

Networks and Manufacturing Firms in Africa: Results from a Randomized Field Experiment

ONLINE APPENDIX

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April 22, 2016

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Appendix Part 1: Further details on the experiment protocol

Advertising

Figure [A1](#) shows the poster used in Zambia. This poster was translated into Amharic and Swahili and displayed in public places in Addis Ababa, Dar es Salaam and Lusaka. The content and style of the poster formed the basis for other advertising run on radio and on Facebook.

In all three countries, applicants were able to apply by submitting a hard copy application form; in Tanzania and Zambia, applicants were also given the option of applying online.

Factsheets

Figures [A2](#) to [A5](#) show the English versions of the four factsheets distributed in each country. As noted, the factsheets relate to the Centre for the Study of African Economies, exporting, innovation and labour management.

Table [A1](#) shows the structure of factsheet assignment. Each committee judge and each non-committee judge was randomly assigned to a row in this table, so that all rows were filled before assigning judges to any new positions. This ensured that, so far as possible, two-thirds of judges received factsheets and one-third did not; it also ensures that, so far as possible, each possible pair of factsheets was assigned the same number of times.

Figure A1: Advertising for aspiring entrepreneurs: **Zambian poster**

ASPIRE

Do you aspire to be a successful entrepreneur?

Do you aspire to start your own business?

Do you have a business idea that needs support?

If so, apply for the chance to win US\$1,000 to help you to start your own business!

The Centre for the Study of African Economies (University of Oxford, UK) is interested in learning about the growth of new business ideas in Zambia. We are running a business ideas competition for aspiring young entrepreneurs, and we want you to apply!

Who: Applications are open to any aspiring entrepreneur aged 18 - 25, male or female. (Note that you may be required to provide proof of your age.)


What: In July and August, we will be running a competition to reward aspiring entrepreneurs. You can win the chance to present and explain your idea to a group of Zambian business leaders. Those with the best project win US\$1,000!

How: Apply online at www.csae.ox.ac.uk/aspire/zambia. There is no application cost.

When: It's with immediate effect and applications close on 22 July at 6pm.


TO WIN US\$1,000!!

Figure A2: Factsheet: The Centre for the Study of African Economies



csae 25
CENTRE FOR THE STUDY OF
AFRICAN ECONOMIES YEARS

The Centre for the Study of African Economies



UNIVERSITY OF
OXFORD

Did you know...?


CSAE is celebrating 25 years of studying economic issues in Africa

CSAE was founded at the University of Oxford in 1986. This year, CSAE hosted its 25th Anniversary Conference, on the theme of 'Economic Development in Africa'. There were 270 presentations and almost 400 participants.

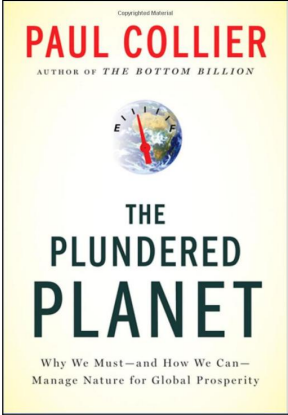
Paul Collier, the CSAE Director, has just published a new book

In his latest book 'The Plundered Planet', Professor Collier argues that countries can ensure equitable development by using technological innovation, environmental protection and better government regulation. Professor Collier is one of the promoters of the Natural Resource Charter, a set of principles for governments and societies to use wisely the development opportunities created by natural resources.

Professor Paul Collier



'The Plundered Planet'



You can learn more about CSAE and our research from our website: www.csae.ox.ac.uk.

Videos from the 25th Anniversary Conference are available at <http://www.csae.ox.ac.uk/conferences/>.

Marcel Fafchamps
Professor of Development Economics
University of Oxford

Simon Quinn
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Figure A3: Factsheet: Exports



Asia-Africa Study Factsheet

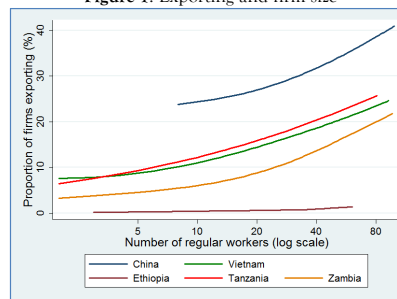


Did you know...?

Fact 1: African firms could export more

Research shows that **Chinese** firms are more likely to export than firms of a similar size in Africa. **Figure 1** illustrates this. This suggests that more African firms could **follow the Chinese example** by exporting.

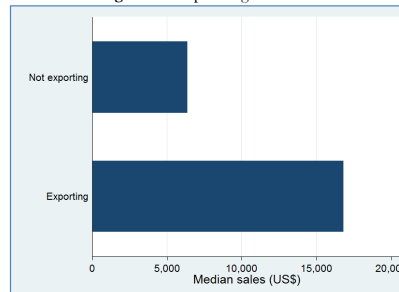
Figure 1: Exporting and firm size



Fact 2: Firms that export have higher sales

Exporting is an important way by which a firm can increase its market. **Figure 2** shows the median sales for African exporters and non-exporters. **On average, exporting firms sell much more.**

Figure 2: Exporting and sales



Here are some steps that a firm can take to start exporting:

- ✓ **Identifying export opportunities** (for example, by learning about foreign markets, or by finding local export agencies);
- ✓ **Discussing exporting opportunities with a bank or other finance organisation;**
- ✓ **Obtaining any necessary export permits** from government authorities;
- ✓ **Discussing exporting strategies with other firms** that export successfully.

We appreciate your participation in the study and we hope that you find this information useful.*

Marcel Fafchamps
Professor of Development Economics
University of Oxford

Simon Quinn
Post-doctoral researcher
University of Oxford

* Your firm was surveyed last year by the Centre for the Study of African Economies at the University of Oxford (UK). This was part of a research project to learn about African competitiveness in manufacturing. The study covered China, Vietnam, Ethiopia, Tanzania and Zambia. Many firm managers asked us to pass on results from the study, to help improve their firm's performance.

Figure A4: Factsheet: Innovation



Asia-Africa Study Factsheet

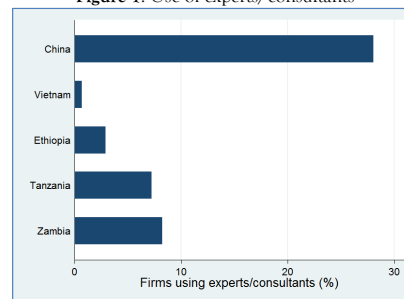


Did you know...?

