

# Strategic Decision Making and Support Systems: Comparing American, Japanese & Chinese Management



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# Motivation

- Internationalization creates a need (for researchers, managers & policy makers) to know
  - how managers in different parts of the world make decisions
  - how computer-based information systems can support decision making
  - and how those systems may have to be adapted to local needs

# Agenda

- Introduction
- Literature Review
  - Influences on Decision Making
  - Decision Making Styles
- Research Context and Method
- Findings
- Implications and Conclusions

# Introduction

- Decision making is a fundamental activity for managers
- But, differences in the socialization of managers and the business environments that they face may affect both their decision making *processes* and the *choices* that they make.
  - In turn, these will affect how (if at all) they use Information Systems such as DSS, GSS and ESS.
- The global integration of business means that we need to know how managers make decisions, and how IS can support that process

# Influences on Decision Making

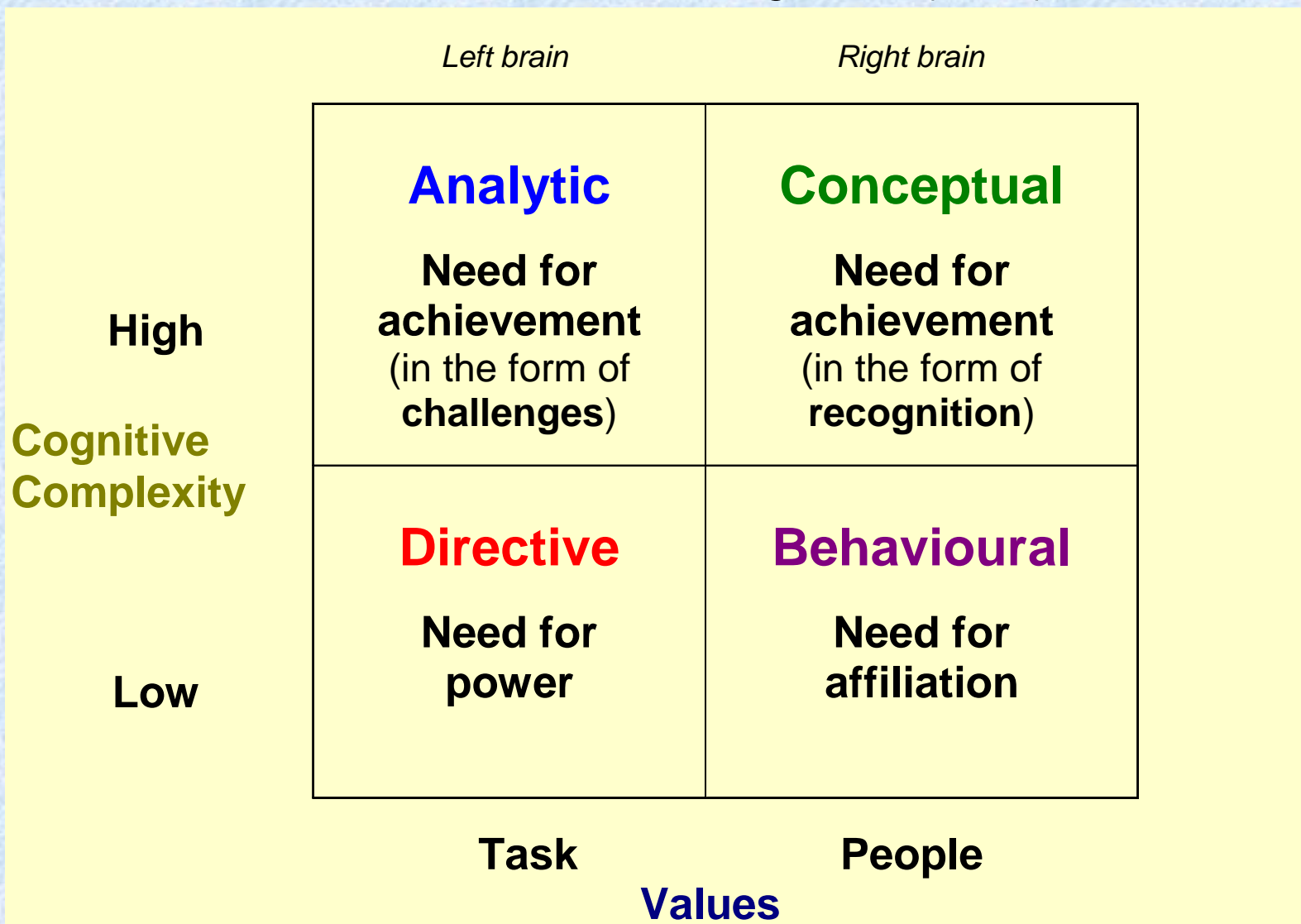
- Values and perceptions are all important
- National Culture explains about half of the difference in values (Hofstede)
  - Profession, age and gender explain smaller fractions
- Cognitive Perception
  - Do you think: Holistically? Contextually? About details? About Foreground or Background? Objectively? Analytically? Rationally? Impersonally?
  - Do you separate rational and irrational, or integrate them? Are you bothered by contradictions?

