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Strategic Information Systems Planning, an Australian Experience

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Abstract

As a basis for examining the differences in information systems planning in Australian companies and those in other developed countries, accountants in senior management and executive positions in three samples of Australian companies were surveyed. The findings for small, medium and large companies in Australia are reported and discussed. It is apparent that strategic planning for information systems in many organisations is not extensive and in some cases is not fulfilling their own organisational planning objectives. The quality of strategic planning for information systems is evaluated. Some organisations successfully adopt a strategic view of their information systems while others do not capitalize on their recognition of information as a strategic resource. Most companies do not appear to view information systems planning as a strategic issue and some do not formally plan for information needs.

Introduction

The content of this paper is part of a larger study exploring the planning, management and use of information systems in Australian businesses. Strategic information systems is a topic that has maintained a pre-eminent position as one of the critical management issues of the 1980s and into the 1990s (Galliers, [1]). Niederman et al [2] reported surveys in the United States which showed that the strategic management of information systems has consistently ranked in the top three information systems concern of executives since 1980. Pervan [3] reported on a recent Australian survey which showed that information systems strategic planning is currently the main information systems concern for the managers of Australian companies. Alternative strategic planning models by which an organisation may develop a strategic plan for the use of information technology and ensure this is aligned to the strategic business plan has been addressed by several researchers. (Henderson and Venkatraman [4], Earl [5]) These models suggest that planning for information systems should occur at the tactical level rather than at the strategic level.

The Australian Context

The demographics of Australian business are quite different to that of countries which have been the subject of much research. The largest Australian companies are small by comparison to large USA companies. The Australian Bureau of Statistics (ABS) [6] reports on the Australian business sector in eight employment size groupings, the largest being those businesses employing more than 1000 people. In 1993 there were 26,060 organisations with 20 - 99 employees, 4218 with 100 - 499 employees and 1090 with more than 500 employees (op cit).

The Project

This project was undertaken as a large mail survey of 1100 Australian business organisations in three samples chosen to represent the business demographics of Australia: those with 20 to 99 employees, those with 100 - 499 employees and those with 500 or more employees. Questionnaire booklets, personally addressed introduction letters and reply-paid envelopes were mailed to Australian Society of Certified Practising Accountants (ASCPA) members who held executive positions in the companies surveyed. Three

weeks later a follow-up letter was posted to non-responders, then by a brief reminder where necessary. This paper addresses the following questions related to large Australian companies:

Do the organisations undertake strategic planning?

To what extent is information systems planning part of organisational strategy?

Is information more or less difficult to manage than other resources?

What are some of the features of these planning processes?

Is information systems planning treated as strategic or tactical by Australian companies?

The response rates for the survey were 33 - 36%. The writers believed that accountants holding executive would have the necessary knowledge to complete the questionnaire and that their answers would be sufficiently homogeneous to allow analysis and reporting in summary form. The section of the survey dealing with respondents' positions in the organisation confirmed that they did hold executive positions. The survey results also confirmed that the respondent organisations were representative of industry sectors in Australia. The results also showed that the number of respondent organisations that claim to undertake strategic planning ranges from 94% for large organisations to 74% for small organisations. Almost all the respondent organisations in the sample of large and medium organisations and a somewhat smaller percentage of small organisations undertake corporate strategic planning This paper focuses on those strategic planners.

Respondents from the three samples reported that 58%, 29% and 19% respectively prepared a separate information systems plan as part of their strategic planning processes. As the survey focused on activities of those who do prepare an information systems strategic plan, the remainder of results reported refer to this sub-group.

In order to form an opinion as to the extensiveness of the respondents' strategic planning, respondents were asked what statements are prepared as part of their strategic planning processes. The results are listed in table 1.

Table 1. Organisations that Prepare Particular Statements as Part of Organisational Strategy.

Statement	Large Org'ns (%)*	Medium Org'ns (%)**	Small Org'ns (%)***
Financial forecasts or budgets	98	98	96
Organisational objectives	89	89	79
Economic forecasts	68	71	32
Competitor business appraisals	65	60	34
Organisational strengths and weaknesses	63	71	48
Organisational information requirements	54	41	31
Environmental issues	41	38	18
IS security and integrity	22	21	5
Competitor IS appraisals	8	5	3

* n = 63, ** n = 114, *** n = 113

Many large organisations fail to identify their own information requirements. Many still do not appraise their competitors, particularly their competitors' uses of information technology. Environmental issues are not considered by even half the respondents. It is apparent that strategic planning in many large organisations is not extensive and in some cases is not fulfilling their own organisational planning

objectives. The main emphasis is on the traditional areas of financial and organisational objectives. The same is true to a greater extent of medium and small organisations.