Fact 1: African firms could use experts and consultants more

Research shows that **Chinese** firms are much more likely than firms in Africa to use **experts/consultants** to develop new products and to introduce new production processes. This is illustrated in **Figure 1**. This suggests that more African firms could **follow the Chinese example**.

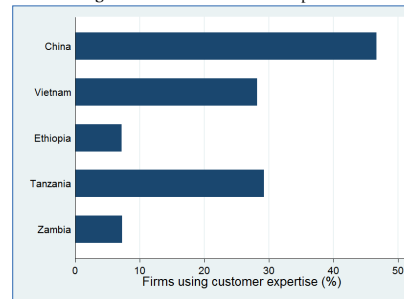
Figure 1: Use of experts/consultants



Fact 2: African firms could use customer expertise more

Customers can be an important source of ideas and technological expertise. **Figure 2** shows that Chinese firms are more likely to use the expertise of their customers for developing new products.

Figure 2: Use of customer expertise



Here are some steps that a firm can take to innovate more successfully:

- ✓ Finding **consulting firms** that can advise on introducing new products or processes;
- ✓ Speaking to **suppliers of machines and equipment** about other firms and their innovations;
- ✓ Discussing potential innovations with **customers**;
- ✓ Joining a **business association**;
- ✓ **Discussing innovation strategies with other firms** that innovate successfully.

We appreciate your participation in the study and we hope that you find this information useful.*

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Figure A5: Factsheet: Labour management



Asia-Africa Study Factsheet

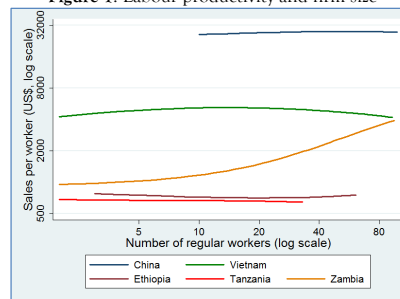


Did you know...?

Fact 1: Chinese firms produce more per worker than African firms

Research shows that Chinese and Vietnamese firms produce substantially more per worker than firms in Ethiopia, Tanzania or Zambia.

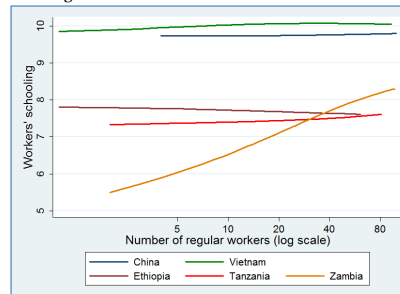
Figure 1: Labour productivity and firm size



Fact 2: Asian firms hire more educated production workers

Chinese and Vietnamese firms have a more highly educated production workforce. **Figure 2** compares the average education of entry-level production workers. This suggests that more African firms could follow the Chinese example.

Figure 2: Workers' education and firm size



Here are some steps that a firm can take to produce more per worker:

- ✓ Offering **on-the-job training** or vocational training;
- ✓ Relying on more educated workers to **supervise production**;
- ✓ Introducing **double or triple work shifts**;
- ✓ Boosting employee morale by offering **eating areas, private lockers and clean toilets**;
- ✓ **Discussing labour management strategies** with other firms.

We appreciate your participation in the study and we hope that you find this information useful.*

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Table A1: Structure of factsheet assignment

	FACT SHEETS			
	CSAE	EXPORTS	INNOVATION	LABOUR
$\alpha \cdot 1$	✓	✓		
$\alpha \cdot 2$		✓	✓	
$\alpha \cdot 3$			✓	✓
$\alpha \cdot 4$	✓			✓
$\alpha \cdot 5$				
$\alpha \cdot 6$				
$\beta \cdot 1$	✓	✓		
$\beta \cdot 2$		✓		✓
$\beta \cdot 3$			✓	✓
$\beta \cdot 4$	✓		✓	
$\beta \cdot 5$				
$\beta \cdot 6$				
$\gamma \cdot 1$	✓		✓	
$\gamma \cdot 2$		✓	✓	
$\gamma \cdot 3$		✓		✓
$\gamma \cdot 4$	✓			✓
$\gamma \cdot 5$				
$\gamma \cdot 6$				
$\delta \cdot 1$	✓		✓	
$\delta \cdot 2$			✓	✓
$\delta \cdot 3$		✓		✓
$\delta \cdot 4$	✓	✓		
$\delta \cdot 5$				
$\delta \cdot 6$				
$\varepsilon \cdot 1$	✓			✓
$\varepsilon \cdot 2$		✓		✓
$\varepsilon \cdot 3$		✓	✓	
$\varepsilon \cdot 4$	✓		✓	
$\varepsilon \cdot 5$				
$\varepsilon \cdot 6$				
$\zeta \cdot 1$	✓			✓
$\zeta \cdot 2$			✓	✓
$\zeta \cdot 3$		✓	✓	
$\zeta \cdot 4$	✓	✓		
$\zeta \cdot 5$				
$\zeta \cdot 6$				

Appendix Part 2: Balance and sample description

Table A2 compares baseline covariates between committee and non-committee judges. For each variable, the table reports p -values for a t -test of equality in means and a Kolmogorov-Smirnov test for distributional equality. The table shows that the samples are generally well balanced: the only significant differences between groups are in the distribution of baseline permanent employees (though not a significant mean difference), and a significant difference in whether the firm had acquired machinery in the previous year.¹

¹ Of course, these differences could have been eliminated had we randomised after matching on covariates; for example, using the method of ?. However, we decided that the particular challenges of running a socialisation experiment with firm managers weighed in favour of the simpler randomisation device, *i.e.* drawing cards from a bag. There were two main reasons for this. First, we wanted to reassure participants that assignment to committees was done randomly. Second, we wanted to allow the possibility that judges may not arrive at their agreed time; *i.e.* we wanted to randomise the group of judges who actually arrived, rather than those who merely indicated their willingness to do so.