# Decision Making Styles

- Rowe & Boulgarides (1994)
  - 4 forces that determine decision style
- Directive – power and domination; clarity, not ambiguity; cognitive simplicity
- Analytic – challenge based achievement, cognitive complexity. Systematic and slow decision making.
- Conceptual – achievements based on extrinsic rewards, praise, recognition. People oriented. Creative and idealistic.
- Behavioural – cognitive simplicity, people-orientation, compromising, good communicators

# Decision Making Styles

Alan Rowe & James Boulgarides (1994)



# Compatibility Among Decision Styles

Boss→ ↓ Employee	Directive	Analytic	Conceptual	Behavioural
Directive	High	Low	Moderate	Low
Analytic	Low	High	Moderate	Low
Conceptual	Moderate	Moderate	High	Moderate
Behavioural	Low	Low	Moderate	High

# Studying the Decision Styles of Business Leaders

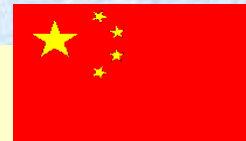


- Used the Decision Style Inventory (DSI) - 19 scenarios with forced ranking of alternatives
- DSI completed by 309 American, Japanese and Chinese business leaders at executive summits in Hong Kong & Shanghai
- Distinct national styles of decision making were found
- Follow-up interviews conducted with some respondents to get a deeper understanding

# Which Organisations Represented?

-  Altria, General Electric, Hewlett Packard, Johnson & Johnson, Proctor & Gamble, Dell, Eastman Kodak, Kellogg & Union Carbide
-  Canon Inc., Japan Airlines, KAO, 3 companies within the Mitsubishi group, Nippon Steel, & two companies in the Sumitomo group.
-  Brilliance China, China Everbright, China Overseas Shipping Company, China Unicom, CITIC Pacific, and Shanghai Industrial.

# DSI Scores of Business Leaders



	Americans (A)	Japanese (J)	Chinese (C)	Significant difference(s) at $p < .05$
Directive	65	69	84	$A < C ; J < C$
Analytic	82	72	73	$A > J ; A > C$
Conceptual	79	73	68	$A > C$
Behavioral	59	71	60	$A < J ; J > C$

# Decision Making Styles of Business Leaders: By Nationality

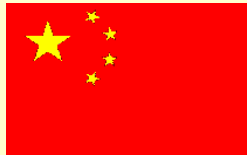
Low ◀ Cognitive Complexity ▶ High

**Analytic**



**Conceptual**

**Directive**



**Behavioural**  
(Participative)



Task Completion

People & Processes

# Implications for Information Systems 1

- DSS fit the preference of US managers for quantitative, analytical reasoning in complex situations.
- IS tools like DSS are better at supporting narrow analytic processes, not holistic decision making
- IS tools tend to rule out contradictions
  - But contradictions are not a problem for everyone.

# Implications for Information Systems 2

- **Currently** - little DSS use by Chinese and Japanese executives for strategic decision support
  - DSS used by junior managers in China and Japan for operational control and coordination purposes, e.g. electricity supply, coal mining, cement production, transportation networks.
- CN/JP Executives are less likely to rely on such IS tools which “over-organise” data
  - They need more flexibility
  - But an EIS might be used if it increases control

# Implications for Information Systems 3

- JP managers are more likely to use EIS and even GSS
  - For consensus development, as well as harmony creation/maintenance
- JP and CN executives focus on collective interests, emphasising relationships (guanxi) and intuition, not analysis and conflict.
  - Discretion / Flexibility is critical.