Only 58% of respondent large organisations prepare separate information systems plans, and of those, approximately 38% have been doing so for three years or less. This suggests that strategic information systems planning is by no means universal in large organisations, but there is a strong trend for organisations to commence such planning. If this trend continues it is likely that strategic information systems planning will eventually become the norm in most large organisations. By comparison, there was a marked fall off in the percentage of medium and small organisations which prepare information systems plans as part of organisational strategy. Of the organisations in these two groups who stated that information systems planning is a specific part of their organisations' strategy processes, between one third and half actually prepare an information systems plan. As a percentage of all respondents, the percentage of medium and small organisations that plan for their information systems is very low.

It was reported by this sub-group that the majority of information systems plans cover a 3 year horizon, with another 25% planning 5 years ahead. Most (72%) revise their SISPs annually, with 14% at unplanned, irregular intervals. Most organisations conduct quite frequent reviews of their information systems plans.

Aalthough in its infancy in many organisations, considerable effort is being expended to plan and control information systems needs. Many of the organisations which purport to undertake strategic planning for information systems are really not viewing their systems strategically, rather a shorter term, tactical view is being taken. The percentages of strategic planning organisations that prepare a portfolio of information systems projects was 72%, 46% and 39% respectively.

One of the objectives of the study was to gauge to what extent information systems planning is considered to be a part of organisational strategy. In large, medium and small organisations, 76%, 73% and 65% respectively of senior management identify organisational data as a strategic resource and 76%, 59% and 54% respectively plan for the provision of information as a specific part of the organisation's strategic planning process.

As research shows that information systems issues rank as one of the most difficult areas for managers (Pervan, op cit), a simple indication of the effort required to manage information, as compared with inventory, plant and equipment, personnel and finance, was obtained by asking respondents to rank a list of resources in order of difficulty of planning and controlling. Information ranked as the most difficult to manage and finance was considered to be the least difficult by all three groups. This suggests that information management is of concern to managers with diverse backgrounds and employed in a wide variety of management and executive positions irrespective of organisation size. It is likely that the difficulties associated with information management partly explain the failure of many organisations to adequately plan for their information needs.

In order to learn which staff have roles in strategic planning for information systems, respondents were also asked to indicate the level of contribution to information systems planning by various categories of persons within their organisations. Only 38% of chief executives of large organisations have a major involvement in strategic information systems planning. While senior managers generally have a high involvement, accountants, have a much lower level of involvement. About two-thirds of boards of directors have some involvement, presumably in a monitoring capacity, with the remaining third having no involvement at all. With the high levels of expenditure and increasing reliance on information technology in business, all boards of directors should appraise what monitoring activity is prudent. Large organisations appear to make only slight use of external consultants. The patterns of involvement are similar in the other two groups, with a few notable differences. Senior executives appear to play a greater role in systems planning in small organisations. This is, perhaps, to be expected as there would tend to be less specialisation in smaller organisations. Medium and small organisations make greater use of external consultants. There are a considerable number of organisations in all groups in which senior management have no involvement. This should be of concern to these organisations.

Conclusion

An overriding conclusion that may be drawn about Australian businesses from this study is that, although many recognize the value and importance of information in their organisations, a large number do not formally undertake information systems planning. The quality of information systems planning, where it is done, is questionable, with most organisations failing to produce a portfolio of projects. The study has shown that most organisations do not undertake strategic planning for their information systems needs. The alternative models of strategic information technology may provide a framework which is better able to explain the current practices and attitudes of Australian organisations to planning for information needs.

This study has implications for Australian practitioners, researchers and educators. Practitioners can use this paper as a simple checklist to gauge the level and quality of their own organisations' planning for information systems. The results presented in this paper, together with the results of the rest of the project form a foundation for further research. Such research might attempt to identify how information systems needs are identified in organisations which do not undertake formal planning, these being the majority of businesses. Researchers might consider the applicability of alternative models within the Australian context. The question of whether information systems planning should be better addressed at the strategic or tactical level might then be answered. Educators in countries with economies and cultures similar to Australia can use the results of this project to gain a local perspective of business planning practices. This will assist them to devise appropriate educational courses for current and future business managers.

References

1 Galliers, R.D., IT Strategies: beyond competitive advantage. Journal of Strategic Information Systems, 2, 4, 1993, pp. 283-291.

2 Niederman, F., Brancheau, J.C., and Wetherbe, J.C., Information Systems Management Issues in the 1990s. MIS Quarterly, 16, 4, 1991, pp. 474-500.

3 Pervan, G.P., Information Systems Management: An Australian View of the Key Issues. Australian Journal of Information Systems, 1, 2, 1994, pp. 32-39.

4 Henderson, J.C., and Venkatraman, N., Strategic Alignment: Leveraging Information Technology for Transforming Organisations. IBM Systems Journal, 32, 1, 1993, pp.4-16.

5 Earl. M.J., Information Systems Strategy . . .Why Planning Techniques are not the Answer. Business Strategy Review, 71, 1995, pp. 54-67

6 Australian Bureau of Statistics, Profiles of Australian Business 1992, Commonwealth of Australia, 1993.