DISCUSSION PAPER SERIES

DP15876

The Fetters of the Sib - An Experimental Study in Burkina Faso

Björn Vollan, Myriam Hadnes, Marco Nilgen and Michael Kosfeld

DEVELOPMENT ECONOMICS

ORGANIZATIONAL ECONOMICS

CEPR

ISSN 0265-8003

The Fetters of the Sib - An Experimental Study in Burkina Faso

Björn Vollan, Myriam Hadnes, Marco Nilgen and Michael Kosfeld

Discussion Paper DP15876
Published 03 March 2021
Submitted 26 February 2021

Centre for Economic Policy Research
33 Great Sutton Street, London EC1V 0DX, UK
Tel: +44 (0)20 7183 8801
www.cepr.org

The Fetters of the Sib - An Experimental Study in Burkina Faso

Abstract

We conducted a field experiment in Burkina Faso to investigate the impact of sharing obligations within kin networks on entrepreneurial effort. The overall treatment effect we find is insignificant and goes in the opposite direction than previous literature suggests. Ex-post explorative analysis reveals that entrepreneurs in the two experimental groups reacted differently in their production process, with some entrepreneurs in the treatment group being able to utilize their kin network to their joint advantage.

JEL Classification: C93, D13, H24, H26, O12

Keywords: field experiment, Redristributive pressure, Social norms, Sharing norms, Business Development, Burkina Faso

Björn Vollan - bjoern.vollan@wiwi.uni-marburg.de
University of Marburg

Myriam Hadnes - myriam.hadnes@gmail.com
workshops work

Marco Nilgen - marco.nilgen@wiwi.uni-marburg.de
University of Marburg

Michael Kosfeld - kosfeld@econ.uni-frankfurt.de
Goethe University Frankfurt and CEPR

The Fetters of the Sib -
An Experimental Study in Burkina Faso[1]

Björn Vollan[a], Myriam Hadnes[b], Marco Nilgen[a] & Michael Kosfeld[c]*

*Correspondence to Michael Kosfeld (kosfeld@econ.uni-frankfurt.de)

Abstract: We conducted a field experiment in Burkina Faso to investigate the impact of sharing obligations within kin networks on entrepreneurial effort. The overall treatment effect we find is insignificant and goes in the opposite direction than previous literature suggests. Ex-post explorative analysis reveals that entrepreneurs in the two experimental groups reacted differently in their production process, with some entrepreneurs in the treatment group being able to utilize their kin network to their joint advantage.

JEL classification: C93, D13, H24, H26, O12

Keywords: Field experiment, Redistributive pressure, Social norms, Sharing norms, Business Development, Burkina Faso

Author Contributions: BV, MH, MK conceived the initial idea of the overall project and developed the methodological and analytical approach, BV, MH, MN analyzed the data, BV, MH, MN, MK wrote the paper.

Competing interests: Authors declare no competing interests.

Ethics statement: The study design and field implementation were designed and conducted according to the ethical standards in the declaration of Helsinki.

---

[1] We are grateful for excellent support in the field by Adama Belemvire and his team from "Expertise pour le Développement du Sahel" as well as Marc Rummel for assistance. We thank Gani Aldashev, Jean-Marie Baland, Salvatore Di Falco, Michael Grimm, Catherine Guirkinger, Manuel Oechslin, Jean-Philippe Platteau, Stefan Trautmann and seminar/conference participants at the EEA 2013, the VEA 2013, the NES CSDSI Conference in Moscow 2017, Chapman University, University of Chicago, University of Geneva, University of Marburg, University of Innsbruck, University of Osnabrück, and Tilburg University for helpful comments. We gratefully acknowledge financial support from World Bank's Multi Donor Trust Fund Project: "Labor Markets, Job Creation, and Economic Growth, Scaling up Research, Capacity Building, and Action on the Ground".
[a] Philipps-University Marburg, School of Business and Economics, Am Plan 2, D-35037 Marburg, Germany
[b] workshops work, Keizersgracht 482, NL-1017EG Amsterdam, The Netherlands
[c] Goethe Universität Frankfurt, Faculty of Economics and Business, Theodor-W.-Adorno-Platz 4, D-60323 Frankfurt am Main, Germany

1. Introduction

Informal sharing obligations imposed by extended family and social networks have been identified as a potential detrimental factor hampering the growth of small businesses in developing countries (Di Falco & Bulte, 2011; Grimm et al., 2013; Hoff & Sen, 2005; Platteau, 2000). While such networks can provide individuals with social insurance or credit when formal access is either unavailable or unaffordable (Coate & Ravallion, 1993; Jakiela & Ozier, 2016), redistributive pressure within them is argued to have negative effects on entrepreneurial incentives, thereby impeding investments and small-business development (Grimm et al., 2017; Squires, 2017). Supporting this notion, recent survey-based (Baland et al., 2011, 2016; Di Falco & Bulte, 2011, 2013) and experimental studies (Beekman et al., 2015; Boltz et al., 2019; Bulte et al., 2018; Di Falco et al., 2018; Fiala, 2017; Jakiela & Ozier, 2016) document that redistributive pressure within kin networks induces evasive behavior, e.g., by hiding experimental payoffs or new streams of income from the network, even going as far as that individuals are willing to pay a sizeable premium to keep their income hidden.

In natural business environments, it can be difficult to hide income from the kin network as many small- to medium-sized businesses in developing countries are also family businesses. Thus, another channel through which kin networks might dampen entrepreneurial activity could be that individual work effort is negatively affected by the prospect of sharing norms (Alger et al., 2020; Grimm et al., 2013). Our study adds to this literature by presenting the results from a field experiment with tailors in Burkina Faso, who were financially incentivized to work on a real effort task, similar to their regular business activity, within one day. To determine the effect of sharing norms on entrepreneurial effort, our experimental treatment varied whether a member of the tailor's family was informed about the lucrative income opportunity or not. Our hypothesis was that tailors in the control group generate higher output as they do not have to fear immediate redistributive pressure from their kin network. Distinct from laboratory experiments, however, tailors also had more time to respond to sharing demands and were able to choose from a broader set of adjustment strategies.

Our results show no statistically significant difference in tailors' output between both experimental conditions. Moreover, the difference, while insignificant, goes in the opposite direction than expected. Ex-post explorative analysis reveals the following heterogeneous treatment effects: Tailors in the treatment group, who had received financial support from their family in the past or have a tradition of tailoring within their family, featured a sizeable increase in output. This speaks towards the importance of reciprocity norms within the family network. Additionally, we find that participants adjusted their production processes differently in the two experimental groups: Tailors in the control group worked longer hours while tailors in the treatment group increased the workforce. Overall, our results suggest that if the

information on additional income opportunities is made public in the network, at least some entrepreneurs can react positively to sharing norms and use them to their advantage.

