

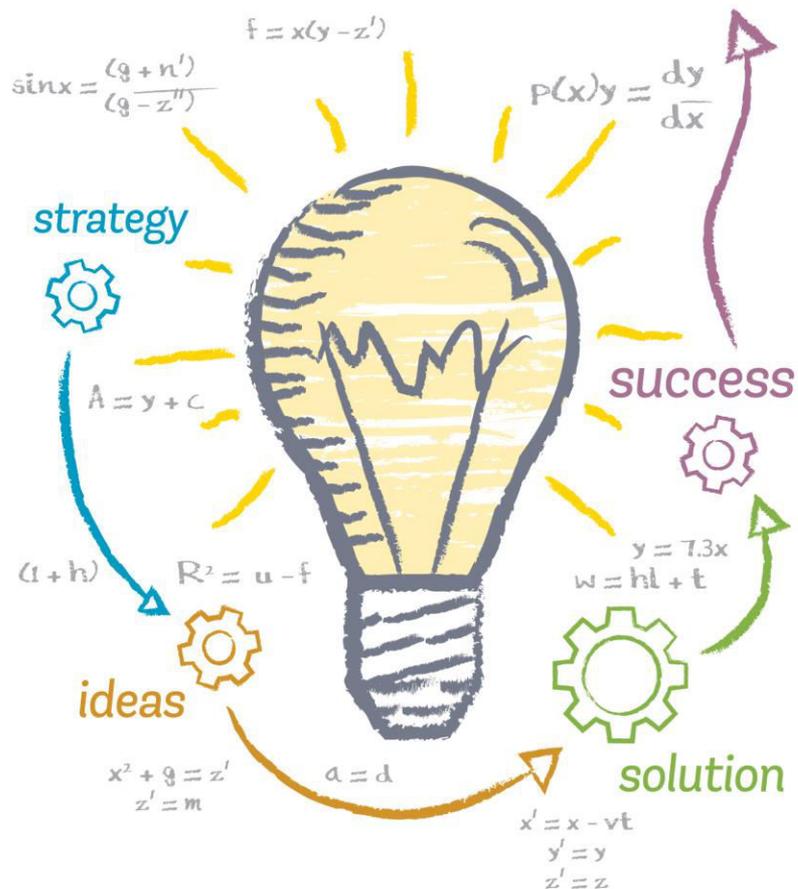
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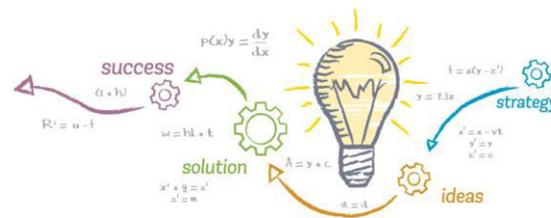
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From Capabilities to Opportunity: Driving SME Growth

Christopher Woodruff, University of Oxford
11 September, 2019

Addressing constraints to SME growth

- Most research focuses on supply-side constraints – capabilities
 - Entrepreneurship / management training: Do firm owners have the necessary skills?
 - Finance: Do firms have access to the capital needed for expansion?
 - Labor: Do firms have access to skilled labor?



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Seneca
8 July 2013 9:31 pm

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Demand-side constraints

- These supply-side constraints may be very important. But is addressing the supply side sufficient? Is it necessary?
- Maybe addressing the demand side is sufficient.



Providing a stimulus to demand: procurement

- Here's a simple way to stimulate demand: The government is the single largest purchaser of goods in most countries.
- Ferraz et al (2016) is one of several recent projects that studies asking:

Does winning a procurement auction stimulate growth for small firms.

- Other examples: Lee (2018); Alfaro-Arena et al (2019); Donaldson and Pomeranz

Providing a stimulus to demand: procurement

- Ferraz et al:
 - Not an RCT, but credible causal identification
 - Extensive use of administrative data
- Procurement auctions in Brazil have random ending times.
- Use the sample of auctions where there were at least 2 bids within the last 30 seconds.
- Compare winners and losers in these auctions.

