

Drivers and Barriers to Business Registration of Micro-enterprises in Bangladesh and Sri Lanka

ABSTRACT

This paper investigates the factors that influence formalization of poor micro-enterprises (MEs) in urban locations in Bangladesh and Sri Lanka. The paper draws from a multi-country survey of information and communication needs of poor MEs in Bangladesh, India and Sri Lanka in the second quarter of 2013. Through logistic regression, it models business registration among such MEs to understand what affects the decision to formalize within these environments. The paper also looks at the barriers to registration and the policy implications from these findings.

Using descriptive statistics and models we find that the MEs lack of formalization is explained to a significant level by their level of education, gender, size of the enterprise and awareness levels. These findings are supported in the existing literature on enterprise formalization/registration. One finding (that higher trust in government leads to lower registration rates) is unexpected and needs further investigation.

Keywords

Microenterprises; bottom of the pyramid; Bangladesh; Sri Lanka; poor; business registration; formalization

1. INTRODUCTION

Formalization of enterprise, especially those of small, medium and micro enterprises, has been a target of many governments. E-Government programs have been introduced to achieve this goal, because it is generally believed that formalized/registered enterprises yield net-positive benefits to the enterprise and the economy. Yet the rate of registration of small enterprises is low in most countries, and particularly so in developing countries. And yet, small enterprises provide the majority of employment in these countries, and therefore are an important part of the economy.

We focus on a particular type of small enterprise: the micro enterprise. In particular, we consider poor micro entrepreneurs in urban Sri Lanka and Bangladesh. Using survey data, we examine some of the motivations behind their decisions to register or not register their business.

2. LITERATURE REVIEW

This review first considers the existing literature to assess ways in which micro entrepreneurs (MEs) could benefit from registration, and next considers possible barriers to registration. One way in which a firm may decide to register or not, is by a comparison of the costs and benefits involved in registration. Therefore it could be argued that in order to encourage registration MEs have to be persuaded that the benefits of registering outweighs the costs, and that registering is in their best interest.

2.1 Benefits of Registration

From the ME's point of view, some of the suggested benefits that could result from registration are; increased profits [1, 5, 4, 8] improved access to credit [6], the ability to advertise [4], and avoiding risk of having to pay fines. Formalization also offers protection to workers, since it compels employers to comply with labor regulations [6, 8].

Research indicates that whether registration leads to increased profits depends on the size of the micro enterprise, and gender of the ME [9, 11]. A World Bank Country Study in Bolivia found that formality is associated with greater profitability in firms with three to five workers but the impact of formality on profitability is negative for firms with less than three workers [9]. Evaluation of the effects of a voluntary registration policy on financial performance of urban microenterprises in the Indian manufacturing sector found that being registered leads to significant gains in sales per for male-owned firms, but not for female owned enterprises [11].

According to an analysis of data collected by the World Bank through Informal Enterprise Surveys, informal firms identify lack of access to finance as the biggest obstacle they face. Whether registration helps firms cross this barrier is unclear, according to the study registered firms are 54 percent more likely to have a bank account and 32 percent more likely to have loans. Data for more than 2500 firms from 13 countries in Sub-Saharan Africa, Latin America and Caribbean regions was utilized for the analysis

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

ICEGOV'15, Month 1–2, 2010, City, State, Country.

Copyright 2010 ACM 1-58113-000-0/00/0010 ... \$15.00.

[6]. However other studies which look at the impact of registration, suggest that not all firms that register enjoy these benefits. A field experiment in Sri Lanka that offered informal firms incentives to formalize, found that formalization did not result in increased use of bank accounts or loans [4].

From the point of view of government, there are advantages in motivating MEs to register. It has been argued that large informal sectors are potentially detrimental to economic development as they escape government taxation and regulation. The former means that governments have fewer resources for financing development, whilst the latter can lead to welfare losses due to the lack of minimum safety and labor standards [10].

2.2 Barriers to Registration

Possible reasons that could discourage registration include direct and indirect costs [4, 6], a lack of perceived benefits from registration [4, 3], and a lack of information about the registration process [4].

Indirect costs appear to be an important barrier to registration; the need to pay taxes was the most common disadvantages of registration as perceived by a sample of informal firms surveyed in Sri Lanka [4]. This is supported by an analysis of data from World Bank Informal Enterprise Surveys that found that the main reason identified by firms (26 percent) for not registering is tax payments [6].

