Herding cats?
Management and university performance

John McCormack
(University of Bristol)

Carol Propper
(University of Bristol
Imperial College)

Sarah Smith
(University of Bristol)

Published Economic Journal, 124 (578) pp F534–F564, August 2014
Research questions

• Do management practices matter for the performance of universities?
  – Do they matter in the same way for teaching and research?
  – Do they matter in the same way for different types of universities?
  – Where does management matter?
  – What aspects of management practices matter?
LSE/Stanford World Management Survey

• Standardized interview covering a number of indicators
  – Operations
  – Monitoring
  – Targets
  – Talent management

• Carried out with 1000s managers of manufacturing plants worldwide to measure the quality of management

• http://www.worldmanagementsurvey.com/
Scores vary systematically with firm type (family firms worse, multinationals better) degree of competition, labour market regulation

Positive correlation between management score and measures of performance: Productivity, profits, 5-year sales growth, share price, firm survival
Universities

“There is a lot of difference in managing a group of employees in a plant and (managing) faculty members… Trying to manage faculty members is like herding cats”
Universities

• “Committed leadership, rigorous performance management systems and processes to develop and retain highly capable staff are among the management characteristics we noted at highly-performing institutions”

• 2012 McKinsey’s report on Management In Higher Education
Universities

- “Committed leadership, rigorous performance management systems and processes to develop and retain highly capable staff are among the management characteristics we noted at highly-performing institutions”
- *2012 McKinsey's report on Management In Higher Education*

- Highly-performing institutions = Valencia Community College, Indiana Wesleyan University College of Adult and Professional Studies
- Performance = degree productivity (cost per graduate)

- What about research and teaching performance?
What we do

• LSE/Stanford methodology applied to UK universities

• 250+ interviews with university managers (HoDs and HR heads)

• Correlations between management scores and (measures of) performance across research/teaching, including numerous controls

• Explore variation:
  – Different types of universities (more/ less research-intensive)
  – Different levels of management
  – Different aspects of management
Our sample

- Department-level and central HR
- Four academic disciplines (English, Business and Management, Computer Science and Psychology)
  - Spread across Science, Social Science and Arts/Humanities
  - Spread across university types
- Departments that submitted to the Research Assessment Exercise
- Sample of 248 academic/HR departments in 112 universities
- 56% response rate in terms of relevant population
<table>
<thead>
<tr>
<th>University Type</th>
<th>Number of Universities</th>
<th>Number of Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relevant population</td>
<td>Our sample</td>
</tr>
<tr>
<td>Russell Group</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Other Old Universities</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>Former Polytechnics</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>New universities</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>120</td>
<td>112</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departments</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>90</td>
<td>55</td>
</tr>
<tr>
<td>Computer Science</td>
<td>81</td>
<td>45</td>
</tr>
<tr>
<td>English</td>
<td>87</td>
<td>44</td>
</tr>
<tr>
<td>Psychology</td>
<td>76</td>
<td>47</td>
</tr>
<tr>
<td>Uni Office</td>
<td>105</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>439</td>
<td>248</td>
</tr>
</tbody>
</table>

Notes to table:
Relevant population comprises Academic Departments (Business, Computer Science, English and Psychology) that made a submission to the 2008 Research Assessment Exercise, together with the Human Resources Department from Universities that had at least one Department submitting
Measuring management practices

• Interviews carried out with Heads of Department & HR heads

• Six student interviewers; telephone interviews

• Each interview lasted about an hour

• Interviews were double scored (one main interviewer, one seconder).
  – 17 (974) cases (out of 3,757) the scores differed by two (one)
Measuring management practices

- 17 indicators of management quality across four dimensions
  - **Operations** (2 indicators) – standardized processes; continuous process improvement
  - **Monitoring** (5 indicators) – performance tracking, review, dialogue, clarity/ comparability, consequence management
  - **Targets** (4 indicators) – breadth, inter-connection, stretch, time horizon
  - **Talent management** (6 indicators) – rewarding high performers, removing poor performers, attracting, managing, promoting and retaining talent
Measuring management practices