Providing a stimulus to demand: procurement

- Outcomes:
 - Winning at least one bid increases growth one quarter later by 2.2 pp.
 - Effects are durable: Winners are more likely to bid in future auctions, and “excess” growth is sustained for at least two years.
 - Effects are larger for small, young firms.
 - Consistent with Haltiwanger et al(s) and Syverson suggesting that young firms are more constrained by demand.

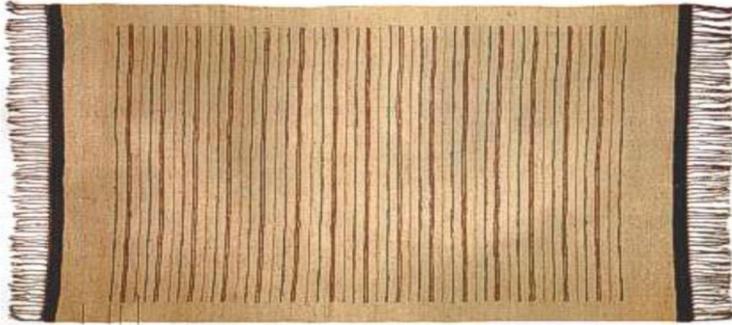
Growth, but how?

- Procurement stimulates growth, but why? What do firms learn?
- Atkin et al (2018) provide nicely rich detail on the process. They use an export intervention among rug-makers in Egypt (Atkin et al, 2018)
- They linked with an NGO Aid to Artisans to establish links to export markets.
- Sample of 219 rug makers in Fowa, Egypt.
 - Production for the domestic market



Rugs and technology

Flat-weave “Dubs” Rug



Wooden Foot-Treadle Loom



Providing a direct link to new markets: Exporting in Egypt

- With help of Aid to Artisans, identified a local intermediary and – eventually – buyers for **rugs**.
 - Buyers in Germany, Israel, USA



Export markets



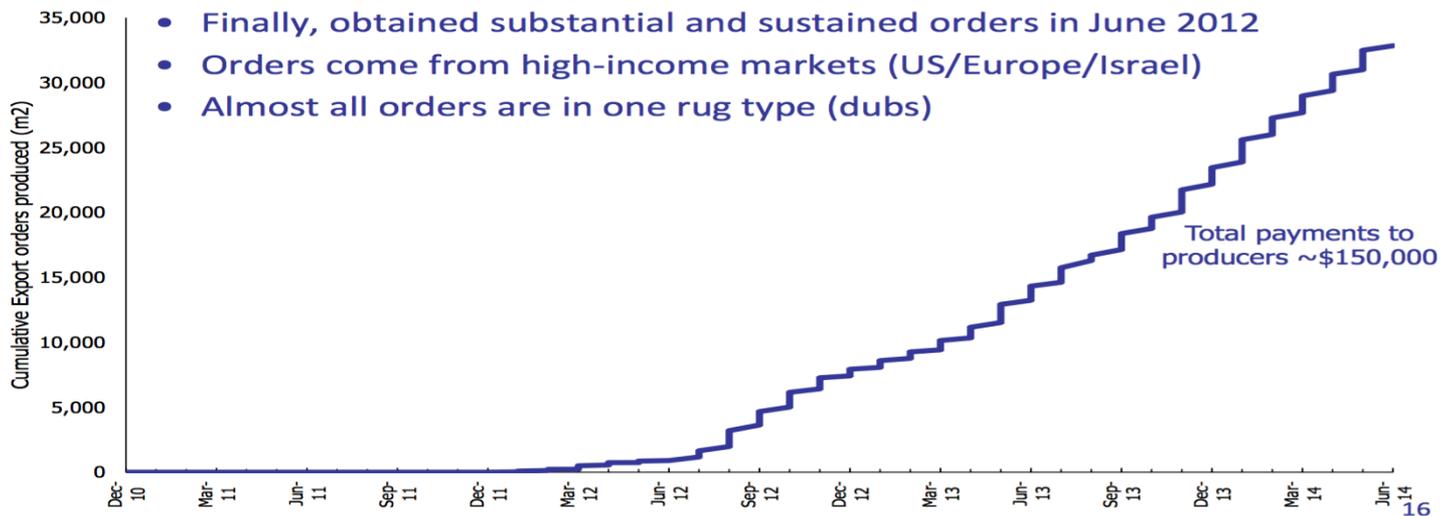
Providing a direct link to new markets: Exporting in Egypt

