed firms. Their attitudes could be negative or positive in terms of their effects on firms' capital constraints. A firm facing a high

level of capital constraints means that the capital providers have negative perceptions towards these elements, and vice versa. In other words, the capital providers' attitudes/attentions are connected to the level of capital constraints firms face. Therefore, looking at firms' capital sources and how easily they access finance is another way to determine the extent to which the firms grab capital providers' attention.

However, capital providers' attitudes in emerging markets such as India might be different to those in developed markets, due to the differences in culture and the business environment. Therefore, the attention they pay to these elements (audit quality, independent directors on firms' boards and gender diversity on firms' boards) might also be different. Moreover, firms' levels of financial constraints will also be different. For example, the justice system in India is weak compared to in developed countries, which can give capital providers concern about protecting their investments against potential fraud by Indian firms. In the same vein, these concerns extend to the possibility that firms might use the audit quality, independent directors on their board and gender diversity on their board to the management team's benefit instead of to serve stakeholders' interests. Therefore, these elements could give capital providers the opposing perceptions to those seen in advanced economies, and thereby the opposite effect on capital constraints and access to finance for Indian listed firms than is seen for listed firms in developed markets.

2.5 Conclusion

In summary, this chapter discusses the definition and advantages and disadvantages of access to finance. The purpose of this chapter is to provide a brief amount of information in regards to firms' access to finance, which is the theme of this thesis. It has been shown that it would be beneficial to explore in greater depth the potential for audit quality, independent

directors on boards and gender diversity on boards to influence the ability of firms to access funding. This is reflected on in greater detail in Chapters 4 to 6.

Moreover, this chapter has discussed and reviewed the background and institutional setting of the Indian context as well as the theoretical framework. This chapter has shown that the institutional setting of India is unique and worth investigating. India is one of the most important countries, not only among the developing countries but also around the world. India is the second-most populous country, one of the five largest economies, and a member of the G20 countries, as well as being one of the fastest-developing and -growing economies. For these reasons, India is chosen as the setting to explore.

This chapter has also discussed and evaluated the theories that are applied in the existing literature on access to finance. It started by discussing the agency theory and pecking order theory. After reviewing these two theories and their weaknesses, this study has argued that the limited attention theory may provide new understanding about the phenomena involved in access to finance.

Chapter Three: Methodology

3.1 Introduction

This section introduces the methodology employed to examine the research questions of this study. In the first section of this chapter, I will explain the adopted research philosophy and justify the selected methodology, by defining the ontology and epistemology, and highlighting the advantages of positivism for this research. In the second section, I will determine the research approach. In the third section, I will explain how I measure a firm's access to finance. Finally, I will conclude this chapter.

3.2 Research Philosophy

The research philosophy refers to the manner in which knowledge develops and the specific features of that knowledge (Saunders et al., 2011). Due consideration must be given to the philosophy when undertaking any research study because of the effect it has on our understanding of what we do. Dainty et al. (2007) stress the need to agree on a philosophical stance when conducting a research study. The philosophical stance will provide backing for a variety of research paradigms concerning ontology and epistemology. Indeed, Saunders et al. (2011) assert that researchers must consider two different approaches: ontology and epistemology. By selecting a philosophy, the researcher will be able to approach their study from a better standpoint (Saunders et al., 2011). There are key differences between ontology and epistemology that affect how the researcher approaches the study process.

3.2.1 Ontology and epistemology

The primary focus of ontology is the nature of existence, reality or being. It is a philosophical belief system that takes into account the nature of existence and reality (Saunders et al., 2011; Bryman, 2016). This prompts questions about the fundamental beliefs that underpin research and how things operate in the real world. The current research is

concerned with the attitudes of creditors when relying on financial reports, and the way firms are monitored in terms of corporate governance, to assess the creditworthiness of listed Indian firms, paying particular attention to the influence exerted by audit quality, independence of the board and gender diversity of the board.

Epistemology is, in effect, the theory of knowledge. Consideration should be given to epistemology when choosing a strategy for a research project and when agreeing the knowledge that must be contemplated in relation to the phenomena being researched. Crotty (1998) refers to epistemology being "concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible and how I can ensure that they are both adequate and legitimate".

3.2.2 Positivism

Levy (2006) considers the main features of positivism to include the nature of the world (whether there is access to it); reality; grounds of knowledge between reality and research; the ability to access firm, objective knowledge; and a research focus on generalisation and abstraction. Importantly, positivism is associated with external and independent existence from a social environment. It is from this that knowledge can be gleaned via observations that help to explain a given phenomenon. Useful knowledge is acquired using quantitative methods such as statistical analysis, surveys and practical experiments (Gill & Johnson, 2010). As such, positivist research typically utilises structured methodologies that can be replicated. Crucially, the output is observations that can be quantified, thereby enabling statistical analysis to be conducted (Creswell & Poth, 2016).

Obtaining secondary data from the $Prowess_{dx}$ database allows me to be more objective in dealing with my data. Therefore, the positivism philosophy will let me gain a single reality and objective knowledge about the impact of audit quality, board independence and board

gender diversity on firms' access to finance in India, since these factors already exist in the objective world.

3.3 Research Approach

Illustrating the research approach helps to enhance the validity of social inquiries (Lewis, 2015). According to Gill and Johnson (2010), there are two reasons why it is necessary to clarify the research approach: (1) specifying the type of data that needs to be collected and how this will be achieved helps to answer the research question; (2) to specify the research strategy. Regarding the latter point, an inductive methodology, for example, would be better suited to a study seeking to understand a phenomenon rather than merely describe it. If a research study requires the application of a theory, there is a choice of two different research strategies that can be applied: (1) It is possible that theory dictates the research (the deductive approach); (2) alternatively, it may be that the research develops a theory (the inductive approach) (Bryman, 2016).

3.3.1 Deductive approach

Research theory can be approached in one of two ways: deductive or inductive (Saunders et al., 2011; Bryman, 2016). When research is deductive, it sets out with a theory and tests hypotheses based on that theory. For example, in this case, one might look to establish the nature of the relationship between access to finance and audit quality, independent directors on boards and gender diversity on boards. Data follows theory when applying a deductive approach, but the opposite is true when applying an inductive approach. Deductive research focuses on scientific ideologies, sets out to explain causal relationships between variables, moves from theory to data, and relies on quantitative data (Saunders et al., 2011). In addition, the researcher is effectively independent from the research.

When deciding whether a research study should adopt a deductive or inductive approach, there are many criteria that can be contemplated (Saunders et al., 2011). If there is a large body of empirical literature from which a theoretical framework and hypotheses can be derived, it is likely that the study would be well suited to the deductive approach. Conversely, in the absence of a large body of empirical literature and if the research seeks to establish the nature of a problem, an inductive approach might be better, whereby data are obtained and analysed to contemplate the theoretical themes that come to light as a result.

A deductive approach might be suitable for the current research, which is concerned with establishing the nature of some relationships, as mentioned above. There is already a large body of empirical literature on the subject, from which hypotheses can be developed and theory can be outlined.

3.3.2 Quantitative research

It has been firmly established that there are three core types of research: quantitative, qualitative and the mixed approach (Lewis, 2015). Quantitative research is sometimes referred to as ‘scientific research’ but is also known as positivist or post-positivist research that yields empirical science (Lewis, 2015). Quantitative methods are used to resolve hypotheses based on the relationships between variables. Similarly, quantitative methods can be employed to test theories. Furthermore, quantitative methods are often used to predict outcomes and they make use of the objectivity, generalisability and replicability of findings (Lincoln & Tierney, 2004). To preserve objectivity, researchers using quantitative methods must make a conscious effort to act in an unbiased manner that is free from preconceptions (Clark & Johnston, 2009).

Typical research instruments used to amass quantitative data include surveys and tests. In addition, quantitative studies often test hypotheses using probability theory (Denzin &

Lincoln, 1994). Quantitative methods are often referred to as being deductive because the testing of statistical hypotheses yields general inferences about the features of a population (Bryman, 2016). Furthermore, quantitative methods typically suppose that there is a single 'truth' that is fixed, irrespective of human perceptions (Lincoln & Tierney, 2004).

Rather than being preoccupied with how frequently events occur, qualitative research seeks to provide information about social events and establish why they occur (Yates, 2004). However, the nature of the current study lends itself to quantitative methodologies since the research questions are concerned with such matters as 'how much' and 'how many'. Moreover, the purpose is to verify and not to acquire an appreciation of some phenomenon from respondents. As such, quantitative methods are best suited to answering the stated research questions that are concerned with establishing the nature of the relationship between access to finance and audit quality.

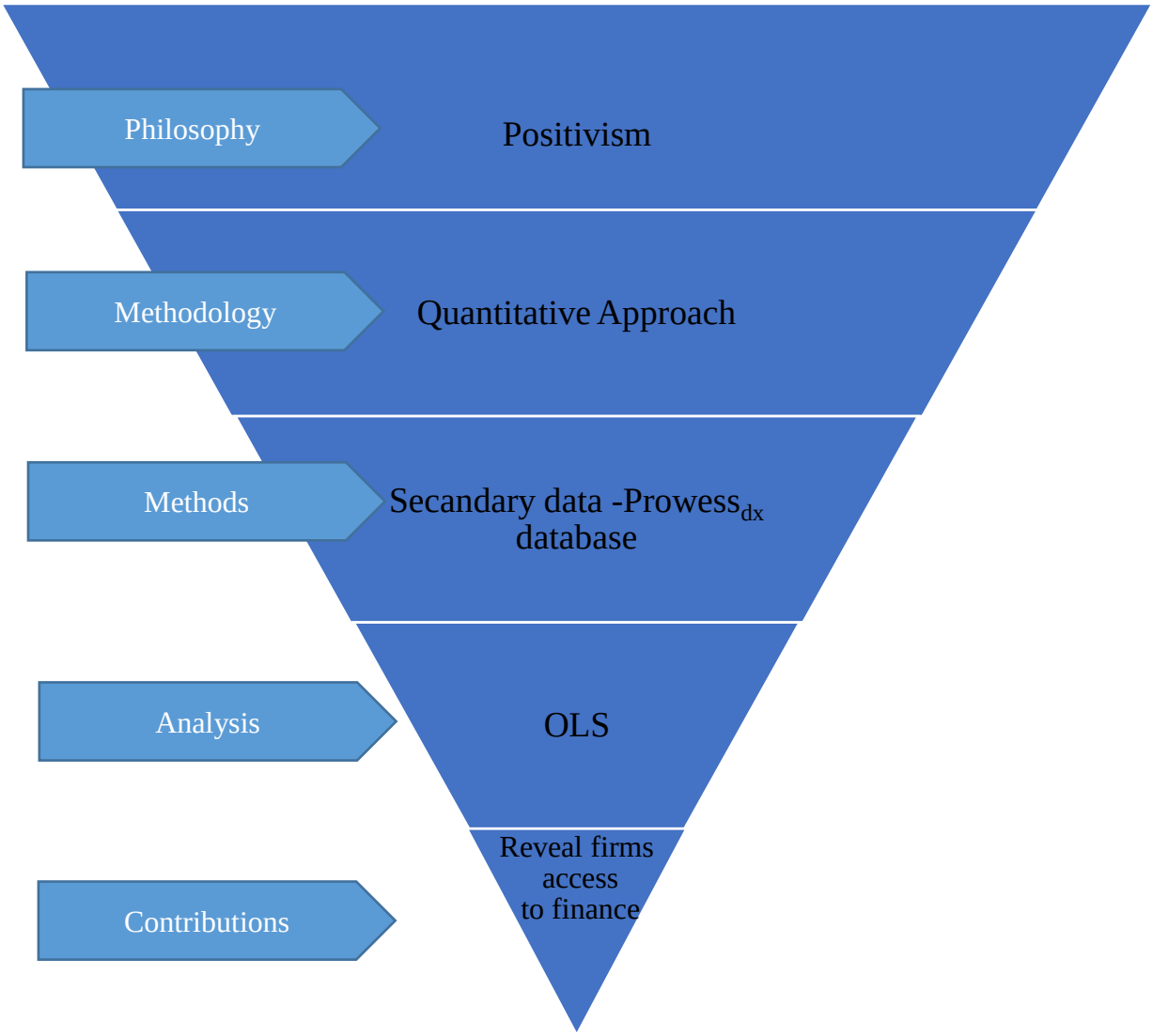
I use quantitative analysis to answer my research questions on the impact of audit quality, board independence and gender diversity on the board, on access to finance for Indian listed firms. This is appropriate because my purpose is to achieve objective results about these associations, and I am trying to answer the question of 'how much' the audit quality, board independence and gender diversity impact the firms' access to finance. In addition, in the quantitative approach I can perform tests many times to get the same results.

3.4 Using the Balance Sheet to Measure Access to Finance

A firm's access to finance can be determined from balance sheet figures (Agarwal et al., 2014; García-Teruel et al., 2014; Guariglia & Liu, 2014; Johan & Wu, 2014; Kling et al., 2014; Ryan et al., 2014; Cenni et al., 2015; Crespí & Martín-Oliver, 2015; Bose et al., 2019; Ding et al., 2017; Hasan et al., 2017). Significant insights can be gained through the comparison of firms' balance sheets (Rajan & Zingales, 1995). I therefore refer to listed

Indian firms' balance sheets to measure access to finance based on capital constraints. I start with the KZ-index (Kaplan & Zingales, 1997), which is based on five accounting ratios, to measure the level of firms' capital constraints. I also use the WW-index (Whited & Wu, 2006), based on six accounting ratios. Both of these indices will be discussed in detail in the variable definition sections of each empirical chapter. The $Prowess_{dx}$ database provided all the necessary data to construct the capital constraint indices and determine firms' access to finance in India. Figure 2 illustrates my planned research methodology for this thesis.

Figure 2 Planned thesis research methodology



3.5 Conclusion

In summary, this chapter has provided a brief discussion of the methodology used to conduct this research. I have shown the role of ontology and epistemology in determining the method used, and the benefits of using positivism to conduct this study. Also, I have defined and explained the deductive approach, which I have followed. After that, I highlighted the method applied in my investigation, which is the quantitative method. Then, I explained the importance of the methodology used to investigate access to finance for listed Indian firms. in this research, I believe that everything is constructed and is objective truth. In this sense, ontology and epistemology should follow this belief. Consequently, the research philosophy in this thesis should be positivism, because of the direct access to reality and objective knowledge (Levy, 2006). Finally, the quantitative approach is applied to conduct this research, because it provides answers about "how much and how many", is a logical approach, and allows testing and verification (Cook & Reichardt, 1979).

Chapter Four: Audit and Non-audit Fees and Access to Finance

In this chapter, I will examine the association between audit and non-audit fees, and access to finance, for Indian listed firms. In the first section, I will describe the literature on audit quality and access to finance. Then I will develop two hypotheses for this chapter, the first regarding the relationship between audit fees and access to finance by reducing their capital constraints, and the second that between non-audit fees and access to finance by reducing their capital constraints. After that, the detailed research design will be explained, including the sample selection, measurement of variables and model specification. The next section will present the empirical results, including descriptive statistics, regression analysis and additional analysis, and then a discussion in which I will analyse the results and then interpret them according to the limited attention theory.

4.1 Literature Review

The main purpose of audit firms is to provide opinions regarding the credibility and reliability of financial information produced by firms. Stakeholders demand reliable financial information for different purposes, and use auditors' judgments about how reliable this information is. Ashbaugh and Warfield (2003) state that auditing is considered a monitoring function that makes a meaningful contribution to the financial reporting process. The empirical literature has shown the merits of being audited by a high-quality firm (Lin & Hwang, 2010; Arens et al., 2012). Indeed, it is known that companies rely on audits to mitigate the likelihood of encountering agency problems (Fan & Wong, 2005). The incentives of managers are opportunistic but appointing external auditors should help to ensure that their actions are supervised, helping to ensure that the accounts offer a true reflection of the firm's standing, whilst also containing agency costs (Tsipouridou & Spathis, 2012). Firms that have appointed high-quality auditors are unlikely to engage in earnings

management because such auditors conduct certification tasks to verify the credibility of financial statements (Alzoubi, 2018). If doubts are raised about financial statements' reliability, readers will devote greater attention to auditors' reports.

In addition, high-quality financial reporting is beneficial for both internal and external evaluations of business performance (Bushman & Smith, 2001). For instance, with internal decision-making, access to high-quality financial reports enables the management to select profitable ventures and operate more efficiently (McNichols & Stubben, 2008; Chen et al., 2011). For external purposes, when seeking to raise capital, it enables third parties to gain a better appreciation of the opportunities available to the firm (Fama & Jensen, 1983; Diamond & Verrecchia, 1991). A company's financial reports are the main source of independently verified information about managers that is accessible to investors and creditors (Sloan, 2001).

If an auditor does not provide a good audit quality, this could prevent the company's financial reports from being evaluated effectively (Claessens et al., 2002). Therefore, the auditors' quality is directly associated with the credibility of the company's financial information. Sometimes, companies will deliberately appoint a low-quality auditor to maintain a certain level of opacity, so as to keep engaging in a desirable extent of earnings management, rather than hiring a high-quality auditor to indicate good corporate governance practices (Lin & Liu, 2009).

Previous research has confirmed that availability of financial sources has a significant positive effect on firm growth, especially among the companies considered most deserving of funding (Beck et al., 2006). If a firm is financially constrained, it is unlikely to have the wherewithal to invest across many strategic interests (Campello et al., 2010), in research and development (Hall & Lerner, 2010). If a company is capital constrained, it will experience

restrictions on its capital that effectively constrain its efforts to expand (Lamont et al., 2001). A reduction in capital constraints, and increase in the company's finance options, will positively affect the ability of that company to expand and to stay in business when otherwise it might not.

Audits can affect capital constraints. As mentioned above, a good audit plays a vital role in decreasing earnings management because of auditors' important role in checking the credibility of the financial statements (Alzoubi, 2018). This emphasises the imperative for auditors to supervise a company's management and investment decisions closely. In addition, good auditing leads firms to provide reliable and accurate disclosures to avoid harmful audit reports and unsatisfactory attention from capital providers. An audit is likely to decrease the doubt of capital providers regarding reporting quality and management skills, which will lead to better financing terms (Vanstraelen & Schelleman, 2017).

It has been found that the audit fees charged by an auditor are considered an indicator of the effort made in the audit process (Leventis et al., 2011). Non-audit fees, meanwhile, might indicate enhanced accounting practices of companies (Choi et al., 2009). The size of the auditor is usually regarded as a proxy for how good their audit services are (DeAngelo, 1981; DeFond, 1992; Francis & Wilson, 1988). However, capital providers might see no observable difference between companies audited by large and small audit firms, in terms of whether or not they engage in earnings management. For instance, investigations in countries such as Belgium, France, Greece and Korea have found no statistically significant difference between the levels of earnings management in companies audited by Big4 versus small audit firms (Jeong & Rho, 2004; Vander Bauwhede & Willekens, 2004; Othman & Zeghal, 2006; Tsipouridou & Spathis, 2012). This may be because large auditors have less of an incentive to behave conservatively in order to avoid legal prosecution and protect their reputations in

countries with weak regulatory systems. India, the context for this study, provides weak investor protection. Thus, auditor size will not be considered as a measurement of auditor services from the capital provider's perspective in India. In particular, the current Indian laws/regulations prohibit publicly listed firms from using the same audit firms for rendering certain non-audit services, e.g., advisory services; outsourced financial service; investment services; management services; design of any financial information system and internal audit and book-keeping services (MCA, 2020). However, audit firms in India could offer non audit services to a listed company if it not one of these services mentioned earlier.

It is helpful to investigate the actions of auditors in relation to access to finance, to show the need for an auditor to actively monitor the investment and management decisions made by a firm. Thus, in the next sub-section, the previous theoretical and empirical literature is examined to explain the development of the specific hypotheses of interest. Two elements of audits are investigated: audit fees and non-audit fees.

4.1.1 Hypotheses' development

The relationship between audit fees and access to finance

Many researchers have concluded that auditors' fees are indicative of the quality of the audit that is undertaken (Leventis et al., 2013). The audit fees charged by an auditor indicate the effort that will be expended during the auditing process (Leventis et al., 2011) because many stakeholders consider audit fees to be a core element of the agency cost and monitoring assessments (Cobbin, 2002). Indeed, Alzoubi (2018) concludes that a negative relationship exists between audit fees and earnings management. This lends weight to the argument that those who pay substantial audit fees receive high-quality audits, helping to avoid the possibility of earnings management or other forms of financial manipulation. It is logical, therefore, to assume that better-quality audits make it easier for third parties to verify a

company's financial standing, making it more likely that the providers of capital will trust the data presented to them and approve requests for financing. Carcello et al. (2011) offer empirical evidence that audit fees are higher when audit quality is higher. Similarly, evidence from the US provided by Srinidhi and Gul (2007) suggests that higher audit fees are associated with better-quality auditing practices and a reduced likelihood of earnings management. The same relationship is reported by Gerayli et al. (2011), who study a sample of Iranian companies.

The evidence overwhelmingly indicates that audited financial statements help to reassure the providers of capital because the audit effectively validates the credibility of the information being presented. Suppose the risk of information is priced by capital providers, perhaps in the way capital providers link price information risks to the efficiency of auditing. A high audit fee acts as a solid monitoring mechanism and sends a positive signal to capital providers: the expectation is that the providers of capital will reward the firm for helping to minimise information asymmetry. According to Chen et al. (2011), the auditing process effectively serves as a monitoring device to verify how well a particular firm is actually performing. Essentially, audits offer a means to improve the quality of information by minimising information asymmetry. In particular, in India's unique institutional setting, where the size of the auditing firm might not be a sign of good quality (Joshy et al., 2015), capital providers may use audit fees as an indicator of the credibility of financial statements.

Conversely, other researchers argue that the price of an audit will rise if auditors anticipate that a firm's audit risk has become elevated (Lin & Liu, 2013; Mitra et al., 2017), since a lower risk might require them to exert less effort (Bell et al., 2001; Cohen et al., 2002; Niemi, 2005). In addition, some researchers (e.g., Frankel et al., 2002; Li & Lin, 2005) state that, if an auditor charges a relatively high fee, this can be interpreted as a particularly strong

economic bond between firm and auditor, thereby casting doubt over the independence of the auditor. Reduced independence might in turn increase the chances of earnings management (Abbott et al., 2006; Lin et al., 2006; Lin & Hwang, 2010).

Based on earlier arguments, the more audit fees might be an indicator for more audit quality conducted, thereby reduce the earning management especially in context characterized by no difference in audit quality between big4 and non-big4 firms. Moreover, the absent of investor protection, which make the capital provider seek to audit quality signs such as audit fees as positive sign to protect their investment from management manipulation. Therefore, I expect that the capital providers to respond to relatively high audit fees by approving more finance by reducing capital constraints because these fees send a signal that the underlying financial statements are accurate and reliable. Consequently, I hypothesis that there to be a significant positive relationship between the audit fees paid by listed Indian companies and their ability to access finance. The first hypothesis is therefore:

H1: A positive relationship exists between audit fees and access to finance for listed Indian firms.

The relationship between non-audit fees and access to finance

Auditors also offer companies a range of non-audit services. This is controversial because the sale of additional services potentially threatens an auditor's independence, which could be reflected in the perceived quality of the firm's financial statements. This issue stems from the assumption that an auditor and the firm it is auditing could establish an economic bond which might reduce the quality of the financial statements (DeAngelo, 1981; Ashbaugh & Warfield, 2003; Agrawal & Chadha, 2005). On the other hand, many research studies have concluded that the sale of additional non-audit services has no bearing on the auditor's

independence (Dhaliwal et al., 2008) because auditors care about their reputations (Watts & Zimmerman, 1983) and wish to avoid litigation cases (Shu, 2000).

Several researchers have even found that the provision of non-audit services enhances the credibility of firms' financial reporting among stakeholders (Robinson, 2006; Cahan et al., 2008; Choi et al., 2009; Nam & Ronen, 2012; Koh et al., 2013). For example, Robinson (2006) asserts that non-audit services enhance information about companies' financial status. Kinney et al. (2004) state that there is a negative association between tax service fees and restatement. Also, Choi et al. (2009) find a significant negative association between non-audit fees as a tax service and reported earnings management, suggesting that earnings quality improves through a reduction in aggressive accounting and a move to more conservative accounting practices. It is also argued that by providing non-audit services auditors become increasingly aware of a company's financial system, enhancing the quality of the company's accounting system because of a knowledge spill-over (Simunic, 1984; Antle et al., 2006).

If the payment of non-audit fees increases the integrity of financial statements, then these fees could logically also affect the firm's ability to obtain finance because capital providers rely heavily on a company's financial reports when assessing its creditworthiness. In India, the accounting organisation has little real action it can take against audit errors (Chakrabarti, 2005). Thus, a firm's non-audit fees will provide a sign of the effectiveness of its accounting system. Indeed, some studies, such as Dhaliwal et al. (2008) and Choi and Lee (2015), have shown a negative association between non-audit fees and the cost of debt. It is thus anticipated that there will be a significant positive relationship between the payment of non-audit fees and the ability of a company to access finance.

Based on previous arguments, the more non-audit fees could be a sign for effective accounting system used by firms due to the a knowledge spill-over, thereby increase the

credibility of financial statements produce by these firms especially in context characterized by accounting organisation take little real action it can take against audit errors and no difference in audit quality between big4 and non-big4 firms. Therefore, I expect there to be a significant positive relationship between the non-audit fees paid by listed Indian companies and their ability to access finance by decreasing capital constraints. I hypothesis that the capital providers will be more inclined to extend funding to firms paying sizeable non-audit fees by lower the capital constraints they face, because of a perception that their financial statements are more credible and they are benefiting from effective mentoring. Based on this assumption, I will test the following hypothesis:

H2: A positive relationship exists between non-audit fees and access to finance for listed Indian firms.

4.2 Research Design

4.2.1 Sample selection and data sources

I obtained data from the Prowess_{dx} database of the CMIE, which has data for companies with stocks listed on the two stock exchanges mentioned above. The database provides necessary financial data for individual companies and supplementary background information on their operations. It has been extensively employed in the empirical literature (Aswani, Chidambaran, & Hasan, 2021; Elango & Pattnaik, 2007; Mal & Gupta, 2020; Pinto & Rastogi, 2019). The initial sample comprises 2,557 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, belonging to 18 industrial categories, for the period from 2002 to 2017. After taking a closer look, 483 firms in the financial industry were excluded because they have different operations, regulations and governance arrangements (Iatridis, 2018). In addition, companies were eliminated that did not disclose any information about any of the variables (Mallin et al., 2015); consequently, 1,103 firms

with missing data were excluded. Therefore, the sample comprises 971 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange for the testing of H1, labelled Panel A. For the purposes of testing H2, 649 companies are used, labelled Panel B, after 322 firms were excluded due to missing data of non-audit fees. Table 1 illustrates the sample selection process.

Table 1 Sample selection process for audit and non-audit fees

	Firms	**Observations**
Initial number of listed firms in the NSE and BSE, data from the Prowess$_{dx}$ database, for the period from 2002-2017.	**2,557**	**18,815**
Less financial firms.	-483	-3,347
Less firms with missing values	-1,103	-10,353
Final sample, Panel A, for H1	**971**	**5,115**
Less missing observations for NAF	-322	-1,961
Final sample, Panel B, for H2	**649**	**3,154**

NSE is the National Stock Exchange; BSE is the Bombay Stock Exchange; Prowess$_{dx}$ is the database provided by CMIE.

4.2.2 Measurement of variables and model specification

Access to finance refers to the ability of a company to obtain finance. The inability to access finance might be "due to credit constraints or inability to borrow, inability to issue equity, dependence on bank loans, or illiquidity of assets" (Lamont et al., 2001: 529). Hence, if a company experiences a reduction in its capital constraints, its ability to access finance will improve (Cheng et al., 2014). Therefore, in my analysis, the dependent variable is the KZ-index, a measurement of capital constraints (Lamont et al., 2001; Bakke & Whited, 2010; Cheng et al., 2014). This approach applied to categorise companies according to their

financial constraints was devised by Kaplan and Zingales (1997), who related classifications to accounting variables using an ordered logit specification. Following the methods applied in the empirical literature, a KZ-index for each individual firm-year is produced using regression coefficients. The index effectively amalgamates the following accounting ratios: market-to-book ratio; cash-holdings-to-capital ratio; cash-flow-to-total-capital ratio; debt-to-total-capital ratio; and dividends-to-total-capital ratio. I follow Baker et al. (2003) by applying the same coefficients[5]. The value of the index increases with financial constraints (Cheng et al., 2014).

The first independent variable is the log of audit fees (ln AF), following the approach employed by Alzoubi (2016). I would expect audit fees to rise if the audit process is sufficiently comprehensive to consume many working hours or require the appointment of highly qualified personnel. Francis (2004) states that audit fees are an indication of the effort spent by auditors and, therefore, they imply much about the integrity of the resulting financial statement.

The second independent variable is non-audit fees, as provided by $Prowess_{dx}$, including taxation and company law services fees. Similar to that in Chen et al. (2017a), the selected measure is the natural log of non-audit fees (ln NAF). The payment of sizeable non-audit fees could imply that the auditor is familiar with the firm's accounting system, suggesting that the accounting practices being applied are of the highest quality (Antle et al., 2006; Choi et al., 2009).

