

Corruption, gender and credit constraints: Evidence from South Asian SMEs

Nirosha Wellalage

Department of Finance, University of Waikato, Hamilton, New Zealand.

nirosha@waikato.ac.nz

Introduction

In South Asian economies, the most recurrent problem for small and medium enterprise (SME) owners is related to access to credit, and corruption (World Bank Enterprise Surveys, 2014). Credit access by firms can be affected by specific local contexts such as government regulations and culture. That indicates views on corruption and extortion may vary according to the institutional settings. However, within same institutional environment the effects of corruption on individual firms may differ. The significance of this current study is the use of micro-level data drawn from World Bank 2014 Enterprise Surveys, in contrast to the macro-index approach, to gain a better understanding of the corruption and SME credit constraints.

Looking at gender differences in the corrupt behaviour of owners of SME is important. The possibility that female business owners face gender-specific challenges and may differ from males in terms of ethics and moral standards warrants careful investigation at the microeconomic level. If women entrepreneurs are less likely to engage in corruption than men entrepreneurs, then measures and policies to fight corruption will reduce the advantages male-owned enterprises gain from these behaviours. In addition, a business environment that is friendlier to women-owned SMEs would be more attractive to women and so would encourage more women to become entrepreneurs, with potential for increasing their incomes and welfare. Such an environment would also be more conducive to the development of the business sector, which is important for poverty alleviation and sustainable growth in developing economies.

This study examines the effect corruption has on credit access of small and medium enterprises (SMEs) and whether corruption exacerbates gender-based asymmetries to accessing credit in South Asia. Corruption is perceived to have considerable effect on the development of a business and its ability to compete and survive in markets as well as diverting resources away from more worthy and productive uses (Joseph et al., 2016).

This study contributes to the understanding of corruption's impact in several ways. Prior studies mainly use macro-data, and of the few studies that drill down to micro-level analysis, most focus on a single country (Tran et al., 2016; Van Vu et al., 2017). This research providing a cross-country study is, to our

knowledge, the only study providing an insight into gender, corruption and credit access. Second, the current research is significant in establishing whether there is a causal relationship between SME corruption levels and credit constraints. An appreciation of how corruption and credit constraints affect individual SMEs is essential when formulating efficacious public policy.

Methodology

This study applies a discrete choice Probit model for binary choice (yes, no) responses to the credit constraints question. The Probit model is written as follows:

$$\text{Constraints}_i = \beta_0 + \beta_1 \text{Bribe_D}_i + \beta_2 \text{Bribe_D}_i * \text{Female} + \beta_3 \text{Bribe_D}_i * \text{Male} + \beta_4 (\text{Firm Characteristics})_i + \beta_5 (\text{Country})_i$$

*Where, Constraints_i is a binary variable representing whether SME owner i in credit constraint (1) or otherwise not (0). Bribe_D_i Is a vector of the variable indicating the existence of a bribe, $\beta_2 \text{Bribe_D}_i * \text{Female}$, $\beta_3 \text{Bribe_D}_i * \text{Male}$, Firm Characteristics_i is a vector of firm characteristics and Country_i is a vector of country dummy.*

The empirical findings relating to corruption and credit constraints are mixed and this may be attributable to endogeneity and reverse causality. Although, selection of the sample to minimise the likelihood of endogeneity, Smith-Blundell (1986) test²², rejects the hypothesis that *Bribe_D* variable, is exogenous at a significance level of 0.01. Corruption and credit constraint relationships can be endogenously determined in many ways. Omitted variable bias may influence the corruption and credit constraint regressions. Measurement errors also commonly give rise to an endogeneity issue. When corruption is jointly determined with the credit constraint there is a simultaneity problem, which leads to a spurious relationship between credit constraints and corruption. As an illustration, corruption in lending may contribute to a reduction in firms' access to external finance due to increasing the cost of the loan. A bribe amounts to a tax on borrowers and so creates an obstacle to credit. On the other hand, highly credit constrained firms may use a high level of corruption to overcome bureaucratic processes and complex regulations in accessing credit.

To correct endogeneity bias, we use instrumental variables which affect credit access but do not directly influence corruption. Likely candidates are macroeconomic variables or government regulations. In a cross-country study, it is difficult to find a strong instrument that is common for regulation, determined outside the firm and does affect the firm. The study follows the approach of Fisman and Svensson (2007) and Qi (2016), using as an instrument the existence

²² STATA command probexog provides opportunity to test endogeneity in limited dependent variables model (Probit in here).

of firm bribery (*Bribe_D*) by locality-sector average of bribery (*Avg_Bribe_D*). This is a very strong instrument, because locality-sector average of bribery captures the institutional environment in the locality, business methods, and rent extraction preferences of bureaucrats, which are factors exogenous to the firm. According to Stock and Yogo (2002), when the transformed *F*-test for the joint significance of identifying instruments in the first stage regression exceeds 10, the selected instruments are valid. The *F*-test for instrument relevance for our instrument variable *Avg_Bribe_D* is 30.97. The *F*-test value indicates a well specified instrument and resulting econometric findings are robust. We conclude that the instrumental variable probit model (i.e., IV probit) is appropriate.

Results and discussion

The results, using firm level data for five South Asian economies (Afghanistan, Bangladesh, India, Nepal, and Pakistan), indicate that the majority of SMEs in South Asia pay bribes to get things done. Considering full sample, consistent with the “sand the wheels” concept, we conclude that corruption increases the credit constraints of SMEs by 7.6 percent. However, gender differences emerge. When female-owned SMEs pay bribes, they are on average 0.78 percent more likely to be less credit constrained (grease effect) compared to female SME owners who do not pay bribes. However, when male owned SMEs pay bribes, they are on average 0.61 percent more credit constrained (sand effect) than their counterpart male SME owners who do not pay bribes.

Conclusion

According to our results, a significant proportion of SMEs pay bribes in South Asia. Therefore, policies focusing on improving the quality of the judiciary, and implementing those policies that are likely to lead to a reduction in behaviours and cultural norms supporting corruption would be most efficacious. The study indicates that anti-corruption measures would be conducive to developing SMEs in South Asia, by ensuring resources go to stimulate economic growth.

Women constitute a greater proportion of the population than men in South Asia. In situations where government officials and lending institutions’ decision makers are predominantly men, opportunities arise to abuse entrusted power and to expose women SME owners to bribe-paying practices. Introducing a gender focus in anti-corruption measures through mainstreaming gender equality is important for social and economic well-being.

In the future, expanded datasets may permit the estimation of bribery intensity. Also, the present study is limited to South Asia and there are opportunities to extend this to other regions.

Keywords: *Corruption, credit access, SMEs, South Asia, women.*

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