



Financing obstacles for SMEs: the role of politics

Saibal Ghosh¹

Received: 24 February 2022 / Accepted: 10 September 2022 / Published online: 29 September 2022
© The Author(s), under exclusive licence to Faculty of Entrepreneurship, University of Tehran 2022

Abstract

Purpose Using data on over 7500 units from the World Bank Enterprise Survey (WBES) for 2014, the paper assesses the impact of political connections on SME financing obstacles in India.

Methodology Since the dependent variable has a meaningful response order and involves several categories, it is appropriate to use the ordered logit model (OLM). We employ the OLM of the *STATA* program for the estimation process.

Findings The findings indicate that political connections help alleviate higher-order financing obstacles. In terms of magnitude, senior managers with political connections are 2.5 percentage points less likely to state that there are no financing obstacles, and about 1 percentage point is more likely to state it as a moderate or major obstacle. As well, they are 0.6 percentage point more likely to mention it as a severe obstacle. These results differ across firm ownership type (i.e., male-versus female-owned) and firm size classes and when additional state characteristics are taken on board.

Limitations The analysis is limited to a single year based on data availability. A much richer analysis would need to assess how such political connections play out over time and its consequences for SME behaviour. Second, our measure of political connection is indirect, since no other measure is reported in the data.

Originality To the best of our understanding, this is one of the earliest studies for a leading emerging economy to assess the interlinkage between SME behaviour and their political connections.

Keywords SMEs · Financing obstacles · Politics · Gender

JEL Classification G 21 · L 22 · D74

Introduction

A growing body of research in recent times has explored the role and relevance of political connections (Faccio, 2006; Asher & Novosad, 2017; Chahal and Ahmad, 2022). The role of such connections permeates multiple areas ranging from regulatory to corporate and even to growth and development outcomes and spans across both developed

(Bertrand et al., 2018; Brown & Huang, 2020; Hutton et al., 2014; Thakor, 2021) and emerging (Claessens et al., 2008; Khwaja & Mian, 2005; Kumar, 2020) economies. Such political connection is especially prominent in emerging economies so as to develop informal networks to address the lack of well-functioning markets and institutions (Carpenter & Petersen, 2002; Cowling et al., 2015; Du & Girma, 2010; Holton et al, 2013). Political connections also help assuage financing challenges to ensure that it is available at competitive rates (Ayyagari et al., 2008; Banerjee & Duflo, 2014; De Mel et al., 2008).

Such two-way interactions benefit both sides. On the one hand, political ties help firms to enjoy preferential access to credit from state-owned entities and favourable regulatory treatment (Faccio, 2006). On the other, providing politicians with pecuniary and non-pecuniary (e.g., campaign) support allows the latter to consolidate their power and improve re-election prospects (Frye & Iwasaki, 2011).

A part of the work was done when the author was associated with the Centre for Advanced Financial Research and Learning, Mumbai, India. The author would like to thank, without implicating, two anonymous referees for the incisive comments on an earlier version, which helped to greatly improve the analysis. Needless to mention, the views expressed and the approach pursued in the paper is the personal opinion of the author.

✉ Saibal Ghosh
emailsaiibal@gmail.com

¹ Qatar Central Bank, ABJ Street, Doha, Qatar

As a result, forging political networks is important to ensure preferential access to credit (Khwaja & Mian, 2005) and shield themselves from the “grabbing hand” of the state (Shleifer & Vishny, 1998). Even when political ties are less compelling, the overwhelming dominance of the state in important spheres of economic activity, including finance allows it to allocate credit either on favourable terms (Sapienza, 2004) or to favoured firms (Li et al., 2008). The problem is all the more challenging for small and medium enterprises (SMEs). They account for a significant portion of business and are important contributors to employment and economic development. On average, they represent nearly 80% of value-added and more than 50% of employment worldwide. And yet, they face significant credit constraints (Beck et al., 2005, 2006). Estimates by International Finance Corporation (2017) show that the financing gap for SMEs in emerging economies is US \$5.2 trillion or 16% of their 2017 GDP.

Even in India, the credit gap for SMEs is substantial. The World Bank (2018) estimates this gap for SMEs to be US\$ 350 billion, or 12% of the country’s 2018 GDP. To address this challenge, the government has instituted a whole host of schemes to provide access to finance at low-cost to eligible entities (Government of India, 2022).¹ However, availing to such finance involves closer and continuous interaction with government machinery, making SMEs susceptible to political pressures. Therefore, it is surprising that the role of political connections for small and medium enterprises (SMEs) has not received adequate attention, especially regarding their financing obstacles.

To contribute to this debate, we assess the importance of political connections in alleviating SMEs’ credit obstacles, using India as a case study. Accordingly, we use World Bank Enterprise Survey (WBES) data at the state-industry level for 2014. In the Indian context, this is the only available survey data which contains information on key variables of interest. Most recently, Jabeen et al. (2021) exploited this database to assess the differences in business obstacles encountered by Indian SMEs.

Using this database, we address three inter-related issues: first, do political connections influence SMEs’ financing obstacles? Second, do important financial characteristics of states such as their ease of doing business, credit penetration, and foreign bank’s presence affect this behaviour? And

finally, does gender of the SME owner play a role in this regard?

Our key variable of interest is political connections, which is the response to the question “What percentage of senior management time was spent dealing with government regulations?” To elucidate, senior managers often exploit their contacts with government officials to improve the likelihood of credit access. Internationally, evidence suggests that political connections matter for firm behaviour. For example, Acemoglu et al. (2016) report that the appointment of a well-known individual in the USA as Treasury Secretary improved the cumulative abnormal returns of firms with whom there was prior connection by 6–12%. Brown and Huang (2020) demonstrate that such visits significantly boosted stock prices by utilising data on White House corporate executive logs. Even otherwise, closer links with government officials can significantly improve the firm’s competitive advantage through cheaper loans or a greater quantum of loans at below-market rates (Li et al., 2008; Peng & Luo, 2000). We integrate this information on political connection with data on financing obstacles and control for other firm-level factors and industry- and state-fixed effects. Our findings suggest that political connections exert a discernible influence on SME financing obstacles and that this impact is economically significant as well.

An analysis of this issue in the Indian context is useful for several reasons. First, it is well-recognised that the nexus between business and politics has become widely pervasive in India. Reflecting this fact, Sinha (2019) provides examples of how crony capitalism has been allowed to germinate, imposing high economic and financial costs.

Second, even with regard to SMEs, certain products are exclusively reserved for their production. Although the list of products has gradually shrunk over time, yet SMEs depend highly on government funding for their business operations (Balasubrahmanya, 1995).