However an interesting finding is that higher marginal tax rates itself do not appear to be associated with a larger unofficial economy [7]. A study across 69 countries, found that higher tax rates are associated with less unofficial activity as a percent of GDP. Corruption was associated with more unofficial activity, and discretion in the application of rules, and resulting corruption appeared to have a more important effect in driving firms underground. Smaller unofficial sectors were found in countries with a lower regulatory 'burden' on enterprise, less corruption, a better rule of law, and higher tax revenue [7].

A field experiment carried out among a sample of informal firms in Sri Lanka found that reimbursement of direct costs of registration had no effect on registration rates. Registration increased only when incentives in the form of cash payments were offered, suggesting that increases in the perceived benefits of being formal could be expected to increase registration rates [4].

It also appears that MEs lack accurate information regarding the time and costs involved in registration. The field experiment in Sri Lanka (Suresh de Mel et al. 2013) reported that only 17 percent of informal firm owners surveyed knew the cost of registering.

Only 2 percent knew that lower incomes were not liable for business income taxes.

However studies in Sri Lanka and Bangladesh also indicate that unless MEs perceive some benefit from registering, provision of information about the registration process alone will not increase registration [3, 4].

Unclear registration legislation can also result in businesses operating informally (8). But again, it appears that simplifying procedures alone is not sufficient. A summary of evidence on the effects of entry reforms and related policy actions to promote firm formalization in developing countries found that most of these policies result only in a modest increase in the number of formal firms, if at all [1].

Research has also found that the quality of the legal framework is important in determining the size of the informal sector [2]. The index of Rule of Law from Kaufmann et. al (1999) was used as a proxy for the quality of legal institutions and level of legal enforcement in a country. The index includes perceptions of violent and non-violent crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts, with higher values denoting a better quality of the rule of law. It was found that dishonesty and lack of enforceability of court decisions both increase the level of informality of firms. The former is a greater problem for small firms, while the inability to enforce court decisions is more problematic for large firms [2].

Land ownership can also be barrier to formalization. The field experiment in Sri Lanka found that an important share of the firms which did not register even after receiving a large cash incentive, did not do so because of issues related to land tenancy; these firms operated with informal leases or agreements and hence were unable to provide authorities with the required proof of ownership of the land on which the firm operated [4].

2.3 Other Factors Influencing Registration

Possible associations between demographic factors such as the gender, education level of the ME and registration, and association between firm size and registration have also been explored.

Larger firms appear to be more likely to be registered or licensed with government authorities [10, 13].

Female owned micro enterprises appear to be more likely to be informal [9, 12, 13]. But some studies indicate that this tendency disappears when controlled for observable characteristics about firm owners and firms [9, 12].

It should also be noted, that as discussed in section 2.1, some studies indicate that female MEs who do register are less likely to profit from registration than male MEs [11].

Findings regarding the effects of education vary. A study in rural Indonesia found that firms owned by those with more education were more likely to be licensed [10]. However a paper examining the determinants of small and micro enterprise registration in Niger and Swaziland found that the education of the proprietor seemed to have no significant influence on the registration decision [13]. Research in Bolivia shows that while more educated individuals are more likely to be in the formal sector, the ability of the owner and reasons for being in business matter more than education alone for determining the choice to become formal [9].

The field experiment in Sri Lanka also found an increase in trust in government as a result of formalizing. There were strong positive effects of formalizing on trust in the provincial government and trust in the municipal government, the two levels of government that business owners interact with during the registration process; however there was no significant impact on trust in the national government, courts, or the police [4].

2.4 Research Gaps

Although there appears to be considerable research done in regions such as South America on the factors affecting registration of micro enterprises, there is little literature covering South Asia. Of the studies done in this region, many focus on small and medium enterprises and not on micro enterprises alone.

Given that Bangladesh, India and Sri Lanka have low rates of registration among MEs it is important to ask why registration rates remain low, and what policies can be adopted to change this. Country level studies are important, since registration procedures can vary between countries and thus influence the registration decision. Through our research we attempt to identify why unregistered MEs in Bangladesh, Sri Lanka and India do not register. We also assess factors that motivate MEs to register, and explore ways in which policy makers can encourage registration among MEs.

3. DATA AND DESCRIPTIVE STATISTICS

3.1 Descriptive Statistics

This paper is based on data from a 2013 survey of 3,180 low-income, urban micro-entrepreneurs (MEs), aged 15 and over in Bangladesh, India and Sri Lanka. MEs were defined as those who had less than ten (i.e., 0-9) employees, or full time equivalent, excluding the owner.¹ Low income MEs were defined as those whose household falls under socio economic category (SEC)² groups C, D or E.³ Urban was defined as per the national statistics office or formal government definition in each country.

