

Six observations about firm level digital transformation in China

Xudong GAO

School of Economics and Management

Tsinghua University

Agenda

- Background of research
- Six observations

Background of research

- Strong interest; focused research for a long time
- Expert Committee member of MIIT

Six observations

- Excitement
- Frustration
- Developing useful/advanced digital transformation solutions
- Leadership and organizational issues
- Industry core technology/capability vs. digital transformation solutions
- Digital transformation and people

Excitement

- More and more firms are adopting digital transformation solutions and successful
- Even in traditional industries—cement supplier, tire maker, steel production
- Company A, cement supplier in China, working with Alibaba, has developed their own solution, leading to the following benefits in 2019:
reducing coal consumption 18000tons, electricity 6.63 m kw/h, economic benefits RMB 42m。

Frustration

- Company B, a leading MNE in the field of providing digital transformation solutions, signed a huge contract (close to RMB 100 m) with a firm in China, but could not deliver the solution effectively.
- Even IBM and GE encountered huge challenges
- Too complex digital transformation solution
 - Company C: simplifying the task; highly customized solutions

Developing useful/advanced digital transformation solutions

- Deep understanding about user/context needs?
- Deep integration between data scientists and industry experts

Deep integration between data scientists and industry experts

- Easy to say, hard to do;
- Example: company C
 - In one industry, many leading industry experts;
 - Hard to find, hard to keep them, hard to develop effective communication and integration between data scientists and industry experts
- Common industry practice
 - Outsourcing
 - Help with selling products

Leadership and organizational issues

- Role of #1 person
- Start digital transformation
 - Routine job vs. “extra work”
- Manage using digital transformation solutions
 - Information asymmetry
 - Dramatic change of management principle, organization, practice
 - Company D: leading bank in China, 3 layer from CEO to lowest level employee, team leader in the middle

Industry core technology/capability vs. digital transformation solutions

- Digital technology is important
- Industry core technology/capability more fundamental
 - Broad: finished construction of a 57-story building in 19 days, based on advanced material technology

Digital transformation and people

- Replace people?
- Work shorter time, more creatively
- Managing the future of the firm
 - Data about the past

A starting point

Thank you so much!