

Business Process Re-engineering

Based on: Teng, Grover & Fiedler, Business Process Reengineering: Charting a Strategic Path for the Information Age,

Facilitators for BPR

IT

- shared databases
- imaging

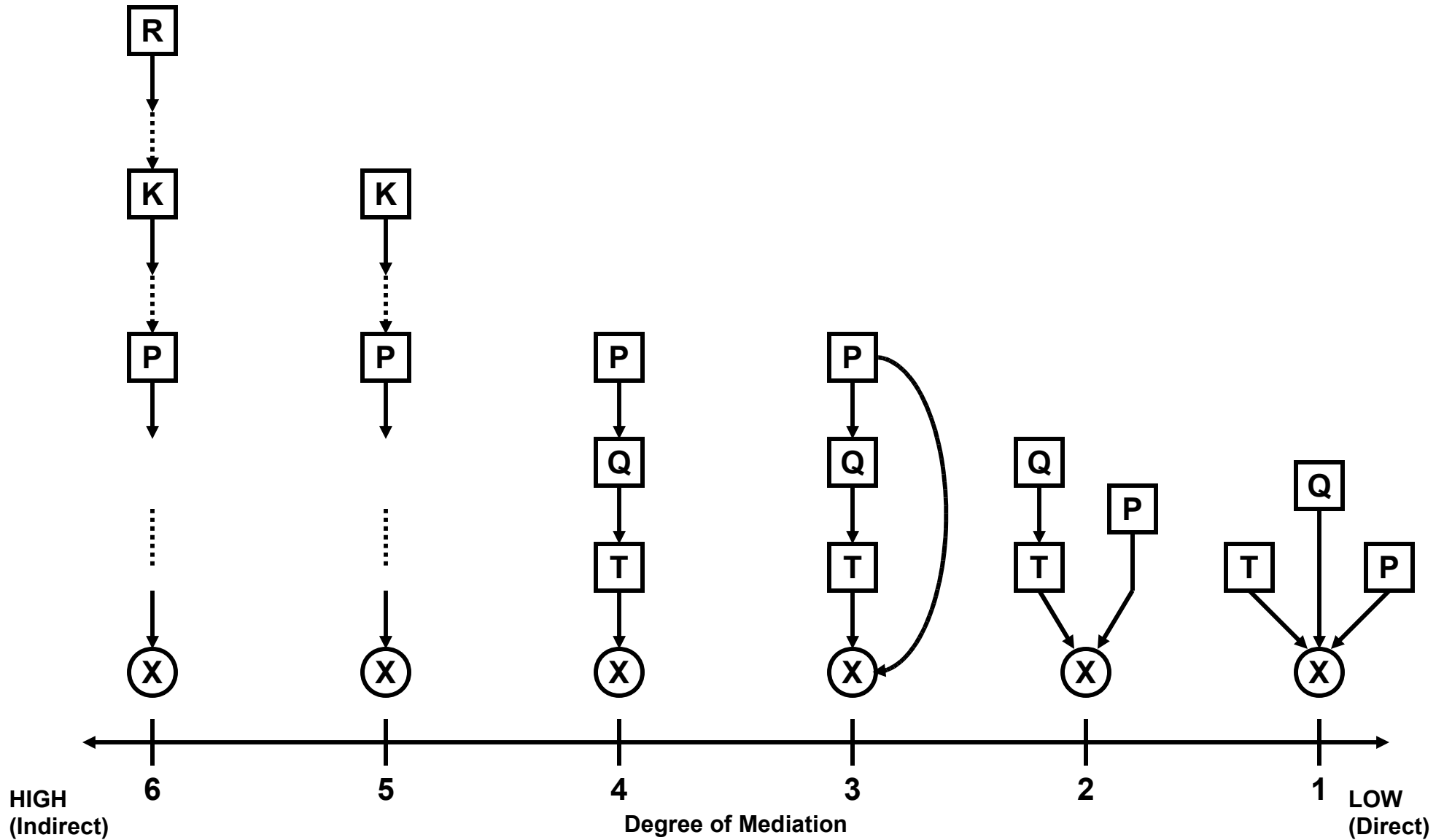
Telecommunication

- LANs
- e-mail
- groupware

Others

- Quality movement