2. Experimental and Sampling Approach

To investigate the causal effect of informal sharing norms on the entrepreneurial effort we implemented a multi-staged field experiment in January 2011 in Ouagadougou, Burkina Faso, where solidarity norms in family networks are known to be particularly strong (Fiske, 1990; Gerhart & Englebert, 1996). To acquire a sufficiently large homogenous population of small-scale entrepreneurs, we decided to sample from the confectionery industry, which represents one of the largest informal sector industries within our study population. Requiring a natural income opportunity to observe and compare the sampled tailors' effort, we offered all participants the business opportunity to produce bags for 24 hours at a lucrative fixed piece rate of 4 US$ (2,000 Fcfa) excluding material costs[1]. We introduced experimental variation by randomly allocating our participants into two different treatment conditions, differing exclusively with regards to the potential triggering of informal sharing norms: in half of our experimental sample, we informed the tailors' families about the income opportunity, while in the other half the families were left uninformed.

After an initial census of tailors in 10 (out of 30) districts in Ouagadougou, we pre-selected 401 tailors to fill out a baseline questionnaire. Out of this sample, we selected a total of 192 tailors to participate in the experiment based on a set of pre-determined requirements[2]. The participants were then randomly allocated into one of the two treatment conditions before we contacted the tailors' family members to conduct a survey where we subtly informed family members of the tailors in the treatment group about the business opportunity[3]. Unfortunately, we were not able to reach all participant's family members, and we also decided to only include tailors where the respective family contact unambiguously indicated that they had regularly received money from the tailor in the past. Following these procedures ultimately resulted in a sample of 134 tailors who were informed about and invited to the business opportunity of which 9 were not at their workshop the day of the experiment. Thus, the final

[1] In our final experimental sample (n=125), the median weekly business profit of tailors was 7,500 Fcfa. The median tailor produced 6 bags within 24 hours resulting in an average turnover of 12.000 Fcfa.

[2] These included the ownership of a small business, a kin network that is financially supported by the participant on a regular basis and that at least one member of this network could be contacted by phone.

[3] To keep the true nature of the experiment hidden from the participants themselves, the information was subtly given to the family member in an indirect way. The interviewee mentioned the business opportunity in passing, asked for the participants phone number and made no indication that both the call and the business opportunity were in some way related to an experiment.

sample includes 125 tailors[4]. After the business opportunity ended and the tailors handed in the produced bags, they were casually involved in a conversation to find out any potential problems and how they managed to produce the bags[5].

3. Results

3.1. Main results and heterogeneous responses to treatment

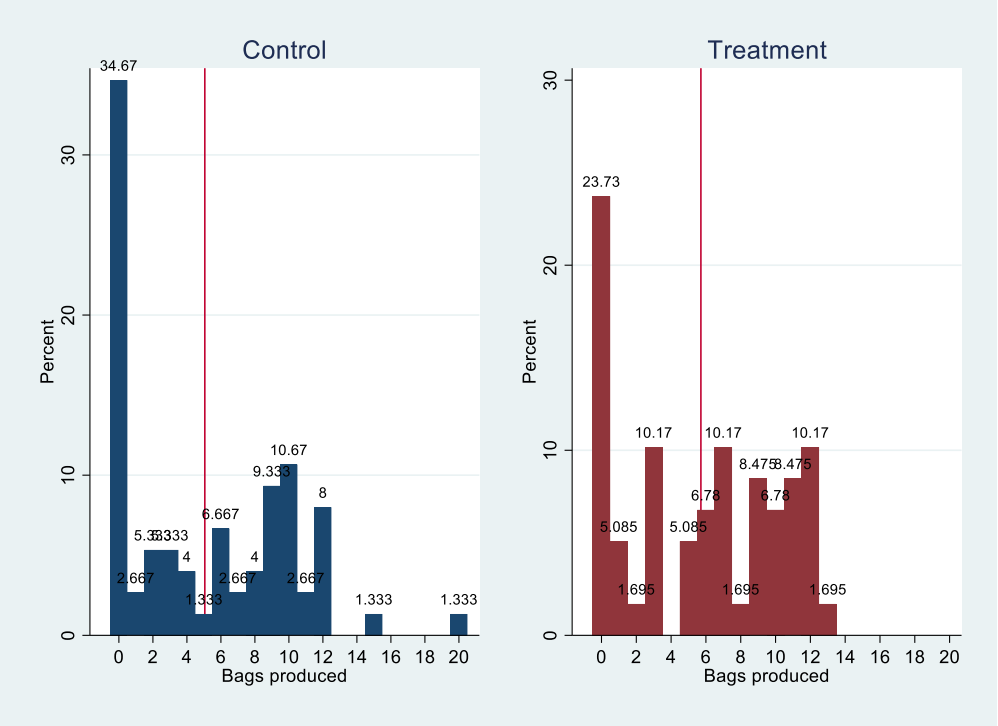
On average, we find that tailors from the treatment group produced 5.91 bags during our study period and 0.34 bags more than tailors in the control group. The difference is not statistically significant (Mann-Whitney U-Test: p = 0.536) and goes in the opposite direction than expected[6]. Figure 1 shows the distribution of bags produced between both experimental groups, indicating that one tailor produced up to 20 bags and a sizeable share of tailors produced no bags at all – the difference in zero observations between the treatment and control group is also not statistically significant (Mann-Whitney U-Test: p = 0.376). Reasons for the high number of zero bags include various technical or personal problems (see statistics in Table A5). Given that we cannot differentiate between honest and dishonest excuses, we keep all tailors in our analysis.

[4] Tables A1 through A4a display summary statistics and balancing tests between the treatment and control groups along a set of socioeconomic indicator variables at two stages of the sampling process. Testing for the equality of group means reveals that they are not significantly different from each other in both stages, indicating our sampling strategy to be successful. Table A4b displays two probit regressions to check for selective attrition between the two sampling stages. We only find that two of the control variables (belonging to the ethnic group of the Mossi and stating net positive financial transfers from the family network) slightly increase the probability of being part of the final sample to a statistically significant degree. Therefore, we conclude that there is no problematic selective attrition threatening the internal validity of our experiment.

[5] Table A5a illustrates summary statistics on the variables generated from these conversations between both experimental groups.

[6] Given the sample size of n=125 the minimum detectable effect size with a 5% significance level and a power of 80% is 2.35 bags. With an assumed variance of 2 bags the minimal detectable effect size would have been 1 bag (17% deviation from the mean).

Figure 1 – Histograms illustrating the distribution and means (vertical lines) of total bags produced between the control and treatment groups



The first two columns of Table 1 show regression results to test the main treatment effect, both with and without additional control variables[7]. To account for our relatively small number of total observations and clusters, we employ wild bootstrapped standard errors clustered at the district level as described in (Cameron et al., 2008)[8]. Our analysis confirms the finding that informing a tailor's social network about the new income opportunity has no statistically significant effect on the number of bags produced (models in columns 1&2).

[7] The full model specifications with all control variables included in these models are given in Table A6. We opted to focus our main regression analysis on this set of variables as these variables have no missing values for any of the socioeconomic variables included in Tables A1 – A4, so they allow us to keep the full set of experimental observations (n = 125, with the estimation in columns (3) & (8) being exceptions due to our assumptions regarding the 'household members' variable and one missing observation within the 'problems' variable). Estimation results from identically specified regression models with all additional control variables are given in Table A7, showing that the inclusion of those controls has only minor effects on the magnitude of our results, while not affecting their statistical significance.

[8] We use this approach in all regression models estimated and shown in this paper.