Third, studies focusing on the Indian experience concerning SMEs are limited (Athaide & Pradhan, 2020; Ghani et al., 2014; Raj & Sen, 2015) and even if they exist, they do not address the relevance of politics. Given that these entities are an important driver of growth, assessing various facets of their performance is important to obtain a holistic picture (Government of India, 2019).

Finally, COVID-19 significantly impacted SMEs in the country due to reduced (or, loss of) orders, unavailability of raw materials, and loss of markets. Reflecting this fact, estimates suggest that close to 50% of SMEs in India (United Nations Conference on Trade & Development, 2022). Reviving this sector with financial and logistical support requires a comprehensive assessment.

The rest of the analysis unfolds as follows. “**Theoretical framework**” briefly outlines the theoretical motivation underlining the relevance of political connections, followed

¹ Some of the important schemes for SMEs and the number of beneficiaries under each include: Pradhan Mantri Mudra Yojana (350 million beneficiaries), MSME loan in 59 min (420,000 beneficiaries), Stand-up India scheme (115,000 beneficiaries), Growth capital and equity assistance scheme (80,000 beneficiaries) and Emergency credit line guarantee scheme (12 million beneficiaries). The number of beneficiaries differs because different schemes were started at different points in time.

by the “Received evidence and contribution”. Subsequently, we introduce the “Database and variables”, followed by the “Empirical framework and results”. The final section “Conclusions and managerial implications” concludes.

Theoretical framework

From a theoretical standpoint, three strands of literature have emerged, highlighting the relevance of political connections. The first is based on the *resource dependence theory* (Pfeffer & Salancik, 1978). This theory observes that the external ecosystem influences the behaviour of an organisation that it utilises. One such external resource is politicians. Forging networks with politicians facilitates an organisation to gain access to scarce resources or even when such resources are available, on more favourable terms.

The second argument is based on the pork barrel theory (Dixit & Londregan, 1998). It refers to the fact that politicians often allocate significant resources to improve local constituents’ economic and social prospects, thereby securing their support and votes. In this regard, maintaining political connections is beneficial since it can help facilitate allocating resources to desired entities (or groups).

The final line of reasoning is based on the social capital theory. This theory defines the network of relationships among people that facilitates the smooth functioning of the society. In this context of SMEs, this theory observes that the *quid-pro-quo* relationship between SMEs and politicians act as a means to improve the firms’ competitive advantage (Johanson & Mattsson, 1988; Li et al., 2008) and relatedly, as a means to distribute scarce resources.

Each theory provides insights as to why SMEs need to forge political connections to further their business.

Received evidence and contribution

Our analysis makes two distinct contributions. The first is the role of politics in affecting credit obstacles for SMEs. Employing data for Italy, Sapienza (2004) finds that state-owned Italian banks charge lower interest rates to state-owned firms. Other studies have highlighted the role and relevance of politics in examining their vulnerabilities to political exigencies (Dinc, 2005). Within a cross-country setup, Lashitew (2014) shows that greater political connections increase firms’ credit. Using data for Vietnam, Minh et al. (2021) show that SMEs with political connections pay anywhere between 7 and 10% lower taxes than their non-connected peers. In the Indian setup, Dinc and Gupta (2011) show that political patronage compels governments to side-step firm privatisation, especially when political competition is strong. Similarly, Asher and Novosad (2020) show that the

construction of paved roads in rural India are much faster provided the local politician is aligned to the government in power at the state level. We contribute to this literature by investigating whether politics matters for SMEs’ financing obstacles.

Second, we contribute to the literature on gender by assessing the interlinkage between politics and gender, especially for SMEs. In an influential study, Chattopadhyay and Duflo (2004) find that in West Bengal and Rajasthan, female village councils prefer to expend resources on infrastructure relevant to women in their community. Other studies explore the effects of female representation on related aspects, such as the allocation of public goods (Clots-Figueras, 2011), employment (Ghani et al., 2014), and crime reduction (Iyer et al., 2012). Chaudhuri et al. (2020) distinguish between women-owned and women-managed businesses and show that the performance of the latter category of SMEs is significantly weaker compared with the former. Akin to their analysis, we distinguish between women-owned and women-managed firms and explore whether gender matters for SME financing in the presence of political connections.

Over and above, we also address three related issues. First, we explore whether ease of doing business (EoDB) at the state level translates into lower financing obstacles for SMEs (World Bank, 2018).² Second, it is well-recognised that credit penetration varies widely across states (Reddy, 2012). Therefore, it appears likely that SMEs located in states with lower credit penetration could be relatively more constrained for credit. We examine this aspect in our empirical analysis. Finally, we focus on the role of foreign banks. In particular, we contribute to this evidence by looking at the impact of foreign banks on SME financing obstacles in the presence of political connections.

Database and variables

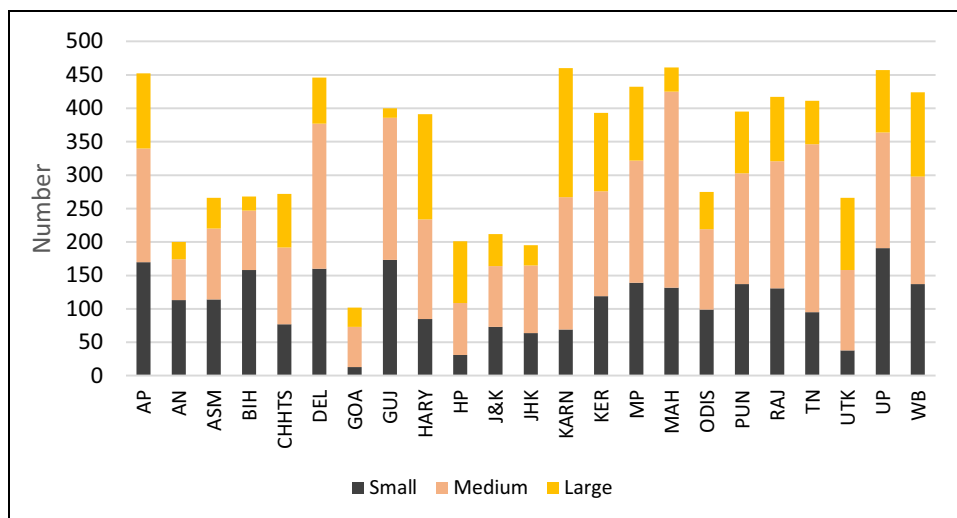
Data source

The data source is the World Bank Enterprise Survey (WBES). The survey is an ongoing exercise that collects firm-level data across countries based on a standardised procedure. During 2002–2020, close to 150 countries were covered by the WBES. Besides balance sheet and sales details, the data also provides responses to questions related to government-business relationships, various types of obstacles facing firms, and employment, and capital stock.

