

Costs & benefits of formalization for firms

A mixed-methods study on Mozambique



Hanna Berkel
University of Copenhagen
Development Economics Research Group

Problem statement

- GoM's goal: formalization of informal sector
 - Backed by ILO, World Bank etc.
- Formalization beneficial for governments
- But: outcomes for firms?
 - Research comes to mixed results
 - Few studies on the topic for Mozambican firms

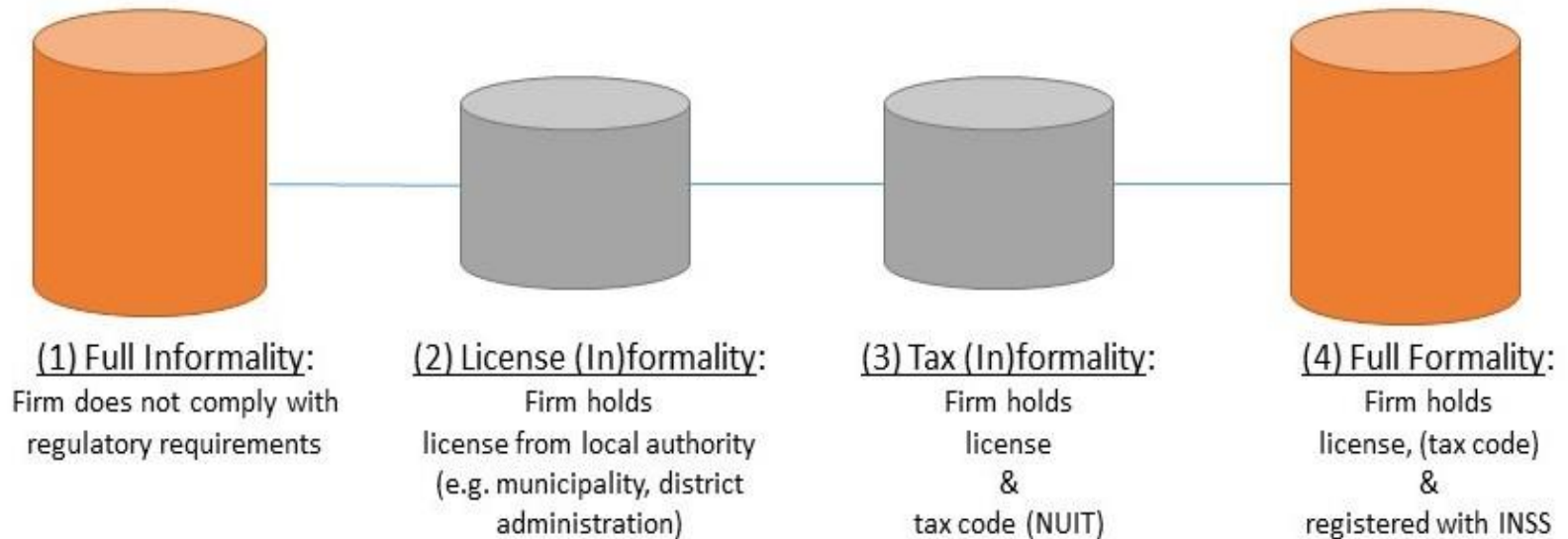
Research Questions

- What are the costs and benefits of formalization for firms?
 - What are actual outcomes of formalization for firms? (Quant)
 - What effects of formalization do firm owners perceive? (Qual)
 - How do firms experience bureaucratic procedures? (Qual)

