Information Architecture for Strategic Decision making

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Fractal
About Fractal

- Consulting, training, education & research:
  - Strategy
  - Organisation diagnosis
  - Organisation development
  - Organisation design
  - Organisation transformation

- Systems, cybernetics & management science

- Private, public & 3rd sectors
Today

- Relationship of EA to the Organisation
- Role of EA in relation to decision making
- Decision centric design:
  - Organisation structure
  - Information structure
  - Design factors
- 4 (quick) cases
- Enhanced role for EA
Role of EA…?

- Technical input to the enterprise design, both organisation and IT
- Design information & IT support for operations
- Manage changes to the architecture inc. : structure, purpose, partnerships etc.
- Support governance of architecture inc. : interfaces, coherence, standards etc.
- Make the organisation’s complexity understandable so managers they can actually manage
- Design the information and decision structure so decision makers have the information to take the right decisions at the right level with the right information.
Strategic decisions & structure

Traditional view of EA: “They” decide strategy. Our job is to design the organisation to meet the needs of the strategy

So structure follows strategy.

BUT....

Around 90% of strategic plans aren’t implemented...

SO....

1. Why would we design for something with only a 10% chance of happening?

2. The strategy emerges from the organisation interacting with its environment. If the information structure wasn’t designed to inform strategic decision making – no wonder if strategy fails

SO...

Strategy follows structure

Our job is to design the organisation to take well informed decisions
Power of Information

“As a rule, he or she who has the most information will have the greatest success in life”

Redundancy of Potential Command Principle:
“In any complex decision network the ability to act effectively depends on an adequate concatenation of information”

Corollary:
“organisations take the decisions they have the information to take”
Organisation & Information Structure for Decisions

“Simple” cybernetics model

Decisions structures as “Black boxes”:
- Part of the organisation structure
- Requires an assembly of organisational resource
- Not clear what happens inside – in the process of taking a decision

If you want good decisions: you need both box & wiring to be in place & appropriately configured & connected

Information structure as “wiring”
- Information feeding the decision
- Communicating the decision
- Inputs condition the outputs
Black Box present, but Wiring missing..

- Missing / weak / biased information structure
- 2 classes of information “feed”:
  - Internal, current / historic – “hard”: performance data
  - External & future – “soft”: forecasts, scenarios, intuition
- BOTH essential, but different in nature
- Balance (through time) is critical
- Asymmetric information structure drives decision bias – this is common
Black Box present, but Wiring missing.. NHS Commissioning

- PCTs set up to act as decision makers – choosing health services
- Sub-agenda: to break the cycle of repeat contracting
- Use of BI in 9 PCTs for commissioning
- Role of commissioning to identify health needs and commission services to address those needs
NHS Commissioning… Findings

- BI on health needs was unavailable / low quality
- Performance management “data” was available
- PCT’s used PM information to manage contracts
- Reinforced annual cycle instead of breaking it
- McCulloch: availability of information determined which decisions could be taken
- PCTs weren’t doing their job – nobody realised
- Unmet needs & health inequalities not addressed: “1 year drop in life expectancy for every mile travelled across the city”
Wiring present, but Black Box missing - no decision structure

- Without ownership, focus and resource organised to take a decision it doesn’t happen
- Information with no “organisational home” to go to, just dissipates
- Customer complaints
- Clwyd:
  - Info available
  - Nobody to hear it or decide
  - So, no action
Getting it right…
Wiring and Black Box linked & aligned

- Right inputs to the right box
- Design Black Box
- Design the Information structure to fit the Organisation structure
  - What information does a decision need?
  - Actually connect up the information to the decision
  - Build a regulatory loop to show it’s working
Getting it right… Client Case Study

Situation:
- ‘Large’ IT company
- Industry leaders
- VERY strong culture
- History of innovation

Symptoms
- Stagnant performance for 3 years
- Sector facing end of life / serious strategic risk
- Falling morale – loss of direction and losing key talent
Getting it right… Client Case Study

Organisation & Information

- Product departments & divisions trying to take both long & short term decisions
- Information structure biased to short term performance not long term market trends
- No decision structure to take company wide assessment of risk & opportunity
- Structure for taking sub-optimising decisions that didn’t work at either tactical or strategic level
Separating long and short term decisions

- Redesign the black boxes
- From: 6 Customer & product divisions
- To: 3 Product lifecycle (time) divisions
  1. Run existing business – focus on efficiency, reducing costs & quality of service (6 month horizon)
  2. Build the next big thing – radical innovation to build a new offer & market segment (2 – 10 year horizon)
  3. New ventures – disruptive innovation to find / build a new sector / lifeboat (5 -10 year horizon)
- Redesign information feeding those black boxes
9 Month Results

Division 1 (existing business) delivered:
- immediate - 20% year on year growth after a 3 year period of stagnation with ≈ 20% fewer staff
- & potential to double the existing business

Division 2 (Next big thing) has selected, market tested and is developing a product with potential to triple the business

.... And Mojo restored

Same people, but taking different decisions using different information
Information structure design

Start with the decisions, design information structure to fit them, not the other way round

Design factors:

- Speed of decision action cycle critical & depends on speed of information processing and refresh
- Amplifiers & attenuators: filter and chunk to improve signal to noise ratio (> 50% decisions based on noise)
- Transducers: every time a signal crosses a boundary it gets distorted / re-interpreted, so presentation is key

None of these is common in EA
Information structure design: the first OR (EA?) project

- Decision led design

- Design factors:
  - Speed of decision action cycle critical & depends on speed of information processing
  - Design of amplifiers & attenuators
  - Design of transducers
Enhanced value proposition for EA

- Information structure design is Meta-Strategic:
  - Decision quality depends on information
  - So…. information supply can determine strategy
  - EA designs /should design the information feeding strategy

- Without deliberate design, information for decision making can be arbitrary, so decisions can be arbitrary

- Improving decision making is one of the two highest leverage activities for EA

- Focus on decision making bridges gap between EA and the organisation – enhance EA’s actual & perceived:
  - Relevance
  - Usefulness
  - Value