MANAGEMENT PRACTICES AND GROWTH

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INTRODUCTION

• Management is much talked about, but economists have been sceptical due to lack of hard evidence
• Recent evidence suggests huge variation of firm productivity & this is related to management
• ~70% of cross country variation in GDP/head “accounted for” by management practices
• Systematic factors “driving” management – competition, family firms, skills, FDI, etc.
• Policy implications (evidence base smaller than others, e.g. human capital)
  – Structural (competition, tax, etc.)
  – Management-specific (e.g. benchmarking, informational, etc.)
1. Productivity dispersion within and between countries

2. Measuring & describing management

3. Effect of management on performance

4. Causes and Policy
PRODUCTIVITY DISPERSION WITHIN COUNTRIES

- Empirical work on plant/firm performance in last 1-2 decades shows huge variation of productivity is a 1st order economic fact

- **Large cross sectional dispersion within countries**
  - Within US four digit industry, plant labor productivity 90th-10th ≈ 4x (TFP ≈ 2x). Syverson (2004). Other countries even bigger
  - These plant productivity differences are persistent
  - Not simply measurement error (e.g. use plant-specific prices in Foster et al, 2009)
  - Other measures of firm performance (e.g. profitability, size, management quality, etc.) show wide variation
FIRM HETEROGENEITY HAS LONG BEEN RECOGNISED

“…we have the phenomenon in every community and in every trade, in whatever state of the market, of some employers realizing no profits at all, while others are making fair profits; others, again, large profits; others, still, colossal profits.”

Francis Walker (Quarterly Journal of Economics,’87)
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(Quarterly Journal of Economics, 1887)
LARGE INCOME & TFP DIFFERENCES BETWEEN COUNTRIES

Source: Jones and Romer (2010). US=1
Note: related to firm dispersion (Hsieh & Klenow, 2009)
REASONS FOR PERFORMANCE HETEROGENEITY

• TFP Heterogeneity due to “hard technologies”
  – R&D, patents, diffusion of ICT (information and communication technologies), etc.

• These hard technologies matter a lot, but:
  – After controlling for technology, still a big TFP residual
  – Productivity effects of ICT depend on firm organization (e.g. Bloom, Sadun & Van Reenen, AER 2012; Bresnahan, Brynjolfsson and Hitt, QJE 2002)

• Heterogeneity of management practices & organization?
  – Case studies & recent advances in measurement
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NOTIONS OF MANAGERIAL “BEST PRACTICE”

• Management styles that have always been better
  – e.g. promotion on ability/effort (rather than family)

• **Complementarity**: Practices that have become desirable because the environment has changed
  – Technological advances makes monitoring output better (e.g. SAP) and enables more performance related pay (Lemieux et al, 2009)

• **Innovation**: Discoveries of how to manage better
  – E.g. Toyota system of Lean Manufacturing
  – **Transferable**: dynamic diffusion
THE SURVEY METHODOLOGY

1) Developing management questions
   • Scorecard for 18 monitoring, targets and people/talent
   • ≈45 minute phone interview of manufacturing plant managers

2) Obtaining unbiased comparable responses ("Double-blind")
   • Interviewers do not know the company’s performance
   • Managers are not informed (in advance) they are scored
   • Run from LSE, with same training and country rotation

3) Getting firms to participate in the interview
   • Introduced as “Lean-manufacturing” interview, no financials
   • Official Endorsement: Bundesbank, Bank of Italy, RBI, etc.
   • Run by ~100 MBA-types (loud, assertive, business experience)
### MONITORING – E.G. “HOW IS PERFORMANCE TRACKED?”

| Score | (1): Measures tracked do not indicate directly if overall business objectives are being met. Certain processes aren’t tracked at all | (3): Most key performance indicators are tracked formally. Tracking is overseen by senior management | (5): Performance is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools |

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**Note:** All 18 dimensions and over 50 examples in Bloom & Van Reenen (2006)
MANAGEMENT SURVEY SAMPLE

- Interviewed over 8,000 firms across 21 countries in Americas, Asia & Europe
- 45% response rate (responses uncorrelated with performance)
- 3 major waves in 2004, 2006 & 2009 with panel element

Medium sized manufacturing firms:
- Medium sized (100 - 5,000 employees, median ≈ 250)
  Manufacturing as easier to measure productivity
  — Now extended to Hospitals, Retail, Schools, Charities,
    Nursing homes, Law Firms, Government agencies, etc.
- Many controls for measurement error – second interviews,
  controls for interviewer, interviewee and interview effects
- Also running conventional surveys US MOPs, EBRD MOI,...
AVERAGE MANAGEMENT SCORE ACROSS COUNTRIES

Note: Averages taken across all firms within each country. 9079 observations in total.
EMERGING COUNTRIES HAVE LONG TAIL OF BADLY MANAGED FIRMS
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Graphs by country

- Australia
- Brazil
- Canada
- China
- France
- Germany
- Great Britain
- Greece
- India
- Ireland
- Italy
- Japan
- Poland
- Portugal
- Sweden
- US

Firm-Level Management Scores
1. Productivity dispersion within and between countries

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CAUSAL EFFECT OF MANAGEMENT ON PERFORMANCE? BLOOM ET AL (2012)

- Run experiment on plants in Indian textile firms outside Mumbai

- Randomized “treatment” plants get heavy management consulting (5 months); “control” plants get very light consulting (just enough to get data)

- Collect weekly performance data on all plants from 2008 to 2010

  - Improved management practices led to large and significant improvements in productivity and profitability (~$325k higher pa)
THE FACTORIES ARE DISORGANIZED

Instrument not removed after use, blocking hallway.