The control variables are selected on the basis of their use in the empirical literature. The size of the company provides insight into the scope of its activities as well as the complexity of its operations. The larger a firm is, the more complex its operations are

[5] See Appendix B for a more detailed construction of the main and alternative capital constraint indices (KZ, WW, KZE and KZ4).

expected to be (Andreas et al., 2012). In the empirical literature, it has been widely reported that the size of a company has a significant bearing on its financing mix (Frank & Goyal, 2009). The variable Firm size is calculated as the log of its total assets at the year-end (Mallin et al., 2015). The current study employs both industry and year effects (Goh & Gupta, 2016). The industry in which a company operates determines the National Industry Classification code that is assigned to it (Industry). Full details of the variable definitions can be found in Appendix A.

4.2.3 Model specification

To test the main hypothesis, the dependent variable is the current year's KZ-index (KZ), whilst the independent variables are the previous year's audit and non-audit fees. Firm size lagged by one year serves as a control variable. The method applied by Caramanis and Lennox (2008) is broadly replicated, whereby the independent variables are lagged by a year to forecast the subsequent year's dependent variables.

An ordinary least squares approach is adopted to estimate Models 1 and 2, whose specifications are given below. To control heteroscedasticity and address any potential cross-sectional dependence issues, the approach adopted by Petersen (2009) is followed, whereby standard errors are clustered at the firm level (García Lara et al., 2017). Besides firm-level clustering, both models employ clustering at the year level (Baboukardos, 2018). Furthermore, winsorising the variables at the 1st and 99th percentiles helps avoid the effect of extreme values (Chang et al., 2007).

To test the main hypothesis regarding the lagged effects of an audit on a firm's access to finance, the following models are used:

$$KZ_{it} = \alpha_0 + \alpha_1 In\ AF_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \qquad (1)$$

$$KZ_{it} = \alpha_0 + \alpha_1 In\ NAF_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \quad (2)$$

where the dependent variable is the KZ-index for the current year, ln AF and ln NAF are the independent variables for the previous year and the control variables are lagged by one year.

4.3 Empirical Results and Discussion

4.3.1 Descriptive statistics

The descriptive statistics are presented in Table 2. This provides statistical insight into the measures used to capture the degree to which the companies experience capital constraints. In Panel A, the KZ-index has a mean of -0.42 with a standard deviation of 1.34, indicating the variation across the sample of companies in regards to capital constraints. Meanwhile, the mean value of ln AF is 3.61, and the mean Firm size is 5.154. In Panel B, meanwhile, the KZ-index has a mean of -0.47 with a standard deviation of 1.33, again indicating variation across the sample. ln NAF has a mean of 2.56, and the mean Firm size is 5.310. This implies that listed firms in India face different status regarding capital constraints due to the high level of difference across the sample of firms' capital constraints. In addition, the mean and median of ln AF is higher than ln NAF of the Indian-listed firms, which might be a sign that the independence of auditors is not threatened by using less ln NAF than ln AF and not exaggerating paying more ln NAF. Regarding correlations, the firms' capital constraints correlate to ln AF and ln NAF by 0.04 and 0.02, respectively; however, it correlates more to firms' size by 0.18 in Panel A and 0.17 in Panel B. In addition, ln AF is highly correlated to the firms' size in Panel A and ln NAF in Panel B. Table 3 presents the correlations among the variables.

Table 2 Descriptive statistics for the final samples for the audit and non-audit fee panels

Panel A, for H1				
	N	Mean	Median	S.D
KZ	5115	-0.429	-0.224	1.347
In AF	5115	3.617	3.605	1.453
Firm size	5115	5.154	5.033	1.677
Panel B, for H2				
	N	Mean	Median	S.D
KZ	3154	-0.479	-0.287	1.334
In NAF	3154	2.564	2.460	1.331
Firm size	3154	5.310	5.193	1.632

KZ is the KZ-index for the current year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.

Table 3 Correlation matrix for audit fees and non-audit fees

Panel A, for H1			
	KZ index	InAF	Firm size
KZ	1		
In AF	0.042	1	
Firm size	0.186	0.757	1
Panel B, for H2			
	KZ index	NAF	Firm size
KZ	1		
In NAF	-0.020	1	
Firm size	0.171	0.631	1

KZ is the KZ-index for the current year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.

4.3.2 Regression analysis

In this section, the association between access to finance, measured by the KZ-index, and audit and non-audit fees in the previous year is demonstrated. I control for company size, and industry and year fixed effects. Table 4 shows the results of applying Model 1 and testing the causal relationship between ln AF and KZ. The coefficient of ln AF is negative and

highly significant (-0.204, p-value < 0.01), suggesting that firms with higher audit fees face fewer capital constraints, and thus have greater access to finance.

The results support the argument that audit fees can influence capital providers' attitudes, exerting a positive impact on a company's ability to access finance. Audit fees could indicate low earnings management, supporting the argument (Alzoubi, 2018). This implies that the payment of sizeable audit fees is associated with good-quality auditing, preventing management from attempting to manage earnings whilst simultaneously enhancing the credibility of the financial reports published. It is quite conceivable that paying elevated audit fees could cause the providers of credit to look favourably upon a company. Meanwhile, it does not support the Leventis (2018) argument that auditors inflate their fees in response to perceptions that a company's audit risk has increase. Therefore, the results suggest that higher audit fees encourage capital providers to extend loans, which supports H1.

Table 4 Results of regressing lagged audit and non-audit fees on a firm's access to finance

Variables	H1 (KZ)	H2 (KZ)
In AF	-0.204***	
	(0.051)	
In NAF		-0.167***
		(0.041)
Firm size	0.239***	0.185***
	(0.054)	(0.049)
Constant	-2.193***	-1.778**
	(0.684)	(0.762)
Observations	5,115	3,154
Adj. R-sq.	0.157	0.168
Year Fixed Effects	YES	YES
Industry Fixed Effects	YES	YES

KZ is the KZ-index for the current year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Table 4 also shows the results of applying Model 2 and testing the causal relationship between ln NAF and KZ. The coefficient of ln NAF is negative and highly significant (-0.167, p-value < 0.01), suggesting that firms with higher non-audit fees also encounter fewer capital constraints, and thus have better access to finance.

These results support the argument that non-audit fees can influence the attitudes of capital providers, thereby positively affecting access to finance. Capital providers could view high non-audit fees as a sign of low earnings management and more aggressive accounting practices being suppressed by auditors through non-audit services (Antle et al., 2006; Choi et al., 2009). Conversely, the results do not support the argument for a significant positive relationship between non-audit fees and earnings management (Lin & Hwang, 2010). Based on these results, capital providers would be expected to react to an increase in non-audit fees by more granting loans. The results support H2.

4.3.3 Additional analysis

Next, in Equations 1 and 2, the KZ-index is replaced by the WW-index to ensure robustness. Initially devised by Whited and Wu (2006), the WW-index offers an alternative means of gauging capital constraints[6] (Chen et al., 2017b). In the first column of Table 5, the coefficient of ln AF is -0.039 and significant with a p-value of less than 0.01. This supports the argument that companies paying sizeable audit fees are less likely to be capital constrained. Meanwhile, in the second column of Table 5, the coefficient of ln NAF is -0.035 and significant with a p-value of less than 0.01.

[6] For further robustness, I also use two modified KZ-indices. The first is an equally weighted KZ-index (KZE) that assigns equal weight to each of the five accounting ratios. This is necessary to ensure that the weights are not the significant factor (Chang et al., 2007). In the second modified KZ-index (KZ4), Tobin's Q is dropped whilst the same coefficients are kept for the remaining four ratios (Baker et al., 2003). See Appendices C1 and C2 for the regression results.

Table 5 Additional analysis: lagged audit and non-audit fees regressed against a different capital constraints index

Variables	H1 (WW)	H2 (WW)
In AF	-0.039***	
	(0.003)	
In NAF		-0.035***
		(0.004)
Constant	-0.194	-0.213
	(0.122)	(0.143)
Observations	5,109	3,150
Adj. R-sq.	0.203	0.208
Year Fixed Effects	YES	YES
Industry Fixed Effects	YES	YES

WW is the WW-index for the current year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at 1%, 5% and 10% level respectively. Two-way clustered (by firm and year) standard errors (in parentheses).

In addition, the method employed by Ball et al. (2012) is adopted, using heightened audit fees (excess audit fees, or EX_AF), which is taken to be the residual from regressing ln AF on the following company-level determinants: the current ratio (CA/CL), the total accruals to total assets (Accrual), the log of total assets (Firm size), total liabilities divided by total assets (Liabilities), the return on assets (ROA) and a dummy variable indicating whether the company is loss-making (Loss). A regression of Equation 1 is run but with the lagged EX_AF instead of the lagged ln AF. I apply the same technique using the log of non-audit fees (ln NAF) to create a variable for the excess non-audit fees (EX_NAF) and then use it to run a regression of Equation 2. Table 6 shows that the results are consistent with the previous tests.

Table 6 Results of regressing lagged excess audit and non-audit fees on a firm's access to finance

Variables	H1 (KZ)	H2 (KZ)
EXAF	-2.015***	
	(0.362)	
EXNAF		-5.004***
		(0.808)
Firm size	1.444***	2.880***
	(0.246)	(0.431)
Constant	-11.087***	-24.053***
	(1.664)	(3.311)
Observations	3,876	3,876
Adj. R-sq.	0.228	0.356
Year Fixed Effects	YES	YES
Industry Fixed Effects	YES	YES

KZ is the KZ-index for the current year; EX_AF is the residual from a regression of log audit fees (ln AF) on the firm-level determinants lagged by one year; EX_NAF is the residual from a regression of the log of non-audit fees (ln NAF) on the firm-level determinants lagged by one year Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at 1%, 5% and 10% level respectively. Two-way clustered (by firm and year) standard errors (in parentheses).

Two separate methods are employed to address possible endogeneity issues in the model. The first method is two-stage least squares (2SLS) regression, which has been demonstrated to resolve endogeneity matters. This approach utilises instrumental variables expected to satisfy the exclusion restriction because they are associated with audit and non-audit fees but not with the KZ-index[7]. It can be seen in Table 7 that the coefficients of ln AF and ln NAF are -0.255 and -0.207, respectively and both are significant with p-values of less than 0.01.

[7] I follow Usman et al. (2018a, 2018b) in using as instrumental variables the main independent variable lagged by one year and the industry average of the main independent variable.

Table 7 Additional analysis: (2SLS) Regressions results for lagged audit and non-audit fees against a firm's access to finance

Variables	H1		H2	
	First stage	Second stage	First stage	Second stage
In AF		-0.255***		
		(0.063)		
Lag In AF	0.894***			
	(0.011)			
ln AF.M	0.001***			
	(0.000)			
In NAF				-0.207***
				(0.057)
Lag In NAF			0.772***	
			(0.019)	
ln NAF.M			0.003**	
			(0.001)	
Firm size	0.076***	0.262***	0.126***	0.231***
	(0.010)	(0.060)	(0.019)	(0.057)
Constant	-0.413**	-3.124***	-0.200	-4.402***
	(0.170)	(0.833)	(0.737)	(1.130)
Observations	3,876	3,876	2,241	2,386
Adj. R-sq.	0.930	0.181	0.775	0.191
Year Fixed Effects	YES	YES	YES	YES
Industry Fixed Effects	YES	YES	YES	YES

KZ is the KZ-index for current year; ln AF is the log of the audit fees for the previous year; L. ln AF is the one-year-lagged value of ln AF; ln AF.M is the industry average of the audit fees from the last year; ; ln NAF is the log of the non-audit fees for the previous year; L. ln NAF is the one-year-lagged value of ln NAF; ln NAF_M is the industry average of the non-audit fees for the last year; Firm size is the log of the total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Secondly, it is possible that the independent variable is not responsible for the KZ-index being high or low. Instead, this could be due to the characteristics of the firms. Thus, the propensity score matching (PSM) method is used to overcome this issue. I apply this method to a set of control companies, matched to the original treatment companies, where each control company has a low value for the independent variable but no other apparent differences in its characteristics (e.g. its financial condition) from the matched treatment firm that has a high value for the independent variable. Thus, firms in each pair are closely similar

to each other except for one variable (the main independent variable). Column 1 and 2 of Table 8 shows that the coefficients on both ln AF and ln NAF are consistent with the previous results, being significantly negative.

Table 8 Additional analysis: Propensity score matching results for lagged audit and non-audit fees regressed on a firm's access to finance

Panel A. Estimation of propensity score functions		
Variables	In AF_D	In NAF_D
Firm size	0.840***	0.232***
	(0.025)	(0.014)
Current_ratio	0.000***	0.000
	(0.000)	(0.000)
LEV	0.000**	-0.001***
	(0.000)	(0.000)
ROA	0.000**	0.000***
	(0.000)	(0.000)
Constant	-10.482***	-2.635***
	(0.365)	(0.232)
Observations	4,931	3,875
Pseudo R-sq.	0.41	0.082
Year Fixed Effects	YES	YES
Industry Fixed Effects	YES	YES

Panel B. Specifications based on alternative matching methods

Variables	H1 – In AF_D		H2 – In_NAF_D	
	Unmatched sample	Matched sample Without replacement	Unmatched sample	Matched sample Without replacement
In AF	-0.204***	-0.223***		
	(0.051)	(0.058)		
In NAF			-0.167***	-0.199***
			(0.041)	(0.044)
Firm size	0.239***	0.241***	0.185***	0.214***
	(0.054)	(0.058)	(0.049)	(0.053)
Constant	-2.193***	-2.980***	-1.778**	-2.799***
	(0.684)	(0.834)	(0.762)	(0.958)
Observations	5,115	3,866	3,154	2,439
Adj. R-sq.	0.157	0.179	0.168	0.196
Year Fixed Effects	YES	YES	YES	YES
Industry Fixed Effects	YES	YES	YES	YES

Panel A, Probit Model: ln AF_D is a binary variable which equals one if the firm has larger audit fees than the sample median for the previous year; ln NAF_D is a binary variable which equals one if the firm has larger non-audit fees than the sample median for the previous year; Firm size is the log of total assets of the firm for the previous year. LEV is the leverage ratio calculated as total liabilities divided by equity for the previous year; CA/CL is the current assets over current liabilities for the previous year; ROA is the return on assets for the previous year. Standard errors are shown in parentheses.

Panel B, Valuation Model: KZ is the KZ-index for the current year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

In summary, the findings suggest that capital providers react positively to news of Indian companies having high audit fees. Access to finance improves following the payment of high audit fees, implying that paying auditors relatively high fees results in high-quality audits being conducted. In emerging markets, it is especially likely that companies might try to maintain a certain level of opaqueness (Lin & Liu, 2009), but in an Indian context, high audit fees would increase faith in financial statements. In addition, the results suggest that capital providers react positively to news that Indian companies have high non-audit fees. As such, access to finance could improve following the payment of high non-audit fees, suggesting that paying auditors relatively high non-audit fees results in reduced earnings management at Indian companies. This supports identical findings in developed countries (Antle et al., 2006; Cahan et al., 2008). Capital providers could also consider high non-audit fees to be an indicator of better accounting practices in Indian firms, as has been shown in the case of Korea (Choi et al., 2009).

Following the limited attention theory, both audit and non-audit fees attract capital providers' attention, making it more likely that companies paying these fees will get better access to finance. High audit and non-audit fees are not regarded as being a red flag. Conversely, capital providers recognise them as a good sign of the quality of the audit, along with low management manipulation and higher credibility of a firm's financial reporting. Firms that cannot demonstrate good audit practices could be overlooked and may not be granted loans (DeYoung et al., 2008). Put another way, loan officers will interpret high audit and non-audit fees as a positive sign of the accuracy of the financial information they have been presented, which will affect their cognitive process (Stein, 2002). In the Indian setting, and in accordance with the limited attention perspective, it is anticipated that the payment of sizeable audit and non-audit fees by listed Indian companies will be positively interpreted by lenders that have limited attention capacity, thereby improving these firms' access to finance.

Particularly, it is a country that affords limited investor protection and relatively poor supervision by accounting bodies and, as such, the payment of sizeable audit and non-audit fees will help garner the trust of capital providers. Therefore, companies have an incentive to pay high fees to auditors as a means of demonstrating that their financial statements are credible.

In other words, under the limited attention lens, capital providers in India respond positively to a rise in audit quality implied by higher audit and non-audit fees, reducing firms' capital constraints and giving them easier access to finance. Capital providers might see audits as useful tools for achieving reliable financial statements and applying appropriate corporate governance mechanisms in Indian listed firms. Indeed, firms use audits as an instrument to deliver good corporate governance because they achieve legitimacy from the quality of their audits and the reassurance that auditors provide (Sainty et al., 2002; Anderson et al., 2004a; Krishnan & Ye, 2005). Ashbaugh and Warfield (2003) assert that the monitoring function of audits means that they make a meaningful contribution to corporate governance and the financial reporting process. Thus, employing independent auditors is very important (DeFond et al., 2000; Allen et al., 2005). High-quality audits may reduce the cost of borrowing in the debt market by reducing the opaqueness of information and earnings management (Fan & Wong, 2005) and enabling third parties to gain a better appreciation of the opportunities available to the firm (Fama & Jensen, 1983; Diamond & Verrecchia, 1991). A company's financial reports are the main source of independently verified information about managers accessible to investors and creditors (Sloan, 2001).

4.4 Conclusions

This investigation examines the influence on capital providers of two audit-related elements (audit and non-audit fees) of listed companies in India. The investigation yields significant insights by examining the attitudes of capital providers to auditing information. While this type of information (audit and non-audit fees) can be costly for firms, it can also influence capital providers' decisions, leading to greater access to finance.

The data were sourced from the $Prowess_{dx}$ database, producing an unbalanced panel dataset of 971 and 649 firms in Panels A and B, respectively. Both panels include firms listed on the National Stock Exchange and the Mumbai Stock Exchange between 2002 and 2017. These firms operate in eighteen different industries. The investigation indicates that capital constraints as measured by the KZ-index show a significant and negative relationship with audit and non-audit fees; thus, higher fees lead to more access to finance. The results are significant and support both hypotheses: a positive relationship between audit fees and access to finance for listed Indian firms, and a positive relationship between non-audit fees and access to finance.

Capital providers operating in India are highly responsive to companies paying sizeable audit and non-audit fees. I perceive the payment of these fees as a green flag in the Indian context, which is characterised by weak protection for investors and many questions regarding the duties of the accounting organisation. This indicates that the attention of capital providers can be attracted by a signal that sizeable audit and non-audit fees have been paid. Under the limited attention perspective, the payment of these fees exerts a positive influence over the providers of capital who suffer from a limited attention capacity. This affords listed Indian firms preferential access to finance.

Based on the results presented in the current study, companies can better test whether the benefits afforded by paying high audit and non-audit fees outweigh the costs. Limited attention theory asserts that firms can pay these fees to influence the perceptions of capital providers and improve their access to finance. The results will be of use to researchers interested in learning about the effects audits have on companies in emerging markets. The regulatory authorities will also be interested in the findings because they will be keen to ensure that audits help to support the supervision of Indian firms. Crucially, it is possible to generalise the results to companies operating in other emerging markets because India's economy and culture are similar to those in other countries.

4.5 Appendix

Appendix A. Variable definitions

Variable	Description
KZ	KZ-index for the current year; A capital constraints proxy whose estimation is explained in Appendix B.
WW	WW-index for the current year; A capital constraints proxy whose estimation is explained in Appendix B.
ln AF	Log of audit fees on the previous year.
ln NAF	Log of non-audit fees on the previous year.
Firm size	Log of total assets on the previous year.
Industry	Multiple dummy variable based on 18 industries, according to the National Industry Classification (NIC) codes.
Year	Multiple dummy variable based on the 16 years under investigation, 2002-2017.

Appendix B.1 Indices' construction

KZ, following Baker et al. (2003), derived as:
KZ_{it} (five-variable) = -1.002 $CF_{it}/A_{i(t\_1)}$ -39.368 $DIV_{it}/A_{i(t\_1)}$ - 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t)}$ + 0.283$Q_{i(t)}$,

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets; $LEV_{i(t)}$ is leverage; and Q is the market value of equity (price times shares outstanding) plus assets minus the book value of equity all over assets.

WW, based on Whited and Wu (2006), derived as:

$$WW = (-0.091 * CF) - (0.062 * DIVPOS) + (0.021 * TLTD) - (0.044 * LNTA) + (0.102 * ISG) - (0.035 * SG),$$

where CF is the ratio of cash flow to total assets; DIVPOS is an indicator that takes the value of 1 if the firm pays cash dividends; TLTD is the ratio of the long-term debt to total assets; LNTA is the natural log of total assets; ISG is the firm's three-digit industry sales growth; and SG is firm sales growth.

KZE, based on Cheng et al. (2014), derived as:
KZE_{it} = {(1/5)*(-1.002$CF_{it}/A_{i(t_1)}$)} – {(1/5)*(39.368$DIV_{it}/A_{i(t_1)}$)} – {(1/5)*(1.315$C_{it}/A_{(it_1)}$)} + {(1/5)*3.139$LEV_{i(t)}$} + {(1/5)*0.283$Q_{i(t)}$},

I adjust the weights so that each ratio of the KZ_{it} index accounts for 1/5 of the variation in the index, with unchanging sign of the variable, in the same way that Chang et al. (2007) adjust the weights of the KZ (4 variables) index, so that each variable accounts for (1/4) of the variation in the index, with unchanging sign of the variable (Cheng et al., 2014).

KZ4, based on Baker et al. (2003), derived as:
KZ_{it} (four-variable) = – 1.002 $CF_{it}/A_{i(t\_1)}$ – 39.368 $DIV_{it}/A_{i(t\_1)}$ – 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t)}$),

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets and $LEV_{i(t)}$ is leverage.

Appendix B. 2 Descriptive statistics for the data used for computing the KZ and WW Indices

Panel A, for H1				
KZ index	N	Mean	Median	S.D
Cash Flow	5115	1086	168.7	5333
Total Assets	5115	5.295	5.187	1.692
Cash Dividends	5115	16.39	1.286	91.50
Cash	5115	79.01	2.013	541.6
Q	5115	2.120	1.563	9.702
Leverage	5115	0.294	0.297	0.177
WW index				
Cash Flow	5109	1087	169.3	5336
Cash Dividends Dummy	5109	1	1	0
Leverage	5109	0.294	0.297	0.177
Total Assets	5109	5.298	5.189	1.691
Industry Sales Growth	5109	1.151	0.153	7.050
Firms Sales Growth	5109	0.219	0.113	1.445
Panel B, for H2				
KZ index	N	Mean	Median	S.D
Cash Flow	3154	1184	205.9	5688
Total Assets	3154	5.434	5.297	1.647
Cash Dividends	3154	19.18	1.580	105.10
Cash	3154	78.57	2.938	388.0
Q	3154	1.968	1.563	1.350
Leverage	3154	0.282	0.281	0.180
WW index				
Cash Flow	3150	1185	206.2	5691
Cash Dividends Dummy	3150	1	1	0
Leverage	3150	0.282	0.282	0.180
Total Assets	3150	5.437	5.298	1.646
Industry Sales Growth	3150	0.964	0.116	6.035
Firms Sales Growth	3150	0.175	0.098	0.789

Appendix B.2 provides statistical insights into the data used for computing the KZ and WW indices. In Panel A, the KZ index shows that the cash flow has a mean of 1086 with a standard deviation of 5333, indicating a high level of variation across the sample of companies with regards to cash flow. Additionally, almost the same statistical results are shown in Panel B. Meanwhile, the firms' total assets in Panel A have a mean of 5.294; a median of 5.187 is almost the same for both panels. The cash dividends in Panel A are highly different among firms, with a mean of 16.39 and standard deviation of 91.50; almost the same result was found for Panel B. The cash mean in Panel A is 79.01, and it has high variation

across the sample; the same results were found in Panel B. The Q in Panel A has a high standard deviation, but Panel B has a lower standard deviation; this indicates that the firms in Panel B have less difference regarding Q. In Panel A, the leverage has a mean of 0.294 and a median of 0.297, and similar results apply to Panel B.

However, in Panel A, the WW index shows that the cash flow has a mean of 1087 with a standard deviation of 5336, indicating a high level of variation across the sample of companies regarding cash flow. It also shows almost the same statistical results in Panel B. The firms' cash dividends dummy in Panel A has a mean of 1 with a median of 1, which is almost the same for both panels. The leverage in Panel A is the same among firms, with a mean of 0.294 and standard deviation of 0.177, with almost the same results found for Panel B. The total mean assets in Panel A is 5.297, and there is low variation across the sample; the same results are found in Panel B. The industry sales growth in Panel A has a mean of 1.151 and a high standard deviation, which is similar to the results found in Panel B. In Panel A, the firms' sales growth has a mean of 0.219 and a median of 0.113, which is similar to the results in Panel B; however, in Panel B, the standard deviation is lower compared to Panel A.

Appendix C1. Additional analysis: ln AF and different capital constraints indices

VARIABLES	KZE	KZ4
ln AF	-0.041***	-0.245***
	(0.010)	(0.055)
Firm size	0.048***	0.282***
	(0.011)	(0.054)
Constant	-0.392***	-2.717***
	(0.128)	(0.664)
Observations	5,115	5,115
R-squared	0.159	0.167
Year FE	YES	YES
Industry FE	YES	YES

KZE is the equal-weighted KZ-index; KZ4 is the KZ-index using four ratios for the current year; ln AF is the log of audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year. ***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Appendix C2. Additional analysis: In NAF and different capital constraints indices

VARIABLES	KZE	KZ4
ln NAF	-0.033***	-0.193***
	(0.008)	(0.045)
Firm size	0.036***	0.214***
	(0.010)	(0.051)
Constant	-0.327**	-2.290***
	(0.138)	(0.712)
Observations	3,154	3,154
R-squared	0.169	0.174
Year FE	YES	YES
Industry FE	YES	YES

KZE is the equal-weighted KZ-index; KZ4 is the KZ-index with four ratios for current year; ln NAF is the log of non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year. ***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Chapter Five: Independent Directors on Boards and Access to Finance

In this chapter, I will examine the association between independent directors on boards and access to finance for Indian listed firms. Having independent directors on a board is considered as the most important determination for having a low quality of corporate governance in India. For example, directors' independence exists only on paper in the Indian setting, which is a major concern for good governance (OECD, 2019). Therefore, in the second chapter I focus on independent directors on boards and one connected characteristic, e.g., their remuneration; this variable was chosen over other corporate governance variables due to data availability. In the first section, I will present the literature on independent directors on firms' boards and access to finance, after which I will develop two hypotheses for this chapter. The first hypothesis deals with the relationship between independent directors and access to finance. The second hypothesis is about the relationship between independent directors' remuneration and access to finance. Then, a detailed description of the research design will be given, including the sample selection process, variable measurement and model specification. The next section will present the empirical results, including descriptive statistics, regression analysis and additional analysis, and the discussion of our findings and their interpretation according to the limited attention theory.

5.1 Literature Review

It is routine practice for a company's financial accounts to be examined by creditors when the latter wish to determine its viability. If a firm violates previously agreed standards, this enables debtholders to liquidate the company or renegotiate existing loan contracts (DeFond & Jiambalvo, 1994). Therefore, managers have an incentive to manipulate financial information, either to avoid breaching loan covenants or for personal gain if doing so will trigger the payment of bonuses (Dechow et al., 1996). Thus, creditors pay attention to the

apparent incentives of managers to manipulate the company's performance, and it is understandable that creditors will be wary about the potential for accounts to be deliberately manipulated (Smith, 1993).

Therefore, numerous efforts have been made in the empirical literature to clarify the nature of the relationship between corporate governance mechanisms aimed at preventing information asymmetry and reducing manipulation, and debt finance (Sengupta, 1998; Ashbaugh-Skaife et al., 2006; Ertugrul & Hegde, 2008). For instance, the responsibility of the board of directors as a corporate governance mechanism is to supervise the firm's financial reporting processes. In practical terms, this involves the directors communicating with the company's accountants as well as external auditors to oversee the internal control mechanisms, production of financial statements and audit procedures (Klein, 2002). Based on this relationship, it is logical that creditors will evaluate the directors and the structure of the board when determining a firm's ability to produce accurate and reliable financial statements (Daley & Vigeland, 1983; DeFond & Jiambalvo, 1994).

The empirical literature has observed a significant relationship between various features of the board and the manipulation of financial accounts (Beasley, 1996; Dechow et al., 1996; Carcello & Neal, 2000; Klein, 2002). Therefore, creditors are likely to be interested in learning about the specific features of boards that are related to the validity of financial statements. For instance, Smith and Warner (1979) find that a company's debt is priced in a way that reflects how easily the validity of the lending agreement can be demonstrated, implying that debt is priced in a way that takes the structure of the board into consideration.

In a sense, previous studies have exposed the advantages of having independent directors on a firm's board. For example, independent directors are influential in delivering good corporate governance (Weisbach, 1988; Rosenstein & Wyatt, 1990; Holder-Webb &

Sharma, 2010; Fich & Shivdasani, 2012; Rashid, 2015). It has also been shown in the empirical literature that, when firms announce an increase in the number of independent or external directors, there is a positive effect on the share price (Sarpal, 2018) and a surge in abnormal returns (Wang & Lee, 2012). This is because independent directors have been found to reduce information asymmetry (Joh & Jung, 2012; Lin et al., 2015) and enhance the degree of corporate disclosure (Armstrong et al., 2014).