Degree of Mediation Dimension of Business Processes

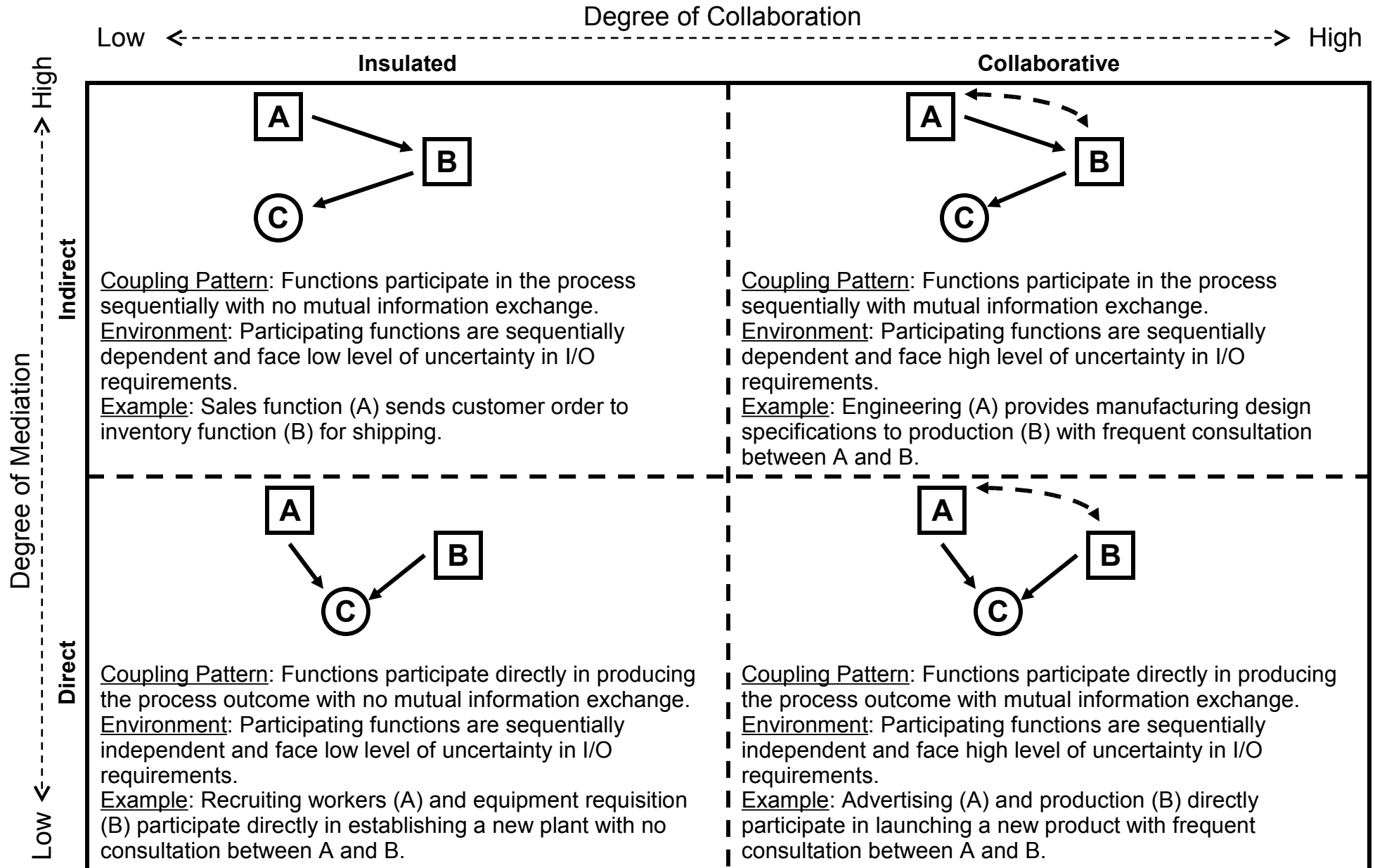


Reducing Mediation through IT

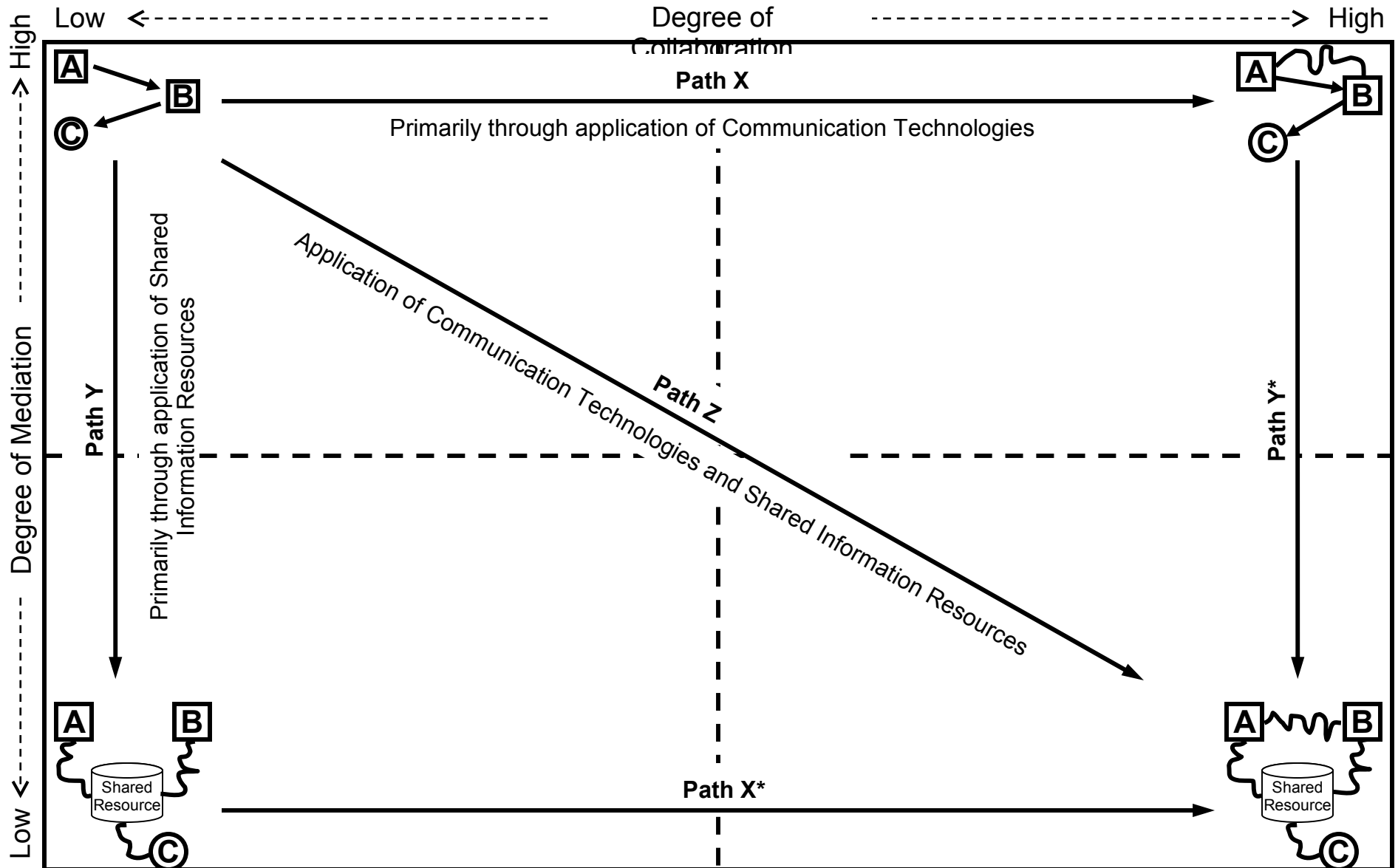
Ford Motor Corp.