Table 1 – Main Regression Results

VARIABLES	(1) main effect	(2) main effect	(3) Interaction *household*	(4) Interaction *help*	(5) Interaction *transfer*	(6) Interaction *tradition*	(7) Interaction *bank*	(8) Interaction *problems*
treatment (network informed)	0.339	0.392	-0.363	-0.575	0.518	-0.250	2.575*	-0.933
	(0.865)	(0.900)	(1.401)	(1.131)	(0.986)	(0.892)	(1.311)	(0.958)
household members			-0.0343					
			(0.296)					
treatment x household members			0.187					
			(0.176)					
family help received				-0.592				
				(1.901)				
treatment x family help received				4.919***				
				(0)				
net family transfers					-0.000			
					(0.000)			
treatment x net family transfers					-0.001			
					(0.007)			
family tradition						-1.915		
						(1.735)		
treatment x family tradition						7.781***		
						(0)		
bank account							2.327***	
							(0.792)	
treatment x bank account							-4.578***	
							(1.558)	
problem(s) reported								-3.080***
								(1.206)
treatment x problems								2.936***
								(1.087)
Constant	5.574***	6.354	6.121***	6.781	6.273	6.582	5.099	8.319*
	(0)	(8.272)	(0)	(6.733)	(8.239)	(7.725)	(7.978)	(4.447)
Observations	125	125	122	125	125	125	125	124
R-squared	0.001	0.093	0.099	0.136	0.094	0.141	0.150	0.153
Controls	NO	YES	YES	YES	YES	YES	YES	YES

*Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Bags produced - OLS regressions with multi-way clustered standard errors at the district level, bootstrapped for one cluster dimension as described in (Cameron et al., 2008) hence standard errors (in brackets) are 'rigged' but reported to illustrate level of significance, standard errors of 0.000 imply a p-value of 0, clustered at the district level, 500 bootstrap iterations. Full specifications of all models are given in Table A6. Robustness checks with additional controls are given in Table A7.*

To shed light on potential mechanisms of how solidarity networks and norms may influence entrepreneurial effort, we expand our analysis by testing if differences in a tailor's family and financial background induce heterogenous treatment responses. Columns (3) to (7) of Table 1 display regression results including different interaction terms between the treatment and socioeconomic indicator variables which we, based on our review of the literature, assume could influence how tailors might react to the treatment. We find that in our study, larger social circles, as proxied by a participant's number of household members (column 3), and net transfers (column 5) do not affect production levels and do not interact with the treatment condition in any way. We do find however, that having received financial aid from the family during a respective tailor enterprise's startup phase increases bag production in the treatment group (column 4), indicating a potential prevalence of reciprocity norms that are activated if the family network is informed about the business opportunity (Alger & Weibull, 2010; Beekman et al., 2015). Also, a family tradition in tailoring businesses significantly increases bag production in the treatment group. This hints towards a stronger reinforcing influence of a tailor's family on bag production if the family has been informed and their well-established knowledge about the craft enables them to assess the income opportunity accurately or offer better assistance. Additionally, we find that owning a bank account significantly and substantially decreases the number of bags produced in the treatment condition, while leading to a significant increase in bag production in the control condition. A potential explanation for this is that bank accounts play an important role in the possibility to hide income from the kin network (Ashraf et al., 2015; Dupas & Robinson, 2013). If a tailor's family network has not been informed about the income opportunity, participants might be additionally motivated to increase bag production because they have an easy opportunity to hide income on their bank account. In the treatment condition, members of the kin network know about the income opportunity anyway and tailors who are used to keeping their business earnings on their private bank account might be additionally disincentivized by having to deviate from their usual financial management practices.

3.2. Coping with problems and adjustment to sharing obligations

The regression results in column 8 of Table 1 indicate that tailors from both experimental groups performed significantly differently with regards to the bag production when they stated to have encountered problems during the production process[9]. While on average, tailors in

[9] Statistics on the recorded problems between both experimental groups are given in Table A5a. While 38.7% of tailors stated to have faced problems overall, 5.7% stated to have had family-related problems, 23.4% stated that they faced issues relating to electricity (e.g. outages) and 12.1% stated they had problems with their sewing machine. Both, the overall prevalence of problems as well as the different types of problems that occurred do not differ significantly between both experimental groups. Probit regressions displayed in Table A5b also show that neither our treatment variable, nor one of the socioeconomic control variables we use for our analysis, significantly affects the probability to encounter problems.

the control group produced approximately three bags less when facing a problem (4.07 bags on average), tailors in the treatment group were even able to increase their production by about 2.9 bags (6.36 on average). A potential explanation for this finding may rest with how tailors from the two experimental groups were able to cope with encountered problems[10]. In the first two columns of Table 2 we show regression results for the subsample of tailors who stated to have faced problems. Unlike in our specification for the full sample, we observe that treated tailors no longer exhibit an increased bag production if they received financial aid from their family in the past (column 1). However, we can observe a substantial increase in bag production for tailors that have a family tradition of tailoring and whose families have been informed about the business opportunity (column 2). In case of problems, such tailors were seemingly able to utilize their informed and knowledgeable family network to their advantage.

Additionally, we observe that tailors in the two experimental groups adjusted their mode of working to their respective treatment conditions differently. While tailors in the treatment group asked more people for help both if problems occurred (1.73 vs. 1.19 bags; Mann-Whitney U-Test: $p = 0.032$) or not (1.72 vs. 1.37 bags; Mann-Whitney U-Test: $p = 0.023$), tailors from the control group stated to have worked through the entire night significantly more often (22.39% vs. 10.53%; Mann-Whitney U-Test: $p = 0.081$), albeit this difference is not significant when problems were encountered (11.54% vs. 4.55%; Mann-Whitney U-Test: $p = 0.387$)[11]. As indicated above, this is intuitive as one would expect tailors whose social networks have not been informed about the business opportunity to have a stronger incentive to hide additional income from their kin network, thus asking for less help but using all available effort by working all night to benefit as much as possible from the offer. Likewise, tailors from the treatment condition might as well ask more people to cash in on the opportunity as they do not have an option to hide it in the first place. However, as we can see in columns (3) to (6) of Table 2, these adjustments only translated to an increase in bag production for tailors in the control group. For those tailors, average bag production increased by 4.8 bags if they worked all night and even by 8.5 bags if we look only at the subsample of tailors who encountered problems. Still, our results from column (2) in Table 2 indicate that when asking people for help in case of problems, the quality of help might be superior to quantity or, alternatively, the ex-post measure for the number of people employed is an underestimation in the treatment group.

[10] This notion is underlined by histograms illustrating the distribution and means (vertical lines) of total bags produced between the control and treatment groups with and without encountered problems are displayed in Figure A5c. We observe that when encountering problems, tailors from the treatment group exhibit a drastically lower share of zero bags produced, while this share increases for tailors from the control group. However, this difference is not statistically significant (Mann-Whitney U-Test: $p = 0.164$).

[11] These figures are also displayed in Table A5d.

