

International Conference on Accounting Studies 2014, ICAS 2014, 18-19 August 2014, Kuala Lumpur, Malaysia

## Strategic IS planning practices: a comparative study of Malaysia and New Zealand

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### Abstract

There is a broad consensus among researchers that culture differences impact management practices. Among the management practices that can be affected by culture are practices relating to human resource, financial, and information systems (IS). IS management success in different cultural contexts may require different approaches. Therefore, this paper aims to highlight the differences in strategic IS planning practices, specifically in terms of top management commitment and user participation, in two countries with considerably different cultures, Malaysia and New Zealand. A survey was sent to 909 organizations in the information and communication technology (ICT) industry in both countries. The response was 14.6%. The study shows that managers in both countries agree that having top management commitment and user participation is important for strategic IS planning success.

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Peer-review under responsibility of the School of Accountancy, College of Business, Universiti Utara Malaysia.

**Keywords:** IS planning; strategic IS Planning; top management commitment; user participation; strategic IS planning success

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### 1. Introduction

There is a broad consensus among researchers that culture differences impacts management practices. Among

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the management practices that can be affected by culture are practices relating to human resource, financial, and information systems (IS). IS management success in different cultural contexts may require different approaches. Many studies related to information systems and culture differences have been conducted, underscoring the importance of having knowledge of how IS are developed or implemented in different cultural contexts (Grozniak and Kovacic, 2000; Veiga, Floyd, & Dechant, 2001). Knowledge about the ways culture affects business operations is needed to promote sound and effective IS planning, thus helping organizations to achieve their business objectives (Cassidy, 2006). Therefore, this paper aims to highlight the differences in strategic IS planning practices, specifically in terms of top management commitment and user participation, in Malaysia and New Zealand.

Strategic IS planning (SISP) is defined as “the process of identifying a portfolio of computer-based applications that will assist an organization in executing its business plans and realizing its business goals” (Lederer & Salmela, 1996). The process of SISP can be illustrated using an input, process, and output model. The inputs of the SISP process are the organization’s internal environment, external environment, and resources. The planning process involves the steps and procedures that are undertaken by the organization to develop the SISP. The output is the strategic IS plan, which presents high level steps to be taken by the organization to align its information technology and information systems with its long term, strategic business objectives.

The role of participation in the SISP process by employees at different levels in the organizational hierarchy has been highlighted in a number of studies. Earl (1993) conducted interviews with 27 IS managers in the UK rated the management participation, quality of the relationship between IS users and IS department, user awareness and education relating to IS, and management ownership of the philosophy and practice of SISP influence the planning process. Smits, Poel, and Ribbers (1997) in their case study highlighted one of the main issues in IS strategy process is the participation and commitment of senior management, IS users, and the IS team.

The paper is organised as follows. First, the concept of strategic IS planning is introduced. Then, the research method, including the approach to data collection, is described. Finally, the results are presented, followed by the conclusion.

## **2. Methods**

A self-administered questionnaire survey was used for data collection in this study. The study sample comprised 909 IT and telecommunications companies (452 in New Zealand & 457 in Malaysia) from medium and large organizations was compiled. However, only 742 organizations were included after eliminating organizations included in pre-testing and those with invalid telephone number. Organizations in the ICT industry were chosen because by the nature of their business, they rely heavily on information.

The unit of analysis in the survey was the organization and the actual respondents were top managers answering on behalf of their organizations because it was believed that they had access to the organization’s data and an extensive knowledge of information systems and technology in their companies (Basu, Hartono, Lederer & Sethi, 2002; Lee & Jung-Chi, 2003).

The questionnaire consisted of three sections. The first section gathered information about the organization’s experience in strategic IS planning. The second section covered the items measuring strategic IS planning success, top management commitment and user participation. The last section of the questionnaire sought demographic data on participating organizations and on the respondents. The data collected were analysed using SPSS.

## **3. Results and discussion**

A total of 142 responses were received. Out of 142 responses, only 108 responses (53 from New Zealand and 55 from Malaysia) were usable. The other 34 responses were considered unusable as respondents did not have any experience in strategic IS planning. Thus, the final response rate for the organizations that did have experience in strategic IS planning was 14.6% (108/742). Four responses were further deleted during the data cleaning process which left 104 responses.

### 3.1. Respondents' profile

The background of the respondents' organization is shown in Table 1 and Table 2 shows the characteristics of the key respondents.