In each country, two cities were selected, the capital city and another city which is weaker in terms of governance. ‘Governance’ was inferred by the proxy indicators related to the human development of the province/state the city is located. The rationale for this was to tease out any differences in the efficiency levels of customer/citizen services received by MEs due to overall differences in governance levels.

Table 1: Survey sample sizes

			N
India	Strong	Delhi	641
	Weak	Patna, Bihar	638
	Total (India)		1279
Bangladesh	Strong	Dhaka	455
	Weak	Gaibhanda	460
		Kurigram	
	Total (Bangladesh)		986 (915)
Sri Lanka	Strong	Colombo	501
	Weak	Kurunegala	485
		Kuliyapitya	

¹ This definition is an adaptation of that followed by the World Bank and European Commission. See: http://europa.eu/legislation_summaries/enterprise/business_environment/n26026_en.htm

² SEC categorizes people in to groups A to E based on the education and occupational (as well as a few other parameters in certain countries) of the chief wage earner of the household. SEC is closely correlated to an income level of around USD 2 a day in the countries studied, thereby allowing for cross-country comparisons. SEC was used to define the BOP rather than income levels due to the problems generated by spatial and temporal cost of living adjustments, which would make cross-country comparisons difficult. In addition, problems of over or under reporting could affect the correct classification of BOP respondents.

³ SEC D and E only in India. In Bangladesh, SEC B1 and B2 were included to cover the MEs in 1-3 and 4-9 worker categories. In India, SEC B2 was added to achieve the quotas for 1-3 and 4-9 workers categories in Patna city. Whereas in New Delhi, SEC C was added to cover MEs with 4-9 employees. In Sri Lanka we were not able to find the adequate number of MEs in the 1-3 and 4-9 workers category and extended the framework to include SEC B1 and B2.

	Puttalam	
	Chilaw	
Total (Sri Lanka)		(986)

Multi-stage cluster sampling was used to select MEs. In India and Bangladesh systematic sampling was used to select wards within selected cities, and then Moallas within selected wards (Bangladesh only) and then streets within selected wards or Moallas. All MEs on selected streets were surveyed for the study. In Sri Lanka, provinces were divided into square blocks which were selected from using a random number table. Within selected blocks, starting from the northwest corner MEs were found, and then subsequent interviews were conducted in the same block by continuous walking. In a few instances, for the 6-9 employees category, snowball sampling was used to find respondents, but within the same block.

The samples were divided roughly equally between strong and weak cities. Quotas for MEs in the sample for parameters such as sector, gender, location and number of workers were set using whatever publicly available data existed for each country.

A face-to-face survey was conducted in local languages among MEs in the selected localities to understand the experience in interacting with telecom, electricity and government services.

All MEs were asked whether or not they were registered with some government authority, reasons for registering and about the registration process. Due to the low level of registration among the Indian sample, the Indian sample could not be included in the logistic regression. The other two countries show 50-55% of MEs are registered (Table 2).

Table 2: Registered MEs (% of MEs surveyed)

	Bangladesh	Sri Lanka	India
% registered	55.3	53.6	4.4

Table 3: The most important reasons given for registration

	Bangladesh	Sri Lanka	India
It is compulsory (government policy)	35.9	82.2	64.3
My business will benefit from it in the long term	40.2	8.4	7.1
No particular reason	15.3	5.57	17.9
I will get some financial assistance from the government	5.7	0.7	89
My friends/family told me to do so	10	2.6	1.8
I will get some non-financial assistance from the government	1.8	0.4	-

In Bangladesh the main reason for MEs registering their business is for long term benefits, followed by the idea that it is compulsory as per government regulations. In Sri Lanka more than 80 percent of registered MEs say that they registered because it is compulsory (Table 3).

Among MEs that have not registered, the reasons varied. In Bangladesh and Sri Lanka the top reason for not registering as that the process involved unnecessary additional work for them. Among Bangladeshi MEs the next most cited reason was that they didn’t see the benefit of registering. Among Sri Lankan MEs the next reason was because it meant they would have to pay tax. Approximately 22 percent in each Bangladesh and Sri Lanka did not register due to a lack of awareness about the need to register or how to go about it (Table 4).

