

Strategic Uncertainty, Competitive Intelligence Practices and Firm Performance

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Outline of the Presentation

1. Introduction
2. Review of the Literature
3. Research Hypotheses
4. Methods
5. Results and Discussion
6. Implications and Conclusion

1. Introduction

- Businesses compete in an increasingly competitive marketplace:
 - Globalisation;
 - ICTs advancement;
 - Turbulent business environments.
- Emergence of competitive intelligence (CI) in business field as one of the management tools.
- The roles of CI in strategic management.
- Best practitioners: Motorola, IBM, Xerox, Eastman Kodak, Lexis-Nexis, Procter & Gamble.

1. Introduction, cont.

- Definition of CI
 - A method for identifying the intelligence requirement, systematically collecting relevant information on competitors, and processing the information into actionable knowledge (Jaworski & Wee, 1992).
 - Information about the present and future behaviour of competitors, suppliers, customers, technologies, government, market and general business environment (Vedder & Guynes, 2000).

1. Introduction, cont.

□ Problem Statement

- Businesses today face an increasingly competitive global market;
- Most studies on CI are largely descriptive in nature (Saayman et al., 2008);
- Few academic studies have examined empirically the relationship between the antecedents and consequences of CI (Attaway, 1999);
- The current evidence of the value and impact of CI is anecdotal or consists of indirect assessment (McGonagle & Vella, 2002; Saayman et al., 2008).

1. Introduction, cont.

□ Research Objectives

- Identify the strategic role of competitive intelligence.
- Examine the links between strategic uncertainty and firm performance.
- Examine the mediating effect of competitive intelligence practices on the relationship between strategic uncertainty and firm performance.

2. Review of the Literature

□ Theoretical Perspective

1. **Contingency Theory** – emphasises the best fit or match between internal functions and organisational environments in order to achieve outstanding performance (Burns & Stalker, 1961; Cyert & March, 1963; Lawrence & Lorsch, 1967; Thompson, 1967).
2. **Resource-based Theory** – views resources such as distinctive competencies and dynamic capabilities which may yield sustainable competitive advantage and hence superior performance for the organisation (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984).

2. Review of the Literature, cont.

□ Descriptive Studies

1. **Asia** – China (Tao & Prescott, 2000, Japan (Sugasawa, 2004), Korea (Kim & Kim, 2004), India (Adidam et al., 2012).
2. **Europe** – UK (Wright et al., 2004), Russia (Ignatov, 2004), France (Salles, 2006), Germany (Michaeli, 2004), Spain (Millan & Comai, 2004), Sweden (Hedin, 2004), Finland (Hirvensalo, 2004; Pirttimäki, 2007), Greece (Priporas et al., 2005).
3. **North America** – USA (Prescott & Smith, 1989; Ghoshal & Westney, 1991; Prescott & Bhardwaj, 1995; Vedder et al., 1999; Lackman et al., 2000), Canada (Calof & Brouard, 2004).
4. **Africa** – South Africa (Muller, 1999; Du Toit, 2003; Viviers & Muller, 2004; Viviers et al., 2005).

2. Review of the Literature, cont.

□ Empirical Studies

- ❖ Relationship between Strategic Uncertainty and CI (Ebrahimi, 2000; Lozada & Calantone, 1996; McGee & Sawyer, 2003).
- ❖ Relationship between CI and Firm Performance (Daft et al, 1988; Analoui & Karami, 2002; Zahra et al., 2002; Qiu, 2008).

3. Research Hypotheses

- H₁: *The greater the perceived strategic uncertainty, the higher the level of competitive intelligence practices, specifically the higher amount of competitive intelligence is acquired and the greater extent of competitive intelligence is used in strategic decision making.*
- H₂: *The higher the level of competitive intelligence practices, the higher the level of firm performance.*
- H₃: *Competitive intelligence positively mediates the relationship between perceived strategic uncertainty and firm performance.*

4. Methods

□ Research Design

- Cross-sectional study with organisation as the unit of analysis.
- Data Collection Method – Mail Questionnaire Survey.

□ Population & Sampling Procedures

- Population – All businesses with CI Practices in Malaysia.
- Sampling Frame – All the companies listed on Bursa Malaysia (Main Board, Second Board & MESDAQ).
- A total of 900 companies, excluding subsidiary and holding companies.