The empirical literature has established that financial development has a significant positive effect on firm growth, especially among companies considered to be the most deserving of funding (Beck et al., 2006). Financially constrained companies (Campello et al., 2010) are less likely to invest in a broad range of strategic activities, such as research and development (Hall & Lerner, 2010), acquiring additional inventory (Carpenter et al., 1998) or engaging in market share pricing (Chevalier, 1995). Access to finance is related to capital constraints (Cheng et al., 2014), which can in turn restrict firms' expansion (Lamont et al., 2001). Therefore, a reduction in capital constraints positively affects a company's ability to expand and stay in business.

The inclusion of independent directors on a firm's board may influence capital constraints. It is reasonable to presume that independent directors are in a good position to observe managers' movements and measure their capability to produce reliable financial statements. For example, Beasley (1996), Anderson et al. (2004a) and Holder-Webb and Sharma (2010) state that independent directors are able to provide effective monitoring of a company's activities and thereby improve its ability to access finance. This highlights the need for independent directors to actively monitor the investment and management decisions of a firm. In addition, it shows that firms need to provide reliable and accurate disclosures to avoid unsatisfactory attention from capital providers. Independent directors on a firm's board

should decrease the doubts of capital providers regarding management manipulation, which would lead to better financing terms (Bhojraj & Sengupta, 2003; Francis et al., 2012). It has been established that the inclusion of independent directors on a board improves the monitoring of the firm's management (Armstrong et al., 2014; Goh & Gupta, 2016). The remuneration of independent directors also shows the important role they play (Adams & Ferreira, 2008). Therefore, it is useful to investigate the actions of independent directors in relation to access to finance, in order to demonstrate the importance of their active monitoring of the investment and management decisions made by a firm. Thus, in the next sub-section, the previous theoretical and empirical literature is examined to explain the development of my specific hypotheses of interest. I investigate how two elements of independent directors influence a company's ability to access finance: the percentage of independent directors on a board and the independent directors' remuneration.

5.1.1 Hypotheses' development

The relationship between independent directors and access to finance

It is in the interests of creditors that borrowers make all of their repayments when they fall due (Akudugu et al., 2009). Therefore, capital providers consider independent directors a vital aspect of board composition and might give more attention to whether boards include independent directors and how well those independent directors complete their important roles. For instance, independent directors are assumed to help with the monitoring of the firms' management, improving transparency, reducing earnings management and increasing financial statement reliability (Beasley, 1996; Fields & Keys, 2003; Francis et al., 2012; Armstrong et al., 2014; Goh & Gupta, 2016). This suggests that a high proportion of independent directors on a firm's board results in a reduced likelihood that manipulation by the management will occur. In this sense, a higher proportion of independent directors on a firm's board might indicate more credible financial reporting, with decreased earnings

management. This decreases the cost of verifying a firm's financial information, increasing capital providers' trust in these firms' financial positions and thus increasing the firm's ability to obtain finance. In summary, independent directors effectively reduce the risk to which creditors are exposed, consequently affecting a firm's ability to access finance (Holder-Webb & Sharma, 2010; Bliss & Gul, 2012).

However, Lorca et al. (2011) state that one should not assume that the same relationship between board independence and the cost of funding holds in all countries. They observe that no such relationship exists in Spain. Moreover, Arioglu (2015) finds no evidence that independent directors' presence yields benefits for companies seeking financing via the capital market of Turkey. Likewise, Ibrahim and Samad (2011) fail to identify a significant relationship between the employment of independent directors and the firms' value in Malaysia. Meanwhile, some observe that board independence is a novel concept in most emerging markets (Arora & Sharma, 2016). Also, they stated that it is common practice in Indian companies for the management to be the ones who appoint the independent directors, casting doubt over whether such directors can truly be considered independent. For instance, Bhatt and Bhattacharya (2015) argue that the management will often nominate independent directors to maintain control over the firm.

Based on previous arguments, that the independent directors on board are new concept in Indian context and often they chosen by the management, which might harm their independency and negatively affect their duties. The capital providers are likely to react to companies with a high percentage of independent directors on their boards by raising firms capital constraints which reduce their access to finance, because they question these directors' ability to perform their monitoring duties. Therefore, a significant negative relationship between the percentage of independent directors on a firm's board and access to

finance is predicted in Indian listed firms. Under this presumption, I propose the first hypothesis of this chapter:

H1: There is a negative relationship between the percentage of independent members on a firm's board and access to finance for listed firms in India.

The relationship between independent director remuneration and access to finance

There is a serious demand for more understanding of independent directors' remuneration (Mallin et al., 2015), as it might be understood by lenders in one of two ways. There might be doubts that exaggerated remuneration packages are employed to reduce the objectivity of independent directors and deflect them from the important things that should concern them. For instance, Goh and Gupta (2016) find a negative relationship between the independence of independent directors and their remuneration. Moreover, Bebchuk et al. (2002) show that the high remuneration of independent directors reduces the effectiveness with which they play their role. Therefore, too-high remuneration packages might be used to reward inefficient monitoring, thereby increasing concerns about relationships between insider directors and supposedly independent directors. For instance, Yermack (2004) shows that independent directors' wealth rises by only 11 cents per each $1,000 rise in firm value, among the Fortune 500 companies. The second way of understanding the remuneration of independent directors is that it might reflect their effort and time spent working on firms' boards. For instance, Adams and Ferreira (2008) report that, due to independent directors often being required to perform extra duties and legal tasks, it is essential to compensate them for the significant function they perform, which requires a greater time commitment of them. By way of explanation, a greater level of remuneration paid to independent directors might purely be an indication of the quality of service they provide. Furthermore, Horton et al. (2012) state that higher remuneration of independent directors is associated with better

monitoring, thereby impacting the firm's performance. For example, independent directors are rewarded for enhancing strategic decisions, as they are providing resources to their company, thereby improving the firm's status.

However, the independent directors' remuneration in Indian listed firms consists of two parts: the sitting fees and a portion of net profit, and these two components are subject to a cap of $1,500 per meeting and 1% of the firm's annual profit (Naaraayanan & Nielsen, 2016). Consequently, capital providers may not observe this as a signal of independent directors' duties. From a capital provider's viewpoint, remuneration may actually be a signal of the firm's profitability since it contains a percentage of the firm's annual profits. Lenders also favour profitable firms (Jiang et al., 2018) owing to their reduced default risk (Ertugrul & Hegde, 2008; Lorca et al., 2011). The other part of the remuneration, the sitting fees, are a sign of an active board. Xie et al. (2003) and Ntim and Osei (2011) state that firm performance is significantly improved by an active board.

Based on previous argument, which is the remunerations of independent directors on board of listed Indian firms come from sitting fees and portion of net annual profit. The capital providers might see the independent directors remunerations be a signal of the firm's profitability since it contains a percentage of the firm's annual profits and sign of an active board as it also comes from the independent directors sitting fees. Therefore, the capital providers are likely to react to companies with a more remunerations of independent directors on their boards by allowing more finance which reduce capital constraints. Consequently, a significant positive relationship between the remunerations of independent directors on a firm's board and access to finance is predicted in Indian listed firms. Under this presumption, I propose the second hypothesis of this chapter:

H2: There is a positive relationship between the remuneration of independent directors and access to finance for listed firms in India.

5.2 Research Design

5.2.1 Sample selection and data sources

I obtained data from the Prowess$_{dx}$ database of the CMIE, which has data for companies with stocks listed on the two stock exchanges mentioned above. The database provides necessary financial data for individual companies and supplementary background information on their operations. It has been extensively employed in the empirical literature (Aswani, Chidambaran, & Hasan, 2021; Elango & Pattnaik, 2007; Mal & Gupta, 2020; Pinto & Rastogi, 2019). The initial sample comprises 6,185 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, belonging to 18 industrial categories, for the period from 2006 to 2017. After taking a closer look, 1,325 firms in the financial industry were excluded because they have different operations, regulations and governance arrangements (Iatridis, 2018). In addition, companies were eliminated that did not disclose any information about any of the variables (Mallin et al., 2015); consequently, 3,909 firms with missing data were excluded. Therefore, the sample comprises 1,054 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange for the testing of H1, labelled Panel A. For the purposes of testing H2, 894 companies are used, labelled Panel B, after 160 firms were excluded due to missing data of non-audit fees. Table 9 illustrates the sample selection process.

Table 9 Sample selection process for tests on independent directors on boards and their remuneration

	Firms	Observations
Initial number of listed firms in NSE and BSE, data found in Prowess$_{dx}$ database, for the period from 2006-2017.	**6,185**	**56,531**
Less financial firms.	-1,325	-15,199
Less firms with missing values	-3,909	-38,631
Final sample Panel A, for H1	**1,054**	**5,562**
Less missing observation for IND_R	-160	-1,015
Final sample Panel B, for H2	**894**	**4,547**

NSE is the National Stock Exchange; BSE is the Bombay Stock Exchange; Prowess$_{dx}$ is the database provided by CMIE.

5.2.2 Measurement of variables

Access to finance refers to the ability of a company to obtain finance. Difficulties accessing finance might be related to an inability to issue equity and borrow, illiquidity of assets or credit constraints (Lamont et al., 2001); any reduction in capital constraints will increase firms' access to finance (Cheng et al., 2014). Thus, if firms are able to access a finance source, it will be shown by a reduction in their capital constraints. Therefore, the dependent variable I use is the KZ-index, a measurement of capital constraints (Baker et al., 2003; Bakke & Whited, 2010; Cheng et al., 2014). The KZ-index was developed by Kaplan and Zingales (1997) to serve as an indicator for the extent of financial constraints facing a given company. They related classifications to accounting variables using an ordered logit specification. In accordance with the approaches adopted in the empirical literature, regression coefficients are used to compose a KZ-index for each firm-year, based on a linear

combination of five accounting ratios: cash holdings to capital, dividends to total capital, debt to total capital, the market-to-book ratio and cash flow to total capital. The value of the index rises with financial constraints (Cheng et al., 2014). I follow Baker et al. (2003) by applying the same coefficients[8].

The first independent variable indicates the proportion of independent members on the board, which is measured as the number of independent directors divided by the total number of board members (IND), similarly to Goh and Gupta (2016) and Al-Shaer and Zaman (2019). The second independent variable indicates the remuneration received by an independent director: IND_R is defined as the log of remuneration received per independent director; the total remuneration received by the independent directors divided by the total number of independent directors then I take the log, similarly to Marchetti and Stefanelli (2009), Andreas et al. (2012) and Mallin et al. (2015).

The control variables are based on findings from prior research. Firm size shows the complexity of a company's operations, with larger companies being expected to have more complex operations with greater stakes involved (Andreas et al., 2012). Company size has been recognised in the literature as a vital key to the financing mix (Frank & Goyal, 2009). Firm size is measured as a firm's total assets at the end of the year (Mallin et al., 2015). Both industry and year effects are incorporated as well (Goh & Gupta, 2016). National Industry Classification codes are used to assign each company to an industry group (Industry). Appendix A provides the definitions of the variables.

5.2.3 Model specification

To test the hypotheses, the dependent variable used is the KZ-index for the current year. The independent variables are the percentage of independent directors on a firm's board

[8] See Appendix B for a more detailed construction of the main and alternative capital constraint indices (KZ, KZE and KZ4).

and independent directors' remuneration in the previous year. An additional control variable, firm size, is lagged by one year. The method adopted is similar to that of Caramanis and Lennox (2008), with independent variables being lagged by one year to predict the dependent variable in the following year.

An ordinary least squares approach is adopted to estimate Equations 1 and 2 beloow. I follow the approach adopted by Petersen (2009), whereby standard errors are clustered at the firm level to control heteroscedasticity and to address any potential cross-sectional dependence issues. In addition to firm-level clustering, both equations employ clustering at the year level (Baboukardos, 2018). Furthermore, to avoid extreme values, the variables are winsorised at the 1st and 99th percentiles (Chang et al., 2007).

To test the main hypotheses regarding the lagged effects of independent directors and their remuneration on a firm's access to finance, the following equations are used:

$$KZ_{it} = \alpha_0 + \alpha_1 IND_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \quad (1)$$

$$KZ_{it} = \alpha_0 + \alpha_1 IND\_R_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \quad (2)$$

where the dependent variable is the KZ-index (KZ) for the current year, and the independent variables, IND and IND_R, are lagged by one year, as are the control variables.

5.3 Empirical Results and Discussion

5.3.1 Descriptive statistics

The descriptive statistics are presented in Table 10. This provides statistical insights into the measure used to capture the degree to which companies experience capital constraints. In Panel A, the KZ-index has a mean of -0.40 and a standard deviation of 1.35, indicating the degree of variation across the sample of companies in regards to capital constraints. Meanwhile, IND's mean is 0.45, with a standard deviation of 0.13, and the mean

of the log of company size is 5.42. In Panel B, the KZ-index has a mean of -0.38 and a standard deviation of 1.34. Meanwhile, IND_R has a mean of 7.98, and standard deviation of 1.5, and the mean of the log of company size is 5.61. This implies that listed firms in India face different status regarding capital constraints due to the high level of difference across the sample of firms' capital constraints. In addition, the mean and median of IND is around 0.45, which implies that half of Indian-listed firms' boards have independent directors. In addition, the average remuneration for independent directors is around $7000, which might indicate that independent directors, on average, are not receiving high levels of remuneration. Regarding correlations, the firms' capital constraints correlate to IND by 0.08 and IND_R by -0.08; however, this correlates more to the firm's size by .16 in Panel A and .17 in Panel B. Additionally, it was found that IND has a low correlation to the firm's size in Panel A compared to IND_R in Panel B. Table 11 presents the correlations among the variables.

Table 10 Descriptive statistics for the final sample of independent directors on boards and their remuneration

Panel A, H1

	N	Mean	Median	SD
KZ	5562	-0.403	-0.190	1.359
IND	5562	0.452	0.455	0.132
Firm size	5562	5.424	5.295	1.721

Panel B, H2

	N	Mean	Median	SD
KZ	4547	-0.389	-0.180	1.347
IND_R	4547	7.985	7.877	1.503
Firm size	4547	5.611	5.487	1.709

KZ is the KZ-index for the current year; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of the total remuneration received by an independent member for the previous year; Firm size is the log of total assets of the firm for the previous year.

Table 11 Correlation matrix for independent directors on boards and their remuneration

Panel A, H1

	KZ	IND	Firm size
KZ	1		
IND	0.081	1	
Firm size	0.165	0.036	1

Panel B, H2

	KZ	IND_R	Firm size
KZ	1		
IND_R	-0.084	1	
Firm size	0.173	0.514	1

KZ is the KZ-index for the current year; IND is the percentage of Independent directors on the board for the previous year; IND_R is the log of total remuneration received by an independent member for the previous year; Firm size is the log of total assets of the firm for the previous year.

5.3.2 Regression analysis

The regression results show the relationship between access to finance measured by the KZ-index, and the percentage of independent directors on the board, as well as their remuneration, in the previous year, controlling for company size, and industry and year fixed effects. Table 12 column 1 shows the application of Equation 1 and the testing of the effect of IND on the KZ-index. The coefficient of IND is positive and highly significant (0.749, $p<0.01$). Table 12 therefore shows that firms with a high percentage of independent directors have more capital constraints, which means they have less access to finance. Based on these results, capital providers would be expected to react to an increase in independent directors on a firm's board by putting more obstacles in the way of their access to loans. The results support H1.

Table 12 Results of regressing lagged percentage of independent directors on the board and their remuneration on a firm's access to finance

Variables	Model (KZ)	Model (KZ)
IND	0.749***	
	(0.236)	
IND_R		-0.220***
		(0.032)
Firm size	0.095***	0.195***
	(0.027)	(0.033)
Constant	-0.951***	0.610**
	(0.225)	(0.307)
Observations	5,562	4,547
R-squared	0.138	0.177
Year FE	YES	YES
Industry FE	YES	YES

KZ is the KZ-index for current year; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of remuneration received by an independent member for the previous year; Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

In Table 12 column 2, I present the results of applying Equation 2, testing the effect of IND_R on the KZ-index, and showing whether independent directors' remuneration affects a firm's access to finance. The coefficient of IND_R is negative and highly significant (-0.220, $p<0.01$), implying that firms that pay their independent directors more encounter fewer capital constraints, thus improved access to finance. These results support the argument that independent directors' remuneration can influence capital providers' attitudes, and thus access to finance. Based on these results, capital providers would be expected to react to an increase in independent directors' remuneration by more easily granting loans. As such, the results support H2.

5.3.3 Additional tests

For robustness purposes, the KZ-index is replaced by the WW-index to ensure robustness. Initially devised by Whited and Wu (2006), the WW-index offers an alternative means of gauging capital constraints[9] (Chen et al., 2017b). However, I applied the WW index to the regression, it caused a nonsymmetric and highly singular variance matrix. Therefore, the WW index regression has been removed in this section. Alternatively, the KZ-index is modified and Equations 1 and 2 run again. The first modification is an equally weighted KZ-index (KZE) that assigns equal weight to each of the five accounting ratios. This is necessary to ensure that the weights are not the significant factor (Chang et al., 2007). The second modification is a modified KZ-index (KZ4), which involves Tobin's Q being dropped whilst keeping the same coefficients for the remaining four variables (Baker et al., 2003). Columns 1 and 2 in Table 13 show that the coefficient of IND is positive and highly significant in each case (0.150, $p<0.01$; and 0.763, $p<0.01$, respectively), which suggests that firms with a higher proportion of independent directors encounter more capital constraints, as in the previous tests. Moreover, columns 3 and 4 of Table 13 also show results consistent with the earlier ones, with the coefficients of IND_R negative and highly significant (-0.044, $p<0.01$; and -0.265, $p<0.01$, respectively), indicating that firms that pay higher remuneration to their independent directors enjoy reduced capital constraints.

[9] For further robustness, I also use two modified KZ-indices. The first is an equally weighted KZ-index (KZE) that assigns equal weight to each of the five accounting ratios. This is necessary to ensure that the weights are not the significant factor (Chang et al., 2007). In the second modified KZ-index (KZ4), Tobin's Q is dropped whilst the same coefficients are kept for the remaining four ratios (Baker et al., 2003). See Appendices C1 and C2 for the regression results.

Table 13 Additional analysis: lagged percentage of independent directors on the board and their remuneration, and different capital constraints indices

Variables	Model (KZE)	Model (KZ4)	Model (KZE)	Model (KZ4)
IND	0.150***	0.763***		
	(0.047)	(0.260)		
IND_R			-0.044***	-0.265***
			(0.006)	(0.036)
Firm size	0.019***	0.110***	0.039***	0.231***
	(0.005)	(0.030)	(0.007)	(0.035)
Constant	-0.190***	-1.535***	0.122**	0.328
	(0.045)	(0.245)	(0.061)	(0.338)
Observations	5,562	5,562	4,547	4,547
R-squared	0.138	0.141	0.177	0.188
Year & Industry FE	YES	YES	YES	YES

KZE is the equal-weighted KZ-index for the current year; KZ4 is the four-ratio KZ-index for the current year; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of remuneration received by an independent member for the previous year; Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

To address the endogeneity issues in the equations, two approaches are used. First, 2SLS regression is used, a typical remedy for the endogeneity problem. The 2SLS regression method employs instrumental variables that likely satisfy the exclusion restriction (i.e., they are associated with the percentage of independent directors on the board and their remuneration, but not associated with the KZ-index)[10]. Column 2 of Table 14 shows that the coefficient of IND is significantly positive (0.811, $p<0.1$). However, in column 4 of Table 14, the coefficient of IND_R is significantly negative (-0.241, $p<0.01$). Which provide consistency for the pervious results.

[10] I follow Usman et al. (2018a, 2018b) in my use of instrumental variables. I use the main independent variable lagged by one year and the industry average of the main independent variable.

Table 14 Additional analysis: 2SLS results of regressing lagged percentage of independent directors on the board and their remuneration on a firm's access to finance

Variables	First stage	Second stage	First stage	Second stage
IND		0.811*		
		(0.440)		
L.IND	0.496***			
	(0.023)			
IND.M	0.406**			
	(0.186)			
IND_R				-0.241***
				(0.043)
L.IND_R			0.850***	
			(0.013)	
IND _R_M			0.155	
			(0.151)	
Firm size	-0.003**	0.083***	0.066***	0.197***
	(0.001)	(0.030)	(0.009)	(0.036)
Constant	0.228***	-0.835***	-0.010	0.808**
	(0.061)	(0.282)	(1.266)	(0.378)
Observations	4,480	4,480	3,577	3,630
R-squared	0.373	0.144	0.813	0.183
Year & Industry FE	YES	YES	YES	YES

KZ is the KZ-index for the current year; IND is the percentage of independent directors on the board for the previous year; L.IND is one-year-lagged IND; IND.M is the industry average of the IND last year; Firm size is the log of total assets of the firm for the previous year.; IND_R is the log of remuneration received by an independent member for the previous year; L.IND_R is one-year-lagged IND_R; IND_R_M is the industry average of the remuneration of independent directors for the last year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Second, the KZ-index could be high or low due to companies' characteristics rather than the main independent variable. Thus, the PSM method is used to overcome this issue. Using this technique, I can control for firms with a low value for the main independent variable but no other obvious differences in characteristics (such as financial condition) from other companies with a high value for the main independent variable. Thus, firms in each pair are closely similar to each other except for one variable (the main independent variable)[11]. In Panel B, column 1 of Table 15 shows that the coefficient on IND is significantly positive (0.664, $p<0.01$). However, in the same panel, in column 2, the coefficient on IND_R is

[11] I follow Faccio et al. (2016) and base the matching on the probability of a company having a larger value for the main independent variable than the sample's median based on firm characteristics.

significantly negative (-0.054, p<0.1). Both of these results are consistent with the previous results.

Table 15 Additional analysis: Propensity score matching results of lagged percentage of independent directors on the board and their remuneration against a firm's access to finance

Panel A. Estimation of propensity score functions		
Variables	IND_D	IND_R_D
Firm size	0.011	0.416***
	(-1.470)	(0.018)
CA/CL	0.099***	-0.253***
	(0.037)	(0.046)
LEV	0.072***	-0.166***
	(0.015)	(0.024)
ROA	0.090***	0.124***
	(0.030)	(0.037)
Constant	0.811	-1.000***
	(0.143)	(0.184)
Observations	5,369	4,397
Pseudo. R2	0.05	0.19
Industry FE	YES	YES
Year FE	YES	YES

Panel B. Specifications based on alternative matching methods				
Variables	Unmatched sample	Matched sample without replacement	Unmatched sample	Matched sample without replacement
IND	0.749***	0.664***		
	(0.236)	(0.229)		
IND_R			-0.220***	-0.054*
			(0.032)	(0.032)
Firm size	0.095***	0.059*	0.195***	0.239***
	(0.027)	(0.031)	(0.033)	(0.045)
Constant	-0.951***	-0.804***	0.610**	-1.031***
	(0.225)	(0.276)	(0.307)	(0.321)
Observations	5,562	2,916	4,547	1,904
R-squared	0.138	0.142	0.177	0.177
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Panel A, Probit Model: IND_D is a binary variable which equals one if the firm has larger percentage of independent board members than the sample median for the previous year; IND_R_D is a binary variable which equals one if the firm has a larger remuneration of its independent board members than the sample median for the previous year; Firm size is the log of total assets of the firm for the previous year. LEV is the leverage ratio calculated as total liabilities divided by equity for the previous year; CA/CL is the current assets over current liabilities for the previous year; ROA is the return on assets for the previous year. Standard errors in parentheses.

Panel B, Valuation Model: KZ is the KZ-index for the current year; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of the remuneration received by an independent member for the previous year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

The findings suggest that capital providers react negatively to news of Indian companies having a high percentage of independent directors on their boards. As such, access to finance could be reduced for these firms. It may be that capital providers have little confidence in the role independent directors perform and it may suggest that they question whether independent directors are truly independent in the company, due to the fact that they are often appointed by the company's management. Because of this, independent directors are sometimes regarded as working on behalf of the management (Arora & Sharma, 2016). Also, in emerging markets, it is especially likely that companies will try to maintain a certain level of opaqueness (Lin & Liu, 2009). Another explanation is that, because board independence is a novel idea in many emerging markets (Arora & Sharma, 2016), creditors may not believe that independent directors have enough detailed knowledge about the firm to be able to make a positive contribution, due to the weaker corporate governance mechanisms relative to those in advanced economies (Claessens & Yurtoglu, 2013). Therefore, it would be a mistake to assume that independent directors are entirely informed about the companies they oversee (Ravina & Sapienza, 2010).

In addition, the results suggest that capital providers react positively to news that Indian companies pay their independent director high remuneration. As such, access to finance could improve if independent directors were paid more. Capital providers might not consider independent directors' remuneration as an element belonging to independent directors' characteristics. Independent directors' remuneration in Indian listed firms contains two parts: the sitting fees and a percentage of annual profits (Naaraayanan & Nielsen, 2016). Therefore, the independent directors' remuneration might be considered by capital providers as a sign of prospective profitability and enhanced activity of the board, affecting firms' ability to produce profits and continue to exist in the market. For instance, Jiang et al. (2018) state that firms with high profitability (i.e. return on assets) are associated with low financial

constraints, and Xie et al. (2003) and Ntim and Osei (2011) state that firm performance is enhanced by an active board. Therefore, our findings not only support the argument by Adams and Ferreira (2008) that high remuneration of independent directors indicates the important function they perform, neither the negative impact, which might be a sign of lower independency of independent directors (Mallin et al., 2015).

Under the limited attention theory, the percentage of independent directors on a firm's board could negatively grab capital providers' attention and lead to less access to finance. Capital providers may consider a high percentage of independent directors on a board as a red flag – an adverse sign of independent directors' independence – implying low monitoring of management, and increased management manipulation. Therefore, firms that cannot demonstrate the independence of their independent directors could be overlooked and may not be granted loans. For instance, low independence of the board reduces a firm's credit rating by increasing the agency conflict between the management and all the stakeholders, including the bondholders (Ashbaugh-Skaife et al., 2006). However, the remuneration of independent directors positively grabs capital providers' attention and leads to more access to finance. Capital providers may consider high remuneration of independent directors as a green flag because it indicates the firm is profitable, since part of the remuneration comes from the firm's annual profit, thereby encouraging the capital providers to facilitate access to finance. This is because a firm with strong performance (i.e. a high return on assets) will have a lower default risk (Ertugrul & Hegde, 2008; Lorca et al., 2011). Based on the limited attention perspective, which states that lenders are constrained by their limited attention capacity, it is distinctly possible that a high percentage of independent directors on the board of a listed firm in India will have a significantly negative influence on lenders, creating an obstacle to their access to finance. However, high remuneration of independent directors of listed firms in India seems to have a significantly positive influence on capital providers,

yielding easier access to finance. Particularly, for an institutional setting such as India, which suffers from low investor protection and weak supervision by accounting organisations, the percentage of independent directors and their remuneration are likely to play a vital role in capital providers' decisions to provide finance.

In other words, theoretically, the reaction of capital providers to a company board with a high proportion of independent directors should produce lower agency costs because the monitoring skills and lending experience of independent directors could add value to the company (Fama & Jensen, 1983). Therefore, firms with a higher percentage of independent members on their boards should face lower capital constraints and better access to finance. This supports the idea that the independent board members could influence the attitudes of creditors, thereby affecting the company's access to finance (Holder-Webb & Sharma, 2010; Bliss & Gul, 2012). However, the opposite is true in the Indian context. Under the interpretation of limited attention theory, capital providers' perceptions of independent directors on the boards of listed firms in India are negative due to the effect of the Indian context, where independent directors have many concerns regarding their independency (Arora & Sharma, 2016). For instance, the management will often nominate independent directors to maintain control over the firm (Bhatt and Bhattacharya, 2015). In this sense, the attention of capital providers will translate into more difficulties for firms in obtaining finance when they notice a higher percentage of independent directors on firms' boards. Therefore, listed Indian firms will suffer from greater capital constraints if their boards have a high proportion of independent directors. However, their remuneration has a positive impact on access to finance. Because the source of directors' remuneration comes from annual profits and sitting fees, higher fees might point to the profitability or the activity of Indian-listed firms' boards. In both cases, remuneration of independent directors is a positive sign for the capital providers. This contradictory impact of the percentage of independent board

members and their remuneration on firms' access to finance might show that capital providers do have concerns regarding independent directors on the board, but that they evaluate the remuneration differently.

5.3.4 Sub-sample

Since Chapter 4 shows that that audit and non-audit fees matter, and have a significant negative impact on the firms' capital constraints, it is very odd to not control for those in Chapter 5. Therefore, I have added a sub-section where I keep only the sub-sample of firms for which I have data for the tests conducted in both Chapters 4 and 5. With this data, I have repeated the analysis conducted in Chapter 5 by including the key variables of interest used in Chapter 4 (e.g., ln AF and ln NAF). Therefore, the following equations are used:

$$KZ_{it} = \alpha_0 + \alpha_1 IND_{it-1} + \alpha_2 \ln AF_{it-1} + \alpha_3 \ln NAF_{it-1} + \alpha_4 Firm\ size_{it-1} + \alpha_5 Industry_{it} + \alpha_6 Year_{it} + \varepsilon_{it} \quad (3)$$

$$KZ_{it} = \alpha_0 + \alpha_1 IND\_R_{it-1} + \alpha_2 \ln AF_{it-1} + \alpha_3 \ln NAF_{it-1} + \alpha_4 Firm\ size_{it-1} + \alpha_5 Industry_{it} + \alpha_6 Year_{it} + \varepsilon_{it} \quad (4)$$

where the dependent variable is the KZ-index (KZ) for the current year, and the independent variables, IND and IND_R, are lagged by one year, as are the control variables.