Table 4: The most important reasons given for not registering

	Bangladesh	Sri Lanka	India
It is unnecessary workload for me	23.9	27.6	19.7
There is no benefit	23.0	15.4	14.6
I am not aware of the need or how to	21.7	22.9	28.2
The cost is too high	16.0	16.4	24.0
I have to pay taxes	15.3	17.6	13.6

Table 5 summarizes the profiles of MEs who have registered their business. The Chi-Square value given in the table indicates where there are significant associations between the concerned variable and business registration. The significance level established in Chi-square significance tests, with probability (P-value) of 0.05 or less, is commonly interpreted as the justification for rejecting the null hypothesis that variables are not related in some way.

The data shows that registered MEs in Bangladesh and Sri Lanka are more likely to be males and have higher levels of education, have a greater number of employees and be involved in service or trade. Age was not significantly different between registered and unregistered MEs. These characteristics were common across the Bangladesh and Sri Lanka samples.

Table 5: Bangladesh and Sri Lanka sample characteristics (N=1901)

	Unregistered MEs (%)	Registered MEs (%)	N/chi-square	P-value	Significance
Gender					
Female	21.7	14.3	17.789	0.000	Significant at 99.9%
Male	78.3	85.7			
Education					
Illiterate	18.1	5.8	152.061	0.000	Significant at 99.9%
Primary	29.6	15.7			
Secondary	52.3	78.5			
Age category					
15-29	22.6	21.5	1.476	0.688	Not significant
30-39	30.5	30.8			
40-49	23.3	25.4			
50+	23.6	22.2			
Location					
Strong	48.0	50.6	1.266	0.269	Not significant
Weak	52.0	49.4			
Number of employees					
Alone	41.5	23.3	82.583	0.000	Significant at 99.9%
One to three	50.9	61.3			
Three to nine	7.6	15.5			
Type of business					
Manufacturing	11.5	8.1	6.399	0.041	Significant at 95%
Service	29.6	30.2			
Trade	58.9	61.6			

3.2 Model and Findings

Based on the associations discussed in the previous section, in this section we present a statistical model that will help in understanding the nature of the relationship between an ME's characteristics and business registration. Here we take ME characteristics as independent variables and examine how these variables will explain the differences in business registration.

A logistic regression gives each independent variable a coefficient B_i that measures the predictor variable's contribution to variations in the dependent variable. The logistic model formula computes the probability of the selected response as a function of the values of the predictor variables.

To arrive at the probability, these coefficients should be applied to a logistic function. I.e., if each independent variable $X_1, X_2, X_3, \dots, X_n$ has respective coefficients of $B_1, B_2, B_3, \dots, B_n$ and a constant of B_0 , the probability of the event of interest Y happening is given by:

$$P(Y) = \frac{1}{1 + e^{-\sum_{i=0}^n B_i X_i}}$$

From the each coefficient, a corresponding odds ratio is computed. The odds ratio is a way of presenting probability of an event. The odds of an event happening indicates the probability that the event will happen divided by the probability that the event will not happen.

The odds ratio implies for each unit increment of the independent variable (see Table 6 for list), the odds of the concerned dependent variable (registration rate) changes by a percentage of *Odds Ratio - 1*. For example, if the gender variable has an odds ratio of 0.73, a one unit increase in the value of the variable (that is, going from a value of 0 [male] to 1 [female]) reduces the ME's odds of registering by 27 percent, while holding the value of other independent variables constant. The independent variables used in the model are explained in the Table 6 below. The output of the model can be seen in Table 7 and Table 8.

Table 6: Summary of variable information

Variable	Variable information
age_log_d	Log of respondent's age
gender_rc	0=male, 1= female
EDU_primary_d	Primary education completed: 0=no, 1=yes
EDU_second_d	Secondary education completed: 0=no, 1=yes
EMP_13_d	1-3 employees: 0=no, 1=yes
EMP_49_d	4-9 1-3 employees: 0=no, 1=yes
mobility_d	Type of location of business: 0=fixed, 1- mobile
strongcity_d	Governance of city: 0=weak, 1=strong
Trust	Index of respondent's level of trust in the government ⁴

Looking at the pseudo R-squared values, the model explains 29.5% of the variance in the Bangladesh sample but only 9.5% of the variance in the Sri Lankan sample. The model classification accuracy (the percentage of outcomes correctly predicted by the model) is 64.0% for Sri Lanka and 75.7% for Bangladesh, both indicating that the model is well specified. The Hosmer and Lemeshaw test (a goodness of fit test) indicates that the model's estimates fit the data well in the Bangladesh sample with the test statistic greater than 0.05, while that for the Sri Lankan sample indicates the fit is not as good (Table 9).

