Use of Information Sources for Scanning Environment by Singapore Travel Agent Companies

Xue Zhang, Shaheen Majid and Schubert Foo
Introduction

➢ Today’s organizations are facing an increasingly uncertain and volatile business environment.

➢ Environmental scanning could help organizations to identify, collect and translate information about external influences into adaptive decisions and plans.

➢ Where to collect the relevant environmental information, or in other words, how to select information sources, is crucial for the effectiveness of scanning.
Definition of Key Terms

- Environmental Scanning
- External Environments
- Perceived Strategic Uncertainty
- Information Sources
Environmental Scanning (ES)

- Aguilar (1967) defines environmental scanning as acquiring information about events and relationships in a company’s outside environment, the knowledge of which would assist top management in its task of charting the company’s future course of action.

- Subsequent studies reinforced Aguilar’s definition without substantially altering this perspective (e.g. Daft and Weick, 1984; Lester and Waters, 1989; Choo, 1993; Albright, 2004).
External Environments
Perceived Strategic Uncertainty (PSU)

- **Perceived environmental uncertainty**
  - Occurs when unpredictability of an organization’s external environment is perceived (Buchko, 1994; Milliken, 1987).
  - Basically influenced by two environmental characteristics: **degree of complexity** and **rate of change** (Duncan, 1972; Robbins & Coulter, 2005).

- **Perceived Strategic Uncertainty**
  - Daft et al. (1988) further proposed that scanning was affected more when perceived environmental uncertainty occurred in sectors with **strategic importance**.
  - PSU = (C+R) × I
Information Sources

➢ In majority of ES studies

(Aguilar, 1967; Case, 2002; Choo, 1993; Keegan, 1974)
✓ Internal and External Sources
✓ Personal and Impersonal Sources

➢ In this study
✓ Traditional Media Sources
✓ Human Sources
✓ Electronic Sources
Use of Information Sources for ES

- Each kind of information sources has its own strength and weakness. Selection of information sources should be based on the needs of environmental scanning (Raymond, Julien, & Ramangalahy, 2001).

- Auster and Choo (1993) also discovered that the selection of information sources for ES is positively correlated with perceived source accessibility and perceived source quality.
### PSU and Use of Information Sources

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daft et al (1988)</td>
<td>interviews with chief executives in 50 manufacturing companies in the USA</td>
<td>The higher the degree of EU, the greater the use frequency of personal over impersonal sources, and external over internal sources.</td>
</tr>
<tr>
<td>Auster &amp; Choo (1993)</td>
<td>a survey of 207 CEOs in Canadian publishing and telecommunication industries</td>
<td>Higher levels of strategic uncertainty were associated with increased use frequency of personal and impersonal sources.</td>
</tr>
<tr>
<td>Sawyerr (1993)</td>
<td>a survey of 44 CEOs and representatives of medium-sized Nigerian manufacturing firms</td>
<td>a significant positive correlation between PEU of the remote environment and the use frequency for external and impersonal information sources.</td>
</tr>
</tbody>
</table>
## PSU and Use of Information Sources

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<tr>
<td>Elenkov (1997)</td>
<td>a study in Bulgaria</td>
<td>Environmental uncertainty is positively associated with personal but not impersonal sources.</td>
</tr>
<tr>
<td>May et al. (2000)</td>
<td>a survey of 106 Russian executives</td>
<td>Strategic uncertainty, moderated by perceived source accessibility, was a significant predictor of the executives’ use of internal sources.</td>
</tr>
</tbody>
</table>
Methodology

- Questionnaire Survey in 3 Sections:
  - Section A solicited data on company and respondent profile;
  - Section B asked for respondent’s PSU;
  - Section C aimed to collected information about respondents’ perception towards various information sources, in terms of reliability, accessibility and use frequency.

- Pre-tested through face-to-face discussion with senior managers of three travel agent companies

- All the NATAS members, 319 companies in total, were invited to participate.

- Delivered by post, and collected from August to October 2010

- 42 Respondents (Response Rate 13.17%)
Company and Respondent’s Profile

- The participating companies showed a high degree of diversity:
  - Company size ranged from 2 to 700 full-time employees;
  - Company age ranged from 1 to 108 years.
  - The majority of companies (78%) had less than 60 employees, and 90.5% of them were younger than 40 years.

- Respondents filling up the survey form
  - senior managers (MD or GM) (35 or 83.33%)
  - middle managers (3 or 7.14%)
  - executives (4 or 9.52%).
  - More than one-half of the respondents (52.4%) had a university degree (Bachelor and above).
Perceived Strategic Uncertainty

- PSU = (C + R) \times I
  Each variable were measured for each environmental sector on a five-point scale ranging from low (1) to high (5).

- For the REMOTE environments, technological and natural environments were ranked with highest PSU; while legal and Singapore political sectors were ranked as the lowest two.
  For the TASK environments, customer sector was ranked as the most uncertain, while resources sector was the least.
Perceived Strategic Uncertainty

- For both environments, the averaged uncertainty is slightly high.
- The task environment had higher uncertainty than the remote environment, but the difference was found to be not significant.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean (0-50)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>42</td>
<td>14.67</td>
<td>50.00</td>
<td>28.41</td>
<td>8.61</td>
</tr>
<tr>
<td>Remote</td>
<td>38</td>
<td>13.33</td>
<td>38.33</td>
<td>25.51</td>
<td>5.92</td>
</tr>
</tbody>
</table>
Perceptions of Information Sources

- Nineteen information sources were listed for the respondents to identify their frequency of use, perceived reliability, and accessibility through a five-point scale.
- For analysis, the 19 sources were categorized as human, traditional media and electronic sources.

<table>
<thead>
<tr>
<th>Source</th>
<th>Use Frequency</th>
<th>Reliability</th>
<th>Time and Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Human</td>
<td>3.70</td>
<td>0.715</td>
<td>3.62</td>
</tr>
<tr>
<td>Traditional Media</td>
<td>3.00</td>
<td>0.625</td>
<td>3.32</td>
</tr>
<tr>
<td>Electronic</td>
<td>2.77</td>
<td>0.730</td>
<td>2.87</td>
</tr>
</tbody>
</table>
Perceptions of Information Sources

Correlation analysis was conducted for further analysis:

- Use frequency for each category of information source is positively correlated with their perceived reliability respectively:
  - traditional media sources: $Pearson\ r = 0.756$
  - electronic sources: $Pearson\ r = 0.747$
  - human sources: $Pearson\ r = 0.796$.

- Accessibility was NOT found to be a significant factor for selecting information sources.
# Perceived Strategic Uncertainty and Use of Information Sources

<table>
<thead>
<tr>
<th>Information Source</th>
<th>PSU Remote</th>
<th>PSU Task</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional Media</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.127</td>
<td>0.411(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.461</td>
<td>0.008</td>
</tr>
<tr>
<td><strong>Electronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.213</td>
<td>0.474(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.225</td>
<td>0.003</td>
</tr>
<tr>
<td><strong>Human</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.222</td>
<td>0.480(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.215</td>
<td>0.003</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
Conclusion

- The operations of travel agencies are found to be influenced by both remote and task environmental sectors.
- The travel agencies were found to rely more on human contacts for information gathering, but seldom use online sources.
- The selection of information sources were found to be related to their perceived reliability. Therefore, to promote the usage of electronic information, the government may have to work with library and information professional to increase the awareness and knowledge of online information.
- The PSU of task environmental sectors was also found to have significant impact on the use frequency of information sources, which suggests that travel agencies’ scanning activities were more directed by task environment and for tactical decision making.