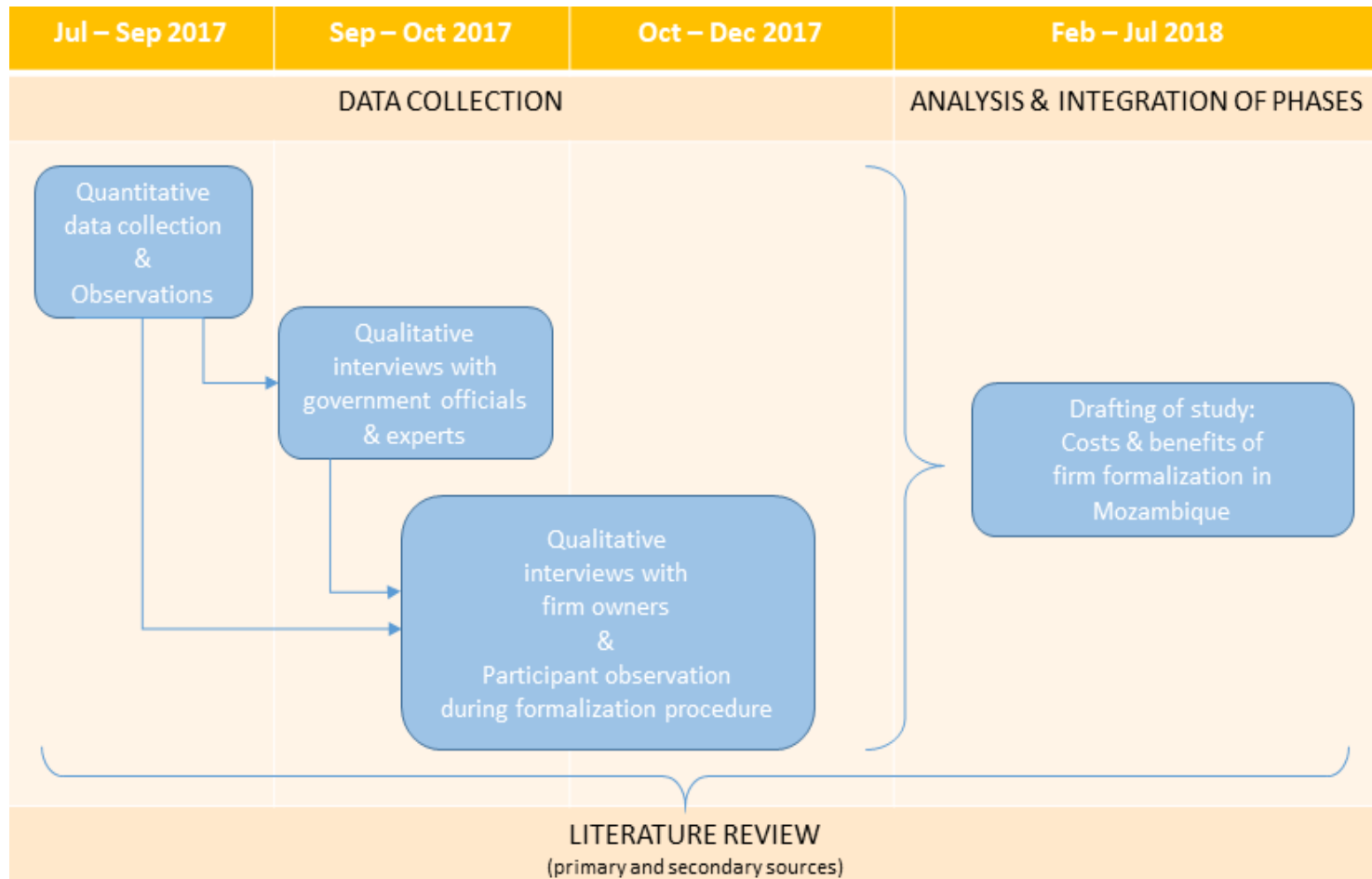
Literature

- Definition of (in)formality
- Panel datasets, matched DD approach (e.g. Rand&Torm, 2012)
 - Benefits outweigh costs
- Formalization experiments (Mc Kenzie et al, several years)
 - Firms benefit, but costs often outweigh benefits
- Qual: formalization outcomes heterogeneous
 - Local authorities beneficial, national authorities less relevant
 - Informal practices of formal firms

Conceptual framework



Methodology



Quant dataset and analysis

- Panel dataset (2012, 2017)
- 516 firms for both years
- First two (in)formality degrees are analysed as one
 - Due to missing questions on local licenses in survey
- Mixed DD approach compared with FE estimates
 - Impact of formalization on intermediate outcomes

