

Dynamics of alignment and the Internal Response Lag Concept

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Motivation for the research

- An investigation of IS managers and business managers' perceptions of alignment indicated that, while they were often in agreement regarding the nature of alignment in their organisation, they disagreed regarding the time frames to achieve such alignment
- This paper builds a model which can be used as a framework to explore and understand the nature of this disagreement

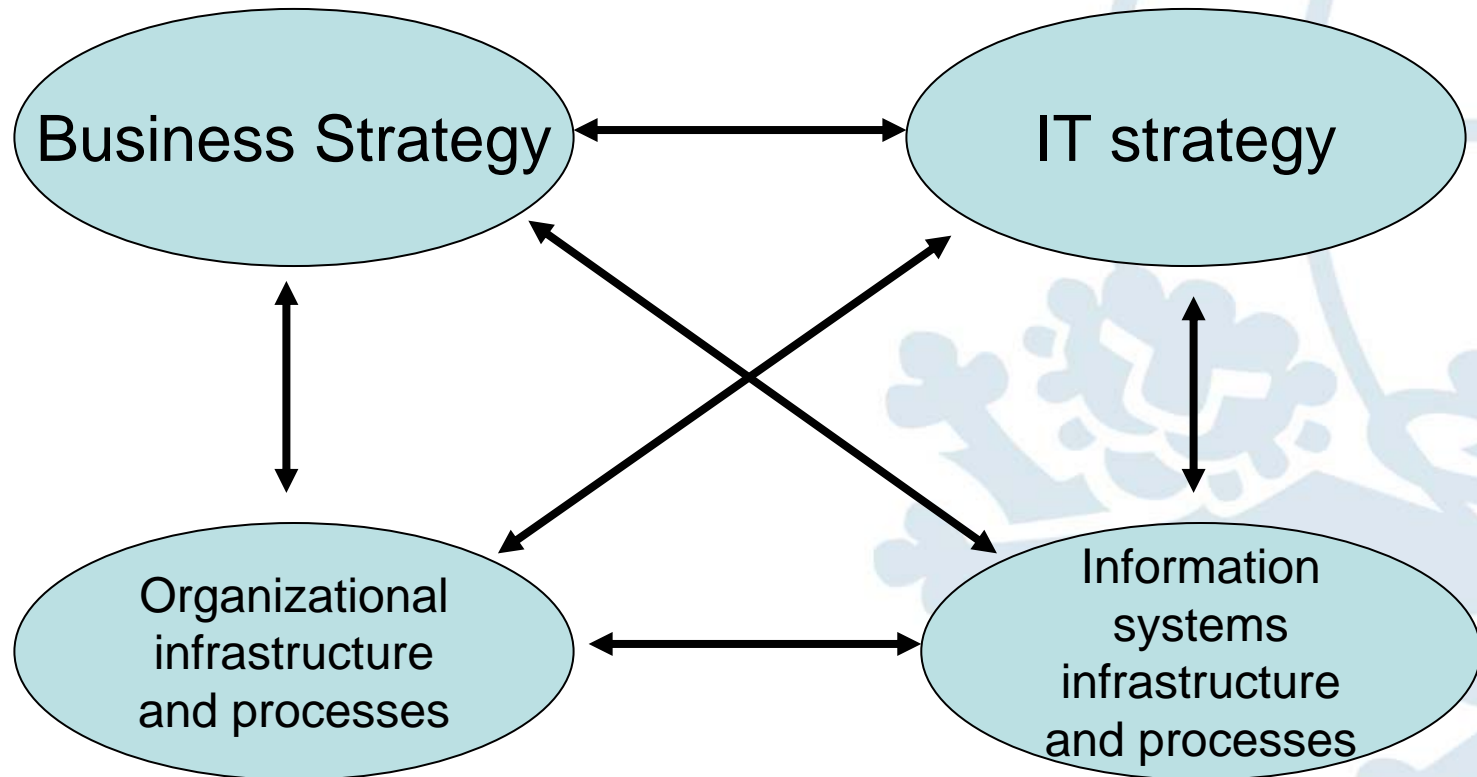


Structure of presentation

- Alignment models
- The dynamics of alignment
- Perceptions of the dynamics of alignment
- The concept of delays in IS
- A model for investigating perceptions – the internal response lag model
- Building the model
- Illustrating the model



