Bribing and Vulnerability of the Informal Sector in India

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Abstract

This paper attempts to understand bribing in India's informal business sector. Using World Bank's informal sector business survey data, 2022, for three Indian states, we find that tax evasion and avoiding formal sector corruption are two primary reasons to continue in the informal sector. However, these reasons are insufficient for paying bribes as a way to stay informal. Businesses that cite these as primary reasons have a lower probability of bribing to continue operations in the informal sector. Instead, the probability of paying bribes is higher for those businesses that cite ease of registration and lack of knowledge & information about the registration process as one of the challenges in transiting to the formal sector. We also find that businesses with sales vulnerability and financial constraints have a higher probability of bribing to remain informal. To this view, policy focus should be on simplifying registration processes and spreading awareness and benefits of becoming a formal sector, which is in line with the theory of firm growth. Long-term investments that focus on improving the education and skills of informal owners and curb corruption should be considered.

Acknowledgement

INTRODUCTION

Bribing in India is a rampage phenomenon and has been a significant cause of concern for the growth of its industrial sector. Ang (2020) and Basu (2011) argue that it is not high-level scams reported in the media, but petty bribery, harassment bribery, and speed money that are more prevalent and problematic in India. Given its frequent interactions with bureaucrats, administrative officials and the requirement of government services, formal sector bribing is quite comprehendible. However, the same is not clear for the informal sector. Studying corruption in the informal sector becomes necessary due to two reasons. Firstly, developing countries like India have a larger share of the informal sector than the formal sector. It thus becomes the norm and not the exception (Lavalle and Roubaud, 2019). Secondly, firms in the informal sector face not only business corruption but also civil corruption and abuse from local goons, which can be more harassing and extorting. Studies on corruption in India have been scanty, and even less so for the informal sector. While existing results on determinants of formal sector corruption (Svensson, 2003; Clarke and Xu, 2004) have also been borrowed for analysing corruption in the informal sector (Sharma and Biswas, 2018; Lavallee and Roubaud, 2019), we believe that additional owner-specific characteristics also matter. This is because, unlike the formal sector, the legal existence of the informal unit and its owners are the same.

We, in this study, exploit a relatively recent data set on the Indian informal business sector released by World Bank Groups and ask why businesses, even in the informal sector, need to pay bribes. We argue that the primary reason is to continue operating in the informal sector. The immediate question is why a business would want to stay in the informal sector. Indeed, some businesses enjoy certain benefits by remaining informal, while others operate out of compulsion. Fear of inspections from Government officials stems from the fines that might be imposed in case of certain violations or a complete shutdown of the unit. This may require a possible bribe payment to alter the officials' decisions.

Thus, a bribe might be needed not only to get registered but also to remain unregistered. While the first is heavily researched, the second has not been given proper attention in the literature. We fill this research gap.

The Indian informal sector is enormous. In the first few five-year plans, Indian industrial policy focused on a capital-intensive heavy industry that requires a relatively better-skilled workforce. Numerous laws, especially labour laws, regulated these industries, which bred corrupt regulating inspectors. These factors led to a largely unorganised sector, producing commodities reserved for the small-scale industry, which absorbed India's growing, mostly unskilled population (Mehrotra, 2019). In 2017-18, the Indian informal sector employed more than 85 per cent of the labour force and contributed to more than 50 per cent of the GDP (Murthy, 2019).

Owing to the small individual sizes of these firms, employing less than ten workers, none of these informal units falls under the radar of labour laws. They operate without providing any social security benefits and job security. Though not illegal, the businesses in the informal sector do not offer any tax income to the Government. Bringing firms under formal sector laws has been a government policy concern for ages. To this view (and several others), India has been keen on improving its Doing Business scores by World Bank. It has taken measures to ease registration processes, converted numerous procedures online, thus reducing the number of physical interactions, and significantly increased its Doing Business rankings. However, bribing and corruption have been left out of it entirely. Improving ease of doing business takes care of entry regulations only. It ignores the transaction costs of burdensome regulations and poor institutions over a firm's life cycle, which an informal unit calculates while deciding to transition to formality. Often it is cheaper and easier to stay in the informal sector even after paying bribes.

Since not all businesses pay bribes to remain informal, it is essential to understand which factors motivate or force them. Using data from three Indian cities, one from Assam, Uttar Pradesh (UP), and Madhya Pradesh (MP), we test five popular hypotheses of informality that may also translate to bribery in the informal sector. These are tax evasion, avoiding formal sector corruption, lack of knowledge and information, ease of registration, and vulnerability characteristics of the owners and their business units. Tax evasion, followed by avoiding formal sector corruption, is the two most cited reasons for staying informal. However, these reasons are insufficient to make these firms pay bribes to remain informal. Instead, the probability of paying bribes is higher amongst those who cite ease of registration and lack of knowledge on registration as primary reasons for being informal. We also find that informal units are more vulnerable to sales, have financial constraints, and are more prone to paying bribes to continue operating in the informal sector.

The remaining paper is organised in the following way. Section 2 briefly discusses the existing theories and works on informality and corruption. Section 3 describes the data and the methodologies adopted. Section 4 discusses the results and section 5 concludes with policy recommendations.