4. Methods, cont.

□ Variables & Measurement

1. Strategic role of CI (Ghoshal & Westney, 1991; Prescott & Smith, 1989)
 - Supporting strategic decision making; identifying early warning and blind spots; performing industrial benchmarking; supporting strategic planning and implementation, supporting competitor assessment and tracking, and performing counterintelligence
 - ❖ Using 5-point importance scale.
2. CI Practices
 - CI Acquisition (10 types of CI) (Aguilar, 1967; Choo, 1993).
 - CI Use (on 11 strategic decisions) (Mintzberg et al., 1976; Hickson et al., 1986).
 - ❖ Using 5-point importance and frequency scale.

4. Methods, cont.

- Variables & Measurement, cont.
 - 3. Perceived Strategic Uncertainty (Duncan, 1972; Daft et al., 1988)
 - Strategic importance (5-point importance scale).
 - Complexity (5-point high-low scale)
 - Variability (5-point high-low scale)
 - 4. Firm Performance (Govindarajan, 1984; Dess & Robinson, 1984).
 - 3 dimensions: Accounting, Market, Organisational Learning.
 - ❖ Using 5-point importance and performance scale.

4. Methods, cont.

- Data Analysis Techniques
 - Descriptive Analysis, Partial Least Square, and Linear Regression Analysis.
- Pilot Test
 - Conducted on 20 managers and executives.
 - To test the reliability of the instrument.
 - To obtain preliminary outcome.

5. Results and Discussion

- Response Rate
 - Of 900 companies, 123 companies returned usable questionnaires.
 - Response rate – 14%.
- Representativeness of the Sample
 - Compare sample with population (Kerlinger & Lee, 2000).
 - Differences range $\pm 6\%$ in industry sector.
- Nonresponse Bias
 - Wave analysis (Rogelberg & Stanton, 2007).
 - No significant difference between early and late respondents.

5. Results and Discussion, cont.

□ Sample Characteristics (n=123)

Table 1. Sample Characteristics (n=123)

	Frequency	Percentage
<i>Industry</i>		
Consumer products	20	16.3
Industrial products	16	13.0
Construction	11	8.9
Trading/Services	24	19.5
Finance	15	12.2
Technology	10	8.1
Properties	13	10.6
Plantation	9	7.3
Others	5	4.1
<i>Size (No. of employee)</i>		
Below 200	20	16.3
200 – 499	28	22.7
500 – 999	20	16.3
1,000 – 2,999	28	22.7
3,000 and above	27	22.0
<i>Position</i>		
CEO/MD	35	28.5
VP/GM/Director/COO	46	37.4
Departmental manager	42	34.1

5. Results and Discussion, cont.

□ Descriptive Analysis

■ Strategic Role of CI by Rank

Table 2. Strategic Role of CI (1-5)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
Support strategic decision making	4.45	0.71	1
Support strategic planning and implementation	4.34	0.69	2
Identify early warning for threats	4.26	0.78	3
Identify blind spots and opportunities	4.08	0.70	4
Support competitor assessment and tracking	4.06	0.76	5
Perform industrial benchmarking	3.93	0.78	6
Perform counterintelligence	3.65	0.90	7

5. Results and Discussion, cont.

□ Descriptive Analysis, cont.

■ Perceived strategic Uncertainty by Rank

Table 3. Perceived Strategic Uncertainty (2-50)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
Customer	35.64	9.72	1
Economic	33.56	11.86	2
Competitor	33.36	11.65	3
Technological	33.13	12.45	4
Global	30.08	11.86	5
Regulatory	29.24	10.37	6
Organizational	27.80	9.33	7
Supplier	27.58	11.28	8
Human resources	24.75	9.69	9
Socio-cultural	23.52	9.52	10

5. Results and Discussion, cont.

□ Descriptive Analysis, cont.

■ Amount of CI Acquisition by Rank

Table 4. Amount of CI Acquisition (1-25)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
Customer	14.96	5.91	1
Competitor	14.08	6.32	2
Economic	13.63	6.78	3
Global	12.61	6.77	4
Technological	12.15	6.42	5
Regulatory	11.41	5.89	6
Supplier	11.20	6.38	7
Organizational	10.60	5.44	8
Human resources	9.65	5.10	9
Socio-cultural	8.99	5.10	10

5. Results and Discussion, cont.

□ Descriptive Analysis, cont.