Alignment models: Henderson & Venkatraman 1992/9



Henderson and Venkatraman, 1993, 1999

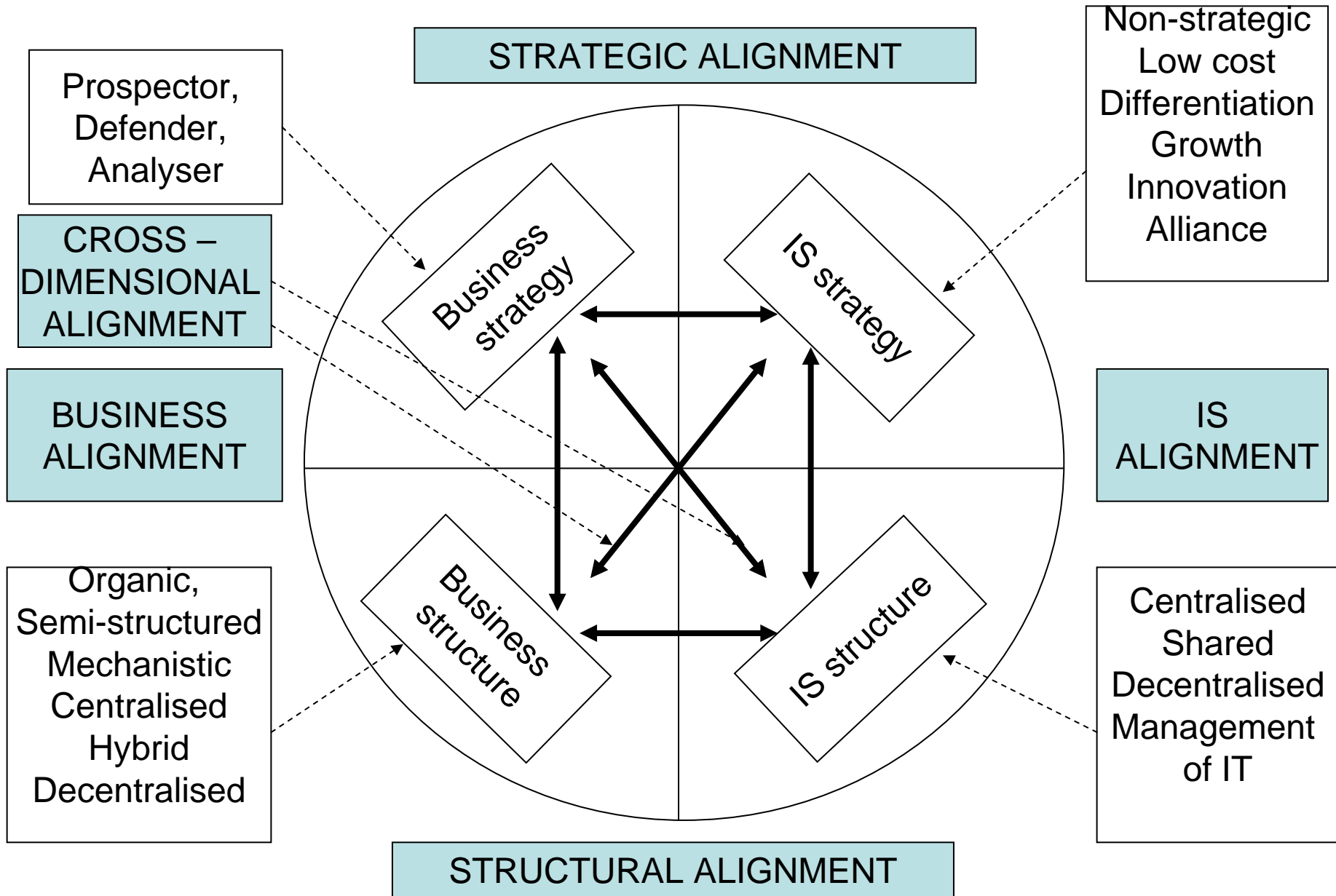


Alignment models: Since Henderson & Venkatraman

- Dissenters – eg Ciborra 1994
- Modelling the dynamic influences on alignment:
 - Approach (1) Punctuated equilibrium (Sabherwal, Hirschheim et al 2001)
 - Approach (2) Coevolution (Peppard and Breu 2003)