LITERATURE REVIEW

Reducing the size of the informal sector, particularly for developing economies, has been a policy concern for ages. A larger informal sector reduces Government's potential tax revenue. It leaves its workers with no job security or social security benefits and competes with the formal sector through its cheaply produced labour-intensive goods. Competition from the informal sector reduces employment in the formal sector and, in turn, increases the size of the informal sector (Amin, 2022). Economists have attempted to determine the factors that hinder the transition of firms to formality. The most widely accepted argument is

that of evading taxes. However, burdensome regulations, inefficient institutions and corruption can have a greater negative impact than a high tax rate. It is more harmful to the firms and the economy if firms use bribes as a substitute for paying taxes (Fisman and Svensson, 2007; Shleifer and Vishny, 1993). Countries with higher tax rates have a smaller underground sector than countries with higher corruption and poor regulations (Friedman et al., 2000). The effect of tax-burden and financial constraints on informality reduces as the quality of the legal system improves (Dabla-Norris, Gradstein and Inchauste, 2008). The magnitude of the negative impact of competition from informal firms on employment growth is higher when bureaucratic burden and corruption increase (Amin, 2022). Dutta, Kar and Roy (2013) and Dang, Nguyen and Tran (2022) find, a significant association between high levels of corruption and an increased size of the informal sector. The transition of formerly registered firms back to informality in four African countries is studied by Gajigo and Hallward-Driemeier (2012). They conclude that firms registered as start-ups initially transition to informality as the costs of dealing with public officials and informal payments/gifts increase. A higher level of corruption also motivates registered, formal firms to hide a part of their output (Johnson et al., 2000). Ibrahim, Njoya and Asongu (2022) find that economic growth can shrink the size of the informal economy. However, in the presence of corruption, this negative sign is reversed till a certain threshold of corruption.

The alternate theory of corruption greasing the wheels of commerce can also manifest through the emergence of the informal sector. Studies also argue that operating in the informal sector helps firms escape inefficient institutions (Choi and Thum, 2005). It inhibits corrupt officials' ability to extort bribes and rents, thus ensuring enhanced performance for the formal sector. Berdiev, Goel and Saunoris (2018) find that corruption increases the size of the informal sector in the initial stages. However, a well-established underground economy supports the formal sector by reducing opportunities for further extraction of bribes.

Formal sector firms incur additional costs in payments toward labour benefits, bookkeeping and accounting expenses, and various direct and indirect taxes. It is often associated with being more capital-intensive and technologically superior, i.e., high fixed costs. This requires its minimum production quantity to be high enough to cover its high fixed costs. But the demand for formal sector goods is low in countries with a larger informal sector. If more than 85 per cent of the labour force is employed in the informal sector, more than 85 per cent of the population will demand cheap, low-tech, labour-intensive goods over the more expensive formal sector goods (La Porta and Shleifer, 2014). The informal sector is larger simply because there is a greater demand for the goods produced in this sector.

Rent-seeking and regulations that lead to recurring costs in the formal sector discourage informal firms from joining their formal counterparts (Jaramillo, 2009). Licenses and permits, pollution certificates, inspections, electricity and water charges, and not to forget the additional under-the-table payments to speed up the processes make production in the formal sector way more expensive. Through experimental research in Brazil, studies found that firms do not formalise until forced to do so (de Andrade, Bruhn and McKenzi, 2013). Firms that were provided help to formalise had a lesser probability of formalising than firms assigned inspections. However, it misses the crucial recipe of working around regulations in developing countries like India: corruption. It might be easier and cheaper to bribe the inspecting officials than to pay taxes or incur the costs of formalisation. Another field experiment in Sri Lanka also found that help in the form of information provided on the registration process was not enough to motivate firms to formalise (de Mel, McKenzie and Woodruff, 2013). An additional incentive payment worth at least two months' profits of the median firm were required to motivate around 50 per cent of the firms to formalise. This indicates that businesses identify the formal sector as being a costlier affair. However, such nudges cannot be practically implemented in many countries.

Most informal businesses lack access to both physical and financial capital. They are not interested in innovating, and end up operating only at subsistence levels. The owners' lack of skill set and interest does not allow these firms to grow and ensure the continuation of the informality loop (Hurst and Pugsley, 2011). Transition to formality is rare. Most firms continue in the informal sector or eventually die (La Porta and Shleifer, 2014). They do not desire to grow or do not have the means or skills to do so (Husrt and Pugsley, 2011). The lack of desire to succeed can also arise simply because larger informal units are more visible to inspecting and policing officials, increasing the chances and amounts of bribes demanded. Sharma and Biswas (2018) and Lavallee and Roubaud (2019) find empirical evidence for larger informal firms being more prone to facing such extortionary corruption in India and West Africa, respectively.

Even within the informal sector, the variation in firm performance could be high. Larger informal units that can qualify as formal firms abstain from doing so to exempt taxes and maximise profits. If so, they might be relatively competitive and, like their formal counterparts, may bribe to create entry barriers for the de novo firms. Classifying informal firms into three types, Lavallee and Roubaud (2019) find firms that have the potential but are not the top performers may use bribing to compensate for their capital and resource constraints, leading to a positive impact of corruption on their performance. Mukherjee and Roy (2019) also propose that corruption increases the entry costs for firms trying to enter the informal sector.