Table 1. The Respondents' Organization Background

	New Zealand		Malaysia		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Ownership						
Sole proprietorship	1	2	2	3.7	3	2.9
Partnership	1	2	4	7.4	5	4.8
Company	48	96	48	88.9	96	92.3
Total	50	100	54	100	104	100
Number of Employees						
50 and below	21	42	7	13.0	28	26.9
51 to 99	16	32	6	11.0	22	21.2
100 and more	11	22	40	74.1	51	49.1
Total	50	100				
Activity						
Manufacturing	12	24	37	68.5	29	27.9
Distributor	13	26	11	20.3	24	23.1
Retailer	12	24	3	5.6	15	14.4
Services	37	74	37	68.5	74	71.2
Total	50	100	54	100	104	100

Table 1 shows that for both countries, the majority of respondents worked in larger companies. Malaysia had the greatest number (40 companies of employees in 100 and more). The most common activity in which companies were engaged was services for New Zealand and Malaysia. Manufacturing organizations in Malaysia was equal to that of services (68.5%) compared with New Zealand at 24%.

Table 2. The Key Respondents' Characteristics

	New Zealand		Malaysia		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Job titles						
CIO/COO/CTO	2	4	1	1.9	3	2.9
CEO/CFO	6	12	1	1.9	7	2.9
Director/Managing Director	18	36	5	9.3	23	22.1
IS Senior Manager	1	2	5	9.3	6	5.8
IS Manager	18	36	30	55.6	48	45.2
Others	4	8	10	18.5	14	13.5
Experience in organization:						
Less than 3 years	7	14	9	16.7	16	15.4
3 – 6 years	12	24	25	46.3	37	35.6
7 – 10 years	15	30	10	18.5	25	24.0
11 – 14 years	5	10	4	7.4	9	8.7
More than 14 years	10	20	5	9.3	15	14.4
Education level						
Post-secondary Certificate/ Diploma	5	10	2	3.7	7	6.7
Undergraduate	27	54	47	87	74	71.2
Postgraduate	6	12	2	3.7	8	7.7
Others	8	16			8	7.7

Table 2 shows that majority of the respondents held top managerial positions in New Zealand companies (52%) and IS managers at Malaysia (56%). Majority of the New Zealand respondents reported more than 6 years of

experience as compared to Malaysians. Most of the respondents at both countries had the same level of education.

### 3.2. Years of strategic IS planning experience

Table 3 below presents organization experience in strategic IS planning. Almost two thirds of the organizations (75%) reported more than five years of strategic IS planning experience. This suggests that most of the responding organizations had mature strategic IS planning processes. The organizations from New Zealand tended to be more experienced in strategic IS planning than the organizations from Malaysia.

Table 3. Strategic IS Planning Experience

Based on Years of Experience	New Zealand		Malaysia		Combined	
	n	%	n	%	n	%
0-4 years	2	4	12	22.2	14	13.5
5-9 years	12	24	18	33.3	30	28.8
10-14 years	14	28	10	18.5	24	23.1
15-19 years	9	18			9	8.7
20 years and above	9	18	5	9.3	14	13.5
No response	4	8	9	16.7	13	12.5
Total	50	100	54	100	104	100

### 3.3. Outsourcing of strategic IS planning

Table 4 below presents the percentage of outsourcing of strategic IS planning. Most of the organizations (66%) reported that they developed their planning in-house. Organizations from New Zealand were more likely to conduct IS planning in-house than those from Malaysia. Only 3% reported that they fully, or more than 80%, outsourced their strategic IS planning.

Table 4. Strategic IS Planning Outsourcing

Based on Percentage of Outsourcing	New Zealand		Malaysia		Combined	
	n	%	n	%	n	%
0 to 20%	38	76.0	31	57.4	69	66.3
More than 20% to 40%	5	1.0	8	14.8	13	12.5
More than 40% to 60%	1	2.0	2	3.7	3	2.9
More than 60% to 80%	1	2.0	5	9.3	6	5.8
More than 80% to 100%	1	2.0	2	3.7	3	2.9
No response	4	8.0	6	1.1	10	9.6
Total	50	100	54	100	104	100

### 3.4. Strategic IS planning success

As seen in Table 5, item means for strategic IS planning success were between 3.7 and 4.4. The mean over all of the items was 4.0. All items were keyed on a Likert scale from *Not at all* (1) to *To a very great extent* (5). Thus, overall the respondents from both countries agreed that their organizations were successful at strategic IS planning.