Table 2 – Coping with Problems and Adjustment to Sharing Obligations

VARIABLES	(1) problems=1 *help*	(2) problems=1 *tradition*	(3) full sample *work all night*	(4) problems=1 *work all night*	(5) full sample *workforce*	(6) problems=1 *workforce*
Treatment (network informed)	2.083	2.039	1.024	3.163***	-2.012	4.143
	(1.466)	(1.323)	(0.831)	(0)	(1.340)	(3.201)
family help received	2.923					
	(3.126)					
treatment x family help	1.377					
	(3.495)					
family tradition		0.895				
		(1.069)				
treatment x family tradition		8.289***				
		(0)				
worked all night			4.794***	8.451***		
			(0)	(0)		
treatment x worked all night			-1.272	-4.555***		
			(1.419)	(1.478)		
no. of people helping with task					1.183	2.732*
					(0.852)	(1.515)
treatment x people helping					1.083	-1.823
					(1.094)	(2.314)
constant	4.993	5.295*	4.653	0.589	3.241	1.623
	(3.239)	(2.856)	(4.856)	(1.033)	(4.371)	(4.237)
Controls	YES	YES	YES	YES	YES	YES
Observations	48	48	124	48	124	48
R-squared	0.447	0.488	0.216	0.639	0.210	0.491

*Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Bags produced - OLS regressions with multi-way clustered standard errors at the district level, bootstrapped for one cluster dimension as described in (Cameron et al., 2008), hence standard errors (in brackets) are 'rigged' but reported to illustrate level of significance, standard errors of 0.000 imply a p-value of 0, clustered at the district level, 500 bootstrap iterations. Full specifications of all models are given in Table A8.*

4. Conclusion

We present the results from a unique field experiment in Burkina Faso testing for the potential negative effect of sharing norms within kin networks on entrepreneurial effort. Contrary to our expectation, we find a small but statistically insignificant positive effect. Additional explorative analysis reveals that tailors respond differently in their production process depending on the treatment. Whereas tailors in the control group increase individual

effort and working hours, tailors in the treatment group tend to involve, and benefit from, their kin network that is informed by the treatment manipulation. In sum, while our results come with obvious limitations due to a relatively small sample and ex-post explorative analysis, they shed new light on the relationship between solidarity norms and business outcomes in developing countries warranting further empirical analyses by future research.

Bibliography

Alger, I., Juarez, L., Juarez-Torres, M., & Miquel-Florensa, J. (2020). Do Informal Transfers Induce Lower Efforts? Evidence from Lab-In-The-Field Experiments in Rural Mexico. *Economic Development and Cultural Change*, *69*(1). https://doi.org/10.1086/702858

Alger, I., & Weibull, J. W. (2010). Kinship, Incentives, and Evolution. *American Economic Review*, *100*(4), 1725–1758. https://www.aeaweb.org/articles?id=10.1257/aer.100.4.1725

Ashraf, N., Aycinena, D., Claudia Martínez, A., & Yang, D. (2015). Savings in transnational households: A field experiment among migrants from El Salvador. *Review of Economics and Statistics*. https://doi.org/10.1162/REST_a_00462

Baland, J. M., Bonjean, I., Guirkinger, C., & Ziparo, R. (2016). The economic consequences of mutual help in extended families. *Journal of Development Economics*, *123*, 38–56. https://doi.org/10.1016/j.jdeveco.2016.07.004

Baland, J. M., Guirkinger, C., & Mali, C. (2011). Pretending to be poor: Borrowing to escape forced solidarity in Cameroon. *Economic Development and Cultural Change*, *60*(1), 1–16. https://doi.org/10.1086/661220

Beekman, G., Gatto, M., & Nillesen, E. (2015). Family Networks and Income Hiding□: Evidence from Lab-in-the-Field Experiments in Rural Liberia. *Journal of African Economies*, *24*(3), 453–469. https://doi.org/10.1093/jae/ejv008

Boltz, M., Marazyan, K., & Villar, P. (2019). Income hiding and informal redistribution: A lab-in-the-field experiment in Senegal. *Journal of Development Economics*, *137*, 78–92. https://doi.org/10.1016/j.jdeveco.2018.11.004

Bulte, E., Lensink, R., & Winkel, A. (2018). The impact of a gender and business training on income hiding: An experimental study in Vietnam. *Journal of Economic Behavior and Organization*, *148*. https://doi.org/10.1016/j.jebo.2018.02.020

Cameron, C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-Based Improvements for Inference with Clustered Errors. *The Review of Economics and Statistics*, *90*(3), 414–427. http://www.nber.org/papers/t0344

Coate, S., & Ravallion, M. (1993). Reciprocity without commitment. Characterization and performance of informal insurance arrangements. *Journal of Development Economics*, *40*(1), 1–24. https://doi.org/10.1016/0304-3878(93)90102-S

Di Falco, S., & Bulte, E. (2011). A dark side of social capital? Kinship, consumption, and

savings. *Journal of Development Studies*, *47*(8), 1128–1151. https://doi.org/10.1080/00220388.2010.514328

Di Falco, S., & Bulte, E. (2013). The Impact of Kinship Networks on the Adoption of Risk-Mitigating Strategies in Ethiopia. *World Development*, *43*, 100–110. https://doi.org/10.1016/j.worlddev.2012.10.011

Di Falco, S., Feri, F., Pin, P., & Vollenweider, X. (2018). Ties that bind: Network redistributive pressure and economic decisions in village economies. *Journal of Development Economics*, *131*(November 2017), 123–131. https://doi.org/10.1016/j.jdeveco.2017.12.001

Dupas, P., & Robinson, J. (2013). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. *American Economic Journal: Applied Economics*, *5*(1), 163–192.

Fiala, N. (2017). Business is Tough, but Family is Worse : Household Bargaining and Investment in Microenterprises in Uganda. *University of Connecticut - Department of Economics Working Paper Series*, *2017–05*.

Fiske, A. P. (1990). Relativity within Moose ("Mossi") Culture: Four Incommensurable Models for Social Relationships. *Ethos*. https://doi.org/10.1525/eth.1990.18.2.02a00040

Gerhart, G. M., & Englebert, P. (1996). Burkina Faso: Unsteady Statehood in West Africa. *Foreign Affairs*. https://doi.org/10.2307/20047892

Grimm, M., Gubert, F., Koriko, O., Lay, J., & Nordman, C. J. (2013). Kinship ties and entrepreneurship in Western Africa. *Journal of Small Business and Entrepreneurship*, *26*(2), 125–150. https://doi.org/10.1080/08276331.2013.771854

Grimm, M., Hartwig, R., & Lay, J. (2017). Does forced solidarity hamper investment in small and micro enterprises? *Journal of Comparative Economics*, *45*(4), 827–846. https://doi.org/10.1016/j.jce.2016.07.002

Hoff, K., & Sen, A. (2005). The Kin System as a Poverty Trap? *Poverty Traps*, *1987*, 95. papers2://publication/uuid/1D2B354D-DE6A-4A34-B54B-3D58E3C7AE49

Jakiela, P., & Ozier, O. (2016). Does africa need a rotten kin theorem? Experimental evidence from village economies. *Review of Economic Studies*, *83*(1), 231–268. https://doi.org/10.1093/restud/rdv033

Platteau, J.-P. (2000). Institutions, Social Norms and Economic Development. In *Institutions, Social Norms and Economic Development*. https://doi.org/10.4324/9780203357606

Squires, M. (2017). Kinship Taxation as an Impediment to Growth : Experimental Evidence from Kenyan Microenterprises. *Mimeo*.