Table A2: Covariate balance: Committee judges versus non-committee judges

	COMMITTEE JUDGE			NON-COMMITTEE JUDGE			Equality (p)	
	N	Mean	Std.Dev	N	Mean	Std.Dev	Mean	Distr.
Total permanent employees	237	5.768	8.560	100	6.950	7.761	0.235	0.037**
Dummy: Owner is female	237	0.169	0.375	98	0.204	0.405	0.445	1.000
Owner's age (years)	236	38.432	8.737	99	38.000	9.805	0.691	0.925
Dummy: Firm registered	237	0.502	0.501	100	0.570	0.498	0.256	0.874
Dummy: Production uses electricity	237	0.793	0.406	100	0.760	0.429	0.500	1.000
Number of local competitors	232	20.203	49.022	98	18.969	37.242	0.823	0.223
Number of friends in business	223	11.242	18.151	96	9.635	11.243	0.423	0.988
Number of regular suppliers	231	4.693	4.734	99	4.677	6.040	0.980	0.854
Dummy: Firm exports	237	0.051	0.220	100	0.050	0.219	0.981	1.000
Number of product types	234	6.885	11.415	99	7.646	22.918	0.686	0.852
Dummy: Acquired machinery	231	0.385	0.488	99	0.515	0.502	0.029**	0.178
Dummy: Bank account	237	0.506	0.501	99	0.515	0.502	0.883	1.000

'Mean equality (p)' reports the p -value from a two-sample t test with equal variances.
'Distr. equality (p)' reports the p -value from a two-sample Kolmogorov-Smirnov test (calculated exactly).
Confidence: '*': 90%; '**': 95%; '* * *': 99%.

Appendix Part 3: Additional estimation results

Testing diffusion in other business practices

Tables [A3](#), [A4](#) and [A5](#) respectively report measures of diffusion for relations with clients and suppliers, labour management and of innovation. After correcting for multiple inference, we find no significant evidence of diffusion in any of these outcomes.

Table A3: Diffusion results: Relations with clients and suppliers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum of peers adopting	0.043 [0.145] (0.036)**	0.086 [0.145] (0.033)**	-0.007 [0.650] (0.793)	0.021 [0.192] (0.140)	-0.010 [0.646] (0.654)	-0.003 [0.650] (0.919)	-0.090 [0.145] (0.069)*
Sum of peers <u>not</u> adopting	-0.022 [1.000] (0.097)*	0.009 [1.000] (0.442)	-0.019 [1.000] (0.147)	0.025 [1.000] (0.329)	0.006 [1.000] (0.731)	0.001 [1.000] (0.920)	0.001 [1.000] (0.854)
Controls	✓	✓	✓	✓	✓	✓	✓
Observations	325	324	323	327	327	329	328
H_0 : Imitation (p)	0.354	0.017**	0.329	0.090*	0.895	0.937	0.087*
Baseline adoption	34.8%	12.7%	25.1%	66.1%	39.1%	3.0%	5.2%

Outcome variables:

- 1: Whether the firm has advertised in the past 6 months
- 2: Whether the firm pays any purchases before delivery
- 3: Whether the firm pays any purchases after delivery
- 4: Whether the firm has any sales paid before delivery
- 5: Whether the firm has any sales paid after delivery
- 6: Whether the firm imports
- 7: Whether the firm exports

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A4: Diffusion results: Innovation

	(1)	(2)	(3)
Sum of peers adopting	0.017 [0.514] (0.509)	0.020 [0.514] (0.346)	-0.049 [0.133] (0.039)**
Sum of peers <u>not</u> adopting	0.013 [1.000] (0.405)	-0.008 [1.000] (0.547)	0.008 [1.000] (0.353)
Controls	✓	✓	✓
Observations	324	328	328
H_0 : Imitation (p)	0.249	0.587	0.127
Baseline adoption	42.3%	27.1%	19.2%

Outcome variables:

- 1: Whether the firm has introduced new products in the past year
2: Whether the firm has changed its production processes in the past year (e.g. layout)
3: Whether the firm has changed its product delivery methods in the past year
(Note: The baseline questions for these estimations referred to the last three financial years.)

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A5: Diffusion results: Labour management

	(1)	(2)	(3)	(4)	(5)	(6)
Sum of peers adopting	0.032 [1.000] (0.385)	-0.043 [0.429] (0.050)*	0.010 [1.000] (0.745)	0.015 [1.000] (0.438)	-0.012 [1.000] (0.532)	-0.008 [1.000] (0.705)
Sum of peers <u>not</u> adopting	0.003 [1.000] (0.709)	-0.011 [1.000] (0.298)	-0.003 [1.000] (0.889)	0.003 [1.000] (0.881)	0.009 [1.000] (0.582)	0.008 [1.000] (0.598)
Controls	✓	✓	✓	✓	✓	✓
Observations	326	327	325	314	316	320
H_0 : Imitation (p)	0.345	0.018**	0.808	0.468	0.925	0.989
Baseline adoption	9.2%	36.7%	42.8%	57.3%	44.6%	34.4%

Outcome variables:

- 1: Whether the firm provides housing for any employees
- 2: Whether the firm provides free/subsidised meals for any production workers
- 3: Whether the firm provides toilets with running water for any production workers
- 4: Whether the firm hires production workers without recommendation/referral
- 5: Whether the average production worker has more than 7 years' education
- 6: Whether entry-level production workers receive more than 1 month's training

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: †: $p < 0.15$, *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Testing robustness to including session fixed effects

Tables [A6](#), [A7](#), [A8](#) and [A9](#) repeat the main estimations (that is, the estimations in Table 4 in the main paper, and in Tables [A3](#), [A4](#) and [A5](#) in this appendix), with the inclusion of session fixed effects. Point estimates remain stable with the inclusion of session fixed effects (though the inclusion of fixed effects has an efficiency cost, meaning that the standard errors generally increase).

Table A6: Diffusion results: Formalisation (including session fixed effects)

	(1)	(2)	(3)	(4)
Sum of peers adopting	0.050 [0.104] (0.032)**	0.006 [0.500] (0.759)	0.049 [0.104] (0.047)**	0.033 [0.200] (0.250)
Sum of peers <u>not</u> adopting	0.008 [0.393] (0.376)	0.016 [0.367] (0.067)*	-0.021 [0.393] (0.257)	-0.014 [0.393] (0.337)
Controls	✓	✓	✓	✓
Observations	333	326	329	326
H_0 : Imitation (p)	0.021**	0.294	0.263	0.501
Baseline adoption	8.1%	16.3%	42.2%	32.8%

Outcome variables:

- 1: Whether the firm is registered for VAT ('missing' = 'no')
- 2: Whether the firm's financial statements are certified by external auditor.
- 3: Whether the firm has a bank current account.
- 4: Whether the firm has a savings account.

