Information Systems Education in Thailand: A Comparison Between the Views of Professionals and Academics

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This paper reports on a study conducted with information systems (IS) academics and professionals in Thailand. The respondents were asked to indicate the importance of a range of IS topics typically taught in tertiary institutions offering IS education. Results indicated that while academics place high priority on technical subjects, the professionals in addition also emphasise on enterprise issues and business subjects. The results of the present study were also compared with earlier studies conducted in Australia, Malaysia and The People’s Republic of China.

The importance of information systems (IS) to corporate success has been well documented. The dynamic nature of information technology (IT) upon which the IS discipline is based has meant that the IS curricula have to be regularly updated according to the needs of industry. This implies a need to determine the knowledge, skills and qualities expected of a successful IS professional required by industry. Many studies have been conducted in the past decade or so to examine the nature of IS discipline, IS curricula and the education and training needs of IS professionals. Some examples of these studies include surveys of: IS skill requirements (Cheney, Hale & Kasper, 1989; Lee, Trauth & Farwell, 1995; Roth & Duclos, 1995; Athey and Wickham, 1996; Longenecker et al., 1996; Young & Lee, 1997); the relative importance of key issues (Caudle, Gorr & Newcomer, 1991; Wang & Turban, 1994), the relative importance of commonly taught IS curriculum topics (Ang, 1992; Ang & Lo, 1991a, 1991b; Ang, Winley & Fan, 1993; Ang, Winley & Lau, 1994; Lu, Xue, Hou & Lin, 1993) and the range of tasks and duties (Lau, Ang & Winley, 1997; Winley, Lau & Ang, 1994) expected of IS professionals as perceived by academics and professionals. This paper reports a study to compare the views of IS academics and professionals in Thailand on the importance of a range of IS curriculum topics commonly taught in a tertiary institution. This is a sequel to a series of studies conducted by the authors with IS academics and professionals in the Asia-Pacific region. It is hope that the results of the present study will highlight issues of concern to curriculum planners who design forward looking IS courses aiming at reducing the gap between education preparation and workplace expectation of IS professionals.

Background

The Country

For many years the utilisation of IT and IT-based IS have been confined mainly to western nations. While for a variety of reasons, developing nations are lagging behind in harnessing the benefits of IT and IS, many are rapidly catching up with the implementation of IS in organisations both in the private and the public sector. Thailand, like other Southeast Asian nations has undergone rapid industrialisation in the last decade or so, resulting in a serious shortage of skilled labour, especially in the IT industry which has been growing at a double digit rate annually for many years resulting in difficulties in filling IT vacancies. In fact it is forecast that by the year 2000 Thailand will have a shortfall of 15,000 computing professionals. The current economic crisis experienced by the country will reduce the severity of labour shortage somewhat. However, this effect should not be construed to be of a permanent nature. It is true that local institutions are producing increasing numbers of IT and IS graduates, however the question of the quality of these graduates and whether they are...
well prepared for the current job market needs to be addressed (Bangkok Post, 1994). While striving to provide graduates to fill those vacancies which arise as a result of this growth, the education providers need to avoid the problem of labour mismatch by providing the potential graduates with the appropriate skills and tools needed by the current market. This means that if tertiary institutions are to address the needs of industry, then academics must note what the industry is saying and make appropriate modifications to the curriculum.

**The Common IS Subtopics**

In a previous study Lo (1991) identified the essential IS curricula elements, or subtopics, commonly taught in university IS curricula leading to Bachelor degrees in Australia. These subtopics were found to be typical of the topics included in IS curriculum in other technologically advanced nations (Buckingham, Hirschheim, Land & Tully, 1987; Couger, et al., 1995; DPMA, 1990; Nunamaker, Couger & Davis, 1982). In Lo’s (1991) study, the 51 common subtopics were grouped under 15 topics which were in turn placed in three categories: a) Information Technology, b) Integrative Systems Processes, and c) Organisation Functions and Management (Ang & Lo, 1991a). It is possible to develop different schemes. However results of previous studies and the present study indicate that this classification does provide a useful and workable taxonomy of the IS knowledge domain.

These same 51 subtopics formed the basis of the questionnaire used in the present study.

**Purpose of the Study**

The purpose of this study is to determine how closely the opinions of academics and IS professionals in Thailand agree on a range of IS curriculum topics. This may give an indication of whether the institutions provide graduates who are appropriately prepared for the job market. The following questions were addressed:

a) What importance is given to the commonly taught IS curriculum topics both current and in the future, (say 5 years’ time) by both the academics and practising IS professionals, and
b) are there any significant relationships between the opinions of academics and IS professionals?

**Method**

A questionnaire was constructed which contained the 51 IS subtopics within the three IS categories of the IS curriculum elements. The same questionnaire had been used successfully in a number of studies previously (Ang and Lo, 1991a; 1991b; Ang, 1992; Ang, Winley & Fan, 1992; Ang, Winley & Lau, 1994). This questionnaire was sent to IS academics and professionals in Thailand at the beginning of 1997.

The questionnaire was sent to 180 organisations selected from Dun’s Asia/Pacific Key Business Enterprises Directory (1995) on the basis of their substantial annual turnover and employee numbers. The general manager of each target organisation was requested to have it completed by a senior executive of the IS department in the organisation. Twenty-three useful responses were received, representing a 13% response rate. While the number of responses is small, the fact that they are from some of the largest organisations from the country should lend credence to the results. The list of universities was taken from The World of Learning (1997). The questionnaire was sent to the Vice President for Academic Affairs and he/she was requested to pass on the questionnaire to the appropriate department(s) that offered IS courses at the bachelor degree level. Twelve useful responses were received from 37 universities representing a 32% response rate. The respondents were asked to make two ratings for each of the subtopics. The academics were asked to rate each subtopic according to: a) the current emphasis given to the subtopic and b) the likely importance of that same subtopic in five years’ time. The IS professionals were asked to rate, for each topic: a) the current emphasis in the industry given to the subtopic, and b) the likely importance of the subtopic in the next five years. Rating was done on a scale of 1 to 5, with 1 being unimportant and 4 being extremely important. This scale was chosen over a scale of 1 to 5 to avoid getting ‘non-committal responses’ (giving a response of 3 in a scale of 5). In addition to rating the subtopics the academics were asked to indicate the nature of their departments and the job profile of their graduates. The IS professionals were asked to indicate the nature of the business activities of their organisations.

**Limitation of the Study**

This study reports on the opinions of samples of academics and practising professionals in the field of IS. Therefore the results obtained concerning the present and future importance of IS topics are limited to the views of those selected in the samples. It is impossible to be absolutely certain about the future development of IT given the dynamic nature of the fields. However it is reasonable to expect academics and professionals in these fields to have an informed view concerning the present and future importance of specific topics and the likely directions for development of IS in the near future.

**Profile of Respondents**

Duns Directory has been used in order to involve organisations with a substantial investment and interest in IS. Only those with a high financial turnover or a large number of employees were selected. The responding organisations were classified under banking/finance (3), manufacturing/mining (3), telecommunication/computer industry (13) and others (which includes one each of public sector, hotel sector construction and consultant engineering).

In the case of the institutions, the nature of the respond-
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