Oil leaking from the machine

Cotton lying on the floor

Instrument blocking the hallway
THE TREATED FIRMS INTRODUCED BASIC INITIATIVES

Worker involved in “5S” initiative on the shop floor, marking out the area around the model machine.

Snag tagging to identify the abnormalities on & around the machines, such as redundant materials, broken equipment, or accident areas. The operator and the maintenance team is responsible for removing these abnormalities.
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CAUSES OF DIFFERENCES IN MANAGEMENT QUALITY

• “Deep”
  – Information
  – Incentives
  – Collective action in organization

• Proximate (Leave to Ian Davis)
  – Competition (within & between; causal)
  – CEO selection (e.g. Family firms)
  – Human Capital
  – Ownership (state, private equity, foreign, etc.)
  – Regulation
POLICIES

• Modesty over evidence base

• Structural
  – Competition (e.g. planning; anti-trust; trade)
  – Taxation (e.g. inheritance tax)
  – Fostering reallocation (SME policy, EU State Aid, etc.)

• Public sector

• Management interventions
  – Benchmarking, Manufacturing Advisory Service, Managerial training & education
  – Need to have some proper evaluation

• Link to “industrial policy”
CONCLUSIONS

• Heterogeneity of productivity across firms and countries a 1st order economic fact
  – This is strongly linked to management quality
• Competition improves management through both within and between firm effects
• Many other factors affecting management (meritocratic selection, human capital, FDI, ownership, labour market regulation, etc.)
MY FAVOURITE QUOTES:

The traditional British Chat-Up

[Male manager speaking to an Australian female interviewer]

*Production Manager:* “Your accent is really cute and I love the way you talk. Do you fancy meeting up near the factory?”

*Interviewer* “Sorry, but I’m washing my hair every night for the next month….”
MY FAVOURITE QUOTES:

The traditional Indian Chat-Up

*Production Manager:* “Are you a Brahmin?”

*Interviewer* “Yes, why do you ask?”

*Production manager* “And are you married?”

*Interviewer* “No?”

*Production manager* “Excellent, excellent, my son is looking for a bride and I think you could be perfect. I must contact your parents to discuss this”
MY FAVOURITE QUOTES:

The difficulties of defining ownership in Europe

*Production Manager:* “We’re owned by the Mafia”

*Interviewer:* “I think that’s the “Other” category…….although I guess I could put you down as an “Italian multinational” ?”

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Americans on geography

*Interviewer:* “How many production sites do you have abroad? *Manager in Indiana, US:* “Well…we have one in Texas…”

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FURTHER READING


BACK UP
MANY PARTS OF THE FACTORIES ARE DIRTY AND UNSAFE
QUALITY DEFECTS INDEX: TREATMENT & CONTROL PLANTS

Notes: Displays the average weekly quality defects index, which is a weighted index of quality defects, so a higher score means lower quality. This is plotted for the 14 on-site treatment plants (+ symbols) and the 6 on-site control plants (♦ symbols). Values normalized so both series have an average of 100 prior to the start of the intervention. To obtain confidence intervals we bootstrapped the firms with replacement 250 times.
COVERAGE OF WORLD MANAGEMENT SURVEY: 21 COUNTRIES

LINK BETWEEN PRODUCTIVITY & MANAGEMENT HOLDS TRUE ACROSS DIFFERENT COUNTRIES

* Log scale  (sales per worker)

** Firms are grouped in 0.5 increments of assessed management score
**INCENTIVES - e.g. “HOW DOES THE PROMOTION SYSTEM WORK?”**

| Score | (1) People are promoted primarily upon the basis of tenure | (3) People are promoted upon the basis of performance | (5) We actively identify, develop and promote our top performers |

**Note:** All 18 dimensions and over 50 examples in Bloom & Van Reenen (2006)
SELF-SCORES UNCORRELATED WITH PRODUCTIVITY

* Insignificant 0.03 correlation with labor productivity, cf. management score has a 0.295
MY FAVOURITE QUOTES:

The bizarre

*Interviewer:* “[long silence]……hello, hello….are you still there….hello”

*Production Manager:* “…….I’m sorry, I just got distracted by a submarine surfacing in front of my window”

The unbelievable

[Male manager speaking to a female interviewer]

*Production Manager:* “I would like you to call me “Daddy” when we talk”

[End of interview…]
MY FAVOURITE QUOTES:

Staff rewards the American way

*Production Manager:* “For example, if an employee suggests a company slogan, and his name is used, he gets a TV. If he is employee of the month, he gets a parking space”

Staff retention the UK way

*Interviewer:* “How would you persuade your top performers to stay?”

*UK Chairman:* “Sex is a great thing! If the employee finds a new girlfriend somewhere else, I can’t do anything!”