Table 16 shows the consistency of the results, along with a significant and positive relationship between the percentage of independent directors on a firm's board and capital constraints as measured by the KZ-index, implying that a higher percentage produces less access to finance. However, a significant negative relationship is found between the remuneration of the independent directors and capital constraints, meaning that higher remuneration increases access to finance.

Table 16 Results of regressing lagged percentage of independent directors on the board and their remuneration on a firm's access to finance

Variables	Model (KZ)	Model (KZ)
IND	0.843***	
	(0.280)	
IND_R		-0.179***
		(0.043)
ln AF	-0.111*	-0.038
	(0.063)	(0.069)
ln NAF	-0.130***	-0.094**
	(0.041)	(0.043)
Firm size	0.246***	0.262***
	(0.057)	(0.067)
Constant	-0.972***	0.294
	(0.284)	(0.358)
Observations	2,808	2,369
R-squared	0.170	0.194
Year FE	YES	YES
Industry FE	YES	YES

KZ is the KZ-index for current year; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of remuneration received by an independent member for the previous year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

5.4 Conclusion

In this investigation, I examine the response of capital providers to elements related to the independence of the board (i.e. the percentage of independent directors on a firm's board and the remuneration of the independent directors) of listed firms in India. The investigation provides significant insights into these companies by examining capital providers' attitudes to receiving independent director information. I explore elements of the independence of the board that could affect companies' access to finance. While a high percentage of independent directors on a firm's board can influence capital providers' decisions and lead to less access to finance, higher remuneration of such directors leads to more access to finance.

Data were drawn from the $Prowess_{dx}$ database, consisting of an unbalanced panel dataset of 1,054 listed firms belonging to 18 industry categories on the Mumbai Stock Exchange of India and the National Stock Exchange. However, the sample used for testing H2 consisted of only 894 Indian listed firms. The data for both panels cover the period from 2006 to 2017. The investigation indicated a significant and positive relationship between the percentage of independent directors on a firm's board and capital constraints as measured by the KZ-index, implying that a higher percentage produces less access to finance. However, a significant negative relationship is found between the remuneration of the independent directors and capital constraints, meaning that higher remuneration yields more access to finance. The results are substantial and support both hypotheses.

The percentage of independent directors on a firm's board and their remuneration in India serve as attention grabbers for capital providers. Capital providers perceive a high percentage of independent directors as a red flag in the Indian context, which is characterised by weak protection for investors and many questions regarding the board directors' duties. However, capital providers perceive high remuneration of independent directors in the Indian context as a good sign, since it is connected to firms' profitability. This suggests that companies can use the percentage of independent directors on their board and their remuneration to manage capital providers' attention. According to the limited attention perspective, a high percentage of independent directors on a firm's board has a significant negative influence on capital providers, while those directors' remuneration has a significant positive impact. This affects access to finance for listed firms in India. I believe that our investigation gives significant insights on the attitudes of capital providers towards independent directors on the boards of companies in emerging markets.

5.5 Appendix

Appendix A. Variable definitions

Variable	Description
KZ	KZ-index for the current year.
IND	The percentage of independent directors on the board for the previous year.
IND_R	The log of the total remuneration received by an independent director on board for the previous year.
Firm size	Log of total assets of the firm for the previous year.
Industry	Classification of industry according to National Industry Classification (NIC) codes
YR	Year from 2006 to 2017

Appendix B.1 Indices' construction

KZ, following Baker et al. (2003), derived as:
KZ_{it} (five-variable) = -1.002 $CF_{it}/A_{i(t\_1)}$ -39.368 $DIV_{it}/A_{i(t\_1)}$ - 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t)}$ + 0.283$Q_{i(t)}$,

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets; $LEV_{i(t)}$ is leverage; and Q is the market value of equity (price times shares outstanding) plus assets minus the book value of equity all over assets.

KZE, based on Cheng et al. (2014), derived as:
KZE_{it} = {(1/5)*(-1.002$CF_{it}/A_{i(t_1)}$)} – {(1/5)*(39.368$DIV_{it}/A_{i(t_1)}$)} – {(1/5)*(1.315$C_{it}/A_{(it_1)}$)} + {(1/5)*3.139$LEV_{i(t)}$} + {(1/5)*0.283$Q_{i(t)}$}

I adjust the weights so that each ratio of the KZ_{it} index accounts for 1/5 of the variation in the index, with unchanging sign of the variable, just as Chang et al. (2007) adjust the weights of the four-variable KZ-index such that each variable accounts for 1/4 of the variation in the index, with unchanging sign of the variable (Cheng et al., 2014).

KZ4, based on Baker et al. (2003), derived as:
KZ_{it} (four-variable) = – 1.002 $CF_{it}/A_{i(t\_1)}$ – 39.368 $DIV_{it}/A_{i(t\_1)}$ – 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t))}$,

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets; and $LEV_{i(t)}$ is leverage.

Appendix B. 2 Descriptive statistics for the data used for computing the KZ and WW Indices

Panel A, for H1				
KZ index	N	Mean	Median	S.D
Cash Flow	5562	1291	215.7	5459
Total Assets	5562	5.560	5.431	1.710
Cash Dividends	5562	21.67	1.574	108.71
Cash	5562	109.17	3.048	605.7
Q	5562	1.963	1.579	1.264
Leverage	5562	0.296	0.302	0.178
WW index				
Cash Flow	5552	1292	215.9	5464
Cash Dividends Dummy	5552	1	1	0
Leverage	5552	0.297	0.302	0.178
Total Assets	5552	5.562	5.432	1.708
Industry Sales Growth	5552	1.028	0.120	5.765
Firms Sales Growth	5552	0.212	0.099	1.417
Panel B, for H2				
KZ index	N	Mean	Median	S.D
Cash Flow	4547	1480	255.9	5961
Total Assets	4547	5.733	5.609	1.710
Cash Dividends	4547	24.73	2.010	117.26
Cash	4547	127.38	4.179	661.8
Q	4547	1.984	1.573	1.311
Leverage	4547	0.294	0.301	0.176
WW index				
Cash Flow	4543	1480	255.9	5963
Cash Dividends Dummy	4543	1	1	0
Leverage	4543	0.294	0.301	0.177
Total Assets	4543	5.732	5.609	1.709
Industry Sales Growth	4543	1.006	0.111	6.120
Firms Sales Growth	4543	0.169	0.088	0.704

Appendix B.2 provides statistical insights into the data used for computing the KZ and WW indices. In Panel A, the KZ index shows that the cash flow has a mean of 1086 with a standard deviation of 5333, indicating a high level of variation across the sample of companies with regards to cash flow. Additionally, almost the same statistical results are shown in Panel B. Meanwhile, the firms' total assets in Panel A have a mean of 5.294; a median of 5.187 is almost the same for both panels. The cash dividends in Panel A are highly different among firms, with a mean of 16.39 and standard deviation of 91.50; almost the same result was found for Panel B. The cash mean in Panel A is 79.01, and it has high variation

across the sample; the same results were found in Panel B. The Q in Panel A has a high standard deviation, but Panel B has a lower standard deviation; this indicates that the firms in Panel B have less difference regarding Q. In Panel A, the leverage has a mean of 0.294 and a median of 0.297, and similar results apply to Panel B.

However, in Panel A, the WW index shows that the cash flow has a mean of 1087 with a standard deviation of 5336, indicating a high level of variation across the sample of companies regarding cash flow. It also shows almost the same statistical results in Panel B. The firms' cash dividends dummy in Panel A has a mean of 1 with a median of 1, which is almost the same for both panels. The leverage in Panel A is the same among firms, with a mean of 0.294 and standard deviation of 0.177, with almost the same results found for Panel B. The total mean assets in Panel A is 5.297, and there is low variation across the sample; the same results are found in Panel B. The industry sales growth in Panel A has a mean of 1.151 and a high standard deviation, which is similar to the results found in Panel B. In Panel A, the firms' sales growth has a mean of 0.219 and a median of 0.113, which is similar to the results in Panel B; however, in Panel B, the standard deviation is lower compared to Panel A.

Chapter Six: Boards' gender diversity and firms' access to finance

In this chapter, I will examine the association between boards' gender diversity and firms' access to finance for Indian listed firms. In the first section, I will present the literature on female directors on firms' boards and access to finance. Then, I will build two hypotheses to be tested in this chapter. The first will concern the relationship between female directors on firms' boards and access to finance. The second will deal with the relationship between female directors' participation in firms' board committees and firms' access to finance. Next I will present the investigation's design, including details of the sample selection process, the measurement of the variables and the model specification. Then, the empirical results will be explained in detail, starting with the descriptive statistics, followed by the regression analysis and additional analysis. Finally a discussion of the findings and an explanation of them under the scope of limited attention theory will be given.

6.1 Literature Review

Gender diversity is a topic that has attracted a great amount of attention among academics, industry leaders and politicians alike and, consequently, it is central to many debates about corporate governance (Aribi et al., 2018). Appointing women to a firm's board signals an improvement in the firm's effectiveness and its board's legitimacy (Hillman et al., 2007) and it is believed that female directors are significant in the delivery of good corporate governance (Nielsen & Huse, 2010). There are a variety of ways in which greater gender diversity in the boardroom is believed to benefit firms; for instance, Arun et al. (2015) claim that female directors are more inclined to make voluntary disclosures. Meanwhile, Gul et al. (2009) suggest that female directors are more inclined to seek out voluntary information, thereby helping to address problems with information asymmetry. Li and Zhang (2019) believe that both creativity and the quality of decisions taken in the boardroom improve when

there is greater female representation on the board, because women will adopt different viewpoints, work in different ways and have different experiences that all-male boards cannot replicate.

Indeed, there is a variety of ways in which greater gender diversity in the boardroom is believed to benefit firms. For instance, Cox (1991) asserts that appointing female directors confers a competitive advantage and Rose (2007) attributes this to the ability of female directors to help with problem solving. Meanwhile, Carter et al. (2003) establish a relationship between female directors and heightened levels of innovation and creativity. It has also been claimed that female directors are more inclined to discuss matters (Luoma, 1999), ask probing questions, engage in participatory leadership (Bilimoria et al., 2006) and help their company to adhere to ethical best practice (Williams, 2003). An investigation into the composition of boards among the Fortune 500 companies revealed that the proportion of female directors had consistently increased over time and there were signs that the skills and resources of female directors were being appreciated and valued and they were "able to break the glass ceiling" (Daily et al., 1999).

There is now a growing body of research indicating that the inclusion of female directors on the board results in improved oversight and monitoring of management actions. Carter et al. (2003) delve deeper into the diversity debate, noting that directors from any minority group (gender, culture, ethnicity) are more inclined to ask probing questions that others may overlook. There is growing consensus that female directors are more effective at monitoring management teams and appraising their efforts (Bennedsen & Meisner Nielsen, 2010). The relatively high attendance rate of female directors also infers their willingness to monitor activities (Adams & Ferreira, 2009) and is known to influence board inputs. Women are significantly more likely than men to attend board meetings but an interesting observation

is that, as the percentage of women on the board increases, the attendance of the male directors also improves. Moreover, female directors are significantly more likely to sit on committees charged with monitoring duties and are more likely to be assigned to corporate governance, audit or nominating committees. One exception, however, is compensation committees, to which women are significantly less likely to be assigned.

Moreover, studying the diversity of the boards of Turkish firms, Ararat et al. (2015) consider the extent to which the monitoring function of the board contributes to the performance of the underlying company. They argue that board diversity will enhance monitoring by helping to avoid groupthink and encouraging critical investigations. As such, they establish a link between board diversity and critical inquiries. The performance of the firms is measured using return on equity and the market-to-book equity ratio. Furthermore, a composite board diversity index is developed, comprising gender, age, nationality and level of education. Monitoring intensity is measured by a composite variable that takes into account a variety of proxies, such as the number of board committees, the level of public disclosure, the frequency with which meetings are held and the quality of the auditor. Thus, they are able to conclude that board diversity is positively related to the intensity of monitoring activities and firm performance. Crucially, monitoring activities are found to be especially important at companies with concentrated ownership.

Importantly, however, it is possible for excessive monitoring to adversely affect shareholder value (Adams & Ferreira, 2009) because of the associated cost of that monitoring, and the fact that more monitoring could be inefficient and redundant (Rediker & Seth, 1995). It is also possible that monitoring undertaken by women will be inferior in quality if they do not have the necessary expertise and knowledge (Ahern & Dittmar, 2012) or are less motivated to monitor the actions of others (Westphal, 2007). Previous research

examining companies operating in Sweden and Norway has arrived at similar conclusions, suggesting that a greater proportion of female directors is associated with companies underperforming (Du Rietz & Henrekson, 2000). Furthermore, Bohren and Strom (2010) study a sample of companies operating in Norway and find that those with a higher proportion of female directors underperform. Meanwhile, Anderson et al. (2011) conclude that board gender diversity benefits the performance of highly complex companies but the opposite is true at less complex companies.

The empirical literature has established that financial development has a significant positive effect on firms' growth, especially among companies considered to be the most deserving of funding (Beck et al., 2006). Indeed, there is an inverse association between the range of investment in strategic operations and the financial constraints on companies (Campello et al., 2010), such investment including that in research and development (Hall & Lerner, 2010), the acquiring of additional inventory (Carpenter et al., 1998), or engaging in market share pricing (Chevalier, 1995). Access to finance is associated with capital constraints (Cheng et al., 2014), which refer to restrictions on a firm's capital in relation to expansion (Lamont et al., 2001). A reduction in capital constraints positively affects a company's ability to expand and stay in business when it otherwise might not do so, by increasing its financing options.

The inclusion of female directors might affect capital constraints. Given the perception that female directors are significant in the delivery of good corporate governance (Campbell & Mínguez-Vera, 2008; Gordini & Rancati, 2017), it can be assumed that capital providers will look more favourably upon firms with gender-diverse boards. It is known that companies demonstrating good corporate governance practices attract investors who demand lower rates of return, because they appreciate the value of good quality financial reporting and lower

monitoring costs. Zhu (2014) asserts that good corporate governance lowers the risks facing creditors; consequently, they are willing to provide capital at a lower cost. This highlights the need for female directors to monitor firms' investment and management decisions actively, avoiding the negative attention of capital providers. A greater number of female directors could conceivably help to lower a firm's capital constraints and, thereby, affect its access to finance. This research applies the previous theoretical and empirical literature to develop specific hypotheses. The next subsection investigates gender representation on firms' boards from two angles: female directors' presence on boards, and female directors' participation in board committees, and their influence on a company's access to finance.

6.1.1 Hypotheses' development

The relationship between female directors on firms' boards and access to finance

It is in the interests of creditors that borrowers make all of their repayments when they are due (Akudugu et al., 2009). Capital providers consider female directors to be a vital component of firms' board composition and may pay attention to how effectively female directors perform their vital roles. It has also been observed that those firms with a higher proportion of female directors are monitored more effectively and generate significantly higher returns over the long term (Adams & Ferreira, 2009). Indeed, there is growing consensus that female directors are more effective at monitoring management teams and appraising their efforts, as well as being more transparent when disclosing information (Alves et al., 2015). This suggests that more female directors on firms' boards results in a lower likelihood that management manipulation will occur. In this sense, a greater number of female directors could indicate more reliable financial reporting, reduced earnings management, decreased cost of verifying a firm's financial information, increased trust from capital providers in these firms' financial positions, and thus greater capability to obtain financing. As a result, female directors can effectively reduce the risks to which creditors are

exposed (Adams & Funk, 2012; Levi et al., 2014). Actions of involve women in firms' board help attract additional investors and enable firms to access external funding (Adams & Ferreira, 2009), particularly in India due to its weak and insufficient investor protection and corporate governance (Narayanaswamy et al., 2012). Assuming that the gender representation on firms' boards is an element of corporate governance, it is rational to suppose that the appointment of female directors to boards will enhance corporate governance.

Based on the preceding arguments, the Indian context is characterized by weak corporate governance, having female directors on firms board might improve the corporate governance mechanisms and increase the effective at monitoring management teams. Therefore, I presume capital providers to react to firms with female directors on their boards decreasing capital constraints by increasing access to finance which decrease capital constraint, because of the vital roles female directors play on boards. Consequently, a significant positive relationship between female directors on firms' boards and the firms' access to finance is expected among the listed Indian firms. I, therefore, propose the following, first hypothesis of this chapter:

H1: There is a positive relationship between the number of female directors on a firm's board and access to finance for listed firms in India.

The relationship between female directors' participation in firms' board committees and firms' access to finance

Female directors are significantly more likely to sit on committees charged with monitoring duties and are more likely to be assigned to corporate governance, audit, nominating and compensation committees (Adams & Ferreira, 2009). Directors who work on these kinds of committees are in a position to influence strategic decisions and shape a firm's board policies (Reeb & Upadhyay, 2010). Zalata et al. (2019) state that female directors who

serve on monitoring committees mitigate managerial manipulation through discretionary accruals measurement. Female directors' more effective monitoring helps to enhance disclosure (Gul et al., 2011). Additionally, increasing firms' boards' gender diversity results in managers being more closely controlled, which in turn brings about an improvement in transparency, encourages increased communication with investors and improves disclosure. Previous research has also established that there is a positive relationship between board gender diversity, earnings quality and audit effort (Srinidhi et al., 2011). These researchers also confirm that including women on boards and audit committees increases the integrity of company reports, thereby giving investors greater assurance in the accuracy of financial data. Studying the diversity of the boards of Turkish firms, Ararat et al. (2015) consider the extent to which the monitoring function of boards contributes to the performance of the associated companies and to critical inquiry, concluding that capital providers appreciate female involvement in firms' board committees. Although India has shown less involvement of female directors (Balasubramanian & Mohanty, 2015), the Company Act 2013 forces listed Indian firms to include at least one female director on their board.

Based on the pervious arguments, in Indian listed firms show less participations of females directors, however inclusion female director on boards committees increases the integrity of company reports. The capital providers might appreciate female involvement in firms' board committees owing the fact that might increase the credibility of firm financial statements. Thus, I presume capital providers to react to firms with female directors' participation in firms' board committees by granting more finance which decreasing capital constraints. Consequently, a significant positive relationship between female directors' participation in firms' board committees and the firms' access to finance is expected among the listed Indian firms. I, therefore, propose the following, second hypothesis of this chapter:

H2: There is a positive relationship between female directors' participation in firms' board committees and access to finance for listed firms in India.

6.2 Research Design

6.2.1 Sample selection and data sources

I obtained data from the Prowess$_{dx}$ database of the CMIE, which has data for companies with stocks listed on the two stock exchanges mentioned above. The database provides necessary financial data for individual companies and supplementary background information on their operations. It has been extensively employed in the empirical literature (Aswani, Chidambaran, & Hasan, 2021; Elango & Pattnaik, 2007; Mal & Gupta, 2020; Pinto & Rastogi, 2019). The initial sample comprises 6,729 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, belonging to 18 industrial categories, for the period from 2008 to 2017. After taking a closer look, 2,214 firms in the financial industry were excluded because they have different operations, regulations and governance arrangements (Iatridis, 2018). In addition, companies were eliminated that did not disclose any information about any of the variables (Mallin et al., 2015); consequently, 3,502 firms with missing data were excluded. Therefore, the final sample comprises 1,013 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange. Table 17 illustrates the sample selection process.

Table 17 Sample selection process for female directors on boards and their participation in board committees

	Firms	Observations
Initial number of listed firms in NSE and BSE, data found in Prowess$_{dx}$ database, for the period from 2008-2017.	**6,729**	**72,398**
Less financial firms.	-2,214	-37,328
Less firms with missing values	-3,502	-30,151
Final sample	**1,013**	**4,919**

NSE is the National Stock Exchange; BSE is the Bombay Stock Exchange; Prowess$_{dx}$ is the database provided by CMIE.

6.2.2 Measurement of variables

Access to finance refers to the ability of a company to obtain financing. The inability to access finance might be "due to credit constraints or inability to borrow, inability to issue equity, dependence on bank loans, or illiquidity of assets" (Lamont et al., 2001: 529); hence, reduced capital constraints render a firm more capable of attracting financing (Cheng et al., 2014). If firms can access a finance source, this will represent a reduction in their capital constraints; therefore, the dependent variable used here is the KZ-index, a measurement of capital constraints (Baker et al., 2003; Bakke & Whited, 2010; Cheng et al., 2014). The KZ-index was developed by Kaplan and Zingales (1997) to serve as an indicator for the extent of financial constraints facing a given company. They related classifications to accounting variables using an ordered logit specification. In accordance with the approaches adopted in the empirical literature, regression coefficients are used to compose a KZ-index for each firm-year, based on a linear combination of five accounting ratios: cash holdings to capital, dividends to total capital, debt to total capital, the market-to-book ratio and cash flow to total

capital. The value of the index rises with financial constraints (Cheng et al., 2014). I follow Baker et al. (2003) by applying the same coefficients[12].

The first independent variable indicates the presence of female directors on the board, measured as the number of female directors (F) similarly to Arun et al. (2015), Aribi et al. (2018) and Srivastava et al. (2018). Second, for female participation in firm's board committees, a dummy variable equal to 1 is created if female directors are involved in any of the firm's board committees, and otherwise 0 (F_INV), similarly to Srivastava et al. (2018). The control variables are based on findings from prior research. Firm size shows the complexity of a company's operations, with larger companies being expected to have more complex operations with greater stakes involved (Andreas et al., 2012). Also, Company size has been recognised in the literature as a vital key to the financing mix (Frank & Goyal, 2009). Firm size is measured as a firm's total assets at the end of the year (Mallin et al., 2015). I incorporate both industry and year effects (Goh & Gupta, 2016). The National Industry Classification code is used to assign each company to the appropriate industry group (Industry). Appendix A presents the definitions of the variables.

6.2.3 Model specification

To test the hypotheses, the dependent variable is the KZ-index for the current year. The independent variables are the number of female directors on a firm's board and their participation in the firm's board committees in the previous year. An additional control variable, firm size is lagged by one year. The method adopted is similar to that of Caramanis and Lennox (2008), with independent variables lagged by one year to predict the dependent variables in the following year. An ordinary least squares approach is adopted to estimate Equations 1 and 2 below. To control heteroscedasticity and to address any potential cross-

[12] See Appendix B for a more detailed construction of the main and alternative capital constraint indices (KZ, WW, KZE and KZ4).

sectional dependence issues, the approach adopted by Petersen (2009) is followed, whereby standard errors are clustered. Both equations employ clustering at the firm and year level (Baboukardos, 2018) and, to avoid extreme values, the variables are winsorised at the 1st and 99th percentiles (Chang et al., 2007).

To test the main hypotheses regarding the lagged effects of female board participation on a firm's access to finance, the following equations are used:

$$KZ_{it} = \alpha_0 + \alpha_1 F_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \quad (1)$$

$$KZ_{it} = \alpha_0 + \alpha_1 F\_INV_{it-1} + \alpha_2 Firm\ size_{it-1} + \alpha_3 Industry_{it} + \alpha_4 Year_{it} + \varepsilon_{it} \quad (2)$$

where the dependent variable is the KZ-index for the current year, the independent variables are F and F_INV for the previous year, and the Firm size are lagged by one year.

6.3 Empirical Results and Discussion

6.3.1 Descriptive statistics

The descriptive statistics are presented in Table 18. This provides statistical insight into the measure used to capture the degree to which the companies experience capital constraints. The KZ-index has a mean of -0.33 with a standard deviation of 1.33, showing variation across the sample regarding capital constraints. Meanwhile, the mean value of F is 0.53, whilst that of F_INV is 0.17 and their standard deviations are 0.68 and 0.38 respectively. The mean of firm size is 5.511. This implies that listed firms in India face different status regarding capital constraints, due to high levels of difference across the sample of firms' capital constraints. Additionally, the mean and median of F is around 0.53, which implies that fewer than 1% of Indian-listed firms' boards include a female director. In addition, the average of female directors' involvement on board committees is around .017, which might indicate a low level of participation of female directors on firms' boards. Regarding correlations, the firms' capital constraints correlate to F by 0.004 and F_INV by -0.03.

However, the correlation between F and F_INV is high. Table 19 shows the correlation among the variables. Table 18 presents the correlations among the variables.

Table 18 Descriptive statistics for the final sample of female directors on boards and their participation in board committees

	N	Mean	Median	SD
KZ	4919	-0.337	-0.132	1.333
F	4919	0.535	0.000	0.687
F_INV	4919	0.175	0.000	0.380
Firm size	4919	5.511	5.390	1.714

KZ is the KZ-index for the current year; F is the number of female directors on the board; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0. Firm size is the log of total assets of the firm for the previous year.

Table 19 Correlation matrix for female directors on boards and their participation in board committees

	KZ	F	F_INV	Firm size
KZ	1			
F	0.004	1		
F_INV	-0.030	0.531	1	
Firm size	0.168	0.127	0.185	1

KZ is the KZ-index for the current year; F is the number of female directors on the board; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0. Firm size is the log of total assets of the firm for the previous year.

6.3.2 Regression analysis

This section explains the relationship between access to finance, measured by the KZ-index, and the number of female directors on a firm's board and their participation in board committees in the previous year. I control for industry and year fixed effects. Table 20 column 1 shows the application of Equation 1 and the testing of the effect of F on KZ. The coefficient of F is negative but not statically significant, suggesting that firms with more female directors on their boards not statically associate with fewer capital constraints.

The results are not support the argument that female directors on a firm's board can influence the attitudes of capital providers, thereby positively affecting access to finance, and that female directors on a firm's board signal more transparent disclosure of information,

supporting the argument of Alves et al. (2015). This suggest the appointing more female directors to a firm's board might not reduce the likelihood that management will have the opportunity to participate in earnings management, thus not increasing the credibility of financial reporting; therefore, greater numbers of female directors on boards could not encourage capital providers to have positive attitudes towards these companies. Based on these results, I cannot expect capital providers to react to an increase in female directors on a firm's board by granting more loans; hence, the results are not support H1.

Table 20 Regressions results for lagged number of female directors on boards and their participation in board committees, against a firm's access to finance

Variables	H1 (KZ)	H2 (KZ)
F	-0.052	
	(0.056)	
F_INV		-0.207**
		(0.095)
Firm size	0.103***	0.109***
	(0.028)	(0.028)
Constant	-0.602***	-0.637***
	(0.226)	(0.224)
Observations	4,919	4,919
Adj. R-sq.	0.132	0.135
Year Fixed Effects	YES	YES
Industry Fixed Effects	YES	YES

KZ is the KZ-index for the current year; F is the number of female directors on the board; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0; Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

I illustrate the application of Equation 2 in Table 20 column 2, testing the effect of F_INV on KZ, that is whether female directors' participation in firms' board committees affects the firms' access to finance. The coefficient of F_INV is negative and highly significant (-0.207, $p<0.05$), suggesting that firms with greater participation of female directors in their board committees encounter fewer capital constraints.

These results support the argument that female directors' participation in firms' board committees can influence capital providers' attitudes, positively affecting access to finance, since capital providers perceive female directors' participation as a sign of low earnings management (Zalata et al., 2019). Based on these results, I expect capital providers to react to an increase in female directors' participation by increasing the granting of loans to those firms; hence, the results support H2.

6.3.3 Additional analysis

For robustness, the KZ-index is replaced by the WW-index in Equations 1 and 2. Initially devised by Whited and Wu (2006), the WW-index offers an alternative means of gauging capital constraints[13] (Chen et al., 2017b). Column 1 in Table 21 shows that the coefficient of F is negative and significant (-0.015, $p<0.1$), suggesting that firms with more female directors on their boards encounter fewer capital constraints. Moreover, column 2 of Table 21 shows that F_INV has a coefficient that is negative and highly significant (-0.04, $p<0.01$), indicating that firms with more female directors' participation in their board committees also encounter fewer capital constraints.

[13] For further robustness, I also use two modified KZ-indices. The first is an equally weighted KZ-index (KZE) that assigns equal weight to each of the five accounting ratios. This is necessary to ensure that the weights are not the significant factor (Chang et al., 2007). In the second modified KZ-index (KZ4), Tobin's Q is dropped whilst the same coefficients are kept for the remaining four ratios (Baker et al., 2003). See Appendices C1 and C2 for the regression results.

Table 21 Regressions results for lagged number of female directors on boards and their participation in board committees, against a firm's access to finance

Variables	Model (WW)	Model (WW)
F	-0.015*	
	(0.008)	
F_INV		-0.041***
		(0.013)
Constant	-0.316***	-0.320***
	(0.037)	(0.037)
Observations	4,911	4,911
R-squared	0.210	0.211
Year FE	YES	YES
Industry FE	YES	YES

WW is the WW-index; F is the number of female directors on the board; F_INV is dummy variable equal to 1 if a female is involved in any board committee, otherwise 0.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

To address the equations' endogeneity issues, I use 2SLS regression, which is a typical remedy for endogeneity problems. 2SLS regression employs instrumental variables that are likely to satisfy the exclusion restriction (i.e., in this case being associated with female directors on firms' boards, and their participation in board committees, but not associated with the KZ-index). I follow Usman et al. (2018a, 2018b) in using the instrumental variables. I use the main independent variable lagged by one year and the industry average of the main independent variable. Columns 1 and 2, in Table 22, show that the coefficient of F is negative and not statically significant but F_INV is significantly negative.