It could be seen that respondents from Malaysia were much more in agreement on the measures of strategic IS planning as compared to the respondents from New Zealand except for two items which were “Align information technology with business needs” and “Gain a competitive advantage from information technology.”

Table 5: Strategic IS Planning Success

Measures	n	New Zealand	Malaysia	Combined
		Mean	Mean	Mean
Align information technology with business needs.	104	4.5	4.2	4.4
Gain a competitive advantage from information technology.	104	4.2	4.2	4.2
Identify new and higher payback applications.	99	3.8	4.1	4.0
Identify strategic applications.	103	4.0	4.2	4.1
Increase senior management commitment to information technology.	103	3.5	4.0	3.8
Improve communication about IT with users.	103	3.7	4.0	3.8
Forecast information technology resource requirements.	104	3.8	3.9	3.9
Allocate IT resources.	103	3.9	4.0	3.9
Develop information architecture.	98	3.6	3.9	3.8
Increase the visibility of information technology in the organization.	102	3.5	3.9	3.7

### 3.5. Top management commitment

As seen in Table 6, item means for top management commitment were between 3.4 and 3.9. The mean over all of the items was 3.6. All items were keyed on a Likert scale from *Not at all* (1) to *To a very great extent* (5). Thus, overall the respondents agreed that top management commitment to strategic IS planning at their organizations was high.

It could be seen that respondents from Malaysia were much more in agreement on the commitment by top management as compared to responses from New Zealand except for one measure which was “Senior management is educated about information technology”.

Table 6: Top Management Commitment

Measures	n	New Zealand	Malaysia	Combined
		Mean	Mean	Mean
Senior management is educated about information technology.	104	4.0	3.7	3.9
The planning team identifies senior management's key planning issues at the start of the strategic IS planning.	104	3.5	3.7	3.6
The planning team briefs senior management with the strategic IS planning study's scope, objectives, and approaches to gain senior management's commitment at the start of the strategic IS planning.	102	3.3	3.9	3.6
The planning team briefs senior management throughout the strategic IS planning to maintain senior management's commitment.	102	3.3	3.7	3.5
Senior management provides feedback throughout the strategic IS planning study.	104	3.4	3.6	3.5
Senior management provides guidance throughout the strategic IS planning study.	104	3.2	3.6	3.4
A top executive champions the strategic IS planning study.	104	3.7	3.8	3.7

### 3.6. User participation

As seen in Table 7, item means for user participation were between 2.8 and 4.1. The mean over all of the items was 3.7 (with the score for the negatively keyed item B2 inverted before calculating the mean). All items were keyed on a Likert scale from *Strongly disagree* (1) to *Strongly agree* (5). Thus, overall the respondents agreed that user participation was high.

The summary statistics for individual countries were similar to the ones for the combined data set. This indicates that the respondents agree that the strategic IS planning process in their organization is not an isolated activity and had participation from various users.

Table 7: User Participation

Measures	n	New Zealand	Malaysia	Combined
		Mean	Mean	Mean
Our process of strategic IS planning includes numerous participants.	103	4.0	4.1	4.1
Strategic IS planning is a relatively isolated organizational activity.	102	2.8	2.9	2.8
Functional managers are involved in the strategic IS planning process.	104	4.0	4.2	4.1
Staff are involved in the strategic IS planning process.	104	3.6	3.5	3.5
The level of participation in strategic IS planning by diverse interests in the organization is high.	103	3.5	3.9	3.7

#### 4. Conclusion

This study has shown some differences in strategic IS planning practices for both Malaysia and New Zealand. New Zealand has more experience of developing strategic IS planning. This could be seen when only four percent of the respondents had experienced less than five years compared to Malaysia at 14 percent. Organizations from Malaysia were more likely to outsource their IS planning compared to organizations from New Zealand. This might be due to the rapid growth of IT outsourcing service providers in Malaysia as it has been ranked as the third attractive destinations for Shared Services and Outsourcing behind India and China (Hussin, Ismail, Suhaimi, & Karim, 2006). Whether culture differences can be one of the factors of this phenomenon requires deeper investigation.

The respondents from both countries agree of the importance of top management commitment and user participation in strategic IS planning success. However, based on the means calculated, it shows that Malaysia organizations may depend more on top management commitment. This might be due to the Malaysian culture itself which is high in power distance that represents the decision making power of top management. It is believed that in this culture society top managements are expected to play an important role and committed in managerial decisions made for the future of the organizations.

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