Alignment models Sabherwal, Hirschheim et al 2001



Sabherwal, Hirschheim et al 2001: definitions

Strategic alignment	Alignment between business and IS strategies
Structural alignment	Alignment between business and IS structures
Business alignment	Alignment between business strategy and structure
IS alignment	Alignment between IS strategy and structure
Cross-dimensional alignment	Alignment between business structure and IS strategy Alignment between business strategy and IS structure



Sabherwal, Hirschheim et al: steps in building the punctuated equilibrium model

- Define typologies for each of the four domains of alignment
- Define levels of alignment which depend on matching of typologies (eg “defender” business strategy aligns with “low cost” IS strategy)
- Define alignment level at a point in time
- Model environment in terms of punctuated equilibrium
- Each change from evolution to revolution, plot level of alignment



Sabherwal, Hirschheim et al 2001: triggers for revolutionary change

Revolutionary trigger	Explanation
Environmental shift	External changes such as legal requirements can affect alignment needs
Sustained low performance	If either the IS or the business performance deteriorates
Influential outsiders	External agencies, for example banks, can effect change
New leadership	New leaders can provide the trigger for revolutionary change
Perception transformation	Changes to the way IS is perceived, or changes to an organisation's skillsets



This paper

Extends the concepts of changing levels of alignment and asks

- *How can we move from the alignment “snapshots” developed by Sabherwal, Hirschheim et al to a more detailed understanding of the temporal effect as alignment changes?*
- *Are there delays in shifting to the new alignment, across any or all of the dimensions defined?*



The concept of delays in IS

- At a macro-economic level, delays on returns to investment help explain the “productivity paradox” (Brynjolffson 1993, Brynjolffson and Hitt 1996)
- Does this manifest itself as an alignment issue?



Development of an internal response lag model

- Starting point: Piccoli and Ives (2005)
 - a response lag model developed to explain the delay BETWEEN organisations: how long does it take other organisations to catch up to a strategic initiative from a “first mover”
 - Defines a series of drivers for response lags
 - Defined two dynamic processes that cannot be accelerated:-
 - Organisational learning
 - Asset accumulation