- With help of Aid to Artisans, identified a local intermediary and – eventually – buyers for rugs.
 - Buyers in Germany, Israel, USA
- Randomly allocated the 219 producers to treatment and control. Gave production orders to the treatment weavers.
- A key point: The quality required for the export market is much higher than that required for the domestic market.
- The key question: Is there “learning by exporting”?
 - Capabilities approach: Train the weavers to make higher quality products, then try to sell them in higher-income markets
 - Demand-side approach: “If you build it, they will come”

Export orders

Generating Export Orders

- Generating export orders was slow and difficult
 - Failure is common in export markets; this is our 2nd location in Egypt
 - 1/7 attempts lead to sustained exports (similar to Eaton et al 2013)
 - Finally, obtained substantial and sustained orders in June 2012
 - Orders come from high-income markets (US/Europe/Israel)
 - Almost all orders are in one rug type (dubs)



Note: Slide from Atkin et al.

Did capabilities improve?

- Almost all firms (32 / 35) offered a “large” initial order accepted the export orders. Essentially all of them were able to deliver the product quality.
- Output – measured in square meters of carpets – decreased. And hours worked increased. But profits also increased.

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- Output – measured in square meters of carpets – decreased. And hours worked increased. But profits also increased.
- Quality? A sharp increase in quality, judged in a blinded fashion by a carpet quality expert.
 - For example, less waviness (lays flatter on the ground), squarer corners, closer to the design, etc.

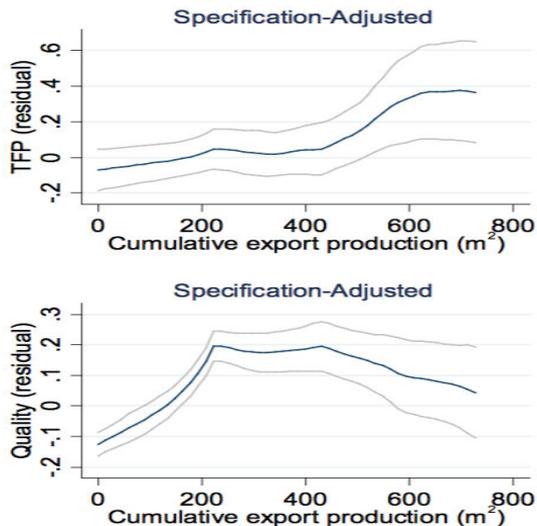
| | ITT (1) |
|------------|--------------------|
| Packedness | 1.38 *** (0.12) |
| Corners | 1.38 *** (0.13) |
| Waviness | 1.36 *** (0.13) |
| Weight | 1.32 *** (0.12) |
| Touch | 0.54 *** (0.08) |

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- Quality? A sharp increase in quality, judged in a blinded fashion by a carpet quality expert.
 - For example, less waviness (lays flatter on the ground), squarer corners, closer to the design, etc.
- After adjusting for product quality, output increased among the exporters

Why does quality improve?

- First, it does not improve immediately, though very quickly. There is a learning curve.



Note: Slide from Atkin et al.

Why does quality improve?

- First, it does not improve immediately, though very quickly. There is a learning curve.
- Further evidence of learning: The “quality lab”
 - Atkin et al set up a shop and ask both treatment and control weavers to make a rug matching domestic standards.
 - In spite of there being no reward to quality, the treatment weavers produce higher quality.
- How do they learn? Evidence from emails suggests that the intermediary provides the training through feedback on the deliveries from the weavers.
- There is no evidence of actual investments, in equipment, consulting, etc.



Providing a direct link to new markets: Exporting in Egypt

- Almost all of a pool of existing small-scale manufacturers were able to transition to the higher quality standards required to produce products for export markets.
- Conclusion: Capabilities as “pushing the string.” The intermediaries increased the capabilities, but in a “learning by doing” fashion. The improvement in quality occurred quickly and without explicit investments.