DATA AND METHODS

Data for this study is part of the World Bank's Enterprise Survey (WBES) for India on the informal business sector. It is representative of three cities, one in each of the three Indian states of Assam, Uttar Pradesh (UP), and Madhya Pradesh (MP). It consists of data for 1679 informal business units for the year 2021. Out of these share of manufacturing

firms is 10.9 per cent, retails comprise 65.6 per cent, and services are 23.5 per cent. 38.4 per cent operate from their own homes, 48.2 per cent have permanent structures, 8.2 per cent have temporary structures, and 4.6 per cent do not have fixed premises, including hawkers. Our primary aim in this paper is to analyse why firms in the informal sector bribe. This translates to paying a bribe to not register for a GST (Goods and Services Tax) number and a business PAN (Permanent Account Number) in the current data context. To this extent, we analyse the direct responses identified by the owners/interviewees and look at the broader background of these businesses and their owners to understand where these responses come from. This is important as, unlike registered companies, the legal existence of the informal unit and its owner are the same.

We adopt a two-way method for the analysis. The first is a descriptive approach. Given the low number of observations and the largely qualitative nature of the data, this is our primary tool. However, to validate our results, we also undertake an econometric approach. We employ a probit model for limited dependent variables to determine the factors that affect the probability of a business bribing (or not) to stay in the informal business sector. We identify four reasons that affect a business's decision not to register for GST or PAN. These are tax evasion, lack of knowledge & information, lack of ease of registration, and avoiding formal sector corruption. Small businesses and vendors may have never heard of GST or PAN. Even if they have, they might lack the information on registering. They also may not be aware of the possible benefits of registration. These fall under the constraints of knowledge & information. The cost and time involved and the simplicity of these processes determine their ease of registration. Finally, the institutions involved in the process could be corrupt. An informal payment or gift is expected in return for the registration services provided. It is interesting to note that both processes might need a bribe: to stay in the informal sector or to leave the informal sector. Once registered, the business's

dealings with local and state administrative officials might increase through inspections and further services availed. These may slow down operations and open room for more bribing. We group these inconveniences under formal sector corruption.

The arguments mentioned above are direct factors where a firm has a choice in deciding to stay in the unorganised sector. Several other factors leave the owners vulnerable with no option of formalising. Businesses or owners of certain vulnerable classes are forced to remain in the informal sector. We identify three factors; sales vulnerability, owner vulnerability, and financial vulnerability. Businesses vulnerable to these factors may simply lack the motivation or means to grow to join their formal counterparts. Inhibiting firm growth may also stem from numerous other factors, such as limited market, extreme market structures of high competition or monopoly, etc. The functional form of the arguments presented above is specified below;

$$P(Bribe = 1) = \alpha + \beta X_i + \partial Z_i + s_i + e_i \qquad (1)$$

Where, X_i includes those characters that these units directly identified the reasons for being in the informal sector. These include awareness about the registration of PAN & GST (APAN, AGST). A bribe was paid for registering (BPAN, BGST), tax evasion (TPAN, TGST), lack of knowledge and information (KIPAN, KIGST) and ease of registration (ERPAN, ERGST). Z_i Represents firm/owner characteristics such as sales vulnerability (SV), owner's vulnerability (OV), financial vulnerability (FV) and firm age. s_i is the sector and state-level unobserved heterogeneities and e_i is the classical error term. Further details on these variables are provided in Table 1.

Table 1: Variables Definition and Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max	Description
Firm age	1,603	12.63	10.58	1	64	2021 less than the year of started operation
Low OV	1,679	0.03	0.17	0	1	Dummy takes value 1 for units with low owner vulnerability, 0 otherwise.
High OV	1,679	0.44	0.50	0	1	Dummy takes value 1 for units with high owner vulnerability, 0 otherwise.
Low FV	1,679	0.01	0.08	0	1	Dummy takes value 1 for units with low financial vulnerability, 0 otherwise
High FV	1,679	0.14	0.35	0	1	Dummy takes value 1 for units with high financial vulnerability, 0 otherwise.
SV	713	0.53	1.57	0	27.58	Coefficient of variation for sales
APAN	1,679	0.29	0.45	0	1	Dummy indicating if the business is aware of the existence of PAN.
AGST	1,679	0.31	0.46	0	1	Dummy indicating if the business is aware of the existence of GST.
Bribe	1,463	0.12	0.33	0	1	Dummy indicating if the business paid bribes to continue operating in the informal sector
TPAN	1,679	0.34	0.47	0	1	Dummy indicating if the firm did not register for PAN to evade taxes.
TGST	1,679	0.35	0.48	0	1	Dummy indicating if the firm did not register for GST to evade taxes.
BPAN	1,679	0.30	0.46	0	1	Dummy indicating if the firm did not register for PAN because of informal payments needed to register.
BGST	1,679	0.32	0.46	0	1	Dummy indicating if the firm did not register for GST because of informal payment needed to register.
KIPAN	1,679	0.30	0.46	0	1	Dummy indicating if the firm did not register for PAN due to lack of knowledge & information

Table Contd ….