■ Extent of CI Use by Rank

Table 5. Extent of CI Use (1-25)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
Capacity expansion	17.75	6.53	1
New product/service development	17.19	6.14	2
Strategic alliance	17.06	6.46	3
Technology adoption	16.04	6.42	4
Market entry/exit	15.84	6.39	5
Global	14.22	6.72	6
Vertical integration	13.90	6.15	7
Organization	13.72	5.20	8
Diversification	13.35	5.95	9
Merger and acquisition	12.95	7.27	10
Divestment	12.12	5.96	11

5. Results and Discussion, cont.

□ Descriptive Analysis, cont.

■ Firm Performance by Rank

Table 6. Firm Performance (1-25)

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
Profit growth	19.10	5.56	1
Operating profit	18.24	5.47	2
Overall performance	18.23	5.16	3
Revenue growth	18.16	5.23	4
Return on asset	16.04	5.05	5
Market share	15.58	5.43	6
Increase in market share	15.43	5.29	7
Organizational learning	13.87	5.05	8

5. Results and Discussion, cont.

□ Hypothesis 1: Perceived Strategic Uncertainty-CI

- $\beta = 0.724; t = 14.13; p < 0.001$
- Supported

□ Hypothesis 2: CI-Firm Performance

- $\beta = 0.474, t = 6.74, p < 0.001$
- Supported

5. Results and Discussion, cont.

□ Hypothesis 3: Mediating effect of CI

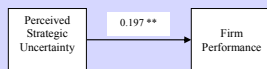
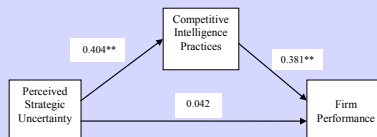


Figure 1 Simple model.



Note:
 **Path coefficient is significant at $p < 0.01$.
 Sobel $Z = 2.807^{**}$

Figure 2 Full model.

5. Results and Discussion, cont.

□ Hypothesis 3: Mediating effect of CI, cont.

- Supported: Full mediation effect of CI

Table 7. Testing the Mediating Effect of Competitive Intelligence Practices

Predictor	<i>b</i>	s.e.	<i>t</i>	<i>F</i>	<i>df</i>	<i>R</i> ²	Total <i>R</i> ²	Sobel <i>Z</i>
	Model 1							
Perceived Strategic Uncertainty	0.197	0.048	4.131**	17.067	(1, 120)	0.125	0.125	
	Model 2							
Competitive Intelligence Practices	0.381	0.132	2.887*			0.179		
Perceived Strategic Uncertainty	0.042	0.071	0.593	13.221	(2, 119)	0.057	0.182	2.807**

Note. Dependent variable is firm performance; *b* = unstandardized coefficient; s.e. = standard error; * $p < 0.05$. ** $p < 0.01$.

6. Implications and Conclusion

□ Theoretical Implications

- The findings confirm and extend previous findings suggesting that competitive intelligence significantly related to firm performance
- Competitive intelligence fully mediates the relationship between strategic uncertainty and firm performance

6. Implications and Conclusion, cont.

□ Implications for Practitioners

- Managers should initiate and organise CI activities in their organization.
- Managers are required to prioritise on sectors that are perceived to be of strategic importance to organisations, particularly, customer, competitor, economic and technological sectors.
- Managers must ensure that CI systems will be able to provide intelligence to the right people at the right time so that it will be utilised in strategic decision making.

6. Implications and Conclusion, cont.

□ Limitations of the Study

- Covered only two processes of CI cycle which are acquisition and strategic use.
- About 40% of the sample consists of functional managers.
- No illustration of specific decision making scenario in the questionnaire.
- Mediation studies imply causation.

6. Implications and Conclusion, cont.

□ Recommendations for Future Research

- To capture the complete domain of competitive intelligence practices, for instance, dissemination and sharing of CI.
- To focus on specific functional managers in a specific industry sector.
- To adopt a scenario-based instrumentation when collecting responses relating to strategic decision making activities.
- To conduct longitudinal studies for testing mediation effect.



Q & A Session

~Thank you~