Appendix

Table A1 – Variable Definitions and Descriptive Statistics (Full Experimental Sample - n=192)

	definition	n	mean	sd	min	max
male	=1 if tailor is male	192	0.792	0.407	0	1
age	tailor's age	189	34.09	7.924	21	59
uneducated	=1 if no formal education	189	0.169	0.376	0	1
prim. education started	=1 if primary education started	189	0.439	0.498	0	1
prim. education completed	=1 if primary education completed	189	0.312	0.465	0	1
muslim	=1 if tailor is muslim	192	0.526	0.501	0	1
mossi	=1 if tailor is mossi	189	0.746	0.436	0	1
born in ouaga	=1 if tailor was born in ouagadougou	192	0.307	0.463	0	1
bank account	=1 if tailor has bank account	192	0.479	0.501	0	1
risk attitude	self-assessed risk-scale from 1 (low risk) to 4 (high risk)	189	2.238	1.032	1	4
household members	# permanent members in tailor's household	189	4.778	2.720	1	15
siblings	# tailor's siblings	188	4.824	2.416	0	13
household members not working	# unemployed people in tailor's household	192	2.401	2.062	0	10
family help received	=1 if tailor received financial support from family in start-up phase	192	0.193	0.395	0	1
family tradition	=1 if tailor's family has owned a tailor shop already	192	0.135	0.343	0	1
net family transfers	family financial transfers received minus transfers made	192	117.7	679.9	-1,258	9,025
business founder	=1 if tailor founded the business	192	0.958	0.200	0	1
enterprise age	# years the business has been running	189	7.148	6.237	1	31
total staff	# workers supporting the tailor on permanent basis	189	3.995	1.629	2	11
paid staff	# paid workers supporting the tailor on permanent basis	189	0.772	1.197	0	5
working hours	average hours tailor works for the business per month	192	259.4	71.83	0	420
weekly average profit	average weekly profit (in 1000 FCA)	192	14.08	40.27	0	540

Table A2 – Sampling Balance Test (Full Experimental Sample - n=192)

	Control			Treatment			
	n	mean	sd	n	mean	sd	diff
male	96	0.80	0.40	96	0.78	0.42	-0.021
age	95	33.59	8.31	94	34.60	7.53	1.006
uneducated	95	0.23	0.42	94	0.11	0.31	-0.125**
prim. education started	95	0.35	0.48	94	0.53	0.50	0.185**
prim. education completed	95	0.34	0.48	94	0.29	0.45	-0.050
muslim	96	0.55	0.50	96	0.50	0.50	-0.052
mossi	95	0.76	0.43	94	0.73	0.44	-0.024
born in ouaga	96	0.30	0.46	96	0.31	0.47	0.010
bank account	96	0.46	0.50	96	0.50	0.50	0.042
risk attitude	95	2.24	1.06	94	2.23	1.01	-0.008
household members	95	4.80	2.80	94	4.76	2.65	-0.045
siblings	94	4.64	2.35	94	5.01	2.48	0.372
household members not working	96	2.36	2.08	96	2.44	2.05	0.073
family help received	96	0.23	0.42	96	0.16	0.36	-0.073
family tradition	96	0.17	0.37	96	0.10	0.31	-0.062
net family transfers	96	135.50	940.31	96	99.91	211.05	-35.594
business founder	96	0.96	0.20	96	0.96	0.20	0.000
enterprise age	95	6.87	6.41	94	7.43	6.08	0.552
total staff	95	3.85	1.63	94	4.14	1.62	0.286
paid staff	95	0.71	1.16	94	0.84	1.24	0.135
working hours	96	260.68	74.51	96	258.17	69.40	-2.510
weekly average profit	96	12.33	16.29	96	15.83	54.67	3.495

Test for equality of two group means, assuming homogeneity:

	Statistic	F(df1,	df2)	=F	Prob>F
Wilks' lambda	0.9047	22.0	165.0	0.79	0.7350e
Pillai's trace	0.0953	22.0	165.0	0.79	0.7350e
Lawley-Hotelling trace	0.1053	22.0	165.0	0.79	0.7350e
Roy's largest root	0.1053	22.0	165.0	0.79	0.7350e

e = exact

Table A3 – Variable Definitions and Descriptive Statistics (Final Sample / Accepted Offer - n=125)

	definition	n	mean	sd	min	max
bags	# bags produced	125	5.728	4.644	0	20
male	=1 if tailor is male	125	0.776	0.419	0	1
age	tailor's age	122	34.23	8.116	21	59
uneducated	=1 if no formal education	122	0.172	0.379	0	1
prim. education started	=1 if primary education started	122	0.451	0.500	0	1
prim. education completed	=1 if primary education completed	122	0.311	0.465	0	1
muslim	=1 if tailor is muslim	125	0.496	0.502	0	1
mossi	=1 if tailor is mossi	122	0.787	0.411	0	1
born in ouaga	=1 if tailor was born in ouagadougou	125	0.296	0.458	0	1
bank account	=1 if tailor has bank account	125	0.472	0.501	0	1
risk attitude	self-assessed risk-scale from 1 (low risk) to 4 (high risk)	122	2.279	1.031	1	4
household members	# permanent members in tailor's household	122	4.795	2.739	1	15
siblings	# tailor's siblings	122	4.705	2.442	0	13
household members not working	# unemployed people in tailor's household	125	2.384	2.113	0	10
family help received	=1 if tailor received financial support from family in start-up phase	125	0.200	0.402	0	1
family tradition	=1 if tailor's family has owned a tailor shop already	125	0.120	0.326	0	1
net family transfers	family financial transfers received minus transfers made	125	136.4	811.9	-570	9,025
business founder	=1 if tailor founded the business	125	0.960	0.197	0	1
enterprise age	# years the business has been running	122	6.959	5.840	1	28
total staff	# workers supporting the tailor on permanent basis	122	4.107	1.670	2	11
paid staff	# paid workers supporting the tailor on permanent basis	122	0.828	1.238	0	5
working hours	average hours tailor works for the business per month	125	257.7	76.50	0	420
weekly average profit	average weekly profit (in 1000 FCA)	125	15.51	48.38	0	540

Table A4a – Sampling Balance Test (Final Sample / Accepted Offer - n=125)