KIGST	1,679	0.31	0.46	0	1	Dummy indicating if the firm did not register for GST due to a lack of knowledge & information
ERGST	1,679	0.27	0.45	0	1	Dummy indicating if the firm did not register for GST due to lack of ease of registration
ERPAN	1,679	0.27	0.44	0	1	Dummy indicating if the firm did not register for PAN due to lack of ease of registration

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022, World Bank Group

Note: Detailed description of variables under study

Sales vulnerability is the coefficient of variation (CV) across a unit's maximum and minimum monthly sales in the previous financial year. As a rule of thumb, we consider sales highly vulnerable if the CV of sales >1 and low vulnerable if the CV of sales <0.25. The owner's vulnerability is determined using a number of factors such as age, education level, gender in the case of a single owner, and the number of dependents. An owner is considered highly vulnerable if they are above 60 years old or a single female owner or have no or below primary level of education or have more than four children or ten or above family members. An owner is identified as low vulnerable if aged between 25 and 60, is a male with a tertiary education or technical diploma, has a maximum of one child below six years old, and has five or fewer family members. The financial vulnerability of these business units is determined based on three criteria: financial sources for day-to-day operations, financial sources for purchase of capital, and source of the most recent loan obtained. We identify the units as highly financially vulnerable if the source of the mentioned necessities is moneylenders or friends & family. In contrast, if the seeds are banks or microcredit institutions, we classify them as low financially vulnerable.

THE EMPIRICAL RESULTS

We begin our analysis by looking at the percentage of firms that paid bribes to continue operations in the informal sector. Out of the available 1679 business units, more than 10 per cent paid a bribe to continue their

operations. However, in UP, this is relatively low (6 per cent). MP reports the highest, with 16 per cent of businesses requiring adopting bribery as an alternative to not registering. This is in line with the results of the India Corruption Study, 2005 by Transparency International, which ranked the Indian states UP, Assam, and MP 10th, 15th, and 18th, respectively, in the increasing order of prevailing corruption perceptions. However, a lower percentage of businesses responding yes may not indicate a lower incidence of bribery. For sensitive questions like bribing, it is common for respondents to provide false responses out of fear of reporting (Jenson, Li and Rahman, 2010).

Further, the direct reasons of the businesses for not registering for GST and PAN, respectively, reveal tax evasion as one of the primary reasons. However, in the case of Assam, the primary reason for not registering for both GST and PAN was a lack of knowledge and information. Interestingly, for MP, an informal payment that needs to be paid in the registration process is the most cited reason for not registering for GST and PAN. Corruption is also the second most highly cited reason in the case of UP but the least in Assam. So for Assam, though 11.2 per cent of businesses paid bribes to remain in the informal sector, which is higher than the average, the percentage is very low when paying bribes to enter the formal sector. Tax evasion is the most highly cited reason for UP and the second most cited reason for Assam and MP. For Assam and MP, there are only marginal differences in the percentage of businesses in each category. However, for UP, the share of businesses citing tax evasion is way more than any other reason. Tax evasion is the most cited reason lowed by avoiding formal sector corruption.

In Figure 1, we map these responses with the actual bribe payment to continue operations in the informal sector. The results are surprising. Tax evasion and formal sector corruption were the two most prominent reasons not to register. But it isn't these firms that are more prone to paying bribes to stay informal. It is clear from the figure that a higher share of businesses that cite ease of registration followed by lack of knowledge and information as a reason for not registering for both

GST and PAN pay bribes to remain informal. Next, we look at the percentage of firms in the different vulnerability classes that had paid bribes to continue operating in the informal sector. A general observation is the low share of businesses in the low vulnerable categories. Around 11 per cent of businesses with high sales and owner vulnerability paid bribes, while 23 per cent of highly financially vulnerable businesses paid bribes to remain in the informal sector. But it is not only the highly vulnerable businesses that pay bribes. Figure 2 shows that a larger share of low-vulnerable businesses paid bribes to continue operating informally except for sales vulnerability.

From the descriptive analysis, we conclude that businesses reporting a lack of knowledge and information about the procedures and ease of registration processes have a larger share of them paying bribes in the informal sector. A larger share of businesses with low financial and sales vulnerability report paying bribes compared to the highly vulnerable category. The opposite holds for owner vulnerability.
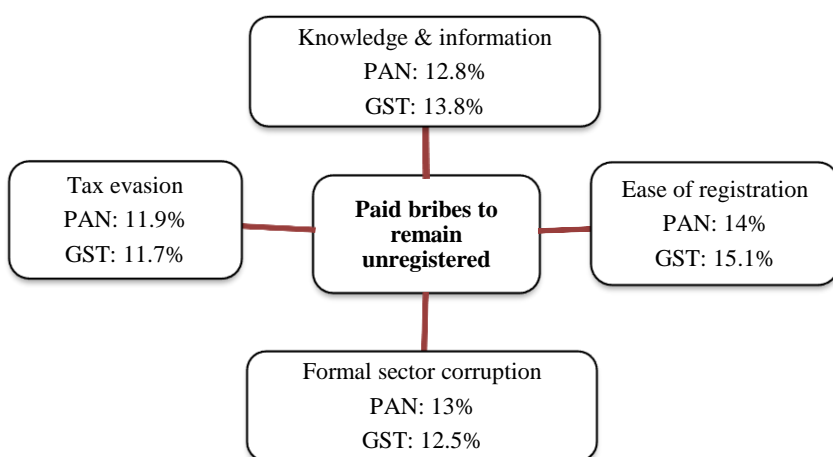