The key sectors covered for each country are manufacturing, construction, and services. A two-stage stratification is employed to determine the sample size in each sector. The

² <https://www.doingbusiness.org/en/reports/subnational-reports>

Fig. 1 Distribution of manufacturing firms by state and firm size



first stage is determined according to its relative importance in the overall economy, and the second stage is based on firm size and geographical location.

For the manufacturing sector which is the focus of our analysis, the industry grouping is based on 2-digit ISIC classification. The firm size in the WBES are categorised based on full-time employees as small (between 5 and 19 employees), medium (between 20 and 99 employees) and large (with over 100 employees). This standardisation ensures that the data is comparable over time and across countries.

Our sample focuses on the Indian case, where the survey was conducted during June 2013–June 2014. The data was collected based on a sample of 9281 formal businesses in the private sector having a minimum of five employees, categorised by firm size and geography. After filtering and removing non-manufacturing firms, we have a total of 7796 firms across 23 states and 15 industries.³

Figure 1 shows the distribution of manufacturing firms across states. There is a significant regional variation in SMEs. Without loss of generality, the top three states account for a quarter of the total SMEs, and the share of top 5 states was close to 40%. The high contribution of certain states is the result of several factors such as conducive policy environment, infrastructural support, skilled workforce, and industry-friendly policies.

³ The state notations are as follows: Andhra Pradesh (AP), Arunachal Pradesh (AN), Assam (ASM), Bihar (BIH), Chhattisgarh (CHHTS), Delhi (DEL), Goa (GOA), Gujarat (GUJ), Haryana (HARY), Himachal Pradesh (HP), Jammu & Kashmir (J&K), Jharkhand (JHK), Karnataka (KARN), Kerala (KER), Madhya Pradesh (MP), Maharashtra (MAH), Odisha (ODIS), Punjab (PUN), Rajasthan (RAJ), Tamil Nadu (TN), Uttarakhand (UTK), Uttar Pradesh (UP), and West Bengal (WB).

Dependent variable

The key dependent variable is the response to the question: “how much of an obstacle is access to finance?” The response to this question is qualitative ranging from “No obstacle,” “minor obstacle,” “moderate obstacle,” “major obstacle,” and “severe obstacle.” We transform these qualitative responses into a quantitative scale, ranging from one (severe obstacle) to five (no obstacle), so that higher values indicate lower perceived obstacle by the firm.

For each state-firm combination, we compute the average value of financing obstacles. We scale the average values for each firm size class by 5 (the maximum value). As a result, the overall financing obstacle *for each size class* ranges from 0.2 (severe) to 1 (no financing obstacle). We plot the financing obstacle and relatedly, show the “distance-to-frontier” by subtracting this value from 1 for each state-firm size combination. The taller the length of the bar for each state-firm size combination, the lower the financing obstacle for firms for that size class *within* a state. From this standpoint, Fig. 2 shows that Bihar presents the highest degree of financing obstacle across all firm size classes, whereas such financing constraints are the lowest in Odisha and Punjab. Among others, financing obstacles for small firms are on the higher side in Uttar Pradesh and Goa, in Rajasthan for medium firms, and in Tamil Nadu for large firms (Government of India, 2019).

Key independent variable

The key independent variable is the response to the question which shows the per cent of senior managers’ time spent in dealing with government regulations. The response to this question ranges from zero to 100 and also includes qualitative responses such as “do not know”

Fig. 2 Scaled (average) values of financing obstacles, by state

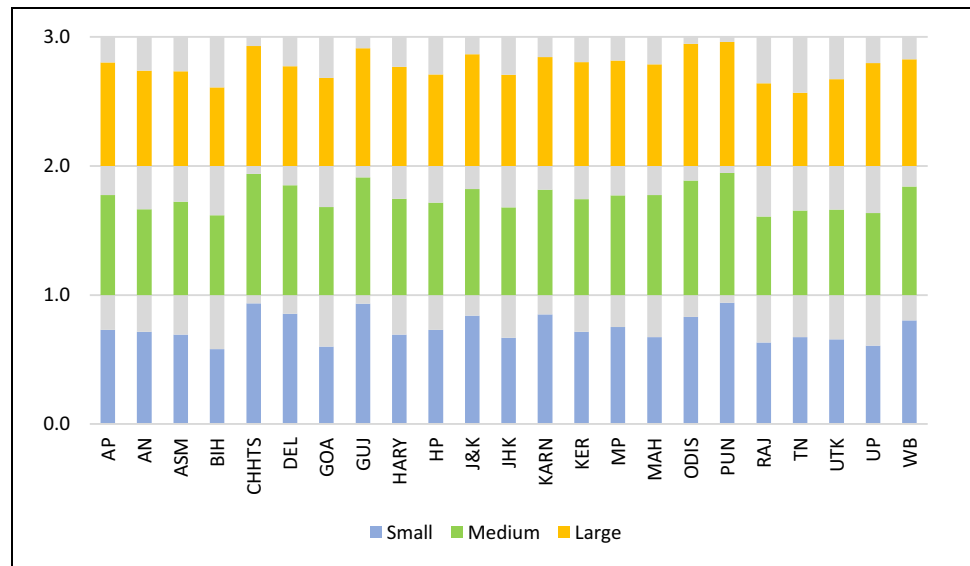
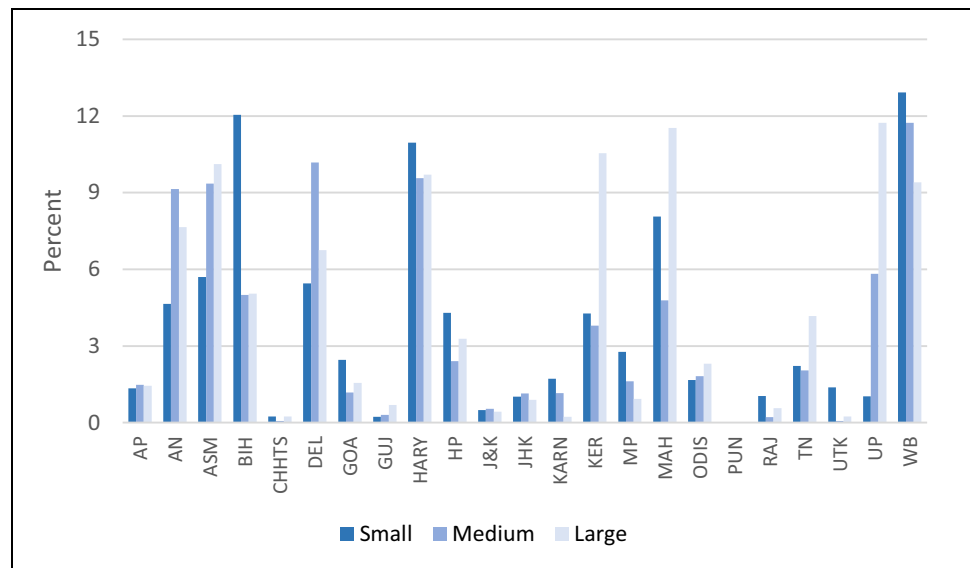


Fig. 3 Average time (in percent) spent in dealing with government regulations, by state and firm size



(which we treat as missing values). We define a dummy variable which equals one if senior managers of firms spend more than the median time with government regulation; the rest are classified as spending less time. We term this variable as *Political*; it shows the proportion of senior managers who spend more time dealing with government regulations.