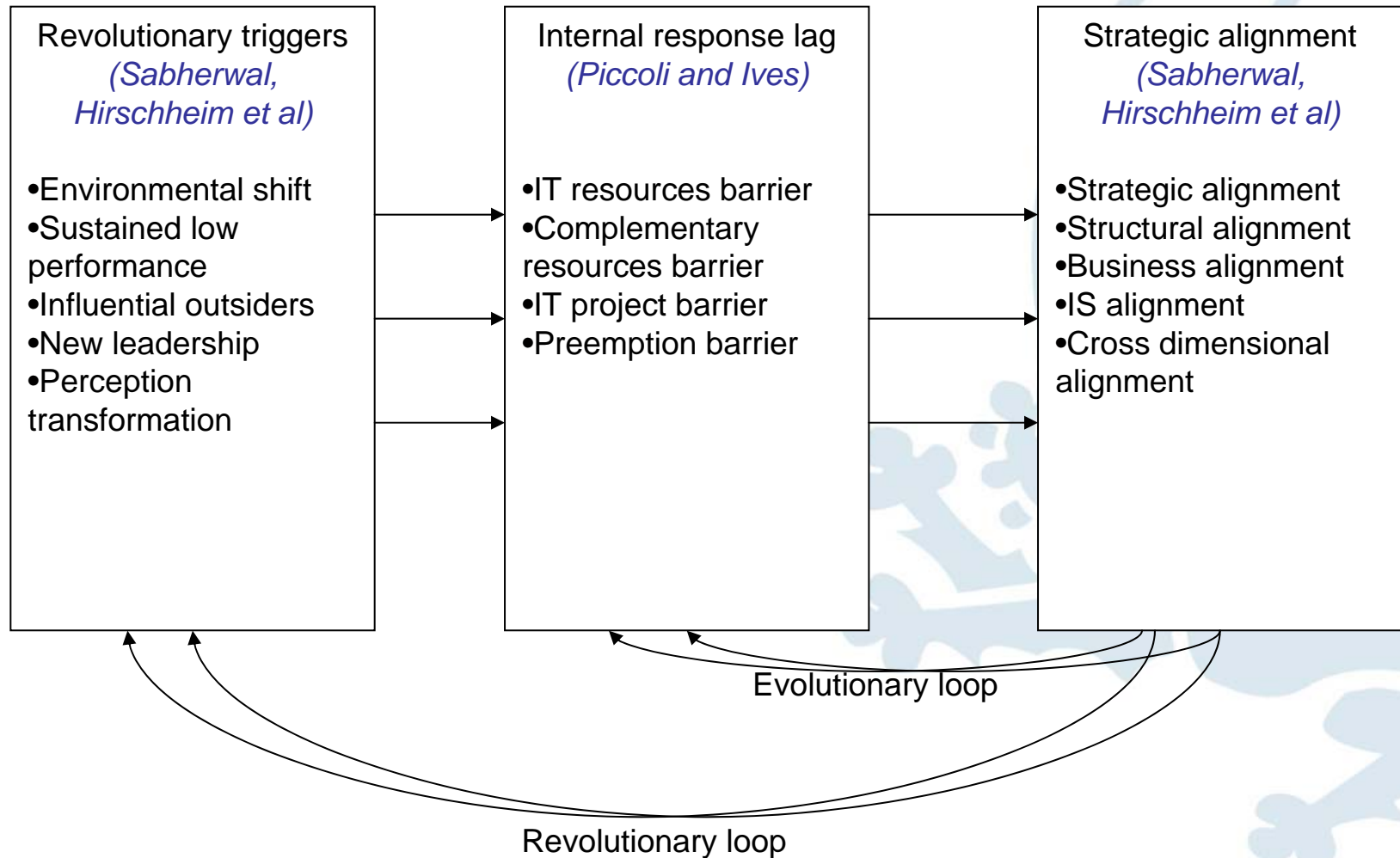


Piccoli & Ives: Barriers to Erosion and Relative Response lag drivers

Response lag	Response lag driver
1. IT resources barrier	IT assets (infrastructure, info repositories) IT capabilities (technical, management, relationship)
2. Complementary resources barrier	Complementary resources
3. IT project barrier	Technology characteristics (visibility, uniqueness, complexity) Implementation process (complexity, process change)
4. Preemption barrier	Switching costs (tangible or intangible co-specialized investments, collective) Value system structural characteristics (relationship exclusivity, concentrated links)
School of Business	