Figure 1: Percentage of businesses citing direct reasons to remain informal that also pay bribes
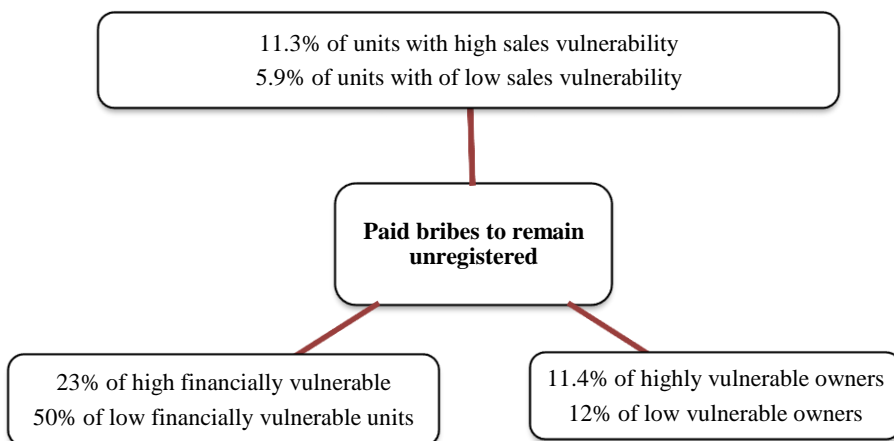
Figure 2: Percentage of businesses in different vulnerable classes that paid bribes to remain in the informal sector

Why do they remain unregistered?

To test the statistical significance of our descriptive results presented in the earlier section, we conduct a probit analysis on the incidence of bribe payments. Thus, our dependent variable takes a value of one if the firm paid bribes to continue operating in the informal sector and a value of zero otherwise. Tables 2-4 report the marginal effects of the various specifications tested. In Table 2, we test whether awareness about the existence of GST and PAN increases the probability of paying bribes for not getting registered for these. As expected, the coefficients are positive and significant. However, as we control for the direct reasons for not registering (Tables 3a and 3b), the coefficient of awareness about PAN loses significance. The marginal effect of BPAN is positive but ceases to be significant as other factors are controlled for. Instead, the marginal

effect of BGST gains significance. The coefficient is negative, indicating that the probability of paying bribes for staying informal is low amongst firms that cited formal sector corruption as a prime reason for not registering for GST. TGST, too, has adverse marginal effects, i.e., the probability of paying bribes is lower for firms that cite tax evasion as the primary reason for not registering for GST. This supports the claims from the descriptive results. Evading taxes or staying informal to avoid formal sector corruption can be viewed as maximising profits. If that is the aim, paying a bribe in the informal sector is not an attractive option either. Instead, KIGST, ERPAN, and ERGST have significant positive marginal effects. Thus, the probability of bribing is higher amongst those businesses that cited lack of knowledge and information and ease of registration as the major reason for not registering.

Businesses with high sales vulnerability and financial vulnerability also have higher chances of paying bribes to remain in the informal sector (Tables 4a and 4b). This is contradictory to the results of the descriptive analysis, where we find that 50 per cent of the low financially vulnerable owners paid bribes compared to only 23 per cent for the high financially vulnerable businesses. This is because the absolute number of businesses in the low-vulnerable category is relatively less than in the highly-vulnerable category. High owner vulnerability is also positive but significant in only a few specifications. The marginal effect of firm age is positive and significant when standard errors are corrected for sectorial clusters, indicating that older businesses within each sector have a higher probability of bribing than newer businesses.

Table 2: Variables Marginal Effects of Unawareness of GST & PAN on the Probability of bribing to remain in the Informal Sector

Variables	Robust SE	Cluster SE (States)	Cluster SE (sectors)
Firm age	0.002**	0.0008	0.002***
	(0.0008)	(0.001)	(0.0002)
APAN	0.0501**	0.0655***	0.0497*
	(0.02)	(0.001)	(0.03)
AGST	0.069***	0.085***	0.069***
	(0.02)	(0.01)	(0.017)
service	0.007	-0.002	
	(0.03)	(0.04)	
retail	0.029	0.024	
	(0.028)	(0.048)	
MP	-0.009		-0.012
	(0.024)		(0.027)
UP	-0.095***		-0.098***
	(0.025)		(0.012)
Observations	1,400	1,400	1,400

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group

Note: Standard errors (SE) in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

In Table 5, we conduct a sub-sample analysis as a robustness check. WBES surveyed only half of the units for PAN-related questions, while the other half for GST, at random. All results except for firm age remain same. While firm age positively impacted bribe payment in the full sample, it turned negative for the units that answered PAN questions. It, however, remains positive and significant for the units questioned on GST. Thus, the younger units have a higher probability of paying bribes for the units questioned on PAN, while the older units are for the subsample of units questioned on GST.