- **Operations (continuous improvement):**
  - Thinking about processes you have in place for improving both research and teaching, how do you know that the processes are working? Do you carry out regular reviews of the processes for potential areas of improvement?
  - Can you give me an example of a recent improvement to research or teaching processes? How did the change came about?
  - To what extent are members of the department/university involved in suggesting improvements to processes? Can you think of any examples of a staff idea was taken forward?
Measuring management practices

- **Operations (continuous improvement):**

  - Thinking about processes you have in place for improving both research and teaching, how do you know that the processes are working? Do you carry out regular reviews of the processes for potential areas of improvement?
  - Can you give me an example of a recent improvement to research or teaching processes? How did the change came about.
  - To what extent are members of the department/university involved in suggesting improvements to processes? Can you think of any examples of a staff idea was taken forward?

Score = 1
Processes are not reviewed in terms of performance. Process improvements – if at all – are made when problems occur. Limited involvement of staff

Score = 3
Process review and improvements occurs at irregular meetings; some attempt to develop ideas from the bottom up, but not systematic.

Score = 5
Reviewing processes and exposing problems in a structured way is integral to individuals’ responsibilities. Staff are centrally involved in developing improvements.
Measuring management practices

• Talent management
  – Do you have an appraisal system for your academic staff for deciding their pay and (financial/non-financial) rewards? Does this differ between junior and senior staff?
  – How much flexibility is there to reward your best performers, financially and non-financially? What range of options do you have? How much discretion is there in terms of pay and promotion?
Measuring management practices

• Talent management
  – Do you have an appraisal system for your academic staff for deciding their pay and (financial/non-financial) rewards? Does this differ between junior and senior staff?
  – How much flexibility is there to reward your best performers, financially and non-financially? What range of options do you have? How much discretion is there in terms of pay and promotion?

A congratulatory mention and coffee and cake

We actively identify and promote our top performers
Measuring management practices

- Score obtained for each of 17 indicators

- Scores are averaged within four practice areas (operations, monitoring, targets, talent management)

- Scores are averaged to create an overall management practices score = a measure of the quality of management practices from 1 – 5

- Use a standardized version = “z-score”
Measuring outcomes

• **Department-level performance measures**

• **Research and teaching:**
  – Independent research assessment process (RAE 2008)
  – National Student Survey (NSS) satisfaction scores “Overall, I am satisfied with the quality of my course” (scored 1 – 5, z-score by department)
  – Independent ranking (Complete University Guide) – combination of RAE, NSS, academic services/ facilities expenditure, student completion rates, graduate prospects, staff:student ratios
Controls

- **Department-level controls**
- Matched in from Higher Education Statistics Authority
  - Expenditure – academic/ non-academic (incl professorial salaries)
  - Numbers of staff and students

- **Manager characteristics (from survey)**
  - Full-time/ part-time
  - Tenure in role
  - Next job (career manager versus academic on rotation)
Scores across Departments

Uni HR offices score highest; English departments score lowest
But these are not significantly different (at 5% level)
Scores across types of Universities

Russell Group score highest, Other New score lowest. Significantly different. Difference driven by talent management component. Cannot be explained by resources or manager characteristics.
Centralisation of talent management is associated with a lower management score. This can “explain” the gap between Russell Group and other uni types.
Management score is positively correlated with performance

Holds within university type
No difference across uni types

Robust to controls for resources and past performance (t-5)

Department-level score (not HR) drives the relationship
Talent management matters most
(CUG ranking)
"The kid's good."
Conclusions

• Management practices matter for performance
  – 0.5 sd difference in (mean) overall score between Russell Group and Other New equates to a two place improvement in CUG ranking
  – 5.36 sd difference between top and bottom Russell Group equates to 20 place improvement in CUG ranking.

• What does good university management look like?
  – Good management practices are similar across university types
  – Talent management is key; Department level is crucial
  – Top down performance measurement & targets appear to matter less
Thank you!