The proposed internal response lag model

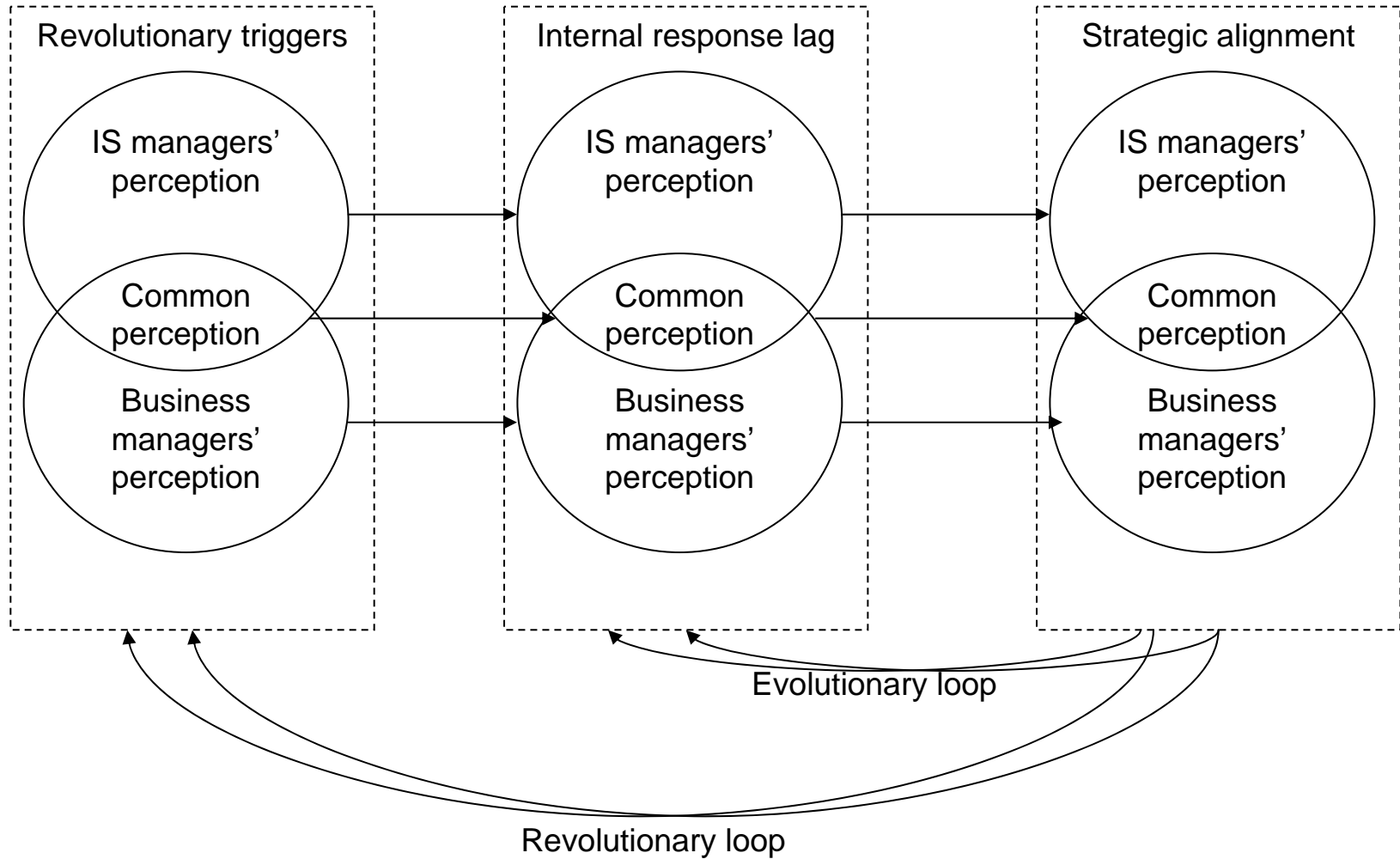


Illustrating the model – the perceptions of business and IS managers

- Relationships between IS and business managers have been well-researched
 - “Culture gap” (Taylor Cummings 1998)
 - “values, beliefs, service quality, structures and processes, leadership and roles” (Peppard and Ward 1999)
 - Precursors to shared mental models (Preston, Karahanna et al 2006)
- Roles and competencies of IS and business managers:
 - Increasing overlap over time (Ross & Feeny 1999, 2000 Lambert et al 2000, Broadbent & Kitzis 2005)



Illustrating the internal response lag model – comparing perceptions of IS and business managers



Method

- Quantitative survey compares perceptions of business and IS managers:-
 - regarding strategic IS and business alignment
- Qualitative interviews give indications of perceptions of business and IS managers:-
 - regarding strategic IS and business alignment
 - regarding the dynamics of alignment



Quantitative survey

- Two parallel surveys to IS and business managers
- IS manager completed survey, and forwarded (shorter) survey to business manager
- Returned in a sealed envelope to business manager
- Posted back to us
- Anonymity preserved



Quantitative results

- Business managers are more optimistic than IS managers about the level of shared understanding
- Business managers see the role of IS to be predominantly based on productivity (technical resource – Weiss et al 2006)
- IS managers see the role of IS to be about competitive advantage as well as productivity (business enabler/ strategic weapon – Weiss et al 2006)



Qualitative survey

- Follow up interviews (where people chose to self- identify) in five organisations
- Striking finding: where interviewee specifically identified a highly functional IS business manager relationship, the only point of contention was about the timing of strategic initiatives