- **Old process** involved 3 functions - purchasing, inventory and accounts payable
- participated *indirectly*
- sequential document flow
- **New process** uses shared database
- every function participates *directly*
- 75% reduction in work-force (500 -> 125)

Functional Coupling Framework of Business Processes



Application if IT in Alternative Paths for Process Reengineering



IT creates a “public good”

Resource that can be accessed by many functions.

- Shared information resource is not “used up” by usage, and retains its value for other users.
- Provides comprehensive information that facilitates accomplishment of process objectives on a more global basis.

Other enablers

Behavioural & organisational techniques:

- *self-directed teams*
- *process generalists*
 - + Kodak example
 - + IBM Credit

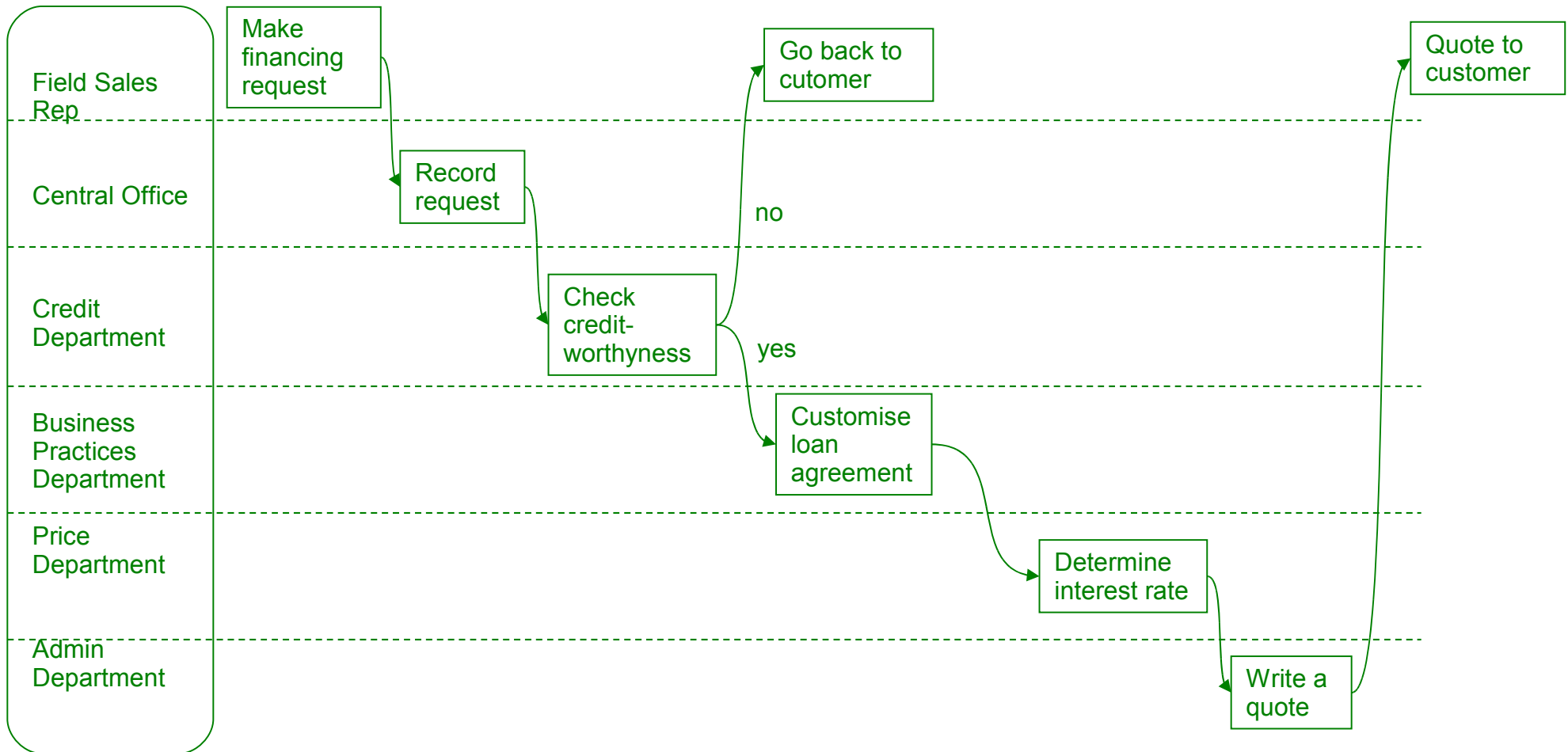
IBM Credit

IBM Credit Corporation finances the computers, software, and services that the IBM Corporation sells.

five steps:

1. On a request from an IBM field sales representative an operator in the central office wrote down the request on a piece of paper.
2. The request sent to credit department where a specialist checked the client's creditworthiness, wrote the result on the piece of paper and sent it to the business practices department.
3. The business practices department customised the standard loan covenant to the client. Special terms attached to the request if necessary.
4. Request went to the price department where a pricer determined the appropriate interest rate.
5. Administration department wrote a quote letter for the field sales representative.

