Chapter XVIII

Using Indices of Student Satisfaction to Assess an MIS Program

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ABSTRACT

The purpose of this chapter is to demonstrate a methodology by which management information systems (MIS) alumni evaluate the content of courses and their satisfaction with an entire MIS program. The approach can be used to assess the relevancy of an MIS curriculum. By way of clarification, an MIS program prepares its graduates to be effective in the tasks necessary to design, program, and implement systems that will provide management with timely, accurate and useful information for decision making. This is in contrast to computer science (CS) programs that prepare their graduates to be knowledgeable in the technical aspects of computer hardware and operating systems software. This study first determines if there are any differences in the evaluations of the content of required MIS courses by alumni based upon whether the graduate was using their first year on the job or one’s current position as a frame of reference. Next, a factor analysis is performed, using the scores earned by specific courses, to reduce the content value of specific courses into specific factors, thus simplifying understanding of the type of learning that is taking place. A factor analysis is performed both for course content scores during one’s first year on the job and, again, in one’s current position. Using a global measure of satisfaction with the entire MIS program, the course content factor scores are then regressed against a student’s satisfaction with the entire MIS program. This regression analysis is performed, once again, for both one’s first year on the job and in one’s current position. The implications for evaluating the effectiveness of an MIS curriculum are presented and discussed.
INTRODUCTION

Over the past few years there has been increasing pressure for higher education to demonstrate that it is effective in delivering persons who have the required skills and knowledge of MIS. The Association to Advance Collegiate Schools of Business-International has also incorporated this philosophy into its accreditation procedures. Instead of measuring “inputs” in terms of the qualifications and scholarly performance of faculty, it is requiring schools of business to provide evidence that graduates are being provided with the experiences necessary to develop the skills and knowledge promised in the educational objectives that flowed from a school’s conceptual objective or mission statement.

There are several methods of obtaining opinions regarding what an MIS curriculum should contain. Couger et al., (1995) offered a set of ‘guidelines’ for an undergraduate curriculum. Lee, Trauth, and Farwell (1995) published their findings of an investigation that involved both academicians and industry representatives. Nelson (1991) published the perceptions of information systems (IS) and end-user personnel. Another method of determining whether students have been given the knowledge, skills and experiences that firms’ value would be to survey firms recruiting graduates of an IS program. This is one approach suggested by Van Auken (1991). The survey form could inquire as to how well graduates are meeting the expectations or needs of the employer. This approach also has shortcomings. An employer may not wish to alienate an IS area by being critical of its graduates. Also, the authors have observed that on some occasions employers are concerned with relatively short-term goals. They wish to hire graduates who are productive from the first day on the job, that is, they were trained rather than educated, and are less concerned with the contributions that may be made later in the employee’s tenure. In a related study, Banerjee and Lin (2006) surveyed information technology practitioners in an attempt to determine the skills graduates should possess in order to be effective systems analysts. Similarly, Harris, Lang, Oates et al., (2006) evaluate and recommend alternative approaches to the material related to the performance of the tasks associated with the position of systems analyst. These approaches, however, focused on only one type of position, rather that what skills and knowledge one should possess upon entering the MIS profession and how the required skills and knowledge change over time.

Also, if the person is evaluated sometime after joining the organization, the assessment may be based upon factors other than job skills. These factors may be loyalty, interpersonal skills, political astuteness and being a team player, rather than the ability to focus their IS education on specific organizational problems.

An interesting approach was that used by Liu, Liu, Lu et al., (2003). These researchers examined job descriptions of positions firms were attempting to fill. By examining these position descriptions