Transition of (in)formality degrees

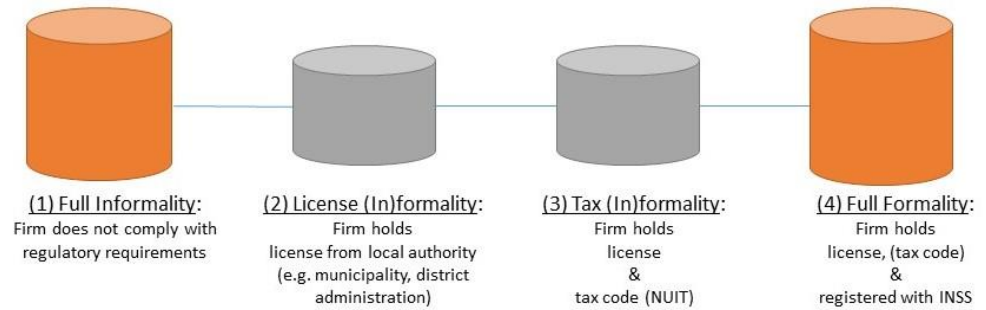
		2017				
		<u>1&2</u>	<u>3</u>	<u>4</u>		
		Fully informal or license (in)formal	NUIT (in)formal	INSS (in)formal	Observations	
2012	1&2	Fully informal or license (in)formal	75 (14.53)	26 (5.04)	10 (1.94)	111 (21.51)
	3	NUIT (in)formal	82 (15.89)	71 (13.76)	47 (9.11)	200 (38.76)
	4	INSS (in)formal	8 (1.55)	14 (2.71)	183 (35.47)	205 (39.73)
		Observations	165 (31.97)	111 (21.51)	240 (46.51)	516

- 83 firms **formalized** to (3) or (4) from (1&2) or (3)
- 104 firms **informalized** to (1&2) from (3) or (4)

Qual dataset and analysis

- 16 experts and government officials
 - legal situation of firms
 - costs and benefits of formalization that may exist in Mozambique
- 16 firms from four different (in)formality degrees (strata)
 - Firms that were enquired during quantitative data collection
 - Semi-structured interviews with firm owners
 - Participant observation
- Qual distinguishes between four (in)formality degrees

Quant results (i)

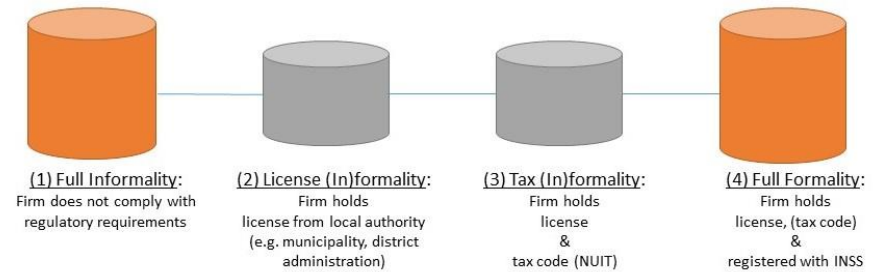


- Formalization to (4) leads to:
 - Significantly higher likelihood to do business with formal companies => benefit
 - Significantly higher likelihood to provide formal work contracts => cost or benefit?
 - No statistical significance for other intermediate outcomes

Table 1: Intermediate outcomes and full formality (4), matched DD estimates

	Investments	Formal accounts	Credit	Inspections	Sales to state enterprises	Casual labor	Formal contracts
A: Levels specification – firm-specific controls only	0.104 (1.15)	0.133 (1.60)	0.143* (1.86)	0.210** (2.05)	0.343*** (4.65)	-0.54 (-1.61)	0.369*** (3.47)
B: Levels specification – full set	0.047 (0.50)	0.149* (1.82)	0.096 (1.41)	0.163 (1.53)	0.341*** (4.61)	-0.232** (-2.19)	0.314*** (3.01)
C: Difference and levels specification	-0.0899 (-0.95)	0.093 (1.14)	0.098 (1.52)	0.168 (1.63)	0.298*** (4.40)	-0.124 (-1.44)	0.397*** (3.54)
Total observations	308	308	308	308	308	308	299
Treated observations	54	54	54	54	54	54	45

Quant results (ii)



- Informalization to (1&2) leads to:
 - Significantly lower likelihood to do business with formal companies
=> losing benefit of formality
 - Significantly lower likelihood to be inspected
=> saving cost of formality
 - No statistical significance for other intermediate outcomes