	Control			Treatment			
	n	mean	sd	n	mean	sd	diff
Male	68	0.79	0.41	57	0.75	0.43	-0.040
Age	67	34.34	8.69	55	34.09	7.43	-0.252
Uneducated	67	0.22	0.42	55	0.11	0.31	-0.115*
prim. education started	67	0.39	0.49	55	0.53	0.50	0.139
prim. education completed	67	0.31	0.47	55	0.31	0.47	-0.004
Muslim	68	0.49	0.50	57	0.51	0.50	0.023
Mossi	67	0.79	0.41	55	0.78	0.42	-0.009
born in ouaga	68	0.29	0.46	57	0.30	0.46	0.004
bank account	68	0.49	0.50	57	0.46	0.50	-0.029
risk attitude	67	2.24	1.07	55	2.33	0.98	0.088
household members	67	5.01	2.87	55	4.53	2.57	-0.488
Siblings	67	4.67	2.39	55	4.75	2.53	0.074
household members not working	68	2.54	2.19	57	2.19	2.02	-0.351
family help received	68	0.22	0.42	57	0.18	0.38	-0.045
family tradition	68	0.18	0.38	57	0.05	0.23	-0.124**
net family transfers	68	174.87	1099.40	57	90.44	98.07	-84.429
business founder	68	0.97	0.17	57	0.95	0.23	-0.023
enterprise age	67	6.94	6.27	55	6.98	5.33	0.042
total staff	67	4.06	1.77	55	4.16	1.56	0.104
paid staff	67	0.78	1.28	55	0.89	1.20	0.115
working hours	68	257.10	76.85	57	258.42	76.75	1.318
weekly average profit	68	11.96	11.40	57	19.75	70.67	7.799

Test for equality of two group means, assuming homogeneity:

	Statistic	F (df1,	df2)	=F	Prob>F
Wilks' lambda	0.8888	22.0	99.0	0.79	0.9381e
Pillai's trace	0.1112	22.0	99.0	0.79	0.9381e
Lawley-Hotelling trace	0.1251	22.0	99.0	0.79	0.9381e
Roy's largest root	0.1251	22.0	99.0	0.79	0.9381e

e = exact

Table A4b – Check for Selective Attrition Between the Two Sampling Stages

VARIABLES	(1) selected controls	(2) all controls
male	-0.159	-0.0903
	(0.229)	(0.256)
age		0.0132
		(0.0225)
uneducated		0.468
		(0.371)
prim. education started		0.394
		(0.283)
prim. Education completed		0.492
		(0.419)
muslim		-0.144
		(0.0915)
mossi		0.493**
		(0.251)
born in ouaga	-0.0824	-0.156
	(0.187)	(0.169)
bank account	-0.0710	-0.102
	(0.138)	(0.189)
risk attitude		0.127
		(0.0973)
hh members		-0.000436
		(0.0663)
siblings		-0.0613
		(0.0508)
household members not working		-0.00282
		(0.0719)
family help received	0.0442	0.0851
	(0.261)	(0.295)
family tradition	-0.209	-0.110
	(0.279)	(0.268)
net family transfers	0.000105**	0.000182**
	(5.15e-05)	(7.28e-05)
business founder	0.122	0.660
	(0.650)	(0.782)
enterprise age		-0.0187
		(0.0135)
total staff		0.107*
		(0.0638)
paid staff		0.0488
		(0.116)
working hours	-0.000356	0.000787
	(0.00102)	(0.00135)
weekly average profit	0.00274	0.00270
	(0.00303)	(0.00275)
constant	0.525	-1.796
	(0.730)	(1.376)
Observations	192	188

*Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Member of the final experimental sample (dummy) - Probit regressions with clustered standard errors at the district level. Specification in column (1) only includes the control variables used in the analysis (only includes variables that allow us to maintain our full set of observations). Specification in colum (2) includes all controls that we also show in the remainder of our descriptive analysis.*

Table A5a – Summary Statistics on Variables from Follow-up Survey

VARIABLE	definition	Control			Treatment			
		n	mean	sd	n	mean	sd	diff
people helping with task	# of people helping with the bag production	67	1.37	0.74	57	1.72	0.96	0.346**
other priorities	= 1 if respondent stated that he was busy with other commitments	67	0.16	0.37	57	0.18	0.38	0.011
worked all night	= 1 if respondent stated that he worked all night on the bag production	67	0.22	0.42	57	0.11	0.31	-0.119*
reported having problems	= 1 if respondent reported having problems with the bag production	67	0.39	0.49	57	0.39	0.49	-0.002
problems with family	= 1 if respondent reported having problems with the bag production due to family issues (e.g. health issues of relatives)	67	0.06	0.24	57	0.05	0.23	-0.007
problems with electricity	= 1 if respondent reported having problems with the bag production due to electricity issues (e.g. electricity cuts)	67	0.19	0.40	57	0.28	0.45	0.087
problems with sewing machine	= 1 if respondent reported having problems with the bag production due to issues with the sewing machine	67	0.15	0.36	57	0.09	0.29	-0.062

Table A5b – Probit Regressions on Problems Encountered

VARIABLES	(1) encountering problems	(2) encountering problems
treatment	-0.00547	-0.0521
	(0.303)	(0.316)
male		0.227
		(0.269)
born in ouaga		-0.303
		(0.221)
family help received		0.256
		(0.341)
net family transfers		0.000279
		(0.000175)
bank account		-0.483
		(0.428)
family tradition		-0.475
		(0.310)
business founder		-0.219
		(0.525)
working hours		-0.000155
		(0.00166)
weekly average profit		-0.00730
		(0.0141)
constant	-0.284	0.174
	(0.196)	(0.570)
Observations	124	124

*Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Problems encountered (dummy) - Probit regressions with clustered standard errors at the district level.*

Figure A5c - Histograms Illustrating the Distribution and Means (vertical lines) of Total Bags Produced Between the Control and Treatment Groups without and with Problems Encountered