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A7: Diffusion results: Relations with clients and suppliers (including session fixed effects)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum of peers adopting	0.038 [0.148] (0.052)*	0.069 [0.148] (0.055)*	-0.012 [0.574] (0.547)	0.016 [0.327] (0.246)	-0.013 [0.574] (0.526)	0.004 [0.756] (0.854)	-0.079 [0.148] (0.043)**
Sum of peers <u>not</u> adopting	-0.010 [0.927] (0.481)	0.005 [1.000] (0.667)	-0.021 [0.608] (0.097)*	0.038 [0.608] (0.108)	0.017 [0.643] (0.313)	0.008 [0.608] (0.222)	-0.002 [1.000] (0.705)
Controls	✓	✓	✓	✓	✓	✓	✓
Observations	325	324	323	327	327	329	328
H_0 : Imitation (p)	0.227	0.040**	0.134	0.033**	0.890	0.612	0.045**
Baseline adoption	34.8%	12.7%	25.1%	66.1%	39.1%	3.0%	5.2%

Outcome variables:

- 1: Whether the firm has advertised in the past 6 months
- 2: Whether the firm pays any purchases before delivery
- 3: Whether the firm pays any purchases after delivery
- 4: Whether the firm has any sales paid before delivery
- 5: Whether the firm has any sales paid after delivery
- 6: Whether the firm imports
- 7: Whether the firm exports

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A8: Diffusion results: Innovation (including session fixed effects)

	(1)	(2)	(3)
Sum of peers adopting	0.007 [0.780] (0.735)	0.021 [0.413] (0.292)	-0.060 [0.010]*** (0.003)***
Sum of peers <u>not</u> adopting	0.033 [0.075]* (0.023)**	-0.002 [0.420] (0.887)	0.018 [0.075]* (0.051)*
Controls	✓	✓	✓
Observations	324	328	328
H_0 : Imitation (p)	0.086*	0.377	0.056*
Baseline adoption	42.3%	27.1%	19.2%

Outcome variables:

- 1: Whether the firm has introduced new products in the past year
 - 2: Whether the firm has changed its production processes in the past year (e.g. layout)
 - 3: Whether the firm has changed its product delivery methods in the past year
- (Note: The baseline questions for these estimations referred to the last three financial years.)

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A9: Diffusion results: Labour management (including session fixed effects)

	(1)	(2)	(3)	(4)	(5)	(6)
Sum of peers adopting	0.023 [1.000] (0.387)	-0.027 [1.000] (0.174)	0.010 [1.000] (0.658)	0.020 [1.000] (0.267)	-0.004 [1.000] (0.804)	-0.026 [1.000] (0.165)
Sum of peers <u>not</u> adopting	0.008 [1.000] (0.328)	-0.011 [1.000] (0.324)	0.008 [1.000] (0.661)	-0.001 [1.000] (0.963)	0.013 [1.000] (0.379)	0.002 [1.000] (0.864)
Controls	✓	✓	✓	✓	✓	✓
Observations	326	327	325	314	316	320
H_0 : Imitation (p)	0.242	0.064*	0.436	0.467	0.693	0.321
Baseline adoption	9.2%	36.7%	42.8%	57.3%	44.6%	34.4%

Outcome variables:

- 1: Whether the firm provides housing for any employees
- 2: Whether the firm provides free/subsidised meals for any production workers
- 3: Whether the firm provides toilets with running water for any production workers
- 4: Whether the firm hires production workers without recommendation/referral
- 5: Whether the average production worker has more than 7 years' education
- 6: Whether entry-level production workers receive more than 1 month's training

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Testing other mechanisms of diffusion

Table A10 tests whether the measured diffusion of VAT registration and having a bank current account may instead be proxying for diffusion of other business practices. We do this by including a large vector of peers' other baseline business practices. In column (1), we show that the estimated diffusion of VAT registration remains large (and almost significant: $p = 0.104$). (In column (2), we show our initial estimation, from Table 4 in the main paper, repeated on the slightly smaller sample used in column (1).) The coefficient is stable across both specifications (indeed, larger in the specification in which we control for other baseline characteristics.)

In columns (3) and (4), we repeat the exercise for measured diffusion of having a bank current account. Here, we find a different story: the coefficient on diffusion is now very close to zero. This suggests — as noted in the main text — that the estimated diffusion of bank current account may be proxying for other firm characteristics.

In Table A11, we run the opposite exercise, for the case of VAT registration: namely, we test whether VAT registration diffused to other outcomes. (For completeness, in column (1), we show diffusion of VAT registration to VAT registration itself, *i.e.* column (1) repeats column (1) of Table 4 in the main paper.) Aside from VAT registration itself, only one other outcome shows a significant effect (namely, whether the firm provides housing for any of its employees, in column (15)); however this is one of 20 outcomes, and this result would not survive multiple testing.

Table A10: Diffusion through other business practices

	(1)	(2)	(3)	(4)
	Registered for VAT		Has a bank current account	
Sum of peers adopting	0.095 (0.104)	0.060 (0.113)	0.005 (0.921)	0.055 (0.029)**
Sum of peers <u>not</u> adopting	0.029 (0.220)	-0.001 (0.933)	-0.068 (0.110)	-0.016 (0.389)
Sum registered for VAT			-0.176 (0.011)**	
Sum with a bank current account	0.024 (0.483)			
Sum using an external auditor	-0.052 (0.266)		0.123 (0.034)**	
Sum having a savings account	-0.037 (0.168)		-0.063 (0.092)*	
Sum providing housing to any employees	0.063 (0.247)		-0.045 (0.320)	
Sum subsidizing meals for any production workers	-0.046 (0.123)		-0.071 (0.018)**	
Sum providing toilets with running water for production workers	-0.052 (0.118)		0.039 (0.246)	
Sum hiring production workers without recommendation / referral	0.028 (0.243)		-0.024 (0.378)	
Sum whose production workers have > 7 years' education	0.021 (0.326)		-0.003 (0.925)	
Sum whose production workers receive > 1 month's training	0.012 (0.493)		-0.025 (0.383)	
Sum who have advertised in the past six months	-0.050 (0.162)		0.025 (0.549)	
Sum paying any purchases before delivery	-0.051 (0.176)		0.029 (0.475)	
Sum paying any purchases after delivery	-0.079 (0.012)**		0.028 (0.392)	
Sum with any sales paid before delivery	-0.058 (0.053)*		0.097 (0.008)***	
Sum with any sales paid after delivery	0.064 (0.001)***		-0.013 (0.641)	
Sum importing	0.086 (0.143)		-0.088 (0.260)	
Sum exporting	0.026 (0.744)		0.021 (0.822)	
Sum having introduced new products in the past year	0.079 (0.000)***		-0.070 (0.069)*	
Sum having changed production process in the past year	0.025 (0.349)		0.029 (0.471)	
Sum having changed delivery methods in the past year	-0.061 (0.059)*		0.119 (0.020)**	
Controls	✓	✓	✓	✓
Observations	291	291	289	289