⁴ An index was created using the respondents' stated 'level of comfort with government sharing their personal information with other government agencies' on the following information: name and address; age; bank account; mobile number; income; family size; and electricity usage. Responses were given on the following scale: uncomfortable (-1), neutral (0), very comfortable (1).

Table 7: Logistic regression output: Bangladesh

	Coefficient	Significance	Odds ratio	Percentage change in odds
age log d	0.666**	0.000	1.95	95%
gender rc	-1.194**	0.000	0.30	-70%
EDU primary d	0.905**	0.001	2.47	147%
EDU second d	1.838**	0.000	6.28	528%
EMP 13 d	1.497**	0.000	4.47	347%
EMP 49 d	2.177**	0.000	8.82	782%
mobility d	-1.556**	0.000	0.21	-79%
strongcity d	0.245	0.129	1.28	28%
Trust	-0.107**	0.000	0.90	-10%
Constant	-0.56	0.306	0.57	-43%
N	915			
Cox & Snell R Square	0.295			

Table 8: Logistic regression output: Sri Lanka

	Coefficient	Significance	Odds ratio	Percentage change in odds
age log d	-0.032	0.823	0.97	-3%
gender rc	-0.312*	0.045	0.73	-27%
EDU_primary_d	-0.152	0.616	0.86	-14%
EDU second d	0.873**	0.002	2.39	139%
EMP 13 d	0.069	0.650	1.07	7%
EMP 49 d	0.487*	0.024	1.63	63%
mobility d	-0.418*	0.017	0.66	-34%
strongcity d	-0.501**	0.000	0.61	-39%
Trust	0.071**	0.001	1.07	7%
Constant	-0.985*	0.021	0.37	-63%
N	986			
Cox & Snell R Square	0.095			

Table 9: Hosmer and Lemeshow Test

	Chi-square	Degrees of freedom	Significance
Sri Lanka	16.101	8	.041
Bangladesh	8.715	8	.367

In Bangladesh, while holding all other factors constant, age is a significant factor in ME registration, with older MEs being more likely to register than younger ones. Gender has a significant impact, with being a female reducing the likelihood of registration by 70%. Having primary or secondary education increases the likelihood of registration by 147% and 528% respectively. MEs with 1-3 employees (as compared to those without any) are 347% more likely to register while those with 4-9 employees are 782% more likely to register. Being an ME whose location of business is variable (e.g., cart-based sales, door-to-door service, etc.) reduces the likelihood of registration by 79%. Being in a strong vs weak governance city does not have any impact on the likelihood of registration in Bangladesh. A one-unit increase in the level of trust in the government (i.e., increase in the level of comfort with the government sharing their personal information) is associated with an 11% reduction in the likelihood of registration.

In Sri Lanka, when controlling all other variables in the model, age has no significant effect on the likelihood of registration, while being female reduces the ME's likelihood of being registered by 27%. Having secondary education (or more) increases the likelihood of registration by 139%. MEs which employ a larger number of workers (4-9 employees) are 63%

more likely to register than those without secondary education. When the aspect of mobility is considered, MEs whose location of business is variable are 34% less likely to register while MEs located in Colombo (strong city) are 39% less likely to register than those in the weak cities in Sri Lanka. MEs with a higher level of trust in government (or those who are more comfortable with government sharing their personal information) are 1.1 times more likely to register.

4. DISCUSSION AND POLICY RECOMMENDATIONS

The descriptive data and the model in most cases support the existing literature related to formalization (i.e. registration) of the micro-enterprise. In summary, we find that higher awareness, higher education of the microentrepreneur, gender, whether location of business is variable or not, and enterprise size have an impact on the likelihood of the enterprise being registered.

Some possible (policy) implications are:

- If we are to assume that registration is a net-positive for the ME, clearly awareness about benefits of registration and how to do it need to increase. We see that MEs with lower education levels, MEs who are females or smaller MEs are less likely to be registered. As such, they can and should be a particular target of government activities to increase awareness and education about the registration process.
- Lack of perceived benefits from registration also seems to be a barrier (Among MEs who had not registered, -23% in Bangladesh and 15% in SL, gave lack of benefits as reason for not registering). Improved knowledge about registration alone may not improve registration unless MEs see a benefit in registering (this is also supported by the literature).
- Gender barriers are clearly seen particularly in Bangladesh, where females are less likely to register after having controlled for differences in education. Governments need to look into the barriers specifically preventing women from registering (which may include social and cultural factors not captured in the model or the survey questions) and see how these can be overcome. Campaigns targeted specifically at encouraging women to register, for example by reducing registration costs for women, may be beneficial. Mobile phone and other ICT based solutions may help, if cultural factors such as women's mobility (e.g. to travel to the registration office) are identified.