# Japan Specific Implications



- Japanese leaders have a strong preference for **participative** and **consensual** decision making styles
  - There may be opportunities for collaboration software usage that enables informal information sharing and soliciting
  - But opportunities will be limited by a preference for verbal cues, as well as for *nemawashi*-style “behind the scenes” negotiation

# China Specific Implications 1



- Chinese business leaders have a strong preference for **social hierarchy** and **top-down control**
  - “Parent style” management: rely more on experience than codified information
  - Informal and uncodified information channels are usually more important
  - Comparatively less involvement of middle level managers in decision-making processes
  - The exception(s) may be in joint-venture initiatives with Chinese managers familiar and comfortable with non-Confucian value systems

# China Specific Implications 2



- Young Chinese business leaders are more sensitive to market change
  - Decisional agility and prompt execution become more important to achieve the first-mover competitive advantages
  - Ideas are still acquired via informal channels, but more comprehensive organisational indicators are also regularly reviewed as part of the process of evaluating economic performance

# DSS, GSS, EIS and Decision Styles

## Propensity to Adopt a GSS

	<b>Low</b>	<b>High</b>
<b>High</b>	<p style="text-align: center;"><b>Analytic</b></p> <p>Reliance on careful analysis of large volumes of codified data. Interest in both the details of situation and the larger, aggregated profile.</p>	<p style="text-align: center;"><b>Conceptual</b></p> <p>Data processing is useful to consider long-term what-if scenarios. Some IT applications may be useful for interpersonal relationships.</p>
<b>Low</b>	<p style="text-align: center;"><b>Directive</b></p> <p>Limited interest in large-scale data analysis or human relationships. Interest in the aggregated profile of the situation to support a rapid decision making process</p>	<p style="text-align: center;"><b>Behavioral</b></p> <p>Limited interest in data processing since information and rules are less important than intuition and relationships. Tools that facilitate communication and consensus-building will be used.</p>

**High**

**Low**

## Propensity to Adopt an EIS

# Conclusions 1

- Current DSS & ESS are better suited to Americans, because of their decision making style and preference for codification and analytical reasoning.
- Group-oriented applications like Lotus Notes, which support interpersonal communication and support tacit knowledge sharing, will be better received in Japan, as well as in Chinese organisations that are less subject to directive control.

## Conclusions 2

- Chinese managers would seem to favour IS tools that enhance or maintain their power
  - Bottom-up aggregation of data and top-down communication of decisions
  - This is particularly the case in SOEs. In JVs and private enterprises, the need for power may be diminishing (to some extent), with a greater appreciation for an analytic decision making style.
- In a Sino-US joint venture, the different decision styles could lead to significant conflict.

# Future Research 1

- How are decision styles changing?
  - Are Chinese Executives still as directive as our data suggests?
  - Or, are they becoming more analytical?
- Are different organisational types characterised by different decision styles? What are the IS implications?
  - SOEs, JVs, PVs, MNCs, SMEs, etc.?

## Future Research 2

- How can IT be applied in decision making to achieve organizational agility in the keen competitive environment?
- How can international (e.g., Oracle, SAP) and local (e.g., Kingdee 金蝶, Ufida 用友软件) software providers customize their systems to Chinese decision styles?

## Future Research 3

- What about other IT applications like Knowledge Management, ERP, SCM,....
  - How do senior Chinese executives perceive these tools/applications, and would they use them?
    - The failure rate for ERP is alarmingly high.
    - KM seems to be superficially appreciated, but will senior executives champion it?

## Future Research 4

- How about cultural differences in other IT applications?
  - Should we adopt or adapt theories that relate to the application of these applications?
  - Do we want to promote a single, international order, to encourage localisation, or a hybrid of the two?

# Closing Words

- Cultural and stylistic differences create barriers for the global transfer of knowledge
- Decision styles are slow to change.
- Information Systems need to be designed for local consumption
  - Adopting international best practice, yet also retaining characteristics congruent with local cultural values and norms.

# Thank You - Question Time

Martinsons, M.G. and Davison, R.M. (2007)  
Strategic Decision Making and Support Systems:  
Comparing American, Japanese and Chinese  
Management, *Decision Support Systems*, 43, 1,  
284-300.