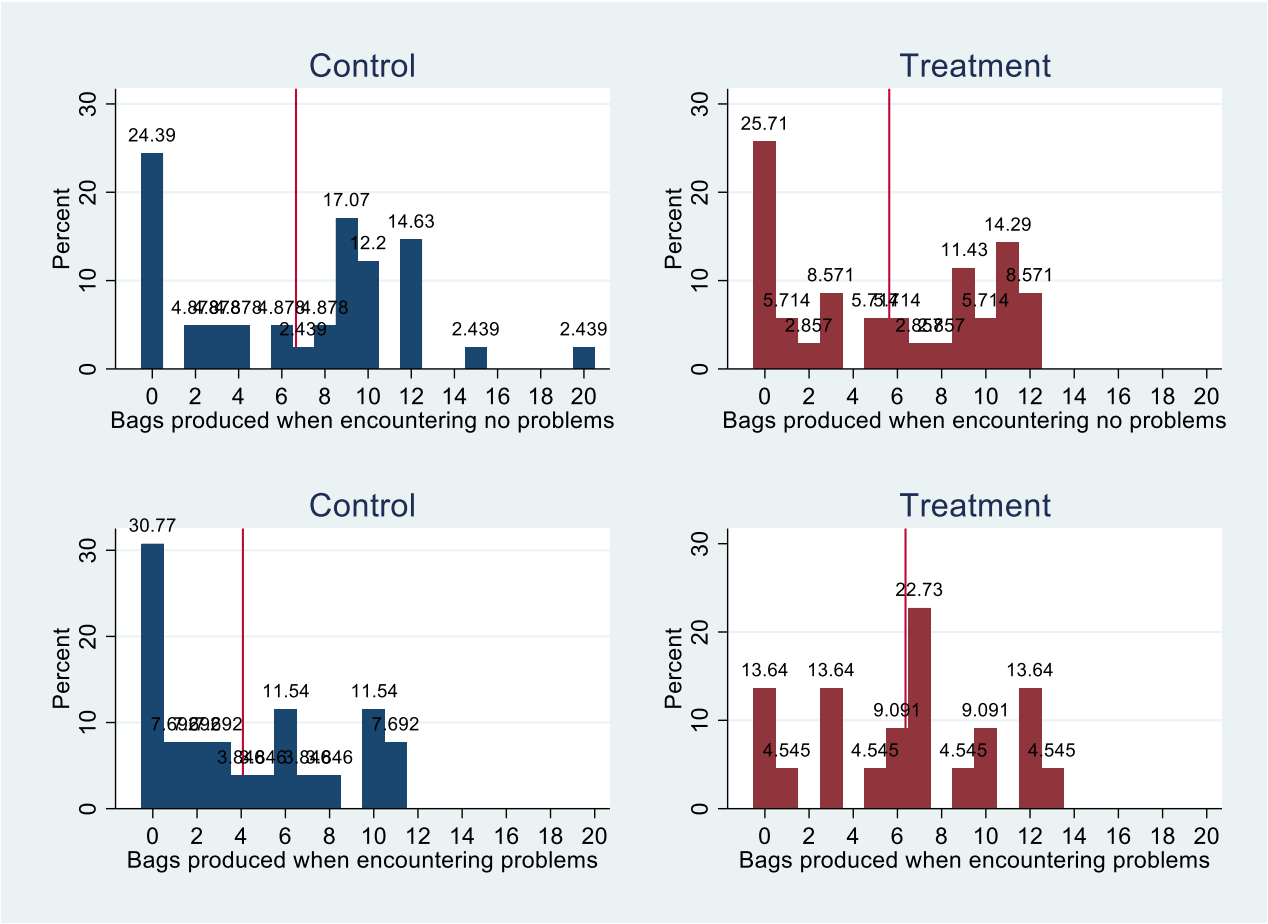


Table A5d – Asking Others for Help and Working all Night

	Control	Treatment	Difference
	Avg. no of people helping		
# people helping (full sample n=124)	1.37	1.72	-0.35**
# people helping (if problem occurred n=48)	1.19	1.73	-0.54**
	No of cases		
worked all night (full sample n=124)	22.39%	10.53%	11.86%*
worked all night (if problem occurred n=48)	11.54%	4.55%	6.99%

**** p<0.01, ** p<0.05, * p<0.1 – p-values from simple t-tests. Findings confirmed by Mann-Whitney U-Tests.*

Table A6 – Main Regression Model (Full Representation)

VARIABLES	(1) main effect	(2) main effect	(3) Interaction *household*	(4) Interaction *help*	(5) Interaction *transfer*	(6) Interaction *tradition*	(7) Interaction *bank*	(8) Interaction *problems*
treatment	0.339	0.392	-0.363	-0.575	0.518	-0.250	2.575*	-0.933
	(0.865)	(0.900)	(1.401)	(1.131)	(0.986)	(0.892)	(1.311)	(0.958)
treatment x household members			0.187					
			(0.176)					
treatment x family help				4.919***				
				(0)				
treatment x net transfers					-0.00144			
					(0.00730)			
treatment x family tradition						7.781***		
						(0)		
treatment x bank account							-4.578***	
							(1.558)	
treatment x problems								2.936***
								(1.087)
household members			-0.0343					
			(0.296)					
problem(s) reported								-3.080**
								(1.206)
family help received		1.551	1.623	-0.592	1.569	1.567	1.984	1.685
		(1.313)	(1.507)	(1.901)	(1.339)	(1.467)	(1.443)	(1.191)
net family transfers		-0.000338	-0.000312	-0.000177	-0.000324	-0.000154	-0.000245	-0.000138
		(0.000361)	(0.000385)	(0.000387)	(0.000371)	(0.000377)	(0.000352)	(0.000347)
bank account		0.208	0.263	-0.0372	0.225	0.116	2.327***	-0.395

		(1.590)	(1.486)	(0.569)	(1.484)	(1.304e+19)	(0.792)	(1.134)
family tradition		-0.0549	-0.182	-0.133	-0.0957	-1.915	0.0879	-0.616
		(1.820)	(1.809)	(1.887)	(1.903)	(1.735)	(1.458)	(1.911)
business founder		-3.190	-3.044*	-3.081	-3.175	-3.485	-2.563	-3.591**
		(3.841)	(1.723)	(2.630)	(3.823)	(2.607)	(4.049)	(1.654)
working hours		0.00830	0.00882	0.00822	0.00853	0.0101	0.00663	0.00874
		(0.00739)	(0.00826)	(0.00696)	(0.00747)	(0.00852)	(0.00626)	(0.00690)
weekly average profit		-0.00918***	-0.00938***	-0.00803**	-0.00910***	-0.00904***	-0.00649**	-0.00956***
		(0.00313)	(0.00319)	(0.00314)	(0.00310)	(0.00308)	(0.00306)	(0.00354)
male		0.489	0.527	0.543	0.474	0.363	0.299	0.462
		(1.017)	(0.949)	(0.883)	(1.102)	(0.915)	(1.282)	(0.878)
born in ouaga		-1.597*	-1.538	-1.573*	-1.562*	-1.537	-1.501	-1.689
		(0.940)	(1.150)	(0.925)	(0.884)	(0.981)	(0.979)	(1.030)
constant	5.574***	6.354	6.121***	6.781	6.273	6.582	5.099	8.319*
	(0)	(8.272)	(0)	(6.733)	(8.239)	(7.725)	(7.978)	(4.447)
Observations	125	125	122	125	125	125	125	124
R-squared	0.001	0.093	0.099	0.136	0.094	0.141	0.150	0.153

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Bags produced - OLS regressions with multi-way clustered standard errors at the district level, bootstrapped for one cluster dimension as described in (Cameron et al., 2008) hence standard errors (in brackets) are 'rigged' but reported to illustrate level of significance, standard errors of 0.000 imply a p-value of 0, clustered at the district level, 500 bootstrap iterations. Robustness checks with additional controls are given in Table A7.*

Table A7 – Main Regression Model (Robustness Check with Additional Controls)