Figure 3 plots the response. It shows wide variability in the time firms spend dealing with government regulations. Firms in Bihar, Haryana Maharashtra, and West Bengal typically spend more time on average dealing with such regulations, although this magnitude varies across firm size.

Control variables

To account for other factors, we employ several control variables. The first control variable is size. Evidence suggests that larger firms are typically better performers, *all else equal* (La Porta & Shleifer, 2014). That being the case, they should face lower financing obstacles. Based on the data, we define firm size as a categorical variable, taking value of 1, 2, and 3, respectively for small, medium, and large firms.

Age is a proxy for reputation (Diamond, 1991). Older firms have a better reputation and encounter fewer impediments in accessing finance. Their cost of borrowing is likely to be lower and therefore face lower financing obstacles.

Evidence suggests that both the pattern of ownership and legal status are intricately linked with firm performance (Barbera & Moores, 2013). Taking this consideration on board, we control for firm ownership and legal status.

Export orientation of a firm has been observed to positively impact its performance. As a result, we control for this fact by using a dummy variable if the firm's export-sales ratio is positive, else zero.

To account for the possibility of access to finance, we include a dummy variable that takes value one, provided the firm has access to bank loans or any other credit line, else zero.

Firm performance is also linked with its technological sophistication (Farrell, 2004; Grimm et al., 2012). In view of this, we use a dummy variable which equals one if a firm has some recognised certification from an international agency, else zero.

Innovation is a key input of firm performance (Aas & Pedersen, 2011). By improving products and processes, innovative firms creatively disrupt less innovative incumbents, and thereby generate profits, leading to a virtuous circle of innovation and performance. Therefore, we use a dummy variable that equals one if the R&D-to-sales ratio of the SME is positive, else zero.

We include two variables to capture the importance of human capital (Gennaiolo et al., 2013): the natural logarithm of the number of years of work experience of the top manager and the share of temporary workers to total workers.

As an indicator of professionalism, we utilise a dummy which equals one if a firm employs an external auditor, and zero otherwise.

Finally, we consider for the industry and state in which the SME is located to control for other unobservables.

Table 1 shows the variable definitions, including summary statistics. The average value of obstacle to finance is 3.8, suggesting that access to finance is more than a minor obstacle. Across firms, the value of Political is 0.45, so senior managers appear to spend less than 1% of their time dealing with governments. Following from our previous discussion, although the average values are low, it is highly wide: in 55% cases, senior managers spent no time in dealing with the governments, whereas of the remaining, 38% of the senior managers spent up to 10% of the time in dealing with government.

At the firm level, 34% of them are small; 44% are medium and the remaining are large firms. Among others, the age of a firm is 21 years on average, suggesting that firms are in operation for quite a substantive period.

At the state level, the average EoDB is 43%; credit penetration is close to 50%; and foreign bank credit is just over 2%. Together, these numbers indicate significant “distance to frontier” in doing business, moderate levels of credit penetration, and very low outreach of foreign bank credit.

Table 2 presents the correlation matrix of major variables. The key correlation is of financing obstacle with politics, which is negative and statistically significant with a value of 6.3%; in other words, political outreach of senior managers does appear to ease credit obstacles. We also find that women-owned firms report credit obstacles to be more binding, and political outreach on their part does not alleviate financing obstacles. These raw correlations are less meaningful, since they do not control for firm-level factors. We therefore specify an empirical framework that can take these factors on board. It is to this aspect that we turn our attention next.

Empirical framework and results

Impact of political connections

To assess the impact of political connections on financing obstacles for SMEs, for firm f , industry i , and in state s , we estimate the following regression:

$$Obstacle_{fjs} = \alpha + \beta Political_{fjs} + \gamma Z_{fi} + \delta F_s + \lambda_i + \mu_s + \varepsilon_{is} \quad (1)$$

In Eq. (1), *obstacle* is the measure of financing obstacle. The key independent variable is *Political*; Z and F are a vector of firm- and state-specific variables; λ and μ are industry- and state-fixed effects (which control for other unobservable at the industry and state level); and ε is error term.

As mentioned earlier, we transform the (qualitative) outcome variable into a (quantitative) scale, ranging from 1 to 5, with 1 indicating a “severe obstacle” (worst) and 5 proxying for “no obstacle” (best). Given this well-defined order of the outcome variable, we employ the ordered logit model.

An important concern in our regression analysis stems from reverse causality from credit obstacles to political connections. This could be likely if senior managers increase their interactions with government officials, after obtaining credit. To address this bias, we incorporate industry dummies.

The main findings are presented in Table 3. Column (1) shows that senior managers who spend more time dealing with government regulations end up facing lower financing obstacles. Across columns, these findings manifest in small and medium firms, although there is no impact for large firms.

To facilitate better interpretation, we report the average marginal effects (AMEs) for the key coefficients. The AMEs provide a summary statistic that reflects the full distribution of independent variables (Williams, 2021). As a result, while we present the regression table and the AME for the baseline, we report only the AMEs for the key coefficients in subsequent regressions.