IBM Credit



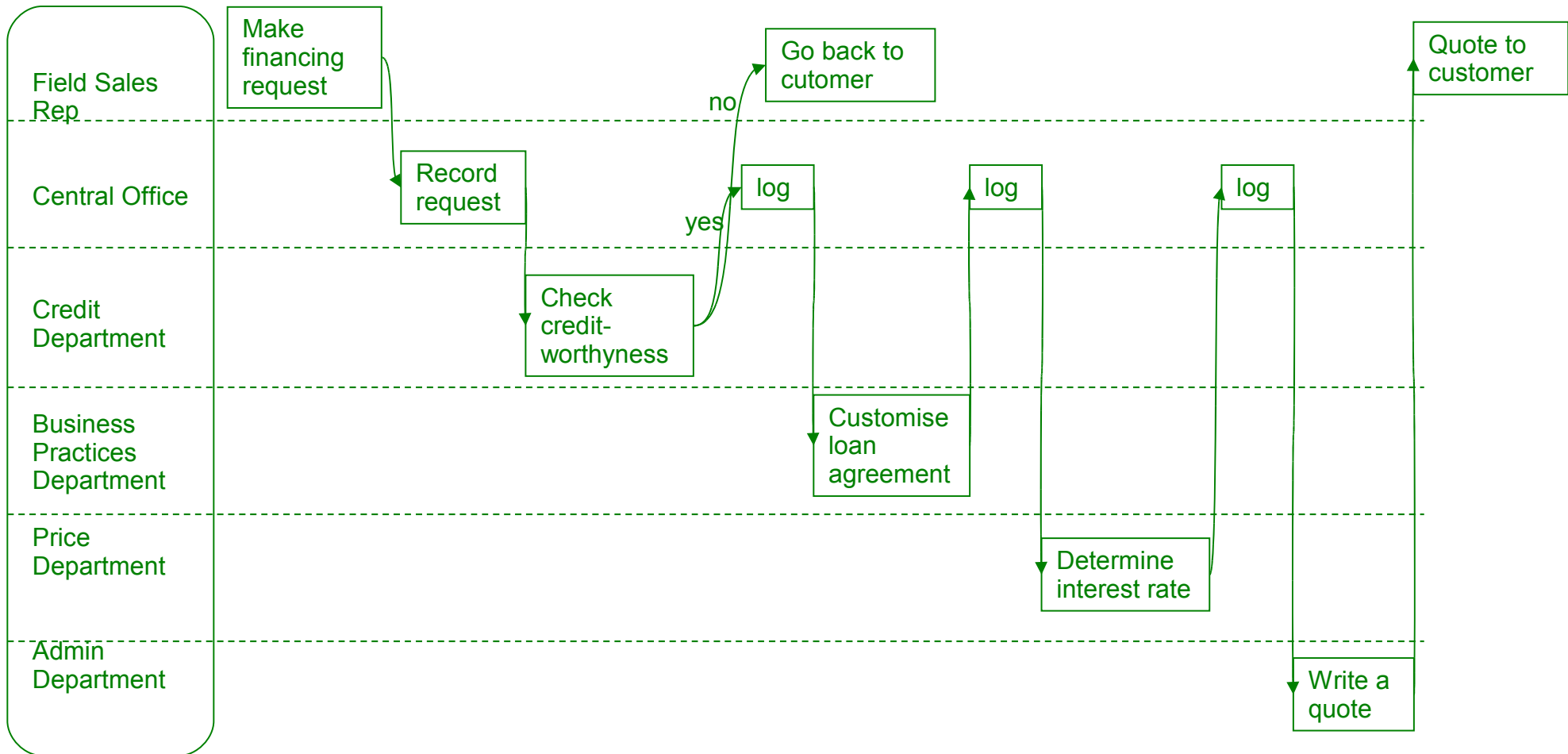
IBM Credit – problems

- Process took six days on average.
- In this time the customer could be seduced by another computer vendor.
- Request couldn't be tracked.

IBM Credit – attempted fixes

- Install a control desk, so they could answer the sale representative's question about the status of the request.
- Instead of forwarding the request to the next step in the chain, each department returned the request to the control desk for logging before sending out the request again.
- Solved tracking problem, but took yet more time.

IBM Credit



IBM Credit - investigation

- Two senior managers at IBM Credit took a request and walked themselves through all five steps.
- Performing the actual work took ninety minutes.
- The problem was not in the tasks and the people performing them, but in the structure of the process.
- IBM Credit replaced its specialists - the credit checkers, pricers and so on - with generalists. Now, a generalist processes the entire request from beginning to end.

IBM Credit - rationale

- How could one generalist replace four specialists?
- Old process design based on the assumption that every bid request was unique and difficult to process.
- Assumption false; most requests simple and straightforward:
 - Find a credit rating in a database
 - Plug numbers into a standard model
 - Pull clauses from a file.
- Easily done by single individual supported by an easy-to-use computer system which IBM Credit developed.