Providing a direct link to new markets: Exporting in Egypt

- A nice example of demand inducing a change in capabilities.
- But Aid to Artisans says that around 6 of 7 such attempts fail. So what should we conclude about the policy lessons here?



Demand works, but does it lead to (aggregate) growth?

- These examples show that demand shocks stimulate changes in capabilities and growth.
- Does this add to aggregate growth, or just shift demand from one firm to another?
- The challenge is to use these projects to understand more about how markets function.
- Research that both stimulates growth and illuminates market structure: Jensen and Miller (2018), Andrabi et al (2017), Higgins (2019).



Information, demand and markets

- Jensen (2007) shows the arrival of mobile phones in Kerala, India changed the way fishermen sold their catch.
 - Allowed them to check prices before coming ashore.
 - Led to selling wherever the price was highest, rather than in their own village
- Jensen and Miller collect data from boat owners and boat builders, at six-month intervals from 1998-2004
 - Note that, unlike some of the studies I discuss, there is no administrative data available in this case.



Information, demand and markets

- Jensen and Miller notice that selling in other villages led fishermen to learn about the capabilities of boat builders in other places.
 - This led to a shift in demand from lower-quality (productivity) builders to higher-quality (productivity) builders.
 - The shift in demand led to economies of scale gains, increasing industry-wide productivity.
- Information, from the observed adoption of mobile phones, reduces frictions in the market.

Information, demand and markets

- Adrabi et al. conduct an RCT that increases information parents have about the quality of schools (majority private schools) in Pakistani villages.
 - Provide information about test scores and see how that affects behavior of schools.
 - The intervention does not change the capabilities of either schools or teachers.
- Question: Does the information on school quality induce underperforming schools to improve?



Pakistani school project design

- Sample of 112 villages; ~630 household per village
 - average of 8 primary schools per village
 - 166 children per village in school (grade 3)
 - Some government schools, some private schools
- Treatment at the village level. Outcomes?

The effect of information about quality

- Average school fees fall in treatment villages by 17%
- Enrollment increases by 3.2 percentage points in treatment villages
- Average test scores increase by 0.11 standard deviations in treatment villages (relative to control)
- Further evidence of market effects:
 - Scores improve most in the schools performing worst at baseline.
 - Investment in
 - Fees in the highest priced (and highest performing) schools fall.

Changing the “infrastructure” of markets

- The key point: The intervention was not designed to change capabilities directly. Yet product quality increased dramatically.
- Conclusion: Capabilities as “pushing the string.” The capabilities were there, but were dormant because the market did not provide the incentives to deploy them.



Last example: Reducing frictions, but not with information

- Higgins (2019) analyses the effect of rolling out debit cards to recipients of social programs in Mexico.
- A lot of the analysis focuses on technology adoption.
- I want to focus on the part that illuminates how the technology reduces frictions in the market.
- Prior to shifting social program payments to debit cards:
 - Large stores accepted credit / debit cards, “corner stores” did not
 - Richer households had cards, poorer households did not

Reducing frictions, but not with information

- Large increase in the number of debit cards in selected neighborhoods
 - This induced corner stores to adopt the ability to accept the cards
 - Now higher income households can use cards at corner stores as well as large stores
- Higher-income households shift purchases to corner stores
- Profits at corner stores increase
 - Mostly a shift in sales from large to small stores.
 - But because the adoption reduced a friction, likely increased aggregate welfare.



Concluding thoughts

- Demand can stimulate supply of capabilities. Changing the structure of opportunities and incentives appears to be more important in driving growth in many contexts.
- If the policy goal is aggregate growth, we need to understand how / why the intervention is improving the function of the market, for example, by reducing information frictions.

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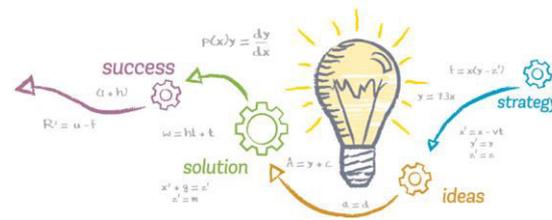
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Thank you!