Table 1 Variable definition and summary statistics

Notation	Measurement	<i>N.</i> obs	Mean (SD)	Expected sign with dependent variable
Dependent				
<i>Obstacle</i>	Categorical variable: 1, if finance is a severe obstacle; 2, if it is major obstacle; 3, if it is a moderate obstacle; 4, if it is a minor obstacle; and 5, if it is not an obstacle	7796	3.832 (1.157)	
Independent				
<i>Political</i>	Proportion of senior management time of a firm spent in dealing with government officials	7363	0.451 (0.498)	
<i>Women owner (WO)</i>	Dummy = 1, if a firm is women-owned, else zero	7754	0.152 (0.359)	
<i>Women manager (WM)</i>	Dummy = 1, if a firm is women-managed, else zero	7779	0.073 (0.261)	
<i>Women as owner-manager (WOM)</i>	Dummy = 1, if a firm is either women-owned or women-managed, else zero	7796	0.031 (0.174)	
<i>Size (small)</i>	Dummy = 1, if a firm is a small firm, else zero	7796	0.323 (0.467)	Positive
<i>Size (medium)</i>	Dummy = 1, if a firm is a medium firm, else zero	7796	0.444 (0.497)	Positive/negative
<i>Size (large)</i>	Dummy = 1, if a firm is a large firm, else zero	7796	0.233 (0.423)	Negative
<i>Age</i>	Ln (1 + number of years since incorporation)	7783	2.908 (0.638)	Negative
<i>Legal</i>	Categorical variable: 1, if other (cooperatives and state-owned); 2, if limited liability; 3, if partnership; 4, if shareholding; and 5, if sole proprietorship	7794	3.752 (1.293)	Positive/negative
<i>Ownership</i>	Categorical variable: 1, if private domestic; 2, if foreign; 3, if government; 4, if others; and 5, if joint (state and private)	7796	1.014 (0.205)	Negative (government firms)
<i>Export</i>	Dummy = 1, if a firm has a positive export-sales ratio, else zero	7796	0.284 (0.451)	Negative
<i>Certification</i>	Dummy = 1, if a firm has a certification from a recognized international agency; else zero	7796	0.177 (0.382)	Negative
<i>R&D</i>	Dummy = 1, if a firm has a positive R&D; else zero	7796	0.479 (0.499)	Negative
<i>Work exp</i>	Ln (number of years of work experience of the top manager)	7796	0.353 (0.478)	Negative/positive
<i>Temporary Auditor</i>	Temporary workers/total workers	7659	2.387 (0.696)	Negative/positive
<i>EoDB</i>	Dummy = 1, if a firm has a certification from an external auditor	7639	0.092 (0.175)	Negative
<i>EoDB</i>	East of doing business (EoDB) in the state (in 2015)	7796	0.434 (0.188)	Negative
<i>Credit</i>	Total bank credit in the state/NSDP	7796	0.483 (0.389)	Negative
<i>FB</i>	State-wise credit by foreign banks/total bank credit in the state	7796	0.023 (0.029)	Positive/ Negative

Table 4 presents the AMEs, based on the estimates of the previous regression. In row (1), we present the results for all firms. The findings indicate that on average, senior managers with political connections are 2.5 percentage points less likely to mention that there are no financing obstacles, and

about 1 percentage point is more likely to mention it as a moderate or major obstacle. They are also 0.6 percentage point more likely to mention it as a severe obstacle.

Next, we assess the relationship by firm size class. We find that managers of small firms are more likely to mention

Table 2 Correlation matrix of key variables

	Obstacle	Politics	WO	WM	EoDB	Credit	FB
Obstacle							
Politics	-0.063***						
WO	0.031***	0.115***					
WM	-0.016	0.021**	0.219***				
EoDB	0.093***	-0.059***	-0.028***	-0.053***			
Credit	0.083***	0.031***	-0.029***	0.018***	0.083***		
FB	0.043***	0.050***	-0.054***	0.042***	0.067***	0.858***	

***, **, and * indicate statistical significance at 1, 5, and 10%, respectively

Table 3 Impact of politics on financing obstacles

	All firms	Small firms	Medium firms	Large firms
Political	-0.137*** (0.057)	-0.272*** (0.104)	-0.167** (0.086)	0.131 (0.132)
Firm controls	Y	Y	Y	Y
State FE	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y
Observations	7112	2317	3179	1616
McFadden R-sq	0.092	0.105	0.094	0.112
Cut. 1	-1.795 (0.299)	-1.278 (0.541)	-1.985 (0.471)	-3.031 (0.616)
Cut. 2	-0.498 (0.296)	0.211 (0.537)	-0.689 (0.463)	-2.007 (0.609)
Cut. 3	0.826 (0.296)	1.582 (0.539)	0.635 (0.466)	-0.594 (0.607)
Cut. 4	2.363 (0.297)	2.875 (0.541)	2.280 (0.468)	1.246 (0.607)

Robust standard errors within parentheses

***, **, and * indicate statistical significance at 1, 5, and 10%, respectively

Table 4 Average marginal effect (AME) of financial obstacles

	No obstacle (1)	Minor obstacle (2)	Moderate obstacle (3)	Major obstacle (4)	Severe obstacle (5)
All firms	-0.025***	-0.001*	0.011***	0.009***	0.006***
Small firms	-0.048***	-0.004***	0.018***	0.022***	0.012***
Medium firms	-0.030**	-0.001	0.013**	0.011**	0.007**
Large firms	0.024	-0.002	-0.011	-0.006	-0.005

***, **, and * indicates statistical significance at 1, 5, and 10%, respectively

finance as a moderate to severe obstacle. Similar is the case for medium firms, although the magnitudes are lower in this case. Large firms are less likely to encounter financing obstacles. To provide some example, small firms are 1.8 percentage points more likely to mention financing as a moderate obstacle (column 3) and likewise, medium firms are 1.3 percentage points more likely to cite financing as a moderate obstacle. These findings support prior evidence which suggests that 90% of the overall credit gap for SMEs pertains to small and medium firms (World Bank, 2018).

Collectively, these results suggest that financing is a non-negligible obstacle stated by senior managers of SMEs. Such obstacles are much more important for small and medium-sized firms.

Relevance of state characteristics

Next, we examine the relevance of state characteristics. Accordingly, for industry *i* in state *s*, we estimate regressions of the following form:

$$\begin{aligned}
 \text{Obstacle}_{fis} = & \alpha + \beta_1 \text{Political}_{fis} + \beta_2 \text{SC}_s \\
 & + \beta (\text{Political}_{fis} * \text{SC}_s) + \gamma \mathbf{Z}_{fi} \\
 & + \delta \mathbf{F}_s + \lambda_i + \mu_s + \varepsilon_{is}
 \end{aligned} \tag{2}$$

Our coefficient of interest is β . This coefficient shows whether political connections influence financing obstacles for different state characteristics (SC). As discussed earlier, we consider three state characteristics: the ease of doing

Table 5 Average marginal effect (AME) of financial obstacles, state characteristics