- In most cases, the system provides guidance and data to generalists.
- In hard cases, help available from a small pool of real specialists assigned to work in the same team.

IBM Credit - gains

- Turnaround reduced from six days to four hours.
- Dramatic performance breakthrough by making a radical change to the process - i.e. reengineering.
- IBM Credit did not ask, "how do we improve the calculation of a financing quote? How do we enhance credit checking?" It asked "How do we improve the entire credit issuance process?"
- In making its radical change, IBM Credit shattered the assumption that every request needed specialists.

References - 1

Hammer, M. (1990, July-August). "Reengineering Work: Don't Automate, Obliterate," Harvard Business Review, pp. 104-112.

Moad, J. (1989). "Navigating Cross-functional IS Waters" Datamation, March 1989, pp. 73-75.

Foster, L. & Flynn, D. "Management Information Technology: Its Effects on Organisational Form and Function" MIS Quarterly, December 1984, pp. 229-236.

McDonnell, E. & Somerville, G.. (1991). "Corporate Reengineering that follows the Design of Document Imaging," Information Strategy: the Executive's Journal, Fall 1991, pp. 5-10.

Berger, J., Angiolillo, P. & Mason, T. "Office Automation: Making it Pay Off," Business Week, October 12, 1987, pp 134-146.

References -

Stewart, T. (May 10, 1992). "The Search for the Organisation of Tomorrow," *Fortune*, pp. 110-117.

Porter, M. & Millar, V. (1985). "How Information Gives You Competitive Advantage," *Harvard business Review*, 63/4, pp 149-160.