Examples from the five organisations

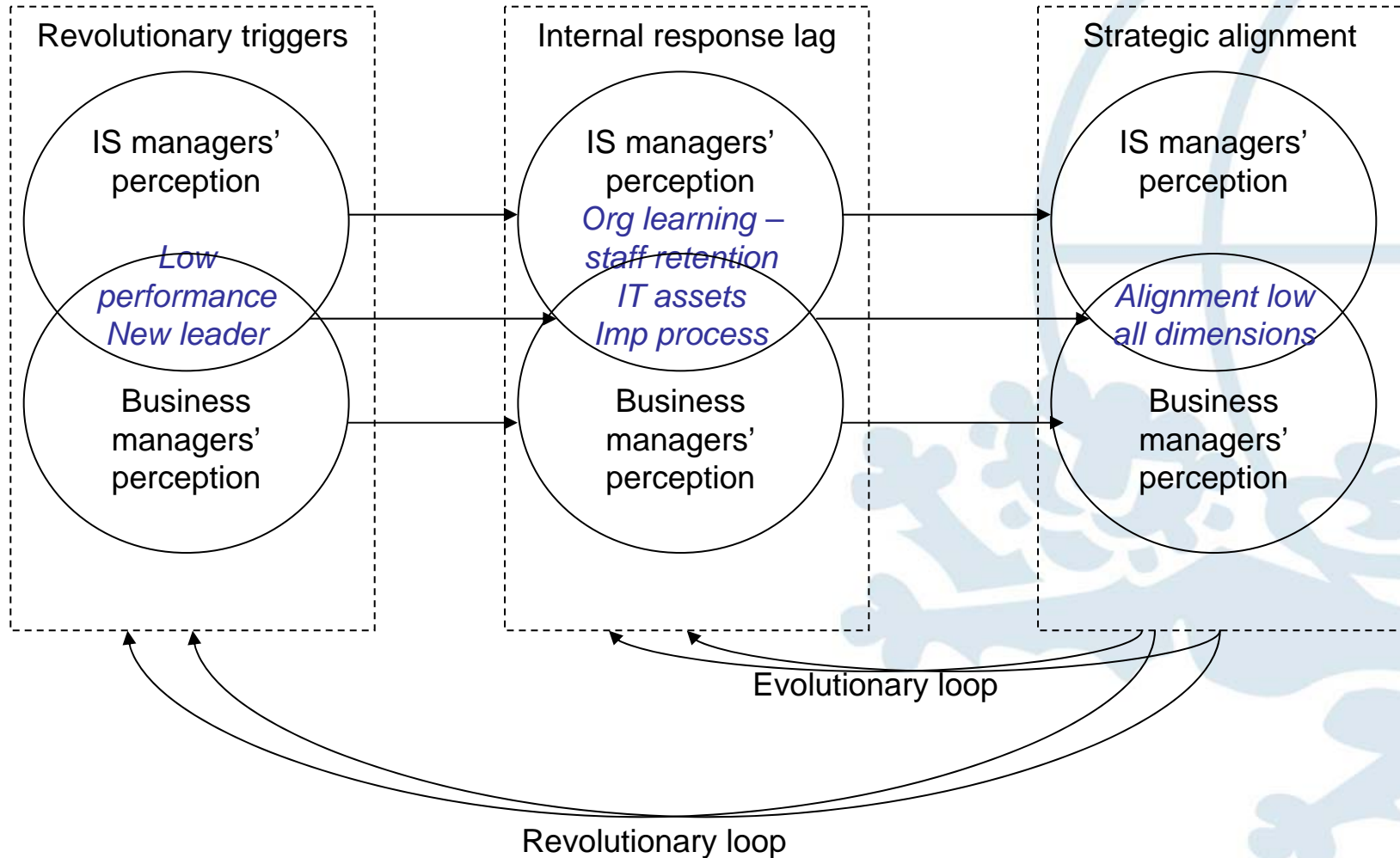
- “He’s generally supportive but ...he’s impatient for the pace at which we can do things” (IS manager)
- “Because of (the CIO’s) insistence we prepared a very good document – it’s taken a long time to do it” (business manager)
- “She..[was] able to understand that the business was the prime reason for having a system...there were conflicts ... if there was a bad problem which they said would take six weeks to fix and I said it had to be done in two days” (business manager)



Illustrating the internal response lag model for one organisation

Perspective	Revolutionary triggers	Internal response lag drivers	Strategic alignment
CIO	<ul style="list-style-type: none"> ▪ Sustained low performance ▪ New leadership 	<ul style="list-style-type: none"> ▪ IT Assets ▪ Complementary resources – org learning ▪ Implementation process - complexity 	Alignment low across all dimensions except for strategic alignment
CFO	ditto	ditto	ditto
CEO	ditto	<ul style="list-style-type: none"> ▪ Didn't see complementary resources as such a barrier – didn't see the need to retain the knowledge of key business staff 	ditto
Line mgr 1	ditto	<ul style="list-style-type: none"> ▪ Didn't see implementation process complexity – wanted less business analysis 	ditto
Line mgrs 2 & 3	Less perception of problem	Less perception of problem	Saw IT as technical resource
Line mgr 4	Political	Not applicable	Not applicable

Illustrating the internal response lag model – comparing perceptions of CIO and CEO in org 1



Conclusions

- The Internal Response Lag Model
 - is worth further investigation
 - Could be used to better understand the dynamics of alignment
 - could be used to diagnose where differences in perceptions are occurring within an organisation