Table 3a: Marginal Effects of Directly Identified Reasons to not Register on the Probability of Bribing To Remain in the Informal Sector

Variable	Bribes			Tax evasion		
Firm age	0.002**	0.0008	0.002***	0.002**	0.0008	0.002***
	(0.0)	(0.0)	(0.00)	(0.0)	(0.0)	(0.00)
APAN	0.008	0.03***	0.008	0.018	0.044**	0.019
	(0.03)	(0.01)	(0.02)	(0.03)	(0.02)	(0.03)
AGST	0.1***	0.12***	0.11***	0.14***	0.15***	0.14***
	(0.03)	(0.03)	(0.01)	(0.04)	(0.03)	(0.02)
BPAN	0.057*	0.06**	0.056**			
	(0.03)	(0.02)	(0.02)			
BGST	-0.04	-0.03	-0.043			
	(0.03)	(0.03)	(0.04)			
TPAN				0.022	0.008	0.02***
				(0.03)	(0.026)	(0.003)
TGST				-0.09**	-0.09***	-0.09***
				(0.036)	(0.01)	(0.028)
KIPAN						
KIGST						
ERGST						
ERPAN						
service	0.007	-0.003		0.0045	-0.005	
	(0.03)	(0.04)		(0.03)	(0.04)	
retail	0.03	0.025		0.03	0.024	
	(0.03)	(0.05)		(0.028)	(0.05)	
MP	-0.01		-0.01	-0.005		-0.009
	(0.03)		(0.03)	(0.02)		(0.026)
UP	-0.1***		-0.1***	-0.1***		-0.1***
	(0.02)		(0.016)	(0.02)		(0.012)
Observations	1,400	1,400	1,400	1,400	1,400	1,400
Standard Error	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group

Note: Standard errors (SE) in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 3b: Marginal Effects of Directly Identified Reasons to not Register on the Probability of Bribing to Remain in the Informal Sector

Variable	Knowledge & Information			Ease of Registration			All		
Firm age	0.002**	0.0007	0.002***	0.002**	0.0007	0.0018***	0.0018**	0.0007	0.0017***
	(0.00)	(0.00)	(0.00)	(0.0)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
APAN	0.025	0.038**	0.025	0.0036	0.0103*	0.004	-0.004	0.007	-0.002
	(0.03)	(0.02)	(0.02)	(0.03)	(0.01)	(0.02)	(0.03)	(0.02)	(0.02)
AGST	0.085***	0.084***	0.084***	0.076**	0.07***	0.075***	0.12***	0.115***	0.119***
	(0.03)	(0.01)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)	(0.03)	(0.02)
BPAN							0.0483	0.0511	0.049*
							(0.04)	(0.04)	(0.027)
BGST							-0.029	-0.026	-0.027
							(0.04)	(0.025)	(0.04)
TPAN							-0.032	-0.058	-0.035
							(0.05)	(0.07)	(0.03)
TGST							-0.12***	-0.14***	-0.13***
							(0.04)	(0.01)	(0.04)
KIPAN	0.037	0.0515	0.036**				-0.01	0.002	-0.01
	(0.03)	(0.04)	(0.016)				(0.04)	(0.05)	(0.017)
KIGST	-0.012	0.019*	-0.01				0.045	0.0597*	0.045***
	(0.03)	(0.01)	(0.01)				(0.043)	(0.031)	(0.009)
ERGST				0.011	0.046***	0.014***	0.059	0.08***	0.06**
				(0.03)	(0.013)	(0.005)	(0.04)	(0.02)	(0.026)
ERPAN				0.074**	0.09***	0.07***	0.065	0.08***	0.065***
				(0.03)	(0.026)	(0.022)	(0.041)	(0.005)	(0.02)
service	0.006	-0.005		0.0057	-0.003		0.003	-0.005	
	(0.03)	(0.03)		(0.03)	(0.04)		(0.03)	(0.04)	

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Table Contd ….

retail	0.029	0.0227		0.0285	0.0227		0.0262	0.0198	
	(0.03)	(0.046)		(0.03)	(0.047)		(0.028)	(0.04)	
MP	-0.009		-0.013	-0.01		-0.0147	-0.008		-0.01
	(0.02)		(0.028)	(0.02)		(0.026)	(0.026)		(0.03)
UP	-0.09***		-0.097***	-0.09***		-0.09***	-0.08***		-0.08***
	(0.025)		(0.01)	(0.02)		(0.01)	(0.026)		(0.009)
Observations	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Standard Error	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group
Note: Standard errors (SE) in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 4a: Marginal Effects of Vulnerability Classes on the Probability of bribing to Remain in the informal Sector