Table 22 Additional analysis: 2SLS regressions results for lagged number of female directors on the board and their participation in board committees, against a firm's access to finance

Variables	First stage	Second stage	First stage	Second stage
F		-0.028		
		(0.074)		
L.F	0.863***			
	(0.070)			
F.M	0.278***			
	(0.098)			
F_INV				-0.275*
				(0.151)
L. F_INV			0.742***	
			(0.048)	
F.M			0.704***	
			(0.118)	
Firm size	0.008*	0.090***	0.015***	0.100***
	(0.005)	(0.030)	(0.003)	(0.031)
Constant	-0.248	-0.493**	-0.157	-0.529**
	(0.167)	(0.246)	(0.114)	(0.245)
Observations	4,050	4,050	4,050	4,050
R-squared	0.802	0.141	0.554	0.143
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

F is the number of female directors on the board; L.F is the one-year-lagged F; F.M is the industry average of the female directors in the last year; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0; L. F_INV is the one-year-lagged F_INV; F_INV.M is the industry average of the dummy for female involvement in board committees in the last year. Firm size is the log of total assets of the firm for the previous year.
***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Secondly, it is possible that the independent variable is not responsible for the KZ-index being high or low. Instead, this could be due to the characteristics of the firms. Thus, the propensity score matching (PSM) method is used to overcome this issue. I apply this method to a set of control companies, matched to the original treatment companies, where each control company has a low value for the independent variable but no other apparent differences in its characteristics (e.g. its financial condition) from the matched treatment firm that has a high value for the independent variable. Thus, firms in each pair are closely similar

to each other except for one variable (the main independent variable). The matched sample in Table 23 shows that the coefficients on both F and F_INV are not statically significantly negative.

Table 23 Additional analysis: Propensity score matching results for lagged number of female directors on the board and their participation in board committees, against a firm's access to finance

Panel A. Estimation of propensity score functions		
Variables	F_D	F_INV_D
Firm size	0.181***	0.104***
	(0.014)	(0.013)
CA/CL	-0.148***	0.007
	(0.052)	(0.044)
LEV	-0.019	-0.014
	(0.020)	(0.018)
ROA	0.124***	0.136***
	(0.041)	(0.036)
Constant	-1.059***	1.818***
	(0.182)	(0.204)
Observations	4,729	4,738
Pseudo. R2	0.13	0.23
Industry FE	YES	YES
Year FE	YES	YES

Panel B. Specifications based on alternative matching methods				
Variables	Unmatched sample	Matched sample without replacement	Unmatched sample	Matched sample without replacement
F	-0.052	-0.043		
	(0.056)	(0.057)		
F_INV			-0.207**	-0.136
			(0.095)	(0.101)
Firm size	0.103***	0.111***	0.109***	0.078**
	(0.028)	(0.030)	(0.028)	(0.039)
Constant	-0.602***	-0.608**	-0.637***	-0.799**
	(0.226)	(0.238)	(0.224)	(0.386)
Observations	4,919	4,144	4,919	1,658
R-squared	0.132	0.138	0.135	0.129
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Panel A, Probit Model: F_D is a binary variable which equals one if the firm has larger number of female board members than the sample median for the previous year; F_INV_D is a binary variable which equals one if the firm has a larger participation of its female board members than the sample median for the previous year; Firm size is the log of total assets of the firm for the previous year. LEV is the leverage ratio calculated as total liabilities divided by equity for the previous year; CA/CL is the current assets over current liabilities for the previous year; ROA is the return on assets for the previous year. Standard errors in parentheses.

Panel B, Valuation Model: KZ is the KZ-index for the current year; F is the number of female directors on the board for the previous year; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0 for the previous year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

The findings presenting week evidence that capital provider react positively to news of Indian companies appointing more female directors to their boards and female directors participating in board committees; hence, access to finance increases. This not supports the idea that female board members can influence creditors' attitudes, affecting companies' ability to access finance (Adams & Ferreira, 2009). Owing to women in the Indian context have suffered in the past from less educational involvement (Banerji et al., 2010), potentially leading to a lack of essential knowledge and expertise, that might appear to not impact capital providers' attitudes towards women's inclusion on firms' boards. In addition, this might due to female directors engage in over-monitoring, which could negativity impact the good governance of firms (Adams & Ferreira, 2009; Anderson et al., 2011), also the Indian context is characterised by inadequate corporate governance practices (Narayanaswamy et al., 2012); For example, female directors may not perform their duties as expected if they are selected by the promoters or owner, and most new female directors are associated with promoters (Duggal, 2016). Consequently, capital providers in India may not appreciate female directors on board and involvement in firms' board committees due to their vital role in mentoring and, therefore, grant such firms greater access to finance.

In line with the limited attention theory, female directors on firms' boards, and their participation in board committees, might not grab capital providers' positive attention and lead to greater access to finance; capital providers are not consider greater numbers and participation of female directors as a 'green flag' or 'red flag'. They also might not recognise this as a sign of a board's good performance, leading to reduced management manipulation and increased credibility of financial reporting. In other words, more female directors on boards, and their participation in board committees, are not likely to send a positive signal to loan officers that influences their cognitive processes through the perceived accuracy of information (Stein, 2002). Based on the limited attention perspective, it is distinctly possible

that more female directors on firms' boards, and their participation in the board committees of listed Indian firms, have not a statically significantly positive influence on lenders who are constrained by limited attention capacity, encouraging them to provide easier to access funding. For an institutional setting such as India, which provides low investor protection and weak supervision by accounting organisations, the presence of female directors on firms' boards, and their participation in board committees, could not play a vital role in increasing capital providers' trust, thereby increasing listed companies' access to finance in India.

In summary, according to the perspective of the limited attention theory, capital providers are not recognising that female directors are sufficiently knowledgeable to make a positive contribution e.g. (financial statements produced by firms with a larger proportion of female directors responsible for monitoring activities are likely to be more trustworthy (Arun et al., 2015), appointing female directors provides legitimacy to the board and signals greater effectiveness (Hillman et al., 2007) and enhanced corporate governance (Nielsen & Huse, 2010)). In turn, capital providers' perceptions will not lead to more access to finance for Indian listed firms with female directors.

6.3.4 Sub-sample

Because Chapters 4 and 5 indicate that certain variables, namely audit, non-audit fees, percentage of independent directors on a firm's board and their remunerations, significantly affect firms' capital constraints, it is important to control for these in Chapter 6. Consequently, I have added a sub-section where I keep only the sub-sample of firms for which I have data for the tests conducted in Chapters 4, 5 and 6. With this data, I repeat the analysis in Chapter 6 by including the key variables of interest used in Chapter 4 (e.g., ln AF, ln NAF, IND and IND_R). Therefore, the following equations are used:

$$KZ_{it} = \alpha_0 + \alpha_1 F_{\ it-1} + \alpha_2 \ln AF_{it-1} + \alpha_3 \ln NAF_{it-1} + +\alpha_4 IND_{\ it-1} + \alpha_5 IND\_R_{\ it-1} + \alpha_6 Firm\ size_{it-1} + \alpha_7 Industry_{it} + \alpha_8 Year_{it} + \varepsilon_{it} \quad (3)$$

$$KZ_{it} = \alpha_0 + \alpha_1 F\_INV_{\ it-1} + \alpha_2 \ln AF_{it-1} + \alpha_3 \ln NAF_{it-1} + +\alpha_4 IND_{\ it-1} + \alpha_5 IND\_R_{\ it-1} + \alpha_6 Firm\ size_{it-1} + \alpha_7 Industry_{it} + \alpha_8 Year_{it} + \varepsilon_{it} \quad (4)$$

where the dependent variable is the KZ-index (KZ) for the current year, and the independent variables, F and F_INV, are lagged by one year, as are the control variables.

The results of Table 24 show weak evidence to approve and support both hypotheses: a positive relationship between female directors on firms' boards and access to finance for listed Indian firms, and a positive relationship between female directors' participation in firms' board committees and the firms' access to finance. This is consistent with the previous findings mentioned earlier in this chapter.

Table 24 Results of regressing lagged percentage of independent directors on the board and their remuneration on a firm's access to finance

Variables	Model (KZ)	Model (KZ)
F	0.042	
	(0.074)	
F_INV		-0.062
		(0.108)
IND	0.633	0.619
	(0.394)	(0.393)
IND_R	-0.175***	-0.172***
	(0.044)	(0.044)
ln AF	-0.030	-0.030
	(0.069)	(0.069)
ln NAF	-0.104**	-0.103**
	(0.044)	(0.044)
Firm size	0.264***	0.267***
	(0.063)	(0.063)
Constant	0.147	0.136
	(0.422)	(0.418)
Observations	2,158	2,158
R-squared	0.194	0.194
Year FE	YES	YES
Industry FE	YES	YES

KZ is the KZ-index for current year; F is the number of female directors on the board; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0; IND is the percentage of independent directors on the board for the previous year; IND_R is the log of remuneration received by an independent member for the previous year; ln AF is the log of the audit fees for the previous year; ln NAF is the log of the non-audit fees for the previous year; Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

6.4 Conclusions

This study investigates capital providers' attitudes toward boards' gender diversity (female directors on firms' boards and their participation in board committees) in India's listed companies, providing significant insights. While gender diversity can be costly in terms of over monitoring (Adams & Ferreira, 2009), it can also influence capital providers' decisions, leading to greater access to finance.

Data were drawn from the Prowess$_{dx}$ database, consisting of an unbalanced panel dataset of 1,013 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, across 18 industry categories, totalling 4,919 observations between 2008 and 2017. Based on the KZ-index as a measure of capital constraints, the investigation indicates a significant and negative relationship between the number of female directors on firms' boards and their participation in firms' board committees, and capital constraints, or a positive relationship with access to finance. The results are not statically significant and not support both hypotheses: a positive relationship between female directors on firms' boards and access to finance for listed Indian firms, and a positive relationship between female directors' participation in firms' board committees and the firms' access to finance.

Female directors on firms' boards and their participation in board committees might not serve as 'attention grabbers' for capital providers in India. The providers may not perceive greater numbers of female directors on boards, and their participation in board committees, as a 'green flag' in the Indian context, which is characterised by weak protection for investors and many questions regarding the duties of board directors and the impact of female directors on boards. This study shows a weak evidence that female directors on boards, and their participation in board committees, can be used by companies to attract the positive attention of capital providers; therefore, by employing the limited attention perspective, the study has could not confirmed that more female directors on firms' boards, and their participation in board committees, have a significant, positive influence on capital providers who are constrained by limited attention capacity. In turn, female directors on firms' boards, and their participation in board committees may not lead to better access to finance for listed companies in India.

6.5 Appendix

Appendix A. Variable definitions

Variables	Description
KZ	KZ-index for the current year.
F	The number of female directors on the board.
F_INV	Dummy variable equal to 1 if a female is involved in any board committee, otherwise 0.
Firm size	Log of total assets of the firm for the previous year.
Industry	Multiple dummy variable based on 18 industries, according to National Industry Classification (NIC) codes.
Year	Multiple dummy variable based on the 10 years under investigation, 2008-2017.

Appendix B.1 Indices' construction

KZ, following Baker et al. (2003), derived as:

KZ_{it} (five-variable) = -1.002 $CF_{it}/A_{i(t\_1)}$ -39.368 $DIV_{it}/A_{i(t\_1)}$ - 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t)}$ + 0.283$Q_{i(t)}$,

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets; $LEV_{i(t)}$ is leverage; and Q is the market value of equity (price times shares outstanding) plus assets minus the book value of equity all over assets.

WW, based on Whited and Wu (2006), derived as:

$WW = (-0.091 * CF) - (0.062 * DIVPOS) + (0.021 * TLTD) - (0.044 * LNTA) + (0.102 * ISG) - (0.035 * SG)$,

where CF is the ratio of cash flow to total assets; DIVPOS is an indicator that takes the value of 1 if the firm pays cash dividends; TLTD is the ratio of the long-term debt to total assets; LNTA is the natural log of total assets; ISG is the firm's three-digit industry sales growth; and SG is firm sales growth.

KZE, based on Cheng et al. (2014), derived as:

$KZE_{it} = \{(1/5)*(-1.002CF_{it}/A_{i(t\_1)})\} - \{(1/5)*(39.368DIV_{it}/A_{i(t\_1)})\} - \{(1/5)*(1.315C_{it}/A_{(it\_1)})\} + \{(1/5)*3.139LEV_{i(t)}\} + \{(1/5)*0.283Q_{i(t)}\}$,

I adjust the weights so that each ratio of the KZ_{it} index accounts for 1/5 of the variation in the index, with unchanging sign of the variable, in the same way that Chang et al. (2007) adjust the weights of the KZ (4 variables) index, so that each variable accounts for (1/4) of the variation in the index, with unchanging sign of the variable (Cheng et al., 2014).

KZ4, based on Baker et al. (2003), derived as:

KZ_{it} (four-variable) = $-$ 1.002 $CF_{it}/A_{i(t\_1)}$ $-$ 39.368 $DIV_{it}/A_{i(t\_1)}$ $-$ 1.315 $C_{it}/A_{(it\_1)}$ + 3.139$LEV_{i(t)}$,

where $CF_{it}/A_{i(t\_1)}$ is cash flow over lagged assets; $DIV_{it}/A_{i(t\_1)}$ is cash dividends over lagged assets; $C_{it}/A_{(it\_1)}$ is cash balances over lagged assets and $LEV_{i(t)}$ is leverage.

Appendix B. 2 Descriptive statistics for the data used for computing the KZ and WW Indices

Panel A, for H1				
KZ index	N	Mean	Median	S.D
Cash Flow	4919	1341	226.7	5635
Total Assets	4919	5.627	5.523	1.732
Cash Dividends	4919	22.12	1.569	110.15
Cash	4919	123.03	4.499	642.8
Q	4919	1.952	1.560	1.284
Leverage	4919	0.297	0.303	0.179
WW index				
Cash Flow	4911	1343	227.2	5639
Cash Dividends Dummy	4911	1	1	0
Leverage	4911	0.297	0.303	0.178
Total Assets	4911	5.628	5.525	1.730
Industry Sales Growth	4911	1.089	0.096	6.119
Firms Sales Growth	4911	0.189	0.079	1.471

Appendix B.2 provides statistical insights into the data used for computing the KZ and WW indices. The KZ index shows that cash flow has a mean of 1341 with a standard deviation of 5635, indicating a high level of variation across the sample of companies in regards to cash flow. Meanwhile, the firms' total assets have a mean of 5.627 with a median of 5.523. The cash dividends are highly different among firms, with a mean of 22.12 and standard deviation of 110.15. The cash mean is 123.03, and it has a high level of variation across the sample. The Q has a mean of 1.952 and leverage has a mean of 0.297 and a median of 0.303. However, the WW index shows that cash flow has a mean of 1343 with a standard deviation of 5639, indicating a high level of variation across the sample of companies regarding cash flow. The firms' cash dividends dummy in Panel A has a mean of 1 with a median of 1. The leverage of firms has a mean of 0.297 and a standard deviation of 0.303. The total assets mean is 5.628. The industry sales growth has a mean of 1.089 and a high standard deviation. The firms' sales growth has a mean of 0.189 and a median of 0.079.

Appendix C1. Additional analysis: F and different capital constraints indices

VARIABLES	KZE	KZ4
F	-0.010	-0.079
	(0.011)	(0.065)
Firm size	0.021***	0.119***
	(0.006)	(0.031)
Constant	-0.120***	-1.112***
	(0.045)	(0.245)
Observations	4,919	4,919
R-squared	0.132	0.137
Year FE	YES	YES
Industry FE	YES	YES

KZE is the equal-weighted KZ-index; KZ4 is the KZ-index using four ratios for the current year; F is the number of female directors on the board; Firm size is the log of total assets of the firm for the previous year. ***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Appendix C2. Additional analysis: F_INV and different capital constraints indices

VARIABLES	KZE	KZ4
F_INV	-0.041**	-0.274**
	(0.019)	(0.109)
Firm size	0.022***	0.126***
	(0.006)	(0.031)
Constant	-0.127***	-1.161***
	(0.045)	(0.242)
Observations	4,919	4,919
R-squared	0.135	0.141
Year FE	YES	YES
Industry FE	YES	YES

KZE is the equal-weighted KZ-index; KZ4 is the KZ-index with four ratios for current year; F_INV is a dummy variable equal to 1 if a female is involved in any board committee, otherwise 0. Firm size is the log of total assets of the firm for the previous year.

***, ** and * denote statistical significance at the 1%, 5% and 10% level respectively. Two-way-clustered (by firm and year) standard errors are shown in parentheses.

Chapter Seven: Conclusion

7.1 Introduction

Without financing, many firms will struggle to survive and grow. Therefore, having access to financing is a vital factor for a firm's success. As such, firms try to grab the positive attention of capital providers in order to maintain better access to finance. On the other hand, capital providers evaluate firms' characteristics, financial statements and corporate governance when firms request financing. This is because the capital providers want to ensure the firms will pay their debts. As such, many researchers try to understand and explore the factors that influence the decisions of capital providers. The prior literature finds some factors that may play a role in access to finance; audit quality, independent directors on firms' boards and gender diversity among the board members are important factors that may impact creditors' financing decisions. This thesis aims to explore these factors in the Indian context.

I chose India as the context of this study for several reasons. India's widespread economic growth/development has rendered it an increasingly important actor on the world stage. India is the world's second-most-populous country (CIA, 2020), one of the world's five largest economies (International Monetary Fund, 2018), a member of the Group of Twenty (G20) countries, and one of the world's fastest-developing and -growing economies (Banerjee et al., 2004). Moreover, India's stock market was founded in 1875, making it one of the oldest in the world (Dharmapala & Khanna, 2013). Yet, India suffers from low protection for investors, high corruption and a weak judicial system. These contradictions in the institutional setting of India make it unique and worth examining. It is also important to understand the main factors that influence the decisions of capital providers over whether or not to provide finance. As such, this study seeks to understand how audit quality, the

presence of independent directors on firms' boards and gender diversity among the board members impact creditors' financing decisions in India.

In order to understand the influence of these factors, quantitative data were collected. I obtained data from the Prowess$_{dx}$ database of the Centre for Monitoring of Indian Economy (CMIE), which contains data for companies with stocks listed on the Mumbai Stock Exchange of India and the National Stock Exchange of India. The firms whose data I collected belong to 18 industrial categories. The database provides the necessary financial data for individual companies and supplementary background information on their operations. Prowess$_{dx}$ is an extensive database that provides statistics for companies operating in India and has been extensively employed in the empirical literature (Elango & Pattnaik, 2007). It is important to mention that firms in financial industries were excluded because they have different operations, regulations and governance arrangements (Iatridis, 2018). It is also worth noting that each empirical chapter is based on a different sample due to the availability in Prowess$_{dx}$ of the information needed to perform the empirical tests. This will be explained further in the following sections.

The remaining of this chapter presents the key findings, discussions and contributions of our thesis. Section 7.2 presents and summarises the key findings of Chapter 4, section 7.3 those of Chapter 5 and section 7.4 those of Chapter 6. Following that, the contributions and implications of this thesis will be provided and the limitations discussed. Finally, future research avenues will be suggested.

7.2 Audit Quality and Access to Finance

Chapter 4 aims to explore how capital providers price audit elements when evaluating firms. Since audits serve to approve the credibility of firms' financial reporting (Alzoubi, 2018), capital providers might pay much attention to audit quality. Thus, I aim to find the relationship between access to finance and audit quality in listed Indian firms. I measure audit quality by audit fees and non-audit fees. Thus, in this chapter, I explore two relationships: that between audit fees and access to finance for listed Indian firms; and that between non-audit fees and access to finance by reducing their capital constraints. I measure access to finance by firms' capital constraints and I propose the following two hypotheses:

H1: A positive relationship exists between audit fees and access to finance for listed Indian firms.

H2: A positive relationship exists between non-audit fees and access to finance for listed Indian firms.

The sample used to test H1 comprised 971 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, belonging to 18 industrial categories (Panel A). Panel B, used to test H2, consisted of 649 companies. Both panels included data for non-financial companies for the period from 2002 to 2017.

The results show that the two factors play a significant role in firms' access to finance. There is a significant positive relationship between audit fees and access to finance, and between non-audit fees and access to finance. This means that audit and non-audit fees paid by listed Indian firms grab a lot of attention from capital providers, and that the capital providers in India see high audit and non-audit fees as a green flag providing confidence about the credibility of the information provided in the firms' financial statements. The

reason behind this might be that there are some concerns about accounting organisations' reliability in fulfilling their obligations toward audit frim errors (Chakrabarti, 2005) and weak protection for investors (Narayanaswamy et al., 2012).

Following the limited attention perspective, high audit and non-audit fees have a significantly positive effect on capital providers who are constrained by limited attention capacity. Thus, high fees of this kind lead to more access to finance for listed companies in India. The findings show that the KZ-index for capital constraints shows a significant negative relationship with audit and non-audit fees, implying increased access to finance for those firms paying higher fees. The results support both hypotheses: there exists a positive relationship between audit fees and access to finance for listed Indian firms and a positive relationship between non-audit fees and access to finance.

7.3 Independent Directors on Boards and Access to Finance

Chapter 5 explores how capital providers in India value the independence of the board when assessing firms. A firm's board of directors is responsible for overseeing the executive management. Managers have an incentive to manipulate financial information, either to avoid breaching loan covenants, or for personal gain if it triggers the payment of bonuses (Dechow et al., 1996). A higher presence of independent members on boards indicates better corporate governance, more oversight of management and financial information, and higher independence of auditors. However, there are concerns surrounding the ineffective role of independent directors in India due to the characteristics of the Indian context (e.g., the hiring of independent directors by firms' management and thus potentially friendly relationships between the two). Therefore, I aim to explore the relationship between the percentage of independent directors on the board and access to finance. I propose the following hypothesis:

H1: There is a negative relationship between the percentage of independent members on a firm's board and access to finance for listed firms in India.

The second relationship that I look at is that between the remuneration of independent directors and access to finance. Capital providers may interpret the remuneration paid to independent directors in one of two ways: either that exaggerated remuneration packages may hinder the independence of directors (e.g. Goh & Gupta, 2016), or that the high remuneration reflects their efforts and time spent on the firms' boards (Adams & Ferreira, 2008). Therefore, this study aims to grasp how the capital providers in India perceive the remuneration of independent directors. To examine this relationship, I hypothesise as follows:

H2: There is a positive relationship between the remuneration of independent directors and access to finance for listed firms in India.

The sample for this chapter consisted of companies from 18 industrial categories listed on the Mumbai Stock Exchange of India and the National Stock Exchange, covering the period from 2006 to 2017. The sample used to test H1 comprised 1,054 Indian listed firms and that used to test H2 consisted of 894 firms.

Regarding the first hypothesis, I find a substantial positive relationship between the percentage of independent directors and capital constraints, and thus a negative relationship between the percentage of independent directors and access to finance. In other words, capital providers in India perceive a high percentage of independent directors as a 'red flag' in the Indian context. The reason behind that might be that the independent directors' independence exists only on paper. This is supported by the findings of a prior study conducted by Bhatt and Bhattacharya (2015), who argue that managers nominate independent directors to maintain control over the firm. This may be attributed to the reality that appointing

independent board members is a novel practice in the Indian context (Arora & Sharma, 2016).

Interestingly, with respect to the second hypothesis, I find there is a significant negative relationship between the remuneration of independent directors and capital constraints, implying a positive relationship with access to finance. This means that capital providers perceive high remuneration of independent directors in the Indian context as a good sign. There are some explanations behind this relationship, even though capital providers might not consider independent director remuneration as a characteristic of independent directors. The remuneration of independent directors is connected to the firm's profitability and sitting fees (the effort of the directors) (Naaraayanan & Nielsen, 2016). Therefore, the independent directors' remuneration might be perceived by capital providers as demonstrating firms' prospective profitability and enhanced activity of the board, which would affect firms' likelihood of producing profits and continuing to exist in the market. Following the limited attention theory, a high percentage of independent directors on a firm's board has a significant negative influence on capital providers who are constrained by a limited attention capacity, but their remuneration has a significant positive impact.

7.4 Boards' Gender Diversity and Access to Finance

The purpose of Chapter 6 is to examine how capital providers evaluate gender diversity when assessing whether to provide financing to a firm. A higher presence of women on the board of directors is assumed to improve the governance of a firm (Campbell & Mínguez-Vera, 2008; Gordini & Rancati, 2017). This is because women are thought to improve the oversight and monitoring of management actions (Carter et al., 2003) and encourage firms to follow ethical best practice (Williams, 2003). It is also suggested that female board members improve voluntary disclosure (see, for example, Gul et al., 2009; Alves et al., 2015; Arun et

al., 2015), and put in more effort and have higher attendance rates (Adams & Ferreira, 2009). This implies their willingness to engage in monitoring activities, and suggests they are better at organising board meetings than men (Huse & Solberg, 2006). Additionally, having a more heterogeneous board makes it more likely that it will provide more diverse solutions and opinions on issues. Therefore, I expected that capital providers would perceive the presence of women on the board as a sign of better governance, and I hypothesised a positive relationship between access to finance and the number of female directors on the board.

The board of directors is comprised of committees considered to be a significant aspect of the governance process. Therefore, it is important that these committees are created properly since the board regularly allocates duties to them to more effectively manage specialised or complex matters. The main task of the committees is to provide recommendations to the board, and the appointment of the right committee members will allow the board to accomplish its duties efficiently. Researchers in governance find that, when female directors participate in a board's committees, particularly monitoring committees (e.g. the audit committee), it reduces managerial manipulation (Zalata et al., 2019) and increases the integrity of company reports (Srinidhi et al., 2011). Therefore, I believe that the presence of women on a board's committees will be appreciated by capital providers, and I hypothesise a positive relationship between female directors' participation in firms' board committees and access to finance for listed firms in India.

In order to test my hypotheses in this chapter, I again collected data from the Prowess$_{dx}$ database. This consisted of an unbalanced panel dataset of 1,013 companies listed on the Mumbai Stock Exchange of India and the National Stock Exchange, across 18 industry categories, totalling 4,919 observations between 2008 and 2017.

The results show a weak evidence of the negative relationship between both the number of female directors on firms' boards and their participation in board committees, and capital constraints, suggesting that greater female participation implies better access to finance by reducing their capital constraints. The results are not consistence and weak to support both hypotheses: a positive relationship between the presence of female directors on firms' boards and access to finance for listed firms in India, and a positive relationship between female directors' participation in board committees and firms' access to finance. Under the limited attention theory, this study not supports that more female director on firms' boards and their participations in board committees have a significant, positive influence on capital providers who are constrained by limited attention capacity. This could not lead to better access to finance for listed companies in India that appoint women to such positions. The presence of female directors on firms' boards and their participation in board committees in India not grabbing the capital providers' attention positively. Capital providers are not perceive greater female representation on the board of directors and participation in board committees as positive signs of a firm's board performance, this might due to that India experiences widespread gender inequality (Raju, 2014), which impacts the capital providers perception toward female representation in such positions.

7.5 Contributions

This research makes numerous contributions to the current literature and has significant theoretical implications. Although most previous literature focuses on advanced economies when investigating access to finance (Aryeetey, 1998; Beck et al., 2006), little research has been conducted in emerging economies. Developing economies have many different features to advanced economies (e.g. infrastructure, political systems and financial systems). For instance, developing economies have low protection for shareholders and investors (United Nations Conference on Trade and Development, 2010) and weak capital markets (Claessens

& Yurtoglu, 2013). India provides a unique example of an emerging market economy. For instance, India has unusually high family control (Houqe et al., 2017) and corruption (World Justice Project, 2016), while ranking as one of the largest economies in the world. Therefore, this research closes existing gaps by presenting evidence of capital providers' perceptions in the unique context of India's emerging market.

Although many investigations have been conducted in developed economies (mainly the US) on auditing and finance (Larcker & Richardson, 2004; Srinidhi & Gul, 2007; Dhaliwal et al., 2008; Nam & Ronen, 2012), the research conducted in India raises many doubts about the quality of audit services, even those provided by big accounting firms (Joshy et al., 2015). India also experiences weak actions taken by professional accounting organisations against poor or faulty auditing (Chakrabarti, 2005). Therefore, the first contribution of this thesis is exploring capital providers' attitudes towards audit quality in listed Indian firms (Chapter 5).

Most of the previous research analysing the relationship between independent directors and finance has also been conducted in the US economy (e.g. Sengupta & Bhojraj, 2003; Anderson et al., 2004a; Ertugrul & Hegde, 2008). Yet, this relationship might be different in other contexts (Lorca et al., 2011). In addition, there are some concerns about the independence of independent directors in India (Bhatt & Bhattacharya, 2015). Thus, the current investigation's purpose is to fill this gap by offering evidence from the Indian context to reveal the perspective of capital providers on the percentage of independent directors and their remuneration in Indian listed firms. Consequently, the second contribution of this research is its investigation of the impact of independent directors and their remuneration on a company's ability to access finance in India (Chapter 6).

Little attention has been paid to understanding the role of gender diversity in firms' boards (Arun et al., 2015). The existing literature on the association between gender and finance has predominantly been conducted in developed economies, for instance, Adams and Ferreira (2009) and Li and Zhang (2019) in the US and Arun et al. (2015) in the UK. However, in developing economies, this relationship might be different because corporate governance often falls short in emerging markets (Liedong & Rajwani, 2018). Also, Indian women often suffer from gender discrimination (Jadiyappa et al., 2019). Therefore, the current research helps to seal this gender gap by showing the attitude of capital providers towards the number of female directors on firms' boards and their participation in board committees in India. This will hopefully encourage firms to enhance female director's role on boards, thereby increasing firms' access to finance. Thus, the third contribution of this thesis is the finding that the presence of female directors on companies' boards affects those companies' ability to access finance in India (Chapter 7).