The data and the model also yield results that aren't clearly explained in the existing literature, and as such pose questions for further analysis. For example:

- It can be hypothesized that the more trust people/MEs have in government, the more likely they are to register their business. This is confirmed in the Sri Lanka data (higher trust in govt co-relates to higher registration). But the inverse relationship is seen in Bangladesh: higher the trust in government, lower the registration rate. Even though the estimated changes in the odds of registering are not that large either way (+11% in Sri

Lanka and -7% in Bangladesh), this is something to be explored further.

Apart from the above, the obvious key limitation of this research is that causality cannot be confirmed between dependent and independent variables.

5. CONCLUSION

Our findings confirm that the reasons for lack of registration for enterprises stated in the literature are similar to the reasons for this particular sub group's lack of registration. In other words, poor, urban, micro entrepreneurs' likelihood of registering their business is correlated to awareness, gender, education levels, and size of enterprise. This immediately points to specific groups that can be targeted for educational/awareness raising activities by governments and business organizations (chambers of commerce, for example).

We found as-yet unexplainable results for 'trust in government' and the effects it has on likelihood of registering a ME's business and plan to examine this further.

6. ACKNOWLEDGMENTS

Our thanks to ACM SIGCHI for allowing us to modify templates they had developed.

7. REFERENCES

- 1) Bruhn, M., McKenzie, D. (2013). Entry Regulation and Formalization of Microenterprises in Developing Countries. Policy Research Paper. World Bank, Washington, DC. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/15866> License: CC BY 3.0
- 2) Dabla-Norris, E., Gradstein, M., Inchauste G. (2008) What Causes Firms to Hide Output? The Determinants of Informality. *Journal of Development Economics*, 85 (1): 1-27
- 3) De Giorgi, G., Rahman, A. (2013). SME Registration Evidence from a Randomized Controlled Trial in Bangladesh. Policy Research Paper. © World Bank, Washington, DC.
- 4) de Mel, S., McKenzie, D., Woodruff, C. (2013). The Demand for, and Consequences of, Formalization among Informal Firms in Sri Lanka. *American Economic Journal: Applied Economics*, 5(2), 122-150.
- 5) Fajnzylber, P., Maloney, W. F., Montes-Rojas, G. V. (2011). Does formality improve micro-firm performance? Evidence from the Brazilian SIMPLES program. *Journal Of Development Economics*, 94(2), 262-276.
- 6) Farazi S., (2014). Informal Firms and Financial Inclusion; Status and Determinants. Policy Research Paper. World Bank, Washington, DC. © World Bank.
<https://openknowledge.worldbank.org/>
- 7) Friedman, E., Johnson, S., Kaufmann, D., Zoido-Lobaton, P. (2000) Dodging the grabbing hand: the determinants of unofficial activity in 69 countries. *Journal of Public Economics* 76, 459–493
- 8) Rand, J., Torm N. (2012). The Benefits of Formalization: Evidence from Vietnamese Manufacturing SMEs. *World Development*, 40(5), 983-998. www.elsevier.com/locate/worlddev
- 9) Sakho, Y. S., Lunde, T., Arribas-Banos M., 2009. Gender in Bolivian production : reducing differences in formality and productivity of firms. Policy Research Paper. World Bank, Washington, DC. © World Bank.
<http://documents.worldbank.org/curated/en/2009/07/11000024/gender-bolivian-production-reducing-differences-formality-productivity-firms>
- 10) Schulze, G., McCulloch, N., Voss, J. (2010) .What Determines Firms' Decisions to Formalize? Empirical Evidence from Rural Indonesia. Freiburg University Dep. of International Economic Policy
- 11) Sharma, S. (2013). Benefits of a registration policy for microenterprise performance in India. *Small Business Economics*
- 12) McKenzie, D. 2009. Gender, Entry Regulations, and Small Firm Informality : What Do the Micro Data Tell Us? Policy Research Paper, World Bank, Washington, DC. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/11108> License: CC BY 3.0 Unported.
- 13) McPherson, M. A., Liedholm, C. (1996). Determinants of Small and Micro Enterprise Registration: Results from Surveys in Niger and Swaziland. *World Development*, 24(3), 481-487