Variable	Sales vulnerability			Owner vulnerability		
Firm age	0.002	0.0016	0.002***	0.0017**	0.0008	0.0016***
	(0.001)	(0.003)	(0.001)	(0.001)	(0.001)	(0.0002)
APAN	0.0215	0.028***	0.0198	0.0007	0.0135	0.002
	(0.05)	(0.003)	(0.056)	(0.03)	(0.022)	(0.021)
AGST	0.19***	0.167***	0.188***	0.126***	0.126***	0.125***
	(0.06)	(0.035)	(0.016)	(0.04)	(0.025)	(0.022)
ERGST	0.052	0.087***	0.053	0.06	0.087***	0.066***
	(0.05)	(0.011)	(0.087)	(0.04)	(0.019)	(0.025)
ERPAN	0.0769	0.102***	0.077***	0.07*	0.083***	0.068***
	(0.05)	(0.016)	(0.021)	(0.04)	(0.01)	(0.025)
BPAN	-0.0394	-0.021	-0.041	0.047	0.049	0.048**
	(0.062)	(0.072)	(0.027)	(0.04)	(0.044)	(0.024)
BGST	-0.10**	-0.075***	-0.10***	-0.03	-0.0282	-0.0303
	(0.049)	(0.017)	(0.024)	(0.039)	(0.023)	(0.041)
TPAN	0.023	-0.013	0.022***	-0.028	-0.0463	-0.0308
	(0.08)	(0.06)	(0.005)	(0.05)	(0.07)	(0.03)
TGST	-0.16***	-0.17***	-0.16***	-0.12***	-0.14***	-0.12***
	(0.054)	(0.012)	(0.02)	(0.04)	(0.016)	(0.037)
KIPAN	-0.0072	0.0185	-0.005	-0.01	-0.001	-0.0113
	(0.05)	(0.03)	(0.035)	(0.04)	(0.05)	(0.017)
KIGST	0.09**	0.113***	0.089	0.045	0.058*	0.045***
	(0.045)	(0.015)	(0.068)	(0.043)	(0.033)	(0.009)
High OV				0.028	0.043***	0.029
				(0.018)	(0.011)	(0.019)
Low OV				0.022	0.022	0.019**
				(0.049)	(0.05)	(0.007)
service	0.0049	0.011		0.0014	-0.005	
	(0.04)	(0.08)		(0.03)	(0.03)	
retail	0.02	0.0196		0.025	0.018	
	(0.04)	(0.09)		(0.028)	(0.04)	
MP	0.88***		0.88***	-0.0028		-0.006
	(0.09)		(0.03)	(0.026)		(0.02)
UP	0.797***		0.79***	-0.065**		-0.07***
	(0.096)		(0.06)	(0.027)		(0.006)
SV	0.025***	0.03***	0.025**			
	(0.009)	(0.005)	(0.01)			
High FV						
Observations	689	689	689	1,400	1,400	1,400
Standard Error	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group

Note: Standard errors (SE) in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4b: Marginal Effects of Vulnerability Classes on the Probability of Bribing to remain in the Informal Sector

Variable	Financial vulnerability			All		
Firm age	0.0018**	0.0012	0.0017***	0.0022	0.0017	0.0018***
	(0.001)	(0.001)	(0.0002)	(0.001)	(0.003)	(0.0005)
APAN	-0.009	0.0098	-0.008	0.0215	0.032***	0.0265
	(0.032)	(0.025)	(0.013)	(0.06)	(0.005)	(0.06)
AGST	0.113***	0.121***	0.112***	0.19***	0.172***	0.199***
	(0.039)	(0.026)	(0.02)	(0.06)	(0.036)	(0.022)
ERGST	0.055	0.072***	0.0565**	0.055	0.084***	0.0544
	(0.038)	(0.014)	(0.0285)	(0.05)	(0.0127)	(0.0854)
ERPAN	0.0627	0.071***	0.063**	0.076	0.100***	0.0799***
	(0.04)	(0.02)	(0.026)	(0.05)	(0.015)	(0.02)
BPAN	0.0354	0.0474	0.0363	-0.028	-0.0129	-0.0398
	(0.04)	(0.029)	(0.023)	(0.06)	(0.08)	(0.028)
BGST	-0.0393	-0.0228	-0.0384	-0.09*	-0.07***	-0.1***
	(0.038)	(0.017)	(0.032)	(0.05)	(0.013)	(0.024)
TPAN	-0.0003	-0.0131	-0.00223	0.0305	-0.0016	0.027***
	(0.05)	(0.06)	(0.03)	(0.08)	(0.07)	(0.002)
TGST	-0.085*	-0.1***	-0.086***	-0.14**	-0.15***	-0.16***
	(0.045)	(0.039)	(0.03)	(0.06)	(0.028)	(0.02)
KIPAN	-0.0110	-0.0058	-0.0107	-0.0155	0.00896	-0.0067
	(0.04)	(0.048)	(0.02)	(0.05)	(0.03)	(0.03)
KIGST	0.0378	0.0482	0.0382***	0.0722	0.098***	0.0895
	(0.04)	(0.032)	(0.012)	(0.046)	(0.006)	(0.067)
High OV				0.0126	0.0240***	0.0255*
				(0.026)	(0.008)	(0.014)
Low OV				0.0146	0.0048	
				(0.06)	(0.09)	
service	0.0105	0.0092		0.0011	0.0069	
	(0.03)	(0.038)		(0.044)	(0.06)	
retail	0.0269	0.0205		0.0182	0.0158	
	(0.027)	(0.04)		(0.04)	(0.088)	
MP	0.064**		0.062***	0.94***		0.89***
	(0.028)		(0.017)	(0.103)		(0.032)
UP	-0.0003		-0.0005	0.86***		0.814***
	(0.03)		(0.019)	(0.103)		(0.06)
SV				0.026***	0.03***	0.026**
				(0.009)	(0.005)	(0.01)
High FV	0.146***	0.13***	0.147***	0.0853**	0.0738***	
	(0.024)	(0.015)	(0.027)	(0.038)	(0.02)	
Observations	1,400	1,400	1,400	689	689	689
Standard Error	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group

Note: Standard errors (SE) in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 5: Sub-Sample Analysis for GST and PAN Respondents Separately