The final contribution of this thesis is its theoretical contribution. Previous research on access to finance has applied the agency theory to explain the findings (see, e.g., Sengupta & Bhojraj, 2003; Filatotchev & Wright, 2011; Barroso et al., 2018). Pecking order theory has also been used in previous investigations to explain access to finance (see, e.g. Hernandez-Nicolas et al., 2015; Benkraiem et al., 2018). However, due to the use of the unique context of India in this investigation, I believed that using a new theoretical framework would provide new findings. Consequently, this research aimed to extend our understanding of the phenomenon of access to finance by employing limited attention theory. Therefore, it has attempted to offer an alternative interpretation of the associations between a firm's financial constraints and audit and non-audit fees (Chapter 5), the percentage of independent directors on a firm's board and their remuneration (Chapter 6), and female directors on a firm's board and their participation in board committees (Chapter 7). To the best of my knowledge, no

other investigations have previously employed limited attention theory in this context. Previous studies have used this theory to explain investors' attention (Hirshleifer & Teoh, 2003; Hirshleifer et al., 2004; Barber & Odean, 2008) or debtors' attention towards advertising expenses (Ding et al., 2017). Consequently, this research expands the application of limited attention theory to understand capital providers' attention paid towards audits, independent directors on firms' boards and gender diversity on firms' boards in India.

7.6 Implications

My empirical results have several implications for regulators, policymakers, companies, investors and practitioners. For regulators and policymakers, the results about independent board members and access to finance reveal that capital providers do not value the presence of independent directors on firms' boards. This may imply that capital providers in India believe that independent directors are not truly independent. In other words, the companies may only be symbolically complying with the regulations on independent board members without actually implementing the regulations effectively. In this case, the companies may be deceiving the shareholders and stakeholders, who may not have a strong knowledge of corporate governance. Examining the history of several financial frauds and crises, there is one main common factor, which is that the independent board members have not really been independent. Therefore, I highly advise regulatory bodies and policymakers in India and other emerging countries to work proactively to strengthen the requirements on firms' independent board members and ensure they are truly independent. I also recommend that investors pay considerable attention when evaluating firms, particularly in regard to corporate governance practice and independent board members. I recommend that firms appoint members of the board who are independent in reality and not just in appearance. This is because these members will eventually work for the benefit of the firms by providing more oversight of the management. More importantly, it is highly recommended that Indian firms

try to apply the best corporate governance practices in order to grab international investors' attention. This is because international investors take corporate governance very seriously (Hassan et al., 2018) and could pay a premium of 12–14% to companies that apply best governance practices. For individual investors and shareholders, I highly recommend that they play an active role by participating in the general assembly, electing and voting for the right, truly independent board members.

In addition, the results from the examination of the remuneration of independent board members and access to finance imply that capital providers appreciate higher payment of independent members of firms' boards. This suggests that the capital providers in India do not see independent board members' remuneration as a threat to their independence. Indeed, the remuneration of independent directors might be a signal of a firm's profitability and the activity of the board members, since this remuneration contains a percentage of the annual profit and the sitting fees. In this sense, regulators in India should issue and apply regulations to reduce any potential doubt in regards to the economic bond between the board of directors and firms' management. The major growth of the Indian economy is enticing many international investors, and it is important that these investors' investments are protected.

Regarding the audit quality results, I find that capital providers price audit quality based on audit and non-audit fees. This may indicate that capital providers aim to ensure the integrity of financial information and that good controls are in place in firms, as this increases the likelihood that they will repay their debts. Therefore, I recommend that firms do not hesitate to pay for auditors and non-auditing services, as this will convey a positive signal to capital providers and other stakeholders. I advise regulators to encourage firms to invest and pay to get better auditing, as this will improve their access to finance, the integrity and credibility of their financial reporting, and eventually their image among their competitors. I

also recommend that the regulators take steps to improve the auditing profession since the capital providers, the most knowledgeable stakeholders, pay attention to audit quality. For the investors, I would advise them to invest in firms with high-quality auditing and in firms that pay to improve their financial statements.

In terms of gender diversity, our results indicate that the government need to take more steps to promote equality between men and women. This is especially important in Indian society, which is largely male-dominated and characterised by gender discrimination. As such, the Indian government should take further steps and issue more regulations to promote the advantages of the presence of female directors on boards. For instance, instead of forcing listed firms to have at least one female director on the board, women should comprise at least a third of the board. India should follow the examples of other countries that have taken similar measures. For instance, in Norway, firms are required to have at least 40% female board members (Bohren & Strom, 2010). In addition, investors might need to investigate more when before investing in firms whose boards contain female members. Another implication is that other countries in emerging market contexts might apply the same tactic, thereby encouraging greater gender equality in their own contexts to obtain the real benefits of gender diversity on firms' board. Therefore, I highly recommend that firms in India and other countries appoint more female directors to serve on their boards.

7.7 Limitations and Directions for Future Research

Like all studies, our research contains limitations that could provide useful avenues for future research. Although India provides a strong example of an emerging market context, this study's hypotheses and the results of the tests might not be generalizable to other emerging countries, such as China, due to their different financial systems. Therefore, I invite

researchers and practitioners to replicate this study in different contexts and compare the results.

One main limitation of this research is that data availability prevented me from controlling for important elements, such as family ownership; I believe this variable might enhance the research results by highlighting the impact of family ownership on access to finance, particularly in environments suffering from the unique control of family groups compared to other developing contexts (Houqe et al., 2017). This variable may also affect the quality of corporate governance mechanisms in listed Indian firms. For example, the controlling privileges of family groups afford them influence over the selection of the independent members of the board (Kumar & Singh, 2012). Therefore, the research does not show how the capital providers perceive the family groups. Additionally, it might enhance the results of this research if we had access to other corporate governance variables, which would show the degree of governance effective in Indian-listed firms, such as CEO-Chair duality and characteristics of the board committees. This may capture better insights into the capital providers' attitude toward Indian corporate governance, especially if the standard of corporate governance in India lags behind (Bhatt and Bhattacharya, 2015). In addition, in this research, I follow Cheng et al. (2014) by employing tests that do not use any control variables beyond size for the KZ index and no control variable for the WW index; however, recent related literature does consider control variables (Sun et al., 2020; Tsai et al., 2021), which might enhance the results of this research and capture more insights relating to access to finance. Moreover, this research focuses on the key dependent variable (KZ index) for the late 1990s, and the WW index is employed for the mid-2000s. However, the latest index, e.g., the SA index, from 2010 has not been used due to data availability; this might give more strength to research results. Finally, this research does not use other capital constraints

indicators, such as cost of loan (Beladi et al., 2018), which would provide a different angle to support the findings of this research.

As avenues for future research; this study is that it only covers the listed firms in India. This highlights an opportunity for researchers to extend this investigation to unlisted firms in India, with the same hypotheses, to develop a better understanding of the three factors discussed in this study. Also, this study only explores the impact of independent board members, board diversity and audit quality on access to finance. Hence, further research is urgently needed to explore other important factors which may influence access to finance. These factors include auditor specialisation, audit tenure, other characteristics of the members of the board of directors (e.g., directors' educational qualifications, tenure and age) and of the board committees. I highly recommend that researchers explore the impact of audit committee characteristics (size, meetings, independence, gender, etc.) on access to finance. This is because the audit committee is considered one of the most important elements of corporate governance since it is responsible for financial reporting, external auditors and internal auditors. A similar argument could be made for the risk committee. It would also be interesting to conduct a qualitative study, including interviews or surveys of capital providers to investigate their perceptions of the major factors that influence their decisions about providing finance. More importantly, future research should aim to understand capital providers' points of view regarding independent board members to try to understand the results of our study in this area. This kind of study could substantially help us to understand the business environment in India and other countries.

Bibliography

Abbott, L. J., Parker, S., & Peters, G. F. (2006). Earnings management, litigation risk, and asymmetric audit fee responses. *Auditing: A Journal of Practice & Theory*, *25*(1), 85–98.

Adams, R. B., & Ferreira, D. (2008). Do directors perform for pay? *Journal of Accounting and Economics*, *46*(1), 154–171. https://doi.org/10.1016/j.jacceco.2008.06.002

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, *94*, 291–309. https://doi.org/10.1016/j.jfineco.2008.10.007

Adams, R. B., & Funk, P. (2012). Beyond the Glass ceiling: Does gender matter? *Management Science*, *58*(2), 219–235. https://doi.org/10.1287/mnsc.1110.1452

Agrawal, A., & Chadha, S. (2005). Corporate governance and accounting scandals. *The Journal of Law and Economics*, *48*(2), 371–406.

Agarwal, N., Milner, C., & Riaño, A. (2014). Credit constraints and spillovers from foreign firms in China. *Journal of Banking and Finance*, *48*, 261–275. https://doi.org/10.1016/j.jbankfin.2014.01.036

Aghion, P., Fally, T., & Scarpetta, S., (2007). Economic policy credit constraints as a barrier to the entry and post-entry growth of firms. *Economic Policy*, *22* (52), 732-779.. Retrieved from https://academic.oup.com/economicpolicy/article-abstract/22/52/732/2918761

Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, *127*(1), 137-197 . https://doi.org/10.1093/qje/qjr049

Ahluwalia, M. S. (2000). Reforming India's financial sector: An overview. *India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi*.

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research*, *43*(3), 343–376. https://doi.org/10.1111/j.1475-679x.2005.00174.x

Akudugu, M. A., Egyir, I. S., & Mensah-Bonsu, A. (2009). Women farmers' access to credit from rural banks in Ghana. *Agricultural Finance Review*, *69*(3), 284–299. https://doi.org/10.1108/00021460911002671

Al-Hiyari, A. (2017). A critical review of corporate governance reforms in Malaysia. *Journal of Governance and Regulation.*, *6*(1), 38–44. https://doi.org/10.22495/jgr

Allen, M. F., Linville, M., & Stott, D. M. (2005). The effect of litigation on independent auditor selection. *American Journal of Business*, *20*(1), 37–45. https://doi.org/10.1108/19355181200500004

Alrashidi R, Baboukardos D, Arun T. Audit fees, non-audit fees and access to finance: Evidence from India. Journal of International Accounting, Auditing and Taxation. 2021 Jun 1;43:100397.

Al-Shaer, H., & Zaman, M. (2019). CEO compensation and sustainability reporting assurance: Evidence from the UK. *Journal of Business Ethics*, *158*(1), 1–20. https://doi.org/10.1007/s10551-017-3735-8

Alsos, G.A. and Ljunggren, E., 2017. The role of gender in entrepreneur–investor relationships: A signaling theory approach. *Entrepreneurship Theory and Practice*, *41*(4), pp.567-590.

Alves, P., Couto, E. B., & Francisco, P. M. (2015). Board of directors' composition and capital structure. *Research in International Business and Finance*, *35*, 1–32. https://doi.org/10.1016/j.ribaf.2015.03.005

Alzoubi, E. (2016). Audit quality and earnings management: Evidence from Jordan. *Journal of Applied Accounting Research*, *17*(2), 170–189.

Alzoubi, E. (2018). Audit quality, debt financing, and earnings management: Evidence from Jordan. *Journal of International Accounting, Auditing and Taxation*, *30*, 69–84. https://doi.org/10.1016/j.intaccaudtax.2017.12.001

Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004a). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, *37*(3), 315–342. https://doi.org/10.1016/j.jacceco.2004.01.004

Anderson, R. C., Reeb, D. M., Upadhyay, A., & Zhao, W. (2011). The economics of director heterogeneity. *Financial Management*, *40*(1), 5–38. https://doi.org/10.1111/j.1755-053X.2010.01133.x

Anderson, U., Kadous, K., & Koonce, L. (2004b). The Role of Incentives to Manage Earnings and Quantification in Auditors' Evaluations of Management-Provided Information. *Auditing: A Journal of Practice & Theory*, *23*(1), 11–27.

Andreas, J. M., Rapp, M. S., & Wolff, M. (2012). Determinants of director compensation in two-tier systems: Evidence from German panel data. *Review of Managerial Science*, *6*(1), 33–79.

Antle, R., Gordon, E., Narayanamoorthy, G., & Zhou, L. (2006). The joint determination of audit fees, non-audit fees, and abnormal accruals. *Review of Quantitative Finance and Accounting*, *27*(3), 235–266. https://doi.org/10.1007/s11156-006-9430-y

Ararat, M., Aksu, M., & Tansel Cetin, A. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, *23*(2), 83–103. https://doi.org/10.1111/corg.12103

Arens, A. A., Elder, R. J., & Mark, B. (2012). *Auditing and assurance services: An integrated approach*. Boston: Prentice Hall.

Aribi, Z. A., Alqatamin, R. M., & Arun, T. (2018). Gender diversity on boards and forward-looking information disclosure: Evidence from Jordan. *Journal of Accounting in Emerging Economies*, *8*(2), 205–222. https://doi.org/10.1108/JAEE-05-2016-0039

Arioglu. (2015). Market reaction to director independence at Borsa IstanbulArioglu, Emrah. *Borsa Istanbul Review*, *15*(4), 259–271. https://doi.org/10.1016/j.bir.2015.09.002

Armstrong, C. S., Core, J. E., & Guay, W. R. (2014). Do independent directors cause improvements in firm transparency? *Journal of Financial Economics*, *113*(3), 383–403. https://doi.org/10.1016/j.jfineco.2014.05.009

Arnedo, L., Lizarraga, F., & Sanchez, S. (2008). Discretionary accruals and auditor behaviour in code-law contexts: An application to failing Spanish firms. *European Accounting Review*, *17*(4), 641–666. https://doi.org/10.1080/09638180802172479

Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: Evidence from India. *Corporate Governance*, *16*(2), 420–436. https://doi.org/10.1108/CG-01-2016-0018

Arora, S., & Kumar, N. (2016). Women on boards: A gap analysis of India vis-a-vis world. *Chartered Secretary*, *47*(3), 61–67.

Arun, T., Almahrog, Y. E., & Aribi, Z. A. (2015). Female directors and earnings management : Evidence from UK companies. *International Review of Financial Analysis*, *39*, 137–146. https://doi.org/10.1016/j.irfa.2015.03.002

Arun, T. G., & Turner, J. (2002). Financial liberalisation in India. *Journal of International Banking Regulations*, *4*(2), 183–188.

Aryeetey, E. (1998). Informal finance for private sector development in Africa, *African Development Bank Group*. 1–31. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/00157616-EN-ERP-

41.PDF. Accessed 30 June 2018.

Ashbaugh, H., & Warfield, T. D. (2003). Audits as a corporate governance mechanism: Evidence from the German market. *Journal of International Accounting Research*, *2*, 1–21. Retrieved from http://content.ebscohost.com/ContentServer.asp?EbscoContent=dGJyMNLr40Seqa44yOvqOLCmr1GeprRSsqu4SK6WxWXS&ContentCustomer=dGJyMPGvtkmyqLdNuePfgeyx9Yvf5ucA&T=P&P=AN&S=R&D=bsu&K=11756232

Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. (2006). The effects of corporate governance on firms' credit ratings. *Journal of Accounting and Economics*, *42*(1–2), 203–243. https://doi.org/10.1016/j.jacceco.2006.02.003

Aswani, J., Chidambaran, N.K. and Hasan, I., 2021. Who benefits from mandatory CSR? Evidence from the Indian Companies Act 2013. *Emerging Markets Review*, *46*, p.100753

Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2011). Firm innovation in emerging markets: The role of finance, governance, and competition. *Journal of Financial and Quantitative Analysis*, *46*(6), 1545–1580. https://doi.org/10.1017/S0022109011000378

Baboukardos, D. (2018). The valuation relevance of environmental performance revisited: The moderating role of environmental provisions. *British Accounting Review*, *50*(1), 32–47. https://doi.org/10.1016/j.bar.2017.09.002

Bae, K., Han, D., & Sohn, H. (2012). Importance of access to finance in reducing income inequality and poverty level. *International Review of Public Administration*, *17*(1), 55–77. https://doi.org/10.1080/12264431.2012.10805217

Baker, M., Stein, J. C., & Wurgler, J. (2003). When does the market matter? Stock prices and the investment of equity-dependent firms. *Quarterly Journal of Economics*, *118*(3), 969–1005. https://doi.org/10.1162/00335530360698478

Bakke, T. E., & Whited, T. M. (2010). Which firms follow the market? An analysis of corporate investment decisions. *Review of Financial Studies*, *23*(5). https://doi.org/10.1093/rfs/hhp115

Balasubramanian, B. N., & Anand, R. V. (2013). Ownership trends in corporate India 2001-2011: Evidence and Implications. *IIM Bangalore Research Paper*.

Balasubramanian, N., & Mohanty, N. (2015). Gender diversity on boards. *NSE Quarterly Briefing*, *10*.

Ball, R., Jayaraman, S., & Shivakumar, L. (2012). Audited financial reporting and voluntary disclosure as complements : A test of the Confirmation Hypothesis. *Journal of Accounting and Economics*, *53*(1–2), 136–166. https://doi.org/10.1016/j.jacceco.2011.11.005

Banerjee, A., Cole, S., & Duflo, E. (2004). Banking reform in India. *India Policy Forum*, *1*(1), 277–332.

Banerjee, A., & Duflo, E. (2014). Do firms want to borrow more? Testing credit constraints using a directed lending program. *Review of Economic Studies*, *81*(2), pp.572-607

Banerji, A., Mahtani, S., Sealy, R., & Vinnicombe, S. (2010). Standard Chartered Bank: Women on corporate boards in India 2010. *International Centre for Women Leaders, Cranfield School of Management*. Retrieved from http://dspace.lib.cranfield.ac.uk/handle/1826/5274. Accessed 4 March 2019

Barako, D. G., Alistair, A. E., & Brown, M. (2008). Corporate social reporting and board representation: Evidence from the Kenyan banking sector. *Journal of Management & Governance*. https://doi.org/10.1007/s10997-008-9053-x

Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, *21*(2), 785–818. https://doi.org/10.1093/rfs/hhm079

Barroso, R., Ali, B., & Lesage, C. (2018). Blockholders' ownership and audit fees: The impact of the corporate governance model. *European Accounting Review*, *27*(1), 149–172. https://doi.org/10.1080/09638180.2016.1243483

Bayar, O., Huseynov, F., & Sardarli, S. (2018). Corporate governance, tax avoidance, and financial constraints. *Financial Management*, *47*(3), 651–677.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, 443-465

Bebchuk, L., Fried, M., & Walker, D. (2002). Managerial power and rent extraction in the design of executive compensation. *The University of Chicago Law Review*, *69*(3), 751–846.

Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium-sized firms. The role of the availability of external finance. *Small Business Economics*, *19*(4), 291–306. https://doi.org/10.1023/A:1019678429111

Beck, T., Demirgüç-Kunt, A., Laeven, L., & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance*, *25*, 932–952. https://doi.org/10.1016/j.jimonfin.2006.07.005

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to growth: Does firm size matter? *The Journal of Finance*. *60*(1), 137-177. https://doi.org/10.2307/3694836

Bell, T. B., Landsman, W. R., & Shackelford, D. A. (2001). Auditors' perceived business risk and audit fees: Analysis and evidence. *Journal of Accounting Research*, *39*(1), 35–43. https://doi.org/10.1111/1475-679X.00002

Benkraiem, R., Hamrouni, A., Miloudi, A., & Uyar, A. (2018). Access to finance for French firms: Do boardroom attributes matter? *Economics Bulletin*, *38*(3), 1267–1278.

Bennedsen, M., & Meisner Nielsen, K. (2010). Incentive and entrenchment effects in European ownership. *Journal of Banking and Finance*, *34*, 2212–2229. https://doi.org/10.1016/j.jbankfin.2010.02.007

Berger, P., Ofek, E., & Yermack, D. (1997). Managerial entrenchment and capital structure: New evidence. *Journal of Business Finance and Accounting*, *33*(3), 422–450. https://doi.org/10.1111/j.1740-1461.2010.01193.x

Berglöf, E., & Pajuste, A. (2005). What do firms disclose and why? Enforcing corporate governance and transparency in Central and Eastern Europe. *Oxford Review of Economic Policy*, *21*(2), 178–197.

Bhaduri, S. N. (2002). Determinants of capital structure choice: A study of the Indian corporate sector. *Applied Financial Economics*, *12*(9), 655–665. https://doi.org/10.1080/09603100010017705

Bhatt, R. R., & Bhattacharya, S. (2015). Do board characteristics impact firm performance? An agency and resource dependency theory perspective. *Asia-Pacific Journal of Management Research and Innovation*, *11*(4), 274–287. https://doi.org/10.1177/2319510x15602973

Bhojraj, S., & Sengupta, P. (2003). Effect of corporate governance on bond ratings and yields: The role of institutional investors and outside directors. *Journal of Business*, *76*(3), 455–475. https://doi.org/10.1086/344114

Bilimoria, D., Bhattacharya, M., & Wheatley, K. K. (2006). The Relationship Between Women Corporate Directors and Women Corporate Officers. *Journal of Managerial Issues*, 47-61

Black, B., & Khanna, V. (2007). American Law & Economics Association Annual Meetings Increase Firms' Market Values ? Evidence From India. *Journal of Empirical Legal Studies*, *4*(4), 749-796.

Bliss, M. A., & Gul, F. A. (2012). Political connection and cost of debt: Some Malaysian evidence. *Journal of Banking and Finance*, *36*(5), 1520–1527. https://doi.org/10.1016/j.jbankfin.2011.12.011

Bloomberg. (2020). India may become fifth largest economy by 2025; third largest by 2030: CEBR. *Bloomberg/Qunit*. Retrieved from https://www.bloombergquint.com/business/india-to-become-5th-largest-economy-in-2025-3rd-largest-by-2030. Accessed 14 January 2021.

Blundell, R., Bond, S., Devereux, M., & Schiantarelli, F. (1992). Investment and Tobin's Q: Evidence from cornpam panel data. *Journal of Econometrics*, *51*, 233–257. https://doi.org/10.1016/0304-4076(92)90037-R

Bodnaruk, A., Loughran, T., & McDonald, B. (2015). Using 10-K text to gauge financial constraints. *Journal of Financial and Quantitative Analysis*, *50*(4), 623–646. https://doi.org/10.2139/ssrn.2331544

Bohren, O., & Strom, R. O. (2010). Governance and politics: Regulating independence and diversity in the board room. *Journal of Business Finance and Accounting*, *37*(9–10), 1281–1308. https://doi.org/10.1111/j.1468-5957.2010.02222.x

Bose, U., Macdonald, R., & Tsoukas, S. (2016). Policy initiatives and firms' access to external finance: Evidence from a panel of emerging Asian economies. *Journal of Corporate Finance, 59, 162-184.*

Bozec, Y., & Bozec, R. (2007). Ownership concentration and corporate governance practices: substitution or expropriation effects? *Canadian Journal of Administrative Sciences*, *24*(3), 182–195.

Bryman, A. (2016). *Social research methods*. Oxford University Press.NY

Busenitz, L. W., Fiet, J. O., & Moesel, D. D. (2005). Signaling in venture capitalist New venture team funding decisions: Does it indicate long-term venture outcomes? *Entrepreneurship Theory and Practice*, *29*(1), 1–12.

Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics*,*32*(1-3), 237-333. https://doi.org/10.1016/S0165-4101(01)00027-1

Cabral, S. M., & Mata, J. (2003). On the evolution of the firm size distribution: Facts and theory. *American Economic Review*,*93*(4), 1075-1090.

Cahan, S., Emanuel, D., Hay, D., & Wong, N. (2008). Non-audit fees, long-term auditor-client relationships and earnings management. *Accounting & Finance*, *48*(2), 181–207. https://doi.org/10.1007/s11142-014-9291-x

Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, *83*(3), 435–451. https://doi.org/10.1007/s10551-007-9630-y

Campello, M., Graham, J. R., & Harvey, C. R. (2010). The real effects of financial constraints: Evidence from a financial crisis. *Journal of Financial Economics*, *97*(3), 470–487. https://doi.org/10.1016/j.jfineco.2010.02.009

Capezio, A., & Mavisakalyan, A. (2016). Women in the boardroom and fraud: Evidence from Australia. *Journal of Management*, *41*(4), 719–734.

Caramanis, C., & Lennox, C. (2008). Audit effort and earnings management. *Journal of Accounting and Economics*, *45*, 116–138. https://doi.org/10.1016/j.jacceco.2007.05.002

Carcello, J. V., & Neal, T. (2000). Audit committee composition and auditor reporting. *The Accounting Review*, *75*(4), 453-467.

Carcello, J. V., Neal, T. L., Palmrose, Z. V., & Scholz, S. (2011). CEO involvement in selecting board members, audit committee effectiveness, and restatements. *Contemporary Accounting Research*, *28*(2), 396–430.

Cardillo, G., Onali, E., & Torluccio, G. (2020). Does gender diversity on banks' boards matter? Evidence from public bailouts. *Journal of Corporate Finance*. https://doi.org/doi.org/10.1016/j.jcorpfin.2020.101560

Carpenter, R. E., Fazzari, S. M., & Petersen, B. C. (1998). Financing constraints and inventory investment: A comparative study with high-frequency panel data. *Review of Economics and Statistics*, *80*(4), 513–519. https://doi.org/10.1162/003465398557799

Carpenter, R. E., & Petersen, B. C. (2002). Is the growth of small firms constrained by internal finance? *Review of Economics and Statistics*, *84*(2), 298–309. https://doi.org/10.1162/003465302317411541

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *The Financial Review*, *38*(1), 33–53. https://doi.org/10.1111/1540-6288.00034

Cascino, S., Clatworthy, M., García Osma, B., Gassen, J., Imam, S., & Jeanjean, T. (2014). Who uses financial reports and for what purpose? Evidence from capital providers. *Accounting in Europe*, *11*(2), 185–209. https://doi.org/10.1080/17449480.2014.940355

Catalyst. (2015). *2014 Catalyst Census: Women Board Directors*. https://www.catalyst.org/research/2014-catalyst-census-women-board-directors/. accessed 13 April 2019.

Cenni, S., Monferrà, S., Salotti, V., Sangiorgi, M., Torluccio, G., & Trading, E. E. R. (2015). Credit rationing and relationship lending. Does firm size matter? *Journal of Banking Finance*, *53*, 249–265. https://doi.org/10.1016/j.jbankfin.2014.12.010

Chakrabarti, R. (2005). Corporate governance in India – evolution and challenges. *Working paper*. https://doi.org/org/10.2139/ssrn.649857

Chakrabarti, R., Megginson, W., & Yadav, P. (2008). Corporate governance in India. *Journal of Applied Corporate Finance*, *20*(1), 59–72. https://doi.org/10.1007/978-1-4614-9173-6

Chakraborty, I. (2018). Effects of ownership structure on capital structure of Indian listed firms: Role of business groups vis-à-vis stand-alone firms. *Emerging Markets Finance and Trade*, *54*(10), 2315–2332. https://doi.org/10.1080/1540496X.2018.1434071

Chang, X., Tam, L. H. K., Tan, T. J., & Wong, G. (2007). The real impact of stock market mispricing - Evidence from Australia. *Pacific Basin Finance Journal*, *15*(4), 388–408. https://doi.org/10.1016/j.pacfin.2006.06.003

Chauhan, Y., & Dey, D. K. (2017). Do female directors really add value in Indian firms? *Journal of Multinational Financial Management*, *42–43*, 24–36. https://doi.org/10.1016/j.mulfin.2017.10.005

Chava, S., Livdan, D., & Purnanandam, A. (2009). Do shareholder rights affect the cost of bank loans. *Review of Financial Studies*, *22*(8), 2973–3004. https://doi.org/10.1093/rfs/hhn111

Chen, C. J. P., & Jaggi, B. (2000). Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, *19*(4–5), 285–310. https://doi.org/10.1016/S0278-4254(00)00015-6

Chen, H., Chen, J. Z., Lobo, G. J., & Wang, Y. (2011). Effects of audit quality on earnings management and cost of equity capital: Evidence from China. *Contemporary Accounting Research*, *28*(3), 892–925. https://doi.org/10.1111/j.1911-3846.2011.01088.x

Chen, K. C. W., Chen, Z., & Wei, K. C. J. (2009). Legal protection of investors, corporate governance, and the cost of equity capital. *Journal of Corporate Finance*, *15*, 273–289. https://doi.org/10.1016/j.jcorpfin.2009.01.001

Chen, L., Srinidhi, B., Tsang, A., & Yu, W. (2016). Audited financial reporting and voluntary disclosure of corporate social responsibility (CSR) reports. *Journal of Management Accounting Research*, *28*(2), 53–76. https://doi.org/10.2308/jmar-51411

Chen, S. S., & Wang, Y. (2012). Financial constraints and share repurchases. *Journal of Financial Economics*, *105*(2), 311–331. https://doi.org/10.1016/j.jfineco.2012.03.003

Chen, Yangyang, Ge, R., & Zolotoy, L. (2017a). Do corporate pension plans affect audit pricing? *Journal of Contemporary Accounting and Economics*, *13*(3), 322–337. https://doi.org/10.1016/j.jcae.2017.10.002

Chen, Yuhuilin, Hua, X., & Boateng, A. (2017b). Effects of foreign acquisitions on financial constraints, productivity and investment in R&D of target firms in China. *International Business Review*, *26*(4), 640–651. https://doi.org/10.1016/j.ibusrev.2016.12.005

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, *35*(1), 1–23. https://doi.org/10.1002/smj

Chevalier, J. A. (1995). Capital structure and product-market competition: Empirical evidence from the supermarket industry. *The American Economic Review*. 415-435

Choi, S. U., & Lee, W. J. (2015). The effect of IFRS non-audit consulting services on cost of debt: Evidence from Korea. *Journal of Applied Business Research*, *31*(5), 1889–1898.