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'()' show standard p -values, allowing for clustering by committee.

Significance: *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Table A11: Diffusion onto other business practices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Sum of peers adopting VAT	0.066 (0.003)***	0.012 (0.719)	-0.104 (0.128)	0.026 (0.578)	0.009 (0.766)	-0.035 (0.517)	-0.077 (0.140)	-0.025 (0.583)	-0.058 (0.131)	0.002 (0.973)
Sum of peers <u>not</u> adopting VAT	0.003 (0.757)	0.008 (0.331)	0.016 (0.257)	-0.016 (0.228)	-0.002 (0.850)	-0.032 (0.004)***	0.004 (0.751)	0.014 (0.272)	-0.001 (0.922)	0.003 (0.816)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	333	330	329	327	327	327	326	326	323	326
Sum of peers adopting VAT	-0.033 (0.523)	0.028 (0.485)	-0.041 (0.357)	0.038 (0.479)	0.101 (0.074)*	-0.026 (0.266)	-0.073 (0.067)*	0.057 (0.334)	-0.005 (0.911)	-0.011 (0.829)
Sum of peers <u>not</u> adopting VAT	0.000 (0.997)	0.019 (0.098)*	-0.016 (0.157)	0.036 (0.005)***	-0.002 (0.905)	0.007 (0.257)	-0.002 (0.782)	0.004 (0.736)	0.004 (0.670)	-0.005 (0.564)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	326	330	329	329	329	329	329	326	329	330

Outcome variables:

- 1: Whether the firm is registered for VAT
- 2: Whether the firm's uses an external auditor.
- 3: Whether the firm has a bank current account.
- 4: Whether the firm has a savings account.
- 5: Whether the firm has advertised in the past 6 months
- 6: Whether the firm pays any purchases before delivery
- 7: Whether the firm pays any purchases after delivery
- 8: Whether the firm has any sales paid before delivery
- 9: Whether the firm has any sales paid after delivery
- 10: Whether the firm imports
- 11: Whether the firm exports
- 12: Whether the firm has introduced new products in the past year
- 13: Whether the firm has changed its production processes in the past year (e.g. layout)
- 14: Whether the firm has changed its product delivery methods in the past year
- 15: Whether the firm provides housing for any employees
- 16: Whether the firm provides free/subsidised meals for any production workers
- 17: Whether the firm provides toilets with running water for any production workers
- 18: Whether the firm hires production workers without recommendation/referral
- 19: Whether the average production worker has more than 7 years' education
- 20: Whether entry-level production workers receive more than 1 month's training

Coefficients show the estimated mean marginal effect. '()' show standard p -values, allowing for clustering by committee. 'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session. Significance: *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Disaggregation by size

Tables A12 and A13 test measures of formalisation, disaggregating by firm size. (That is, columns (1) and (3) of both tables are equivalent to Table 7 in the main text; we include these tables primarily to show the effects on the other measures of formalisation: whether the financial statements are certified by external auditor, and whether the firm has a savings account.) We find a small but significant diffusion effect of having an auditor, from large firms to small firms.

Tables A15 and A14 test measures of relations with clients and suppliers, disaggregating by firm size. We find a large and highly significant diffusion of advertising, from small firms to large firms: a large firm is about 23 percentage points more likely to advertise at follow-up as a result of having a small peer firm that had advertised at baseline (column 1, Table A15). We also find a large and significant *negative* diffusion of having sales paid after delivery; a large firm is approximately 10 percentage points less likely to accept payment after delivery if a small peer firm does so (column 5, Table A15). We find no significant diffusion effects for small firms (Table A14).

Tables A17 and A16 test for diffusion of various measures of firm innovation, disaggregated by firm size. As with formalisation, we find large and significant diffusion effects from small firms to large: this is true in the case of introducing new products (a large firm is 10 percentage points more likely to do this if a small peer firm has done so previously), and changing production processes (where the magnitude is 7 percentage points). We find no significant effects for diffusion to small firms (though note that, for change of production processes, the magnitude of the estimated effect for diffusion from small firms to small firms is almost identical to the magnitude from small firms to large firms).

Tables A19 and A18 disaggregate by size for measures of labour management; as in Table A5, we find no significant diffusion effects.

Table A12: Diffusion results for ‘small’ firms: Formalisation

	(1)	(2)	(3)	(4)
Sum of small peers adopting	0.069 [0.194] (0.081)*	0.044 [0.194] (0.079)*	0.033 [0.194] (0.233)	0.059 [0.239] (0.385)
Sum of small peers <u>not</u> adopting	-0.008 [0.522] (0.514)	0.002 [0.658] (0.793)	0.036 [0.292] (0.113)	-0.034 [0.292] (0.076)*
Sum of large peers adopting	0.038 [0.151] (0.087)*	0.024 [0.078]* (0.018)**	0.006 [0.631] (0.885)	0.057 [0.240] (0.290)
Sum of large peers <u>not</u> adopting	0.025 [0.627] (0.385)	-0.020 [0.627] (0.130)	-0.078 [0.627] (0.196)	0.041 [0.627] (0.357)
Controls	✓	✓	✓	✓
Observations	197	194	195	192
H_0 : Imitation, small firms (p)	0.133	0.035**	0.048**	0.723
H_0 : Imitation, large firms (p)	0.154	0.813	0.331	0.175

Outcome variables:

- 1: Whether the firm is registered for VAT ('missing' = 'no')
- 2: Whether the firm's financial statements are certified by external auditor.
- 3: Whether the firm has a bank current account.
- 4: Whether the firm has a savings account.