Variables	PAN			GST		
Firm age	-0.0026	-0.0034***	-0.003**	0.004**	0.0037	0.004***
	(0.002)	(0.001)	(0.0013)	(0.002)	(0.003)	(0.0009)
APAN	-0.004	0.0104***	0.0065			
	(0.058)	(0.003)	(0.06)			
BPAN	-0.0337	-0.0175	-0.051*			
	(0.06)	(0.08)	(0.028)			
TPAN	0.0246	-0.0146	0.012			
	(0.086)	(0.094)	(0.018)			
KIPAN	-0.0147	0.0135	0.0002			
	(0.055)	(0.05)	(0.036)			
ERPAN	0.065	0.096***	0.07***			
	(0.05)	(0.007)	(0.017)			
AGST				0.242***	0.230***	0.252***
				(0.07)	(0.01)	(0.02)
BGST				-0.0798	-0.0558***	-0.083***
				(0.05)	(0.014)	(0.029)
TGST				-0.139**	-0.152***	-0.155***
				(0.055)	(0.025)	(0.0215)
KIGST				0.08*	0.11***	0.09
				(0.046)	(0.025)	(0.06)
ERGST				0.05	0.078***	0.052
				(0.05)	(0.015)	(0.07)
SV	0.0187*	0.022***	0.02***	0.0286**	0.0325***	0.028**
	(0.0112)	(0.003)	(0.0076)	(0.0136)	(0.009)	(0.0124)
High OV	-0.013	0.0114	0.003	0.023	0.026	0.036*
	(0.037)	(0.02)	(0.02)	(0.036)	(0.0368)	(0.019)
Low OV	0.0681	0.0415		-0.03	-0.027***	
	(0.085)	(0.143)		(0.0759)	(0.004)	
High FV	0.127**	0.12**		0.0581	0.0464**	
	(0.05)	(0.06)		(0.0517)	(0.0193)	
service	-0.022	-0.0227		0.0144	0.0225	
	(0.07)	(0.06)		(0.056)	(0.05)	
retail	0.0226	0.0115		0.005	0.008	
	(0.06)	(0.0669)		(0.05)	(0.08)	
MP	0.805***		0.679***	0.857***		0.829***
	(0.124)		(0.0546)	(0.1)		(0.0424)
UP	0.704***		0.589***	0.781***		0.756***
	(0.115)		(0.0785)	(0.112)		(0.0825)
Observations	320	320	320	369	369	369
Standard Error	Robust	Cluster State	Cluster Sector	Robust	Cluster State	Cluster Sector

Source: Author's calculations from Informal Sector Business Survey (ISBS), India 2022. World Bank Group

Note: Standard errors (SE) in parentheses; *** p<0.01, ** p<0.05, * p<0.1

CONCLUSION AND DISCUSSION

We argued in this paper that bribery is used to bypass burdensome regulations and continue operating in the informal sector in India. We further identify business-specific and owner-specific characteristics that increase the probability of the use of bribery as an instrument to continue operations in the informal sector. Tax evasion, followed by avoiding formal sector corruption, is the two most cited reasons for staying informal. However, these reasons are insufficient to make these firms pay bribes to remain informal. Instead, the probability of paying bribes is higher amongst those who cite ease of registration and lack of knowledge on registration as primary reasons for being informal. We also find that informal units are more vulnerable to sales, have higher financial constraints, and are more prone to paying bribes to continue operating in the informal sector. These results align with the findings of many studies (such as Dabla-Norris, Gradstein and Inchauste, 2008). Thus, to reduce the size of the informal sector, a three-fold measure needs to be adopted.

First and foremost, policies should be formulated to reduce corruption. In the presence of corruption, the informal economy complements the formal economy and efforts to pull firms into the formal sector without addressing corruption could be counterproductive (Choi and Thum, 2005; Ibrahim, Njoya and Asongu, 2022).

Secondly, joining the formal sector, legally or by growing, needs to be made more accessible and attractive. The informal sector contributes to more than 50 per cent of India's GDP and employs more than 85 per cent of India's workforce. Still, the current policies and institutional quality are such that they demotivate firms from growing. It is more beneficial to stay small, more profitable to evade taxes and stay informal to avoid bureaucratic corruption. Amidst this, our future actions should not be to provide aid to the informal sector but formalise policies that incentivise them to grow and become eligible to join the formal sector. This would, in turn, ensure labour protection, growth and development, and higher tax revenue for the Government.

Lastly, the Government should take action to improve the country's human capital quality. Lack of employment opportunities, poor education and low skills also force a major chunk of the labour force to join the informal sector without job security and social security benefits. As Dabla-Norris, Gradstein and Inchauste (2008) propose lowest productive individuals become workers, while individuals with intermediate productivity levels become owners of informal business units. Skilled entrepreneurial capital required to utilise these lowest productive sets of individuals, i.e., workers, to convert inputs into output efficiently is inadequate for the units in the informal sector (Bag, 2021). While direct aid might boost this sector in the short run, it is harmful in the long run as it will only increase the size of the informal sector. Instead, long-term investments in up-skilling the labour force should be the plan.

The within-sector variation or firm heterogeneity in the informal sector is too high. A diverse set of activities exists in the informal sector offered by firms of various sizes and capabilities. Ways to capture this heterogeneity will be helpful in better understanding the workings of corruption in this sector. The current data representation is limited to only three Indian cities in three states. The cross-sectional nature of WBES data does not allow us to check our arguments for a larger duration of these units' life cycles. This forces us to take the results with a pinch of salt and not generalise the findings yet.

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