Choi, W. W., Lee, H. Y., & Jun, B. W. (2009). The provision of tax services by incumbent auditors and earnings management: Evidence from Korea. *Journal of International Financial Management and Accounting*, *20*(1), 79–103. https://doi.org/10.1111/j.1467-646X.2009.01027.x

CIA. (2020). *The world fact book: India*. Retrieved from https://www.cia.gov/the-world-factbook/countries/india/#geography. Accessed 20 December 2020.

Claessens, S. (2006). Access to financial services: A review of the issues and public policy objectives. *The World Bank Research Observer*, *21*(2), 207–240. https://doi.org/10.1093/wbro/lkl004

Claessens, S., Djankov, S., Fan, J. P., & Lang, L. H. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance*, *57*(6), 2741–2771.

Claessens, S., Djankov, S., & Lang, L. H. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, *58*(1), 81–112.

Claessens, S., & Laeven, L. (2003). What drives bank competition ? Some international evidence. *Journal of Money, Credit and Banking*, *36*(3), 563–583.

Claessens, S., & Tzioumis, K. (2006). Measuring firms' access to finance. In *Access to Finance: Building Inclusive Financial Systems conference* (pp. 1–25). Washington, D.C.: organized by the Brooking Institution and the World Bank.

Claessens, S., & Yurtoglu, B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, *15*, 1–33. https://doi.org/10.1016/j.ememar.2012.03.002

Clark, G. F., & Johnston, E. L. (2009). Propagule pressure and disturbance interact to overcome biotic resistance of marine invertebrate communities. *Oikos*, *118*(11), 1679–1686. https://doi.org/10.1111/j.1600-0706.2009.17564.x

Cobbin, P. E. (2002). International dimensions of the audit fee determinants literature. *International Journal of Auditing*, *6*(1), 53–77. https://doi.org/10.1111/j.1099-1123.2002.tb00005.x

Cohen, J., Krishnamoorthy, G., & Wright, A. M. (2002). Corporate governance and the audit process. *Contemporary Accounting Research*, *19*(4), 573–594. https://doi.org/10.1506/983M-EPXG-4Y0R-J9YK

Cohen, B. D., & Dean, T. J. (2005). Information asymmetry and investor valuation of IPOs: Top management team legitimacy as a capital market signal. *Strategic Management Journal*, *26*(7), 683–690.

Coluzzi, C., Ferrando, A., & Martinez-Carrascal, C. (2012). Financing obstacles and growth: An analysis for Euro Area non-financial corporations. *The European Journal of Finance*, *21*(10), 773–790. https://doi.org/10.2139/ssrn.1333026

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, *37*(1), 39–67. https://doi.org/10.1177/0149206310388419

Cook, T. D., & Reichardt, C. S. (1979). *Qualitative and quantitative methods in evaluation research*. Beverly Hills, CA: Sage publications.

Cooley, T. F., Quadrini, V. (2001). Financial markets and firm dynamics. *American Economic Review*, *91*(5), pp.1286-1310

Cox, T. H. (1991). Managing cultural diversity: implications for organizational competitiveness. *Academy of Management Executive*, *5*(3), 45-56

Crespí, R., & Martín-Oliver, A. (2015). Do family firms have better access to external finance during crises? *Corporate Governance (Oxford)*, *23*(3), 249–265. https://doi.org/10.1111/corg.12100

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.U.S.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage.

Cumming, D., & Knill, A. (2012). Disclosure, venture capital and entrepreneurial spawning. *Journal of International Business Studies*, *43*(6), 563–590. https://doi.org/10.1057/jibs.2012.9

Daily, C. M., Certo, S. T., & Dalton, D. R., (1999). Notes and communications a decade of corporate women : Some progress in the boardroom, none in the executive. *Strategic management journal*, *20*(1), 93–99.

Dainty, A., Moore, D., & Murray, M. (2007). *Communication in construction: Theory and practice*. Routledge. NY

Daley, L. A., & Vigeland, R. L. (1983). The effects of debt covenants and political costs on the choice of accounting methods. The case of accounting for R&D costs. *Journal of Accounting and Economics*, *5*(C), 195–211. https://doi.org/10.1016/0165-4101(83)90012-5

Dalton, D. R., & Daily, C. M. (1999). What's wrong with having friends on the board? *Across the Board*, *36*(3), 28–32.

Damodaran, A. (1997). *Corporate finance*. New York, NY: John Wiley.

Simunic, D.A. & Stein, M.T., (1996). Impact of litigation risk on audit pricing: A review of the economics and the evidence. *Auditing*, *15*, 119. https://doi.org/Article

Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, *22*(1), 20–47. https://doi.org/10.5465/AMR.1997.9707180258

DeAngelo, L. E. (1981). Auditor size and audit fees. *Journal of Accounting and Economics*, *3*(3), 183–199.

Dechow, P. M., Sloan, R. G., & Sweeny, A. P. (1996). Causes and consequences of earnings manipulations: An analysis of firm subject enforcement action by the SEC. *Contemporary Accounting Research*, *13*(1), 1–32. https://doi.org/10.1111/j.1911-3846.1996.tb00489.x

DeFond, M. L. (1992). The association between changes in client firm agency costs and auditor switching. *Auditing: A Journal of Practice & Theory*, *11*(1), 16-31. https://doi.org/Article

DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of Accounting and Economics*, *17*(1–2), 145–176. https://doi.org/10.1016/0165-4101(94)90008-6

DeFond, M. L., Wong, T., & Li, S. (2000). The impact of improved auditor independence on audit market concentration in China. *Journal of Accounting and Economics*, *28*(3), 269–305. https://doi.org/10.1016/S0165-4101(00)00005-7

Deloitte. (2020). Governance 101. All you need to know on corporate governance practices in India. Retrieved from https://www2.deloitte.com/in/en/pages/risk/articles/governance-101.html. Accessed 27 Janauary 2021.

Demetriades, P. O., & Luintel, K. B. (1996). Financial development, economic growth and banking sector controls. *The Economic Journal*, *106*(435), 359–374.

Demirguc-Kunt, A., Love, I., & Maksimovic, V. (2006). Business environment and the incorporation decision. *Journal of Banking and Finance*, *30*(11), 2967–2993. https://doi.org/10.1016/j.jbankfin.2006.05.007

Demirgüç-Kunt, A., & Maksimovic, V. (1998). Law, finance, and firm growth. *The Journal of Finance*, *53*(6), 2107–2137. https://doi.org/10.1111/0022-1082.00084

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Sage publications, inc. U.S.

G20. (2021). G20 Italia. Retrieved from https://www.g20.org/. Accessed January 17 2021

Desai, M. A., Foley, C. F., & Forbes, K. J. (2008). Financial constraints and growth: Multinational and local firm responses to currency depreciations. *Review of Financial Studies*, *21*(6), 2857–2888. https://doi.org/10.1093/rfs/hhm017

DeYoung, R., Glennon, D., & Nigro, P. (2008). Borrower-lender distance, credit scoring, and loan performance: Evidence from informational-opaque small business borrowers. *Journal of Financial Intermediation*, *17*(1), 113–143. https://doi.org/10.1016/j.jfi.2007.07.002

Dhaliwal, D. S., Gleason, C. a, Heitzman, S., & Melendrez, K. D. (2008). Auditor fees and cost of debt. *Journal of Accounting, Auditing & Finance*, *23*(1), 1–22. https://doi.org/Article

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., & Yang, Y. G. (2012). Nonfinancial disclosure and analyst forecast accuracy: International evidence on corporate social responsibility disclosure. The Accounting Review, 87(3), 723–759. https://doi.org/10.2308/accr-10218

Dhameja, N. L., & Arora, S. (2020). Banking in India: Evolution, Performance, Growth and Future. *Indian Journal of Public Administration*, *66*(3), 312–326. https://doi.org/10.1177/0019556120953711

Dharmapala, D., & Khanna, V. (2013). Corporate governance, enforcement, and firm value: Evidence from India. *Journal of Law, Economics, and Organization*, *29*(5), 1056–1084. https://doi.org/10.1093/jleo/ews011

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, *46*(4), 1325–1359. https://doi.org/10.1111/j.1540-6261.1991.tb04620.x

Dichev, I. D., & Skinner, D. J. (2002). Large-sample evidence on the debt covenant hypothesis. *Journal of Accounting Research*, *40*(4), 1091–1123. https://doi.org/10.1111/1475-679X.00083

Dimitropoulos, P. E., & Asteriou, D. (2010). The effect of board composition on the informativeness and quality of annual earnings: Empirical evidence from Greece. *Research in International Business and Finance*, *24*(2), 190–205. https://doi.org/10.1016/j.ribaf.2009.12.001

Ding, S., Jia, C., Wu, Z., & Yuan, W. (2017). Limited attention by lenders and small business debt financing: Advertising as attention grabber. *International Review of Financial Analysis*, *49*, 69–82. https://doi.org/10.1016/j.irfa.2016.12.003

Dossani, R., & Kenney, M. (2001). Creating an environment: Developing venture capital in India Asia. *Working paper*. https://escholarship.org/content/qt6z47h77n/qt6z47h77n.pdf. Accessed 17 May 2018

Duggal, A. (2016). Getting more women on corporate boards. *Business Standard*. Retrieved from https://www.business-standard.com/article/opinion/arun-duggal-getting-more-women-on-corporate-boards-116051901813_1.html. Accessed 23 May 2019.

Du Rietz, A., & Henrekson, M. (2000). Testing the female underperformance hypothesis. *Small Business Economics*, *14*(1). 1-10

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, *14*(1), 57–74. https://doi.org/10.5465/AMR.1989.4279003

Elango, B., & Pattnaik, C. (2007). Building capabilities for international operations through networks: A study of Indian firms. *Journal of International Business Studies*, *38*(4), 541–555. https://doi.org/10.1057/palgrave.jibs.8400280

Elitzur, R., & Gavious, A. (2003). Contracting, signaling, and moral hazard: A model of entrepreneurs, "angels," and venture capitalists. *Journal of Business Venturing*, *18*(6), 709–725.

Ertugrul, M., & Hegde, S. (2008). Board compensation practices and agency costs of debt. *Journal of Corporate Finance*, *14*(5), 512–531. https://doi.org/10.1016/j.jcorpfin.2008.09.004

Esplin, A., Jamal, K., & Sunder, S. (2017). Demand for and assessment of audit quality in private companies. *Abacus*, *54*(3), 319–352.

ET. (2020). No need to further curb "non-audit" services of auditors: Industry bodies tell govt. *The Economic Times*. Retrieved from https://economictimes.indiatimes.com/industry/services/consultancy-/-audit/no-need-to-further-curb-non-audit-services-of-auditors-industry-bodies-tell-govt/articleshow/74991628.cms. Accessed 24 May 2020.

Faccio, M., Marchica, M. T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance*, *39*, 193–209. https://doi.org/10.1016/j.jcorpfin.2016.02.008

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of political economy*, *88*(2), 288–307.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, *26*(2), 301–325. https://doi.org/10.1086/467037

Fan, J. P., & Wong, T. J. (2005). Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of Accounting Research*, *43*(1), 35–72. https://doi.org/10.1111/j.1475-679x.2004.00162.x

Faulkender, M., & Petersen, M. (2012). Investment and capital constraints: Repatriations under the American Jobs Creation Act. *Review of Financial Studies*, *25*(11), 3351–3388. https://doi.org/10.1093/rfs/hhs092

Ferrando, A., & Mulier, K. (2015). Firms' financing constraints: Do perceptions match the actual situation? *The Economic and Social Review*, *46*(1), 87–117.

Fields, M. A., & Keys, P. Y. (2003). The emergence of corporate governance from Wall St. to Main St.: Outside directors, board diversity, earnings management, and managerial incentives to bear risk. *Financial Review*, *38*(1), 1–24. https://doi.org/10.1111/1540-6288.00032

Filatotchev, I., & Wright, M. (2011). Agency Perspectives on Corporate Governance of Multinational Enterprises. *Journal of Management Studies*, *48*(2), 471–486. https://doi.org/10.1111/j.1467-6486.2010.00921.x

Fowowe, B. (2017). Access to finance and firm performance: Evidence from African countries. *Review of Development Finance*, *7*(1), 6–17.

Francis, B., Hasan, I., Koetter, M., & Wu, Q. (2012). Corporate boards and bank loan contracting. *Journal of Financial Research*, *35*(4), 521–552. https://doi.org/10.1111/j.1475-6803.2012.01327.x

Francis, J. R. (2004). What do we know about audit quality? *British Accounting Review*, *36*(4), 345–368. https://doi.org/10.1016/j.bar.2004.09.003

Francis, J. R., & Wilson, E. R. (1988). Auditor changes: A joint test of theories relating to agency costs and auditor differentiation. *Accounting Review*. 663-682.

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management*, *38*(1), 1–37. https://doi.org/10.1111/j.1755-053X.2009.01026.x

Frankel, R. M., Johnson, M. F., & Nelson, K. K. (2002). The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review*, *77*(s-1), 71–105. https://doi.org/10.2308/accr.2002.77.s-1.71

Gakhar, D. V. (2014). Earnings management practices in India: A study of auditor's perception. *Journal of Financial Crime*, *21*(1), 100–110. https://doi.org/10.1108/JFC-09-2013-0054

Gandhi, M. (2016). India committed to advancing gender equality: Maneka Gandhi. *The Hindu*. Retrieved from https://www.thehindu.com/news/national/india-committed-to-advancing-gender-equality-maneka-gandhi/article8360427.ece. Accessed 13 February 2020.

Gandía, J. L., & Huguet, D. (2020). Audit fees and cost of debt: Differences in the credibility of voluntary and mandatory audits. *Economic Research-Ekonomska Istraživanja*, *33*(1), 3071–3092.

García Lara, J. M., García Osma, B., Mora, A., & Scapin, M. (2017). The monitoring role of female directors over accounting quality. *Journal of Corporate Finance*, *45*, 651–668. https://doi.org/10.1016/j.jcorpfin.2017.05.016

García-Sánchez, I.M., Hussain, N., Martínez-Ferrero, J. and Ruiz-Barbadillo, E., 2019. Impact of disclosure and assurance quality of corporate sustainability reports on access to finance. *Corporate Social Responsibility and Environmental Management*, *26*(4), pp.832-848.

García-Teruel, P. J., Martínez-Solano, P., & Pedro Sánchez-Ballesta, J. (2014). The role of accruals quality in the access to bank debt. *Journal of Banking and Finance*, *38*, 186–193. https://doi.org/10.1016/j.jbankfin.2013.10.003

Gaur, D., & Mohapatra, D. R. (2020). Non-performing assets and profitability: Case of Indian banking sector. *Vision*, 1–12. https://doi.org/10.1177/0972262920914106

Ge, W., Kim, J. B., & Song, B. Y. (2012). Internal governance, legal institutions and bank loan contracting around the world. *Journal of Corporate Finance*, *18*(3), 413–432. https://doi.org/10.1016/j.jcorpfin.2012.01.006

Geetha, J. S. L., & Dr. Priya, S. (2020). Financial Sector Reforms: A Study on Banking Sector In India. In Subathra & Eframe Sophia Selvam (Eds.), (pp 45-49) *Recent Researche In Arts And Science*. Of by and for you publication:India.

Gerayli, M. S., Yanesari, A. M., & Ma'atoofi, A. R. (2011). Impact of audit quality on earnings management: Evidence from Iran. *Research Journal of Finance and Economics*, *66*(1), 77–84.

Ghosh, S. (2017). Why is it a man's world, after all? Women on bank boards in India. *Economic Systems*, *41*(4), 109–121. https://doi.org/10.1016/j.ecosys.2016.05.007

Ghosh, S. (2021). Does financial interconnectedness affect monetary transmission? Evidence from India. *Macroeconomics and Finance in Emerging Market Economies*, 1–28. https://doi.org/10.1080/17520843.2020.1859574

Gill, J., & Johnson, P. (2010). *Research methods for managers.* Sage Publications London .

Gill, S., & Kaur, P. (2015). Family involvement in business and financial performance: A panel data analysis. *Vikalpa*, *40*(4), 395–420. https://doi.org/10.1177/0256090915605756

Goh, L., & Gupta, A. (2016). Remuneration of non-executive directors: Evidence from the UK. *British*

Accounting Review, *48*(3), 379–399. https://doi.org/10.1016/j.bar.2015.05.001

Gordini, N., & Rancati, E. (2017). Gender diversity in the Italian boardroom and firm financial performance. *Management Research Review*, *40*(1), 75–94. https://doi.org/10.1108/MRR-02-2016-0039

Guariglia, A., & Liu, P. (2014). To what extent do financing constraints affect Chinese firms' innovation activities? *International Review of Financial Analysis*. *36*, 223-240. https://doi.org/10.1016/j.irfa.2014.01.005

Gugler, K. (2003). Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment. *Journal of Banking & Finance*, *27*(7), 1297–1321.

Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices? *Journal of Accounting and Economics*, *51*(3), 314–338. https://doi.org/10.1016/j.jacceco.2011.01.005

Gul, F.A., Fung, S.Y.K. & Jaggi, B. (2009). Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics*, *47*, 265–287. https://doi.org/10.1016/j.jacceco.2009.03.001

Gul, F. A., Zhou, G., & Zhu, X. (2013). Investor protection, firm informational problems, Big N auditors, and cost of debt around the world. *Auditing: A Journal of Practice & Theory*,. *32*(3), 1-30. https://doi.org/10.2308/ajpt-50462

Gulati, R., & Higgins, M. C. (2003). Which ties matter when? The contingent effects of interorganizational partnerships on IPO success. *Strategic Management Journal*, *24*(2), 127–144.

G20. (2021). G20 Italia. Retrieved from https://www.g20.org/. Accessed January 17 2021

Habbash, M., & Alghamdi, S. (2017). Audit quality and earnings management in less developed economies: The case of Saudi Arabia. *Journal of Management & Governance*, *21*(2), 351–373. https://doi.org/10.1007/s10997-016-9347-3

Haldar, A., Shah, R., Stokes, P., Demirbas, D., Dardour, A., & Rao, N. (2018). Corporate performance: Does board independence matter? Indian evidence. *International Journal of Organizational Analysis*, *26*(1), 185–200.

Hall, B. H., & Lerner, J. (2010). The financing of R&D and innovation. In B. Hall & N. Rosenberg (Eds.), *The Financing of R&D and Innovation* (pp. 609–639). Elsevier: Amsterdam. https://doi.org/10.1016/S0169-7218(10)01014-2

Hann, R. N., Ogneva, M., & Ozbas, O. (2013). Corporate diversification and the cost of capital. *The Journal of Finance*, *68*(5), 1961–1999. https://doi.org/10.1111/jofi.12067

Harford, J., Li, K., & Zhao, X. (2008). Corporate boards and the leverage and debt maturity choices. *International Journal of Corporate Governance*, *1*(1), 3–27.

Hasan, I., Jackowicz, K., Kowalewski, O., & Kozowski,L., (2017). Do local banking market structures matter for SME financing and performance? New evidence from an emerging economy. *Journal of Banking and Finance*, *79*, 142–158. https://doi.org/10.1016/j.jbankfin.2017.03.009

Hassan, W. K., Aljaaidi, K. S., Bin Abidin, S., & Nasser, A. M. (2018). Internal corporate governance mechanisms and audit quality: Evidence from GCC region. *International Journal of Advanced and Applied Sciences*, *5*(8), 72–90.

Hennessy, C. A., Levy, A., & Whited, T. M. (2007). Testing Q theory with financing frictions. *Journal of Financial Economics*, *83*(3), 691–717. https://doi.org/10.1016/j.jfineco.2005.12.008

Hermalin, B. E., & Weisbach, M. S. (1998). Endogeneously chosen board of directors and their monitoring of

the CEO. *American Economic Review*, *88*(1), 96–118. https://doi.org/10.2307/116820

Hermalin, B. E., & Weisbach, M. S. (2001). Boards of directors as an endogenously determined institution: A survey of the economic literature. *National Bureau of Economic Research, Working paper*.

Hernandez-Nicolas, C. M., Martín-Ugedo, J. F., & Mínguez-Vera. (2015). The influence of gender on financial decisions: Evidence from small start-up firms in Spain. *Economics and Management*, *18*(4), 93–107.

Hillman, A. J., Shropshire, C., & Cannella, A. A. (2007). Organizational predictors of women on corporate boards. *Academy of Management Journal*. *50*(4), pp.941-952.

Himmelberg, C. P., & Petersen, B. C. (1994). R&D and internal finance: A panel study of small firms in high-tech industries. *The Review of Economics and Statistics*. 38-51

Hirshleifer, D., Hou, K., Teoh, S. H., & Zhang, Y. (2004). Do investors overvalue firms with bloated balance sheets? *Journal of Accounting and Economics*, *38*, 297–331. https://doi.org/10.1016/j.jacceco.2004.10.002

Hirshleifer, D., & Teoh, S. H. (2003). Limited attention, information disclosure, and financial reporting. *Journal of Accounting and Economics*, *36*(1-3 SPEC. ISS.), 337–386. https://doi.org/10.1016/j.jacceco.2003.10.002

Holder-Webb, L., & Sharma, D. S. (2010). The effect of governance on credit decisions and perceptions of reporting reliability. *Behavioral Research in Accounting*, *22*(1), 1–20. https://doi.org/10.2308/bria.2010.22.1.1

Holtz-Eakin, D., Joulfaian, D., & Rosen, H. (1994a). Entrepreneurial decisions and liquidity constraints. *The RAND Journal of Economics*, *25*(2), 334–347.

Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994b). Sticking it out: Entrepreneurial survival and liquidity constraints. *Journal of Political Economy*, *102*(1), 53–75.

Hope, O. K., Thomas, W., & Vyas, D. (2011). Financial credibility, ownership, and financing constraints in private firms. *Journal of International Business Studies*, *42*(7), 935–957. https://doi.org/10.1057/jibs.2011.23

Horton, J., Millo, Y., & Serafeim, G. (2012). Resources or power ? Implications of social networks on compensation and firm performance. *Journal of Business Finance & Accounting*, *39*(November 2011), 399–426. https://doi.org/10.1111/j.1468-5957.2011.02276.x

Houqe, M. N., Ahmed, K., & van Zijl, T. (2017). Audit quality, earnings management, and cost of equity capital: Evidence from India. *International Journal of Auditing*, *21*(2), 177–189. https://doi.org/10.1111/ijau.12087

Htay, S. N. N., & Salman, S. A. (2013). Corporate governance : A case study of SMEs in Malaysia. *Middle East Journal of Scientific Research*, *18*(2), 243–252. https://doi.org/10.5829/idosi.mejsr.2013.18.2.12439

Hubbard, R. G. (1998). Capital-market imperfections and investment. *Journal of Economic Literature*, *36*(March), 193–225.

Humphrey, C., Loft, A., & Woods, M. (2009). The global audit profession and the international financial architecture: Understanding regulatory relationships at a time of financial crisis. *Accounting, Organizations and Society*, *34*(6–7), 810–825. https://doi.org/10.1016/j.aos.2009.06.003

Huse, M., & Solberg. (2006). Gender-related boardroom dynamics: How Scandinavian women make and can make contributions on corporate boards. *Women in Management Review*, *21*, 113–130.

Iatridis, G. (2018). Accounting discretion and executive cash compensation: An empirical investigation of corporate governance, credit ratings and firm value. *Journal of International Financial Markets, Institutions and Money*, *55*, 29–49. https://doi.org/10.1016/j.intfin.2018.02.008

Ibrahim, H., & Samad, F. A. (2011). Corporate governance mechanisms and performance of publiclisted family-ownership in Malaysia. *International Journal of Economics and Finance*, *3*(1), 105–115.

International Monetary Fund. (2018). India's Strong Economy Continues to Lead Global Growth. Retrieved from https://www.imf.org/en/News/Articles/2018/08/07/NA080818-India-Strong-Economy-Continues-to-Lead-Global-Growth. Accessed Septemper 16, 2018

Ionascu, M., Ionascu, I., Sacarin, M., & Minu, M. (2018). Women on boards and financial performance: Evidence from a European emerging market. *Sustainability*, *10*(5), 1–18.

Jackling, B., & Johl, S. (2009). Board structure and firm performance: Evidence from India's top companies. *Corporate Governance: An International Review*, *17*(4), 492–509. https://doi.org/10.1111/j.1467-8683.2009.00760.x

Jadiyappa, N., Jyothi, P., Sireesha, B., & Hickman, L. E. (2019). CEO gender, firm performance and agency costs: Evidence from India. *Journal of Economic Studies*, *46*(2), 482–495. https://doi.org/10.1108/JES-08-2017-0238

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jeong, S. W., & Rho, J. (2004). Big Six auditors and audit quality: The Korean evidence. *International Journal of Accounting*, *39*(2), 175–196. https://doi.org/10.1016/j.intacc.2004.02.001

Jiang, F., Qi, X., & Tang, G. (2018). Q-theory, mispricing, and profitability premium: Evidence from China. *Journal of Banking and Finance*, *87*, 135–149. https://doi.org/10.1016/j.jbankfin.2017.10.001

Jiraporn, P., Chintrakarn, P., Kim, J. C., & Liu, Y. (2013). Exploring the agency cost of debt: Evidence from the ISS governance standards. *Journal of Financial Services Research*, *44*(2), 205–227. https://doi.org/10.1007/s10693-012-0142-2

Joh, S. W., & Jung, J. (2012). The effects of outside board on firm value in the emerging market from the perspective of information transaction costs. *Asia-Pacific Journal of Financial Studies*, *41*(2), 175–193.

Joh, S. W., & Jung, J. Y. (2018). When do firms benefit from affiliated outside directors? *Corporate Governance: An International Review*, *26*(6), 397–413.

Johan, S. A., & Wu, Z. (2014). Does the quality of lender-borrower relationships affect small business access to debt? Evidence from Canada and implications in China. *International Review of Financial Analysis*, *36*, 206–211. https://doi.org/10.1016/j.irfa.2014.01.006

John, K., & Senbet, L. W. (1998). Corporate governance and board effectiveness. *Journal of Banking & Finance*, *22*(4), 371–403. https://doi.org/http://dx.doi.org/10.1016/S0378-4266(98)00005-3

Johnson, W. B., & Lys, T. (1990). The market for audit services: Evidence from voluntary auditor changes. *Journal of Accounting and Economics*, *12*, 281–308.

Joshy, J., Desai, N., & Agarwalla, S. K. (2015). Are Big 4 audit fee premiums always related to superior audit quality? Evidence from India's unique audit market. *Working Paper*, 1–31. Retrieved from https://web.iima.ac.in/assets/snippets/workingpaperpdf/15251702332015-03-10.pdf. Accessed 6 May 2018.

Kanagaretnam, K., Lobo, G. J., & Whalen, D. J. (2007). Does good corporate governance reduce information asymmetry around quarterly earnings announcements? *Journal of Accounting and Public Policy*, *26*(4), 497–522. https://doi.org/10.1016/j.jaccpubpol.2007.05.003

Kaplan, S. N., & Zingales, L. (1997). Do investment-cash flow sensitivities provide useful measures of financing constraints ? *The Quarterly Journal of Economics*, *112*(1), 169–215.

https://doi.org/10.2307/2951280

Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research*, *43*(3), 453–486. https://doi.org/10.1111/j.1475-679X.2005.00177.x

Khan, M. A., & Kotishwar, A. (2011). The role of independent directors in corporate governance: A critical evaluation. *International Journal of Research in Computer Application and Management*, *1*(5), 27–34.

Kharuddin, K. A. M., Basioudis, I. G., & Hay, D. (2019). Partner industry specialization and audit pricing in the United Kingdom. *Journal of International Accounting, Auditing and Taxation*, *35*, 57–70. https://doi.org/10.1016/j.intaccaudtax.2019.05.005

Kinney, J. W. R., Palmrose, Z. V., & Scholz, S. (2004). Auditor independence, non-audit services, and restatements: Was the U.S. government right? *Journal of Accounting Research*, *42*(3), 561–588.

Klapper, L., Laeven, L., & Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, *82*(3), 591–629. https://doi.org/10.1016/j.jfineco.2005.09.006

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, *33*(3), 375–400.

Kling, G., Paul, S. Y., & Gonis, E. (2014). Cash holding, trade credit and access to short-term bank finance. *International Review of Financial Analysis*, *32*, 123–131. https://doi.org/10.1016/j.irfa.2014.01.013

Koh, K., Rajgopal, S., & Srinivasan, S. (2013). Non-audit services and financial reporting quality: Evidence from 1978 to 1980. *Review of Accounting Studies*, *18*(1), 1–33. https://doi.org/10.1007/s11142-012-9187-6

Koonce, L., Seybert, N., & Smith, J. (2016). Management speaks, investors listen: are investors too focused on managerial decisions? *Journal of Behavioral Finance*, *17*(1), 31–44.

Krishnan, J., & Ye, Z. S. (2005). Ratification on auditor selection. *Accounting Horizons*, *19*(4), 237–254.