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A13: Diffusion results for 'large' firms: Formalisation

	(1)	(2)	(3)	(4)
Sum of small peers adopting	0.103 [0.405] (0.288)	0.290 [0.405] (0.139)	0.074 [0.405] (0.270)	0.109 [0.405] (0.172)
Sum of small peers <u>not</u> adopting	0.026 [0.130] (0.107)	0.037 [0.130] (0.115)	-0.073 [0.064]* (0.015)**	-0.042 [0.137] (0.160)
Sum of large peers adopting	0.119 [0.044]** (0.028)**	-0.030 [0.307] (0.469)	0.086 [0.017]** (0.004)***	0.035 [0.307] (0.443)
Sum of large peers <u>not</u> adopting	0.007 [0.843] (0.760)	0.061 [0.843] (0.122)	-0.072 [0.843] (0.293)	0.039 [0.843] (0.343)
Controls	✓	✓	✓	✓
Observations	136	132	134	134
H_0 : Imitation, small firms (p)	0.197	0.103	0.986	0.386
H_0 : Imitation, large firms (p)	0.020**	0.574	0.837	0.132

Outcome variables:

- 1: Whether the firm is registered for VAT ('missing' = 'no')
- 2: Whether the firm's financial statements are certified by external auditor.
- 3: Whether the firm has a bank current account.
- 4: Whether the firm has a savings account.

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A14: Diffusion results for ‘small’ firms: Relations with clients and suppliers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum of small peers adopting	0.027 [0.690] (0.408)	0.112 [0.289] (0.064)*	-0.009 [0.924] (0.836)	0.012 [0.779] (0.547)	-0.007 [0.924] (0.840)	0.078 [0.289] (0.043)**	-0.141 [0.289] (0.104)
Sum of small peers <u>not</u> adopting	-0.029 [0.746] (0.061)*	0.026 [0.880] (0.156)	0.007 [1.000] (0.679)	-0.047 [1.000] (0.385)	0.019 [1.000] (0.462)	-0.003 [1.000] (0.641)	0.002 [1.000] (0.827)
Sum of large peers adopting	0.019 [0.547] (0.589)	0.163 [0.545] (0.087)*	-0.072 [0.545] (0.141)	0.046 [0.545] (0.284)	0.075 [0.545] (0.233)		
Sum of large peers <u>not</u> adopting	-0.022 [1.000] (0.555)	-0.050 [1.000] (0.202)	-0.006 [1.000] (0.857)	0.109 [0.163] (0.020)**	-0.022 [1.000] (0.652)	0.020 [1.000] (0.306)	-0.001 [1.000] (0.962)
Controls	✓	✓	✓	✓	✓	✓	✓
Observations	192	191	190	192	192	174	180
H_0 : Imitation, small firms (p)	0.966	0.021**	0.968	0.527	0.795	0.041**	0.133
H_0 : Imitation, large firms (p)	0.954	0.286	0.237	0.022**	0.529	0.310	0.962

Outcome variables:

- 1: Whether the firm has advertised in the past 6 months
- 2: Whether the firm pays any purchases before delivery
- 3: Whether the firm pays any purchases after delivery
- 4: Whether the firm has any sales paid before delivery
- 5: Whether the firm has any sales paid after delivery
- 6: Whether the firm imports
- 7: Whether the firm exports

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A15: Diffusion results for 'large' firms: Relations with clients and suppliers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum of small peers adopting	0.233 [0.001]*** (0.000)***	-0.018 [1.000] (0.689)	0.065 [0.672] (0.241)	0.028 [0.924] (0.384)	-0.096 [0.025]** (0.008)***	0.018 [1.000] (0.829)	-0.013 [1.000] (0.761)
Sum of small peers <u>not</u> adopting	-0.001 [1.000] (0.965)	0.013 [1.000] (0.471)	-0.027 [1.000] (0.376)	-0.026 [1.000] (0.558)	0.014 [1.000] (0.741)	0.010 [1.000] (0.549)	0.008 [1.000] (0.330)
Sum of large peers adopting	-0.013 [1.000] (0.697)	0.113 [0.859] (0.119)	0.011 [1.000] (0.829)	0.047 [0.859] (0.154)	-0.017 [1.000] (0.636)	-0.018 [1.000] (0.713)	
Sum of large peers <u>not</u> adopting	0.009 [1.000] (0.860)	-0.001 [1.000] (0.953)	-0.117 [0.008]*** (0.001)***	0.035 [1.000] (0.390)	0.010 [1.000] (0.767)	-0.011 [1.000] (0.547)	-0.006 [1.000] (0.718)
Controls	✓	✓	✓	✓	✓	✓	✓
Observations	133	133	133	135	135	134	133
H_0 : Imitation, small firms (p)	0.000***	0.906	0.499	0.963	0.125	0.738	0.907
H_0 : Imitation, large firms (p)	0.938	0.139	0.041**	0.108	0.892	0.565	0.712

Outcome variables:

- 1: Whether the firm has advertised in the past 6 months
- 2: Whether the firm pays any purchases before delivery
- 3: Whether the firm pays any purchases after delivery
- 4: Whether the firm has any sales paid before delivery
- 5: Whether the firm has any sales paid after delivery
- 6: Whether the firm imports
- 7: Whether the firm exports

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A16: Diffusion results for ‘small’ firms: Innovation

	(1)	(2)	(3)
Sum of small peers adopting	0.013 [0.859] (0.711)	0.069 [0.114] (0.034)**	-0.039 [0.446] (0.308)
Sum of small peers <u>not</u> adopting	-0.006 [1.000] (0.751)	0.006 [1.000] (0.765)	0.003 [1.000] (0.809)
Sum of large peers adopting	0.037 [0.846] (0.458)	-0.078 [0.846] (0.175)	-0.035 [0.846] (0.370)
Sum of large peers <u>not</u> adopting	0.033 [0.905] (0.475)	0.029 [0.905] (0.333)	0.026 [0.905] (0.210)
Controls	✓	✓	✓
Observations	190	194	193
H_0 : Imitation, small firms (p)	0.850	0.037**	0.381
H_0 : Imitation, large firms (p)	0.269	0.425	0.838

Outcome variables:

- 1: Whether the firm has introduced new products in the past year
 - 2: Whether the firm has changed its production processes in the past year (e.g. layout)
 - 3: Whether the firm has changed its product delivery methods in the past year
- (Note: The baseline questions for these estimations referred to the last three financial years.)