Firm size	State characteristic	No obstacle (1)	Minor obstacle (2)	Moderate obstacle (3)	Major obstacle (4)	Severe obstacle (5)
Ease of doing business						
All	<i>Political</i> × <i>EoDB</i>	−0.498***	−0.015***	0.214***	0.184***	0.115***
Small	<i>Political</i> × <i>EoDB</i>	−0.398***	−0.035***	0.149***	0.183***	0.101***
Medium	<i>Political</i> × <i>EoDB</i>	−0.441***	−0.014	0.192***	0.163***	0.100***
Large	<i>Political</i> × <i>EoDB</i>	−0.807***	0.076***	0.362***	0.196***	0.172***
Credit penetration						
All	<i>Political</i> × <i>Credit</i>	.155***	.005**	−0.067***	−0.058***	−0.036***
Small	<i>Political</i> × <i>Credit</i>	.072*	0.006*	−0.027*	−0.033*	−0.018*
Medium	<i>Political</i> × <i>Credit</i>	−0.149***	−0.004	0.061***	0.056***	0.036***
Large	<i>Political</i> × <i>Credit</i>	.314***	−0.026***	−0.143***	−0.077***	−0.068***
Foreign bank penetration						
All	<i>Political</i> × <i>FB</i>	0.142***	0.004**	0.061***	0.053***	0.033***
Small	<i>Political</i> × <i>FB</i>	0.059	0.005	−0.022	−0.027	−0.015
Medium	<i>Political</i> × <i>FB</i>	0.190***	0.006	0.082***	0.070***	0.043***
Large	<i>Political</i> × <i>FB</i>	0.381	−0.032***	−0.174***	−0.093***	−0.082***

***, **, and * indicate statistical significance at 1, 5, and 10%, respectively

business (EoDB) score of the state, credit to NSDP ratio as a proxy for credit penetration and the credit share of foreign banks in the state. We report the AMEs of the interaction term for all firms and separately by size class.

In Table 5, the estimates suggest that although the ease of doing business lowers financing obstacles for firms overall, moderate to severe financing obstacles are still pertinent. The magnitude of the impact is particularly pronounced for large firms. To illustrate, the coefficient on *Political* × *EoDB* in column (4) equals 0.184 for all firms and 0.196 for large firms. Therefore, in spite of spending more time on nurturing political connections, firms are 18 percentage points more likely to experience financing as a major obstacle in general, and this magnitude is close to 20 percentage points for large firms. Although ease of doing business creates a conducive environment and eases financing obstacles by increasing the space for the private sector, such obstacles are not eliminated altogether. The fact that improving the ease of doing business facilitates the growth of new firms has been reported in cross-country research (Canare, 2018).

When we look at credit, we find that with an improvement in credit penetration, political connections helps to lower financing obstacles. Although certain minor obstacles remain, other obstacles are greatly reduced, especially for large firms. The point estimates in panel B indicate that with an increase in credit penetration, managers of firms with political connections are 4 percentage points less likely to experience severe financing obstacles. This magnitude is close to 7 percentage points for large firms. This could occur because overall improvement in credit penetration trickles down to SME borrowers, lowering financial obstacles.

Finally, when we interact political connections with foreign bank penetration, we find that financing obstacles are still pertinent, especially for medium firms. By way of example, the coefficient on *Political* × *FB* under major obstacles for medium firms shows that managers with political connections are 7 percentage points more likely to experience major financing obstacles despite foreign bank presence (panel C). These results support the cherry-picking hypothesis which observes that foreign banks pick the most credit-worthy customers for lending transactions, thereby limiting the flow of credit to riskier segments such as SMEs with limited collateral and credit history (Berger et al., 2001; Clarke et al., 2006).

To sum up, these results suggest that increasing credit penetration is the best antidote for alleviating credit challenges faced by SMEs with political connections. Other considerations such as improvements in doing business or enriching foreign bank credit penetration are not really useful in addressing such obstacles.

Relevance of gender

Thus far, our estimations included gender as a control variable in the regressions. Several considerations may drive gender-based differences in loans. First, women's risk appetite might be lower than men's (Coleman & Robb, 2009). Second, women might have different specialisations (e.g. service sector) as compared to men (Heilbrun, 2005). Third, women's human capital levels could be different compared to men's (Boden & Nucci, 2000). Finally, social norms and culture could also be responsible for

Table 6 Average marginal effect (AME) of financial obstacles, by gender of the SME

	No obstacle (1)	Minor obstacle (2)	Moderate obstacle (3)	Major obstacle (4)	Severe obstacle (5)
<i>All firms</i>					
Women as owner	−0.068*	0.003***	0.028*	0.023*	0.014*
Women as manager	−0.132***	−0.019**	0.062***	0.059***	0.031**
Women as owner and manager	0.059	−0.0003	−0.028	−0.017	−0.014
<i>Small firms</i>					
Women as owner	0.082	−0.005	−0.031	−0.031	−0.015
Women as manager	−0.143	−0.029	0.053	0.080	0.039
Women as owner and manager	Convergence not achieved				
<i>Medium firms</i>					
Women as owner	−0.131**	−0.001	0.061**	0.049**	0.021**
Women as manager	−0.066	−0.020	0.039	0.038	0.009
Women as owner and manager	0.067	0.008	−0.045	−0.023	−0.007
<i>Large firms</i>					
Women as owner	−0.137*	0.015	0.049	0.033*	0.041*
Women as manager	−0.140**	−0.009	0.062**	0.041*	0.047*
Women as owner and manager	−0.072**	−0.002	0.022*	0.020**	0.031***

***, **, and * indicate statistical significance at 1, 5, and 10%, respectively

women's lower reliance on external finance (Klugman et al., 2014).

From a theoretical standpoint, two sets of theoretical arguments have highlighted the relevance of gender. The *human capital theory* argues that greater gender diversity helps to improve the efficacy of decision-making (Carter et al., 2010). That being the case, gender-focused firms are less likely to encounter financing obstacles. As compared to this, the *agency theory* observes that by addressing the informational biases in decision-making, gender diversity provides a fresh perspective, thereby helping to alleviate financing obstacles (Campbell & Minguez-Vera, 2008).

To investigate this aspect, for firm f , industry i , and in state s , we estimate the following regression:

$$Obstacle_{fjs} = \alpha + \beta Political_{fjs} + \gamma Z_{fi} + \delta F_s + \lambda_i + \mu_s + \varepsilon_{is} \quad (3)$$

$(f = WO, WM \text{ or } WOM)$

where the notations are as earlier, and we focus on firms with women-owner (WO), women-manager (WM), and women as both owner-manager (WOM).