Kumar, N., & Singh, J. P. (2012). Outside directors, corporate governance and firm performance: Empirical evidence from India. *Asian Journal of Finance & Accounting*, *4*(2), 1–10. https://doi.org/10.5296/ajfa.v4i2.1737

Kumar, N., & Singh, J. P. (2013). Effect of board size and promoter ownership on firm value: Some empirical findings from India. *Corporate Governance: The International Journal of Business in Society*, *13*(1), 88–98. https://doi.org/10.1108/14720701311302431

Lamont, O. A., Polk, C., & Saa-Requejo, J. (2001). Financial constraints and stock returns. *The Review of Financial Studies*, *14*(2), 529–554. https://doi.org/10.2139/ssrn.113336

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, *58*, 141–186.

Larcker, D. F., & Richardson, S. A. (2004). Fees paid to audit firms, accrual choices, and corporate governance. *Journal of Accounting Research*, *42*(3), 625–658. https://doi.org/10.1111/j.1475-679X.2004.t01-1-00143.x

Lester, R. H., Certo, S. T., Dalton, C. M., Dalton, D. R., & Cannella, A. A. (2006). Initial public offering investor valuations: An examination of top management team prestige and environmental uncertainty. *Journal of Small Business Management*, *44*(1), 1–26.

Leventis, S. (2018). An empirical test of SEC enforcement in the audit market. *Journal of International Accounting, Auditing and Taxation*, *30*, 106–116. https://doi.org/10.1016/j.intaccaudtax.2017.12.007

Leventis, S., Hasan, I., & Dedoulis, E. (2013). The cost of sin: The effect of social norms on audit pricing. *International Review of Financial Analysis*, *29*, 152–165. https://doi.org/10.1016/j.irfa.2013.03.006

Leventis, S., Weetman, P., & Caramanis, C. (2011). Agency costs and product market competition: The case of audit pricing in Greece. *British Accounting Review*, *43*(2), 112–119. https://doi.org/10.1016/j.bar.2011.02.005

Levi, M., Li, K., & Zhang, F. (2014). Director gender and mergers and acquisitions. *Journal of Corporate Finance*, *28*, 185–200. https://doi.org/10.1016/j.jcorpfin.2013.11.005

Levine, R. (2005). Finance and growth: theory and evidence. In P. Aghion & S. Durlauf (Eds.), *Handbook of economic growth* (pp. 865–934). Amsterdam: Elsevier. https://doi.org/10.1016/S1574-0684(05)01012-9

Levy, D. (2006). Qualitative methodology and grounded theory. *Pacific Rim Property Research Journal*, *12*(4), 369–388.

Lewis, S. (2015). Qualitative inquiry and research design: Choosing among five approaches. *Health Promotion Practice, 16*(4), 473–475. https://doi.org/10.1177/1524839915580941

Li, D. (2011). Financial constraints, R&D investment, and stock returns. *Review of Financial Studies, 24*(9), 2974–3007. https://doi.org/10.1093/rfs/hhr043

Li, J., & Lin, J. W. (2005). The relation between earning management and audit quality. *Journal of Accounting and Finance Research*, *13*(1), 1-11

Li, Y., & Zhang, X. Y. (2019). Impact of board gender composition on corporate debt maturity structures. *European Financial Management, 25*(5), 1286-1320. https://doi.org/10.1111/eufm.12214

Liedong, T. A., & Rajwani, T. (2018). The impact of managerial political ties on corporate governance and debt financing: Evidence from Ghana. *Long Range Planning*, *51*(5), 666–679. https://doi.org/10.1016/j.lrp.2017.06.006

Lin, C. Y., Chen, Y. S., & Yen, J. F. (2014). On the determinant of bank loan contracts: The roles of borrowers' ownership and board structures. *Quarterly Review of Economics and Finance*, *54*(4), 500–512. https://doi.org/10.1016/j.qref.2014.04.005

Lin, H. C., Huang, C. S., & Yang, J. J. W. (2015). Market reaction to voluntary and mandatory announcements of independent director appointments. *International Journal of Economics and Financial Issues*, *5*(1), 125–135. Retrieved from http://www.scopus.com/inward/record.url?eid=2-s2.0-84923010697&partnerID=tZOtx3y1

Lin, J. W., & Hwang, M. I. (2010). Audit quality, corporate governance, and earnings management: A meta-analysis. *International Journal of Auditing*, *14*(1), 57–77. https://doi.org/10.1111/j.1099-1123.2009.00403.x

Lin, J. W., Li, J. F., & Yang, J. S. (2006). The effect of audit committee performance on earnings quality. *Managerial Auditing Journal*, *21*(9), 921–933. https://doi.org/10.1108/02686900610705019

Lin, Z. J., & Liu, M. (2009). The impact of corporate governance on auditor choice: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, *18*(1), 44–59. https://doi.org/10.1016/j.intaccaudtax.2008.12.005

Lin, Z. J., & Liu, M. (2013). The effects of managerial shareholding on audit fees: Evidence from Hong Kong. *International Journal of Auditing*, *17*(3), 227–245. https://doi.org/10.1111/ijau.12000

Lincoln, Y. S., & Tierney, W. G. (2004). Qualitative research and institutional review boards. *Qualitative Inquiry*, *10*(2), 219–234. https://doi.org/10.1177/1077800403262361

Lins, K. (2003). Equity ownership and firm value in emerging markets. *Journal of Financial and Quantitative*

Analysis, *38*(1), 159–184.

Lorca, C., Sánchez-Ballesta, J. P., & García-Meca, E. (2011). Board effectiveness and cost of debt. *Journal of Business Ethics*, *100*(4), 613–631. https://doi.org/10.1007/s10551-010-0699-3

Love, I. (2003). Financial development and financing constraints: International evidence from the structural investment model. *Review of Financial Studies*, *16*(3), 765–791. https://doi.org/10.1093/rfs/hhg013

Luoma, P. (1999). Stakeholders and corporate boards: Institutional influences on board composition and structure. *Academy of Management Journal*, *42*(5), 553–563. Retrieved from http://content.ebscohost.com/ContentServer.asp?EbscoContent=dGJyMMTo50Sep7M4y9fwOLCmr1GeprVSsKi4SbOWxWXS&ContentCustomer=dGJyMPGvtkmyqLdNuePfgeyx9Yvf5ucA&T=P&P=AN&S=R&D=bsu&K=2415968

MacKie-Mason, J. (1990). Do firms care who provides their financing? *In Asymmetric information, corporate finance, and investment*, 63-104. University of Chicago Press.

Mal, P. and Gupta, K., 2020. Impact of Merger and Acquisition Announcements on Stock Returns, Stock Volatility and Stock Liquidity of Acquirers: Evidence from Indian Banking Sector. *Management & Accounting Review*, *19*(1), pp.73-102.

Malhotra, M., Chen, Y., Criscuolo, A., Fan, Q., Hamel, I. I., & Savchenko, Y. (2007). Expanding access to finance: Good practices and policies for micro, small and medium enterprises. *WBI Learning Resource Series. World Bank, Washington D.C.*

Malik, M.F., Nowland, J. and Buckby, S., 2021. Voluntary adoption of board risk committees and financial constraints risk. *International Review of Financial Analysis*, *73*, p.101611.

Mallin, C., Melis, A., & Gaia, S. (2015). The remuneration of independent directors in the UK and Italy: An empirical analysis based on agency theory. *International Business Review*, *24*(2), 175–186. https://doi.org/10.1016/j.ibusrev.2014.07.006

Marchetti, P., & Stefanelli, V. (2009). Does the compensation level of outside director depend on its personal profile? Some evidence from UK. *Journal of Management & Governance*, *13*(4), 325–354. https://doi.org/10.1007/s10997-009-9086-9

Maresch, D., Moro, A., & Fink, M. (2016). Corporate governance regulation, legal origin and small business access to credit : A cross-European comparison. 1–46. https://dspace.lib.cranfield.ac.uk/handle/1826/11659. Accessed 16 April 2019

Mason, C., & Stark, M. (2004). What do investors look for in a business plan? A comparison of the investment criteria of bankers, venture capitalists and business angels. *International Small Business Journal*, *22*(3), 227–248.

Mayers, J. (2020). India is now the world's 5th largest economy. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2020/02/india-gdp-economy-growth-uk-france/. Accessed 14 January 2021.

MC, A. B., & Rentala, S. (2018). Role of leadership and corporate governance: The case of Tata Group and Infosys. *FIIB Business Review*, *7*(4), 252–272. https://doi.org/10.1177/2319714518813589

MCA. (2020). *Consultation paper to examine the existing provisions of law and make suitable amendments therein to enhance audit independence and accountability*. Retrieved from http://www.mca.gov.in/Ministry/pdf/Comments_08022020.pdf. Accessed 3 June 2020.

McNichols, M. F., & Stubben, S. R. (2008). Does earnings management affect firms' investment decisions? *The Accounting Review*, *83*(6), 1571–1603. https://doi.org/10.2308/accr.2008.83.6.1571

Mehrotra, D., & Chand, S. (2012). An evaluation of major determinants of health care facilities for women in

India. *IOSR Journal of Humanities and Social Science*, *2*(5), 1–9. https://doi.org/10.9790/0837-0250109

Mellahi, K., Frynas, J. G., Sun, P., & Siegel, D. (2016). A review of the nonmarket strategy literature: Toward a multi-theoretical integration. *Journal of Management*, *42*(1), 143–173. https://doi.org/10.1177/0149206315617241

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *The Psychological Review*, *63*, 81–97.

Mitra, S., Jaggi, B., & Al-Hayale, T. (2017). The effect of managerial stock ownership on the relationship between material internal control weaknesses and audit fees. *Review of Accounting and Finance*, *16*(2), 239–259. https://doi.org/10.1108/RAF-05-2016-0072

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, *48*(2), 261–297. https://doi.org/10.15713/ins.mmj.3

Mueller, C., Westhead, P., & Wright, M. (2012). Formal venture capital acquisition: Can entrepreneurs compensate for the spatial proximity benefits of South East England and "star" golden-triangle universities? *Environment and Planning*, *44*(2), 281–296.

Myers, C. (1984). The capital structure puzzle. *Working paper*. https://www.nber.org/system/files/working_papers/w1393/w1393.pdf. Accessed 3 March 2018

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, *13*(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Naaraayanan, S. L., & Nielsen, K. M. (2016). Does accountability deter individuals from serving as independent directors ? Evidence from a corporate governance reform in India. *Working paper*, 1–43. https://www.ifrogs.org/PDF/CONF_2016/Naaraayanan_Nielsen_2016.pdf. Accessed 19 October 2018

Nam, S., & Ronen, J. (2012). The impact of non-audit services on capital markets. *Journal of Accounting, Auditing & Finance*, *27*(1), 32–60. Retrieved from https://poseidon01.ssrn.com/delivery.php?ID=910024021106119082095098074108099126039006020032019035067001092010126087094065073007039055026029057040105072020123113088070058075059082077026114110102065084095084002055124024099117005126066072117116103094082012 1

Narayanaswamy, R., Raghunandan, K., & Rama, D. V. (2012). Corporate governance in the Indian context. *Accounting Horizons*, *26*(3), 583–599. https://doi.org/10.2308/acch-50179

Nataraj, G., & Ashwani. (2018). Banking sector regulation in India: Overview, challenges and way forward. *Indian Journal of Public Administration*, *64*(3), 473–486.

United Nation . (2019). World population prospects 2019: Highlights. *Department of Economic and Social Affairs*. Retrieved from https://www.un.org/development/desa/publications/world-population-prospects-2019-highlights.html. Accessed 17 January 2021.

Nielsen, S., & Huse, M. (2010). The contribution of women on boards of directors: Going beyond the surface. *Corporate Governance: An International Review*, *18*(2), 136–148. https://doi.org/10.1111/j.1467-8683.2010.00784.x

Niemi, L. (2005). Audit effort and fees under concentrated client ownership: Evidence from four international audit firms. *International Journal of Accounting*, *40*(4), 303–323. https://doi.org/10.1016/j.intacc.2005.09.006

Ntim, C. G., & Osei, K. A. (2011). The impact of corporate board meetings on corporate performance in South Africa. *African Review of Economics and Finance*, *2*(2), 83-103.

Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal*, *18*, 187–206.

OECD. (2014). *Improving corporate governance in India: Related party transactions and minority shareholder protections*. OECD Publishing. https://doi.org/10.1787/9789264220652-en

OECD. (2019). Asian roundtable on corporate governance. Mumbai. https://www.oecd.org/daf/ca/oecd-asianroundtableoncorporategovernance.htm. Accessed 3 April 2020.

Ojha, R. (2021). Convergence To IFRS in India: Benefits Compared To GAAP. *International Educational Applied Scientific Research Journal*, *6*(1), 13–15.

Othman, H. B., & Zeghal, D. (2006). A study of earnings-management motives in the Anglo-American and Euro-Continental accounting models: The Canadian and French cases. *International Journal of Accounting*, *41*(4), 406–435. https://doi.org/10.1016/j.intacc.2006.09.004

Pascual-Fuster, B., & Crespí-Cladera, R. (2020). Optimal board independence with gray independent directors. *Business Research Quarterly*, 1–17.

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies*, *22*(1), 435-480.. https://doi.org/10.1093/rfs/hhn053

Petra, S. T. (2007). The effects of corporate governance on the informativeness of earnings. *Economics of Governance*, *8*(2), 129–152. https://doi.org/10.1007/s10101-006-0018-8

Phani, B. V, Reddy, V. N., Ramachandran, N., & Bhattacharyya, A. K. (2004). Insider Ownership, Corporate Governance and Corporate Performance. *NSE Research Project*. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.590.4473&rep=rep1&type=pdf. Accessed 22 May 2021.

Pinto, G. and Rastogi, S., 2019. Sectoral analysis of factors influencing dividend policy: Case of an emerging financial market. *Journal of Risk and Financial Management*, *12*(3), p.110.

Popescu, D. (2019). India raises corporate governance standards. Retrieved from https://www.sustainalytics.com/esg-blog/india-raises-corporate-governance-standards/. Accessed 26 January 2021.

Puri, N., & Singh, H. (2020). Indian GAAPs, IFRS, and Its Comparison: An Empirical Critique. *SN Computer Science*, *1*(6), 1–10. https://doi.org/10.1007/s42979-020-00327-4

Qi, Y., Roth, L., & Wald, J. K. (2011). How legal environments affect the use of bond covenants. *Journal of International Business Studies*, *42*(2), 235–262. https://doi.org/10.1057/jibs.2010.52

Rajan, R., & Winton, A. (1995). Covenants and collateral as incentives to monitor. *The Journal of Finance*, *50*(4), 1113–1146.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, *50*(5), 1421–1460. https://doi.org/10.2307/2329322

Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth source. *The American Economic Review*, *88*(3), 559–586.

Raju, E. (2014). Gender discrimination in India. *IOSR Journal of Economics and Finance*, *2*(5), 55–65. https://doi.org/10.9790/5933-0255565

Ramos, S. B., Latoeiro, P., & Veiga, H. (2020). Limited attention, salience of information and stock market activity. *Economic Modelling*, *87*, 92–108. https://doi.org/10.1016/j.econmod.2019.07.010

Rao, N., Bedia, D. D., & Shrivastava, K. (2020). Effect of IFRS and Ind AS on the Financial statements of Listed Indian Companies: A Compararive Assessment. *Journal of Commerce & Accounting Research*, *9*(2), 1–15.

Rashid, A. (2015). Revisiting agency theory: Evidence of board independence and agency cost from Bangladesh. *Journal of Business Ethics*, *130*(1), 181–198. https://doi.org/10.1007/s10551-014-2211-y

Ravina, E., & Sapienza, P. (2010). What do independent directors know? Evidence from their trading. *Review of Financial Studies*, *23*(2). https://doi.org/10.1093/rfs/hhp027

Reddy, Y. V. (2005). Banking sector reforms in India: An overview. *Bank for International Settlements*, 577–583.

Rediker, K. J., & Seth, A. (1995). Boards of directors and substitution effects of alternative governance mechanisms. *Strategic Management Journal, 16* (2), 85-99.

Reeb, D., & Upadhyay, A. (2010). Subordinate board structures. *Journal of Corporate Finance*, *16*(4), 469–486. https://doi.org/10.1016/j.jcorpfin.2010.04.005

Robinson, D. (2006). Tax service fees and auditor independence: Evidence from going-concern audit opinions prior to bankruptcy filings. *Auditing: A Journal of Practice & Theory*, *27*(2), 31–54.

Rose, C. (2007). Does female board representation influence firm performance ? The Danish evidence. *Corporate Governance*, *15*(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x

Rosenstein, S., & Wyatt, J. G. (1990). Outside directors, board independence, and shareholder wealth. *Journal of Financial Economics*, *26*(2), 175–191. https://doi.org/10.1016/0304-405X(90)90002-H

Ryan, R. M., O'Toole, C. M., & McCann, F. (2014). Does bank market power affect SME financing constraints?, *Journal of Banking & Finance*, *49*, pp.495-505. https://doi.org/10.1016/j.jbankfin.2013.12.024

Sainty, B. J., Taylor, G. K., & Williams, D. D. (2002). Investor dissatisfaction toward auditors. *Journal of Accounting, Auditing & Finance*, *17*(2), 111–136. https://doi.org/10.1177/0148558X0201700202

Sarkar, J., & Sarkar, S. (2009). Multiple board appointments and firm performance in emerging economies: Evidence from India. *Pacific Basin Finance Journal*, *17*(2), 271–293. https://doi.org/10.1016/j.pacfin.2008.02.002

Sarpal, S. (2018). Does endogeneity in causal relationships matter: A case of board independence and firm's market valuation. *Emerging Economy Studies*, *4*(1), 19–39. https://doi.org/10.1177/2394901518767022

Sathye, M. (2003). Efficiency of banks in a developing economy: The case of India. *European Journal of Operational Research*, *148*(3), 662–671.

Saunders, M., Lewis, P. & Thornhill, A., (2011). *Research methods for business students*. Pearson Education India.

Sengupta, P. (1998). Corporate disclosure quality and the cost of debt. *Accounting Review*, *10*(4), 459–474. https://doi.org/10.1016/S0099-1767(98)90076-9

Sengupta, P., & Bhojraj, S. (2003). Effect of corporate governance on bond ratings and yields : The role of institutional investors and outside directors. *The Journal of Business*, *76*(3), 455–475. https://doi.org/10.1086/344114

Schubert, R. (2006). Analyzing and managing risks–on the importance of gender differences in risk attitudes. *Managerial Finance*, *32*(9), 706–715.

Shahbaz, M., Mallick, H., Mahalik, M. K., & Hammoudeh, S. (2018). Is globalization detrimental to financial development? Further evidence from a very large emerging economy with significant orientation towards policies. *Applied Economics*, *50*(6), 574–595. https://doi.org/10.1080/00036846.2017.1324615

Sharma, S., & Singh, M. (2018). Corporate governance and firm's performance during subprime crisis :

Evidence from Indian firms. *Gurukul Business Review, 14*, 12–25.

Sharpe, S. A. (1994). Financial market imperfections, firm leverage, and the cyclicality of employment. *The American Economic Review*, *84*(4), 1060–1074. https://doi.org/10.2307/2118044

Shleifer, A., & Vishny, R. (1997). A survey of corporate governance. *The Journal of Finance*, *52*(2), 737-783

Shu, S. Z. (2000). Auditor resignations: clientele effects and legal liability. *Journal of Accounting and Economics*, *29*(2), 173–205. https://doi.org/10.1016/S0165-4101(00)00019-7

Siddiqui, J. (2010). Development of corporate governance regulations: The case of an emerging economy. *Journal of Business Ethics*, *91*(2), 253–274.

Sikand, P., Dhami, J., & Batra, G. S. (2012). Gender diversity on corporate boards: A case Of India. *International Journal of Management*, *4*(2), 292–305. https://doi.org/10.1177/0312896212451032

Singh, R. and Srivastava, S.K., 2019. Implementation of IFRS as Indian Accounting Standard for Similarity in Financial Reporting in India: Challenges & Benefits. *American Journal of Theoretical and Applied Business*, *5*(4), pp.90-96.

Simunic, D. A. (1984). Auditing, Consulting, and Auditor Independence. *Journal of Accounting Research*, *22*(2), 679–702. https://doi.org/10.2307/2490671

Sinha, G., Kumar, M., & Joshi, H. (2013). An introduction to audit in India. *India Briefing*. *19*, 1-12

Sloan, R. G. (2001). Financial accounting and corporate governance: A discussion. *Journal of Accounting and Economics*, *32*, 335–347.

Smith, C. W. (1993). A perspective on accounting-based debt covenant violations. *The Accounting Review*, *68*(2), 289–303. Retrieved from http://www.jstor.org.libproxy.mit.edu/stable/248402%5Cnhttp://www.jstor.org.libproxy.mit.edu/stable/pdfplus/248402.pdf?acceptTC=true

Smith, C. W., & Warner, J. B. (1979). On financial contracting. An analysis of bond covenants. *Journal of Financial Economics*, *7*(2), 117–161. https://doi.org/10.1016/0304-405X(79)90011-4

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, *87*(3), 355–374.

Srinidhi, B. I. N., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, *28*(5), 1610–1644. https://doi.org/10.1111/j.1911-3846.2011.01071.x

Srinidhi, B. N., & Gul, F. A. (2007). The differential effects of auditors' nonaudit and audit fees on accrual quality. *Contemporary Accounting Research*, *24*(2), 595–629. https://doi.org/10.1506/ARJ4-20P3-201K-3752

Srivastava, V., Das, N., & Pattanayak, J. K. (2018). Women on boards in India: A need or tokenism? *Management Decision*, *56*(8), 1769–1786. https://doi.org/10.1108/MD-07-2017-0690

Stein, J. C. (2002). Information production and capital allocation. *The Journal of Finance*, *57*(5), 1891–1921.

Su, W., & Lee, C. Y. (2013). Effects of corporate governance on risk taking in Taiwanese family firms during institutional reform. *Asia Pacific Journal of Management*, *30*(3), 809–828. https://doi.org/10.1007/s10490-012-9292-x

Summers, L. H., Bosworth, B. P., Tobin, J., & White, P. M. (1981). Taxation and corporate investment: A q-Theory approach. *Brookings Papers on Economic Activity*, 1, 67. https://doi.org/10.2307/2534397

Tran, D. H. (2014). Multiple corporate governance attributes and the cost of capital - Evidence from Germany. *The British Accounting Review*, *46*, 179–197. https://doi.org/10.1016/j.bar.2014.02.003

Tripathy, S., & Pradhan, R. P. (2014). Banking sector development and economic growth in India. *Global Business Review*, *15*(4), 767–776.

Tsipouridou, M., & Spathis, C. (2012). Earnings management and the role of auditors in an unusual IFRS context: The case of Greece. *Journal of International Accounting, Auditing and Taxation*, *21*(1), 62–78. https://doi.org/10.1016/j.intaccaudtax.2012.01.005

United Nations Conference on Trade and Development. (2010). Corporate governance in the wake of the financial crisis. Retrieved from https://unctad.org/system/files/official-document/diaeed20102_en.pdf. Accessed 18 January 2021.

Usman, M., Zhang, J., Farooq, M. U., Makki, M. A. M., & Dong, N. (2018a). Female directors and CEO power. *Economics Letters*, *165*, 44–47. https://doi.org/10.1016/j.econlet.2018.01.030

Usman, M., Zhang, J., Wang, F., Sun, J., & Makki, M. A. M. (2018b). Gender diversity in compensation committees and CEO pay: Evidence from China. *Management Decision*, *56*(5), 1065–1087. https://doi.org/10.1108/MD-09-2017-0815

Vafeas, N. (2000). Board structure and the informativeness of earnings. *Journal of Accounting and Public Policy*, *19*(2), 139–160. https://doi.org/10.1016/S0278-4254(00)00006-5

Vander Bauwhede, H., & Willekens, M. (2004). Evidence on (the lack of) audit-quality differentiation in the private client segment of the Belgian audit market. *European Accounting Review*, *13*(3), 501–522.

Vanstraelen, A., & Schelleman, C. (2017). Auditing private companies: What do we know? *Accounting and Business Research*, *47*(5), 565–584. https://doi.org/10.1080/00014788.2017.1314104

Varottil, U. (2010). Evolution and Effectiveness of Independent Directors in Indian Corporate Governance. *Hastings Business Law Journal*, *6*(2), 281–375.

Wang, M.-C., & Lee, Y.C. (2012). The signaling effect of independent director appointments. *Emerging Markets Finance and Trade*, *48*(5), 25–47. https://doi.org/10.2753/REE1540-496X480502

Washburn, M., & Bromiley, P. (2012). Comparing aspiration models: The role of selective attention. *Journal of Management Studies*, *49*(5), 896–917. https://doi.org/10.1111/j.1467-6486.2011.01033.x

Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing, and the theory of the firm: Some evidence. *The Journal of Law and Economics*, *26*(3), 613–633.

Wei, W., Tang, R. W., & Yang, J. Y. (2018). Independent directors in Asian firms: An integrative review and future directions. *Asia Pacific Journal of Management*, *35*(3), 671–696. https://doi.org/10.1007/s10490-017-9553-9

Weisbach, M. S. (1988). Outside directors and CEO turnover. *Journal of Financial Economics*, *20*(C), 431–460. https://doi.org/10.1016/0304-405X(88)90053-0

Westphal, J. D. (2007). Flattery will get you everywhere (especially if you are a male Caucasian): How ingratiation, boardroom behavior, and demographic minority status affect additional board appointments at U.S. companies. *Academy of Management Journal*, *50*(2), 267-288. Retrieved from http://content.ebscohost.com/ContentServer.asp?EbscoContent=dGJyMMvl7ESep684y9fwOLCmr1Gep65SsK24S7CWxWXS&ContentCustomer=dGJyMPGvtkmyqLdNuePfgeyx9Yvf5ucA&T=P&P=AN&S=R&D=bsu&K=24634434

Whited, T. M. (1992). Debt, liquidity constraints, and corporate investment: Evidence from panel data. *The Journal of Finance*, *47*. 1425-1460. Retrieved from https://0-www-jstor-org.serlib0.essex.ac.uk/stable/pdf/2328946.pdf?refreqid=excelsior%3Ad60f2285873da54869aec78721a1799a

Whited, T. M., & Wu, G. (2006). Financial constraints risk. *The Review of Financial Studies*, *19*(2), 531–559.

https://doi.org/10.1093/rfs/hhj012

Williams, R. J. (2003). Women on corporate boards of directors and their influence on corporate philanthropy. *Journal of Business Ethics*, *42*(1). 1-10. Retrieved from http://content.ebscohost.com/ContentServer.asp?EbscoContent=dGJyMNLr40SeqLQ4xNvgOLCmr1GeprJSsq24S7KWxWXS&ContentCustomer=dGJyMPGvtkmyqLdNuePfgeyx9Yvf5ucA&T=P&P=AN&S=R&D=bsu&K=9198181

World Bank. (2019). Population Division's World Population Prospects: 2019 Revision. Retrieved from https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=IN. Accessed 21 January 2021

World Economic Forum. (2011). *The India gender gap review*. Retrieved from http://www3.weforum.org/docs/WEF_GenderGap_Report_2011.pdf

World Justice Project. (2016). The Rule of Law Index. Retrieved from https://worldjusticeproject.org/sites/default/files/documents/RoLI_Final-Digital_0.pdf. Accessed 10 March 2018.

Wurgler, J. (1999). Financial markets and the allocation of capital. *Journal of financial economics*, *58*(1-2), 187-214.https://doi.org/10.1016/S0304-405X(00)00070-2

Xie, B., Davidson III, W. N., & Dadalt, P. J. (2003). Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance*, *9*(3), 295-316.Retrieved from www.elsevier.com/locate/econbase

Yang, S., Milner, C., Lancheros, S., & Gunessee, S. (2020). Access to finance, technology investments and exporting decisions of Indian services firms. *Open Economies Review*, *31*(5), 1009–1036.

Yasar, B., Martin, T., & Kiessling, T. (2020). An empirical test of signalling theory theory. *Management Research Review*, *43*(11), 1309–1335. https://doi.org/10.1108/MRR-08-2019-0338

Yates, L. (2004). *What does good education research look like? Situating a field and its practices*. UK: Open University Press. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=auAas53WSt0C&oi=fnd&pg=PP1&dq=What+does+good+education+research+look+like%3F+&ots=rv038QCSlI&sig=VAqoUfdnphqy_CVR7DnHwCZe-YA#v=onepage&q=What does good education research look like%3F&f=false

Yermack, D. (2004). Remuneration, retention, and reputation incentives for outside directors. *The Journal of Finance*, *59*(5), 2281–2308.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). Corporate governance in emerging economies: A review of the principal-principal perspective. *Journal of Management Studies*, *45*(1), 196–220. https://doi.org/10.1111/j.1467-6486.2007.00752.x

Zala, D. (2020). A Study on Implementation and Applications of IFRS in India. *International Education & Research Journal*, *6*(9), 114–116.

Zalata, A. M., Ntim, C. G., Choudhry, T., Hassanein, A., & Elzahar, H. (2019). Female directors and managerial opportunism: Monitoring versus advisory female directors. *Leadership Quarterly*, *30*(5). https://doi.org/10.1016/j.leaqua.2019.101309

Zhu, F. (2014). Corporate governance and the cost of capital: An international study. *International Review of Finance*, *14* (3), 393–429. https://doi.org/10.1111/irfi.12034