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A17: Diffusion results for ‘large’ firms: Innovation

	(1)	(2)	(3)
Sum of small peers adopting	0.101 [0.043]** (0.019)**	0.073 [0.043]** (0.027)**	-0.013 [0.387] (0.836)
Sum of small peers <u>not</u> adopting	0.034 [1.000] (0.313)	-0.019 [1.000] (0.469)	-0.003 [1.000] (0.926)
Sum of large peers adopting	-0.061 [0.219] (0.179)	-0.029 [0.368] (0.569)	-0.122 [0.149] (0.043)**
Sum of large peers <u>not</u> adopting	0.020 [0.745] (0.640)	-0.068 [0.301] (0.077)*	0.022 [0.745] (0.439)
Controls	✓	✓	✓
Observations	134	134	135
H_0 : Imitation, small firms (p)	0.006***	0.172	0.804
H_0 : Imitation, large firms (p)	0.492	0.094*	0.099*

Outcome variables:

- 1: Whether the firm has introduced new products in the past year
 - 2: Whether the firm has changed its production processes in the past year (e.g. layout)
 - 3: Whether the firm has changed its product delivery methods in the past year
- (Note: The baseline questions for these estimations referred to the last three financial years.)

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A18: Diffusion results for ‘small’ firms: Labour management

	(1)	(2)	(3)	(4)	(5)	(6)
Sum of small peers adopting	0.021 [1.000] (0.627)	-0.014 [1.000] (0.725)	-0.030 [1.000] (0.443)	0.026 [1.000] (0.365)	-0.007 [1.000] (0.864)	-0.023 [1.000] (0.332)
Sum of small peers <u>not</u> adopting	0.006 [1.000] (0.492)	-0.006 [1.000] (0.722)	0.018 [1.000] (0.551)	0.001 [1.000] (0.981)	0.021 [1.000] (0.323)	0.017 [1.000] (0.503)
Sum of large peers adopting	0.048 [0.969] (0.385)	-0.052 [0.969] (0.329)	-0.001 [1.000] (0.989)	-0.064 [0.969] (0.186)	-0.017 [1.000] (0.663)	-0.130 [0.969] (0.082)*
Sum of large peers <u>not</u> adopting	0.042 [0.207] (0.057)*	-0.059 [0.397] (0.213)	-0.054 [0.439] (0.341)	0.051 [0.439] (0.381)	-0.028 [0.678] (0.606)	-0.078 [0.207] (0.029)**
Controls	✓	✓	✓	✓	✓	✓
Observations	191	192	191	191	185	189
H_0 : Imitation, small firms (p)	0.526	0.614	0.752	0.487	0.773	0.845
H_0 : Imitation, large firms (p)	0.150	0.080*	0.486	0.867	0.522	0.010**

Outcome variables:

- 1: Whether the firm provides housing for any employees
- 2: Whether the firm provides free/subsidised meals for any production workers
- 3: Whether the firm provides toilets with running water for any production workers
- 4: Whether the firm hires production workers without recommendation/referral
- 5: Whether the average production worker has more than 7 years’ education
- 6: Whether entry-level production workers receive more than 1 month’s training

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: † : $p < 0.15$, * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Disaggregation by sector

Tables [A20](#) to [A23](#) test whether diffusion is stronger between two firms that are in the same sector. We find no evidence of this across any of the outcomes considered.

Table A19: Diffusion results for ‘large’ firms: Labour management

	(1)	(2)	(3)	(4)	(5)	(6)
Sum of small peers adopting	0.021 [0.929] (0.806)	-0.052 [0.318] (0.321)	0.111 [0.208] (0.088)*	0.064 [0.208] (0.103)	-0.002 [0.929] (0.971)	0.149 [0.194] (0.027)**
Sum of small peers <u>not</u> adopting	0.007 [1.000] (0.677)	-0.037 [1.000] (0.124)	-0.032 [1.000] (0.430)	0.024 [1.000] (0.597)	-0.016 [1.000] (0.693)	0.020 [1.000] (0.546)
Sum of large peers adopting	0.013 [1.000] (0.869)	-0.021 [1.000] (0.798)	0.044 [1.000] (0.264)	0.001 [1.000] (0.970)	-0.031 [1.000] (0.465)	-0.196 [0.337] (0.042)**
Sum of large peers <u>not</u> adopting	-0.019 [1.000] (0.413)	0.017 [1.000] (0.302)	0.027 [1.000] (0.535)	-0.093 [1.000] (0.118)	0.040 [1.000] (0.566)	0.034 [1.000] (0.369)
Controls	✓	✓	✓	✓	✓	✓
Observations	135	135	134	123	131	131
H_0 : Imitation, small firms (p)	0.743	0.135	0.191	0.114	0.760	0.038**
H_0 : Imitation, large firms (p)	0.941	0.970	0.139	0.168	0.886	0.089*

Outcome variables:

- 1: Whether the firm provides housing for any employees
- 2: Whether the firm provides free/subsidised meals for any production workers
- 3: Whether the firm provides toilets with running water for any production workers
- 4: Whether the firm hires production workers without recommendation/referral
- 5: Whether the average production worker has more than 7 years’ education
- 6: Whether entry-level production workers receive more than 1 month’s training

Coefficients show the estimated mean marginal effect.

‘Controls’ means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

‘[]’ show the ‘sharpened’ False Discovery Rate adjusted q -values.

‘()’ show standard p -values, allowing for clustering by committee.