Three findings are of interest in Table 6. First, across all firms, the impact is manifest mainly with women as owner and as managers; there is limited impact when women perform dual roles. In terms of magnitude, women as owner are 1.4–2.8 percentage points more likely to mention finance as a moderate to major obstacle. Second, across size categories, the impact is in evidence for medium and large firms (Chaudhuri et al., 2020). And finally, there is evidence to suggest women as manager citing finance as a moderate to

severe obstacle, especially for large firms. Collectively, these findings highlight the challenges facing the “missing middle of SMEs” in India, who outgrow their size and are therefore unable to take advantage of government benefit schemes and, at the same time, not receive adequate finance from institutional sources.

Conclusions and managerial implications

Using survey data for India, the paper assesses the importance of political connections in alleviating financing constraints for SMEs. The findings suggest that political connections alleviate minor financing obstacles but are not sufficient to assuage higher-order financing obstacles. To be more specific, political connections effectively address financing obstacles for small and medium firms for whom these are most pertinent. From the standpoint of state characteristics, we find that greater ease of doing business and greater credit penetration helps to assuage financing obstacles. In contrast, the impact of foreign banks in redressing financing obstacles is not so compelling. Finally, from the lens of gender, financing obstacles are the least relevant when women perform dual roles of owner-manager of firms.

Such evidence provides interesting policy implications. At a broader level, the findings reiterate prior research which suggests that notwithstanding their political connections, small and medium firms bear the brunt of the financing obstacles. In this milieu, political connections are often an antidote for alleviating financing obstacles. Second, at the

level of states, the evidence shows that merely improving ease of doing business or increasing foreign bank outreach might not necessarily lower financing constraints. What is important is to improve the overall credit penetration, which ensures a trickle-down effect towards minimising financing obstacles for SMEs. In this regard, our findings contribute to the evidence as to how political connections influence SME access to finance. Whether and to what extent do politics interact with other related policies to affect SME financing remains an important topic for future research.

Over time, there has been a significant improvement in the business environment in India. Reflecting this fact, India's rank on ease of doing business has increased from over 100 during 2015–2016 to 77 in 2019. This is intended to improve the business environment and attract foreign capital. Despite these improvements, micro-level concerns remain prevalent. As a result, given the dependence of SMEs on government support, SME managers need to interact closely with government officials to ensure their business remains afloat. In this regard, this analysis provides valuable insights regarding the magnitude of such interactions and its impact on financing obstacles for SMEs, after controlling for other confounding characteristics.

Secondly, an analytical assessment of the differential impact of business obstacles across firms would suggest that managers of firms across different SME sizes indicate that not all SMEs can ensure better policy support for business operations. This has occurred despite the government having provided a significant number of support measures to promote SME development in the country. These findings echo in recent research which reports that corruption is one of the major obstacles faced by Indian firms (Jabeen et al., 2021). In this respect, the study underscores key concerns faced by business enterprises across size classes with a particular emphasis on the importance of political connections, necessitating policy measures that can address such challenges.

Several limitations of the study are in order. First, owing to data constraints, we are not able to study the evolution of firm behaviour over time. In addition, the secondary data provides limited choices in determining the variables relating to political connections faced by SMEs. Going forward, research can take on board theoretical advancements and suitable variables by conducting in-depth interviews of respondents to arrive at more comprehensive measures.

Data availability The analysis is based on the World Bank Enterprise Survey (WBES) data which is publicly available at the World Bank website and can be made available upon reasonable request.

Code availability The relevant Stata code can be made available upon request.

Declarations

Conflict of interest The author declares no competing interests.

References

- Aas, T. H., & Pedersen, P. E. (2011). The impact of service innovation on firm-level financial performance. *Service Industries Journal*, 31, 2071–2090.
- Acemoglu, D., Johnson, S., Kermani, A., Kwak, J., & Mitton, T. (2016). The value of connections in turbulent times: Evidence from the United States. *Journal of Financial Economics*, 121, 368–391.
- Asher, S., & Novosad, P. (2017). Politics and local economic growth: Evidence from India. *American Economic Journal: Applied Economics*, 9, 229–273.
- Asher, S., & Novosad, P. (2020). Rural roads and local economic development. *American Economic Review*, 110, 797–823.
- Athaide, M., & Pradhan, H. K. (2020). A model of credit constraint for MSMEs in India. *Small Business Economics*, 55, 1159–1177.
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2008). How important are financing constraints? The role of finance in the business environment. *World Bank Economic Review*, 22, 483–516.
- Balasubrahmanya, M. H. (1995). Reservation policy for small-scale industry: Has it delivered the goods? *Economic and Political Weekly*, 30, M51–M54.
- Banerjee, A., & Duflo, E. (2014). Do firms want to borrow more? Testing credit constraints using a directed lending program. *Review of Economic Studies*, 81, 572–607.
- Barbera, F., & Moores, K. (2013). Firm ownership and productivity: A study of family and nonfamily SMEs. *Small Business Economics*, 40, 953–976.
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2005). SMEs, growth and poverty. *Journal of Economic Growth*, 10, 199–229.
- Beck, T., Demirgüç-Kunt, A., Laeven, L., & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance*, 25, 932–952.
- Berger, A. N., Klapper, L., & Udell, G. (2001). The ability of banks to lend to informationally opaque small business. *Journal of Banking and Finance*, 25, 2127–2167.
- Bertrand, M., Kramarz, F., Schoar, A., & Thesmar, D. (2018). The cost of political connections. *Review of Finance*, 22, 849–876.
- Boden, R. J., & Nucci, A. R. (2000). On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing*, 15, 347–362.
- Brown, J. R., & Huang, J. (2020). All the President's friends: Political access and firm value. *Journal of Financial Economics*, 138, 415–431.
- Campbell, K., & Minguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83, 435–451.
- Canare, T. (2018). The effect of ease of doing business on firm creation. *Annals of Economics and Finance*, 19, 555–584.
- Carpenter, R. E., & Petersen, B. C. (2002). Is the growth of small firms constrained by internal finance? *Review of Economics and Statistics*, 84, 298–309.
- Carter, D. A., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18, 396–414.
- Chahal, R., & Ahmad, W. (2022). Political connections, investment efficiency and the Indian banking crisis. *Quarterly Review of Economics and Finance*, 85, 16–30.
- Chattopadhyay, R., & Duflo, E. (2004). Women as policy makers: Evidence from a randomised policy experiment in India. *Econometrica*, 72, 1409–1443.
- Chaudhuri, K., Sasidharan, S., Seethamma, R., & Rajesh, S. R. (2020). Gender, small firm ownership and credit access; some insights from India. *Small Business Economics*, 54, 1165–1181.