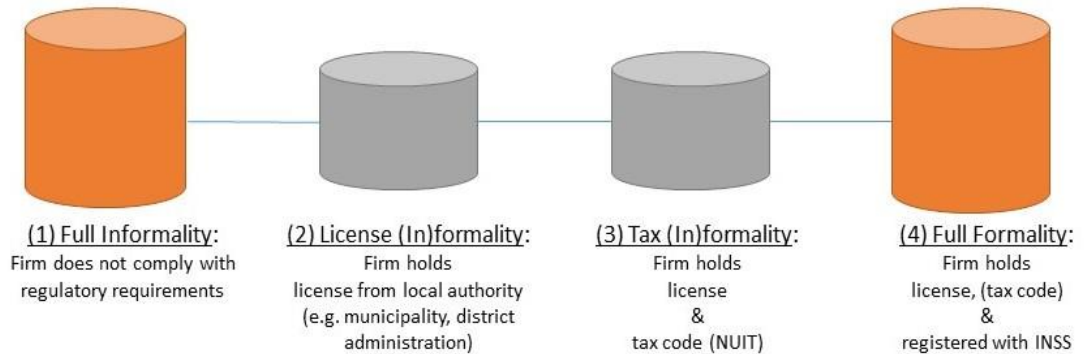
Table 2: Intermediate outcomes and informalization to (1&2), matched DD estimates

	Investments	Formal accounts	Credit	Inspections	Sales to state enterprises	Casual labor	Formal contracts
A: Levels specification – firm-specific controls only	-0.085 (-0.91)	0.018 (0.30)	-0.053 (-0.89)	-0.223** (-2.27)	-0.263*** (-4.65)	0.152 (0.97)	-0.241** (-2.88)
B: Levels specification – full set	-0.034 (-0.39)	-0.001 (-0.02)	-0.134** (-2.28)	-0.182** (-2.02)	-0.337*** (-6.33)	0.170 (1.13)	-0.289*** (-3.88)
C: Difference and levels specification	0.057 (0.62)	0.010 (0.18)	-0.114** (-2.12)	-0.116 (-1.20)	-0.252*** (-4.44)	0.066 (0.47)	-0.247*** (-2.99)
Total observations	402	402	402	402	402	402	389
Treated observations	87	87	87	87	87	87	74

Qual results (i)

- Costs and benefits of formalization depend on (in)formality degree
- Valid for all degrees:
 - Benefit: legal recognition
 - High costs: time and money
 - Non-existent benefit: Access to credit
- Costs and time of initial registration impossible to assess previously
 - *De facto* practices differ from *de jure* regulations
 - More informal firms do not have necessary financial reserves/connections to register

Qual results (ii)



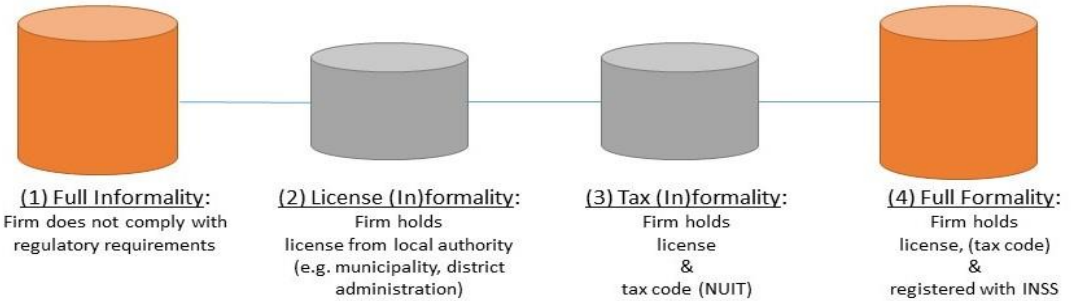
- Fully informal firms (1)

- Lack of information
- Lack of regular cash inflows
- Few perceived benefits, many perceived costs
- Won't benefit from formalization

- License (in)formal firms (2)

- Heterogeneous group; some similar to (1)
- Lack of information on how to implement perceived benefits
- Lack of information about potential costs of formalization (inspections)
- Some have potential to benefit by selling to state enterprises
- Generally, too few benefits

Qual results (iii)



- Tax (in)formal firms (3)
 - Save costs of full formalization by employing casual labour => reason for survival (?)
 - Benefit from doing business with formal firms
 - Rational trade off benefits against costs
- Fully formal firms (4)
 - Impossible to avoid full formality due to high public visibility
 - High inspection and labor costs
 - Informal practices: hiring of casual labor
 - Few benefits, high (but bearable) costs

Conclusion

- Only few benefits of formalization existing in Mozambique
 - Some have necessary conditions to benefit
 - Lack of information impedes firms to benefit
- High costs of formalization
 - Difficult for survivalist entrepreneurs to bear these costs
 - High inspection costs for bigger firms
- Different policies necessary
 - Increasing of benefits not enough => dissemination of information/education important
 - Fight against corruption

Thank you!