Significance: † : $p < 0.15$, * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A20: Diffusion results and sector: Formalisation

	(1)	(2)	(3)	(4)
Sum of peers adopting	0.083 [0.025]** (0.006)***	0.024 [0.183] (0.239)	0.044 [0.103] (0.062)*	0.033 [0.183] (0.309)
Sum of peers <u>not</u> adopting	0.005 [0.811] (0.597)	0.010 [0.725] (0.294)	-0.016 [0.725] (0.420)	-0.031 [0.226] (0.046)**
Sum of peers adopting (same sector)	-0.079 [1.000] (0.388)	-0.073 [1.000] (0.210)	0.003 [1.000] (0.946)	-0.017 [1.000] (0.741)
Sum of peers <u>not</u> adopting (same sector)	-0.013 [1.000] (0.454)	-0.004 [1.000] (0.867)	-0.020 [1.000] (0.512)	0.031 [1.000] (0.198)
Controls	✓	✓	✓	✓
Observations	333	326	329	326
H_0 : Imitation (p)	0.006***	0.142	0.362	0.944
H_0 : Imitation, same sector (p)	0.317	0.170	0.741	0.800

Outcome variables:

- 1: Whether the firm is registered for VAT ('missing' = 'no')
- 2: Whether the firm's financial statements are certified by external auditor.
- 3: Whether the firm has a bank current account.
- 4: Whether the firm has a savings account.

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Table A21: Diffusion results and sector: Labour management

	(1)	(2)	(3)	(4)	(5)	(6)
Sum of peers adopting	0.008 [0.604] (0.810)	-0.048 [0.604] (0.065)*	0.001 [0.604] (0.972)	0.031 [0.604] (0.240)	-0.029 [0.604] (0.251)	-0.040 [0.604] (0.158)
Sum of peers <u>not</u> adopting	0.001 [1.000] (0.888)	-0.004 [1.000] (0.758)	0.011 [1.000] (0.657)	-0.019 [1.000] (0.491)	0.033 [0.839] (0.076)*	0.019 [1.000] (0.292)
Sum of peers adopting (same sector)	0.079 [0.650] (0.315)	0.017 [0.896] (0.723)	0.031 [0.896] (0.553)	-0.057 [0.650] (0.308)	0.069 [0.650] (0.265)	0.123 [0.348] (0.043)**
Sum of peers <u>not</u> adopting (same sector)	0.006 [0.607] (0.755)	-0.029 [0.548] (0.374)	-0.054 [0.419] (0.177)	0.064 [0.419] (0.126)	-0.093 [0.031]** (0.005)***	-0.037 [0.548] (0.435)
Controls	✓	✓	✓	✓	✓	✓
Observations	326	327	325	314	316	320
H_0 : Imitation (p)	0.781	0.056*	0.688	0.699	0.894	0.512
H_0 : Imitation, same sector (p)	0.290	0.825	0.706	0.910	0.716	0.230

Outcome variables:

- 1: Whether the firm provides housing for any employees
- 2: Whether the firm provides free/subsidised meals for any production workers
- 3: Whether the firm provides toilets with running water for any production workers
- 4: Whether the firm hires production workers without recommendation/referral
- 5: Whether the average production worker has more than 7 years' education
- 6: Whether entry-level production workers receive more than 1 month's training

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: †: $p < 0.15$, *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.

Table A22: Diffusion results and sector: Relations with clients and suppliers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sum of peers adopting	0.039 [0.270] (0.099)*	0.100 [0.109] (0.014)**	-0.015 [1.000] (0.602)	0.000 [1.000] (0.999)	0.000 [1.000] (0.996)	0.012 [1.000] (0.721)	-0.081 [0.270] (0.106)
Sum of peers not adopting	-0.014 [1.000] (0.385)	-0.002 [1.000] (0.880)	-0.020 [1.000] (0.200)	0.013 [1.000] (0.636)	0.010 [1.000] (0.594)	-0.006 [1.000] (0.401)	0.000 [1.000] (0.953)
Sum of peers adopting (same sector)	0.027 [0.720] (0.523)	-0.067 [0.583] (0.205)	0.028 [0.720] (0.488)	0.087 [0.191] (0.032)**	-0.032 [0.583] (0.276)		
Sum of peers not adopting (same sector)	-0.043 [0.431] (0.276)	0.039 [0.431] (0.060)*	0.004 [0.935] (0.914)	0.061 [0.431] (0.129)	-0.018 [0.906] (0.658)	0.023 [0.431] (0.101)	0.006 [0.906] (0.713)
Controls	✓	✓	✓	✓	✓	✓	✓
Observations	325	324	323	327	327	323	318
H_0 : Imitation (p)	0.374	0.017**	0.228	0.657	0.756	0.869	0.117
H_0 : Imitation, same sector (p)	0.807	0.543	0.568	0.010**	0.362	0.107	0.711

Outcome variables:

- 1: Whether the firm has advertised in the past 6 months
- 2: Whether the firm pays any purchases before delivery
- 3: Whether the firm pays any purchases after delivery
- 4: Whether the firm has any sales paid before delivery
- 5: Whether the firm has any sales paid after delivery
- 6: Whether the firm imports
- 7: Whether the firm exports

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: * : $p < 0.1$, ** : $p < 0.05$, *** : $p < 0.01$.

Table A23: Diffusion results and sector: Innovation

	(1)	(2)	(3)
Sum of peers adopting	0.032 [0.435] (0.246)	0.010 [0.585] (0.705)	-0.048 [0.435] (0.101)
Sum of peers <u>not</u> adopting	0.014 [1.000] (0.409)	-0.013 [1.000] (0.373)	0.004 [1.000] (0.670)
Sum of peers adopting (same sector)	-0.075 [0.376] (0.091)*	0.032 [0.752] (0.429)	-0.007 [1.000] (0.910)
Sum of peers <u>not</u> adopting (same sector)	-0.006 [1.000] (0.843)	0.021 [1.000] (0.571)	0.014 [1.000] (0.352)
Controls	✓	✓	✓
Observations	324	328	328
H_0 : Imitation (p)	0.106	0.917	0.160
H_0 : Imitation, same sector (p)	0.100	0.376	0.911

Outcome variables:

- 1: Whether the firm has introduced new products in the past year
 - 2: Whether the firm has changed its production processes in the past year (e.g. layout)
 - 3: Whether the firm has changed its product delivery methods in the past year
- (Note: The baseline questions for these estimations referred to the last three financial years.)

Coefficients show the estimated mean marginal effect.

'Controls' means (i) the lagged outcome, (ii) the sum of baseline session adoption, and (iii) the size of the session.

'[]' show the 'sharpened' False Discovery Rate adjusted q -values.

'()' show standard p -values, allowing for clustering by committee.

Significance: *: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$.