- Claessens, Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: The role of campaign contributions. *Journal of Financial Economics*, 88, 554–580.
- Clarke, G., Cull, R., & Martinez Peria, M. S. (2006). Foreign bank participation and access to credit across firms in developing countries. *Journal of Comparative Economics*, 34, 774–795.
- Clots-Figueras, I. (2011). Women in politics: Evidence from the Indian states. *Journal of Public Economics*, 95, 664–690.
- Coleman, S., & Robb, A. (2009). A comparison of new firm financing by gender: Evidence from the Kauffman firm survey data. *Small Business Economics*, 33, 397–411.
- Cowling, M., Liu, W., & Ledger, A. (2015). What really happens to small and medium-sized enterprises in a global economic recession? UK evidence on sales and job dynamics. *International Small Business Journal*, 33, 488–513.
- De Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to capital in microenterprises: Evidence from a field experiment. *Quarterly Journal of Economics*, 123, 1329–1372.
- Diamond, D. W. (1991). Monitoring and reputation: The choice between bank loans and directly placed debt. *Journal of Political Economy*, 99, 689–721.
- Dinc, I. S. (2005). Politicians and banks: Political influences on government-owned banks in emerging markets. *Journal of Financial Economics*, 77, 453–479.
- Dinc, I. S., & Gupta, N. (2011). The decision to privatise: Finance and politics. *Journal of Finance*, 66, 241–269.
- Dixit, A., & Londregan, J. (1998). Ideology, tactics and efficiency in redistributive politics. *Quarterly Journal of Economics*, 113, 479–529.
- Du, J., & Girma, S. (2010). Red capitalists: Political connections and firm performance in China. *Kyklos*, 63, 530–545.
- Faccio, M. (2006). Political connected firms. *American Economic Review*, 96, 369–386.
- Farrell, D. (2004). The hidden dangers of informal economy. *McKinsey Quarterly*, 3, 27–37.
- Frye, T. M., & Iwasaki, I. (2011). Government directors and business-state relations in Russia. *European Journal of Political Economy*, 27, 642–658.
- Gennaiolo, N., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2013). Human capital and regional development. *Quarterly Journal of Economics*, 128, 105–164.
- Ghani, E., Kerr, W., & O'Connell, S. (2014). Political reservation and women entrepreneurship in India. *Journal of Development Economics*, 108, 1381–1453.
- Government of India (2019). *Economic survey* (chapter 3: Nourishing dwarfs to become giants: Reorienting policies for SME growth). Government of India: New Delhi.
- Government of India (2022). Ministry of micro, small and medium enterprises [<https://my.msme.gov.in/mysmsme/Scheme.aspx>]
- Grimm, M., Knorringa, P., & Lay, J. (2012). Constrained gazelles: High potentials in West Africa's informal economy. *World Development*, 40, 1352–1368.
- Heilbrun, S. (2005). Entrepreneurship, social capital and community development. *Journal of Rural Corporation*, 33, 111–126.
- Holton, S., Lawless, M., & McCann, F. (2013). Firm credit in Euro area: A tale of three crises. *Applied Economics*, 46, 190–211.
- Hutton, I., Jiang, D., & Kumar, A. (2014). Corporate policies of Republican managers. *Journal of Financial and Quantitative Analysis*, 49, 1279–1310.
- International Finance Corporation (2017). MSME financing gap: Assessment of the shortfalls and opportunities in financing micro, small and medium enterprises in emerging markets. Available at [<https://www.smefinanceforum.org/sites/default/files/Data%20Sites%20downloads/MSME%20Report.pdf>]
- Iyer, L., Mani, A., Mishra, P., & Topalova, P. (2012). The power of political voice: Women's political representation and crime in India. *American Economic Journal: Applied Economics*, 4, 165–193.
- Jabeen, Z., Ali, J., & Yusuf, N. (2021). Differences in business obstacles faced by firms across sizes: Evidence from enterprise survey data of India. *Journal of Global Entrepreneurship Research*. <https://doi.org/10.1007/s40497-021-00274-1>
- Johanson, J. & Mattsson, L-G. (1988). Internationalisation in industrial systems - A network approach. In N. Hood & J-E. Vahlne (eds). *Strategies in global competition*. New York: Croom Helm, pp.303–321
- Khwaja, A., & Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *Quarterly Journal of Economics*, 120, 1371–1441.
- Klugman, J., Hanmer, L., Twigg, S., Hasan, T., McCleary-Sills, J., & Santamaria, J. (2014). Voice and agency: Empowering women and girls for shared prosperity. <https://openknowledge.worldbank.org/handle/10986/19036>
- Kumar, N. (2020). Political interference and crowding out in bank lending. *Journal of Financial Intermediation* 43, No.100815.
- La Porta, R., & Shleifer, A. (2014). Informality and development. *Journal of Economic Perspectives*, 28, 109–126.
- Lashitew, A. (2014). The effect of political connections on credit access? Does the level of financial development matter? *Kyklos*, 67, 227–254.
- Li, H., Meng, L., & Wang, Q. (2008). Political connections, financing and firm performance: Evidence from Chinese private firms. *Journal of Development Economics*, 87, 283–299.
- Minh, T.N., Kim, V.P.T. & Ngoc, A.M. (2021). Political connections, government support and SME tax payments: A note from fixed effects quantile regression. *Finance Research Letters* 40, No.101771.
- Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43, 486–501.
- Pfeffer, J., & Salancik, G. (1978). *The external control of organisations: A resource dependence perspective*. Harper & Row.
- Raj, R., & Sen, K. (2015). Finance constraints and firm transition in the informal sector: Evidence from Indian manufacturing. *Oxford Development Studies*, 43, 123–143.
- Reddy, Y.V. (2012). Society, economic policies and the financial sector. The Per Jacobsson Foundation Lecture, Basel: Switzerland. Available at <https://www.bis.org/events/agm2012/sp120624.pdf>
- Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of Financial Economics*, 72, 357–384.
- Shleifer, A., & Vishny, R. (1998). *The grabbing hand*. Harvard University Press.
- Sinha, A. (2019). India's porous state: Blurred boundaries and business-state relationship. In C. Jaffrelot, A. Kohli and K. Murali (Eds.) *Business and politics in India*. Oxford University Press; New York. pp.50–92.
- Thakor, A.V. (2021). Politics, credit allocation and bank capital requirements. *Journal of Financial Intermediation* 45, No.100820.
- United Nations Conference on Trade and Development (2022). The Covid-19 pandemic impact on micro, small and medium sized enterprises. UNCTAD: New York.
- Williams, R. (2021). Adjusted predictions and marginal effects for multiple outcome models and commands. University of Notre Dame. Accessed at [<https://www3.nd.edu/~rwilliam/stats3/Margins05.pdf>]
- World Bank. (2018). *Financing India's SMEs: Estimation of debt requirements for SMEs in India*. The World Bank.

Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.