VARIABLES	(1) main effect	(2) main effect	(3) Interaction *household*	(4) Interaction *help*	(5) Interaction *transfer*	(6) Interaction *tradition*	(7) Interaction *bank*
treatment	0.339	0.688	0.449	-0.398	0.883	0.0210	2.681***
	(0.865)	(0.736)	(1.734)	(1.044)	(0.760)	(2.092)	(0)
treatment x household members			0.0497				
			(0.318)				
treatment x family help				5.487***			
				(0)			
treatment x net transfers					-0.00219		
					(0.00627)		
treatment x family tradition						7.416***	
						(2.515)	
treatment x bank account							-3.997***
							(1.356)
household members		-0.616***	-0.633**	-0.606**	-0.622***	-0.667***	-0.501**
		(0.228)	(0.268)	(0.247)	(0.230)	(0.246)	(0.212)
siblings		0.0116	0.0138	-0.0485	0.0235	0.107	-0.0736
		(0.177)	(0.145)	(0.438)	(0.179)	(0.237)	(0.278)
household members not working		0.986*	0.981*	1.017*	0.991*	0.925	0.830
		(0.565)	(0.562)	(0.575)	(0.583)	(0.557)	(0.564)
family help received		1.390	1.407	-0.925	1.424	1.588	1.747
		(1.390)	(1.480)	(2.046)	(1.401)	(1.549)	(1.452)
bank account		0.572	0.576	0.399	0.582	0.444	2.459***
		(4.051)	(3.802)	(1.921)	(3.845)	(4.638)	(0)
risk attitude		-0.433	-0.432	-0.381	-0.435	-0.267	-0.428
		(0.684)	(0.675)	(0.672)	(0.648)	(0.537)	(0.626)
net family transfers		-0.000648***	-0.000636***	-0.000453	-0.000640***	-0.000465	-0.000404*
		(0.000220)	(0.000235)	(0.000351)	(0.000236)	(0.000328)	(0.000232)
family tradition		-0.387	-0.427	-0.388	-0.460	-2.331	-0.0460
		(1.912)	(1.615)	(1.965)	(1.614)	(1.972)	(1.829)
business founder		-3.413*	-3.382	-2.758*	-3.457*	-3.198*	-2.731
		(1.929)	(2.156)	(1.580)	(1.873)	(1.855)	(1.873)

enterprise age		-0.0690	-0.0678	-0.108	-0.0672	-0.0642	-0.0740
		(0.0837)	(0.0755)	(0.0830)	(0.0802)	(0.0821)	(0.0811)
total staff		-0.169	-0.166	-0.135	-0.157	-0.210	-0.222
		(0.541)	(0.531)	(0.370)	(0.495)	(0.447)	(0.490)
paid staff		-0.436	-0.443	-0.281	-0.430	-0.479	-0.328
		(0.341)	(0.362)	(0.359)	(0.333)	(0.345)	(0.334)
working hours		0.00374	0.00385	0.00369	0.00413	0.00601	0.00176
		(0.00667)	(0.00708)	(0.00718)	(0.00672)	(0.00717)	(0.00573)
weekly average profit		-0.0114***	-0.0115***	-0.00964**	-0.0113**	-0.0114***	-0.00866**
		(0.00423)	(0.00424)	(0.00376)	(0.00443)	(0.00420)	(0.00338)
male		0.0136	0.0181	-0.0180	-0.0496	-0.150	0.172
		(0.900)	(3.592)	(0.398)	(0.447)	(0.474)	(0.560)
age		0.0339	0.0331	0.0470	0.0344	0.0486	0.00566
		(0.0568)	(0.0533)	(0.0694)	(0.0576)	(0.0637)	(0.0280)
uneducated		0.492	0.506	0.987	0.437	0.145	0.412
		(2.315)	(2.268)	(1.835)	(2.400)	(3.212)	(1.893)
prim. education started		-0.472	-0.458	-0.161	-0.570	-1.011	-0.422
		(1.490)	(1.522)	(2.919)	(1.633)	(2.235)	(1.659)
prim. education completed		0.0221	0.00404	0.573	-0.103	-1.016	-0.0441
		(1.304e+19)	(1.304e+19)	(2.046)	(1.576)	(2.333)	(0.796)
muslim		0.412	0.423	0.468	0.406	0.484	0.281
		(1.009)	(0.971)	(1.195)	(1.113)	(1.328)	(0.728)
mossi		-1.779	-1.770	-2.010*	-1.826*	-1.322	-1.554
		(1.208)	(1.311)	(1.105)	(1.086)	(1.525)	(1.140)
born in ouaga		-1.100	-1.073	-1.042	-1.029	-0.931	-1.176
		(1.301)	(1.396)	(1.264)	(1.292)	(1.255)	(1.440)
constant	5.574***	11.01***	11.02***	10.28*	10.99***	10.09**	10.85**
	(0)	(4.066)	(0)	(5.487)	(4.059)	(3.943)	(4.733)
Observations	125	122	122	122	122	122	122
R-squared	0.001	0.215	0.215	0.264	0.216	0.250	0.253

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Bags produced - OLS regressions with multi-way clustered standard errors at the district level, bootstrapped for one cluster dimension as described in (Cameron et al., 2008) hence standard errors (in brackets) are 'rigged' but reported to illustrate level of significance, standard errors of 0.000 imply a p-value of 0, clustered at the district level, 500 bootstrap iterations.*

Table A8 – Coping with Problems and Adjustment to Sharing Obligations (Full Models)

VARIABLES	(1) problems = 1 *help*	(2) problems = 1 *tradition*	(3) full sample *work all night*	(4) full sample *workforce*	(5) problems = 1 *work all night & workforce*
treatment	2.083	2.039	1.024	-2.012	4.925
	(1.466)	(1.323)	(0.831)	(1.340)	(3.051)
treatment x family help	1.377				
	(3.495)				
treatment x family tradition		8.289***			
		(0)			
worked all night			4.794***		9.082***
			(0)		(0)
treatment x worked all night			-1.272		-4.683***
			(1.419)		(1.513)
no. of people helping with task				1.183	3.324***
				(0.852)	(0)
treatment x people helping				1.083	-2.053
				(1.094)	(2.249)
family help received	2.923	3.974*	2.841**	1.613	3.661*
	(3.126)	(2.047)	(1.276)	(1.107)	(1.940)
net family transfers	-0.000526	-0.000384	-0.000337	-0.000402	-0.000840***
	(0.000522)	(0.000335)	(0.000402)	(0.000383)	(0.000272)
bank account	-2.060	-2.283**	0.622	0.467	-1.384
	(1.351)	(1.094)	(1.053)	(1.176)	(1.117)
family tradition	3.369	0.895	-0.0490	-0.503	4.297**
	(3.204)	(1.069)	(0.812)	(1.466)	(1.869)
business founder	-4.932***	-4.737***	-2.758	-1.002	-1.068
	(1.604)	(1.540)	(1.780)	(1.991)	(1.403)
working hours	0.0133***	0.0115***	0.00930	0.00682	0.0127***
	(0)	(0)	(0.00808)	(0.00688)	(0)
weekly average profit	-0.00514	-0.0445	-0.00829***	-0.00723***	0.0153
	(0.0442)	(0.0326)	(0.00282)	(0.00246)	(0.0172)
male	-0.00802	0.428	-0.179	0.196	-0.585
	(0.176)	(1.466)	(0.547)	(0.772)	(0.589)
born in ouaga	0.192	0.293	-1.265	-1.559*	1.186*
	(2.237)	(1.083)	(0.903)	(0.940)	(0.609)
Constant	4.993	5.295*	4.653	3.241	-3.817***
	(3.239)	(2.856)	(4.856)	(4.371)	(1.233)
Observations	48	48	124	124	48
R-squared	0.447	0.488	0.216	0.210	0.716

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 - Dependent variable: Bags produced - OLS regressions with multi-way clustered standard errors at the district level, bootstrapped for one cluster dimension as described in (Cameron et al., 2008) hence standard errors (in brackets) are 'rigged' but reported to illustrate level of significance, standard errors of 0.000 imply a p-value of 0, clustered at the district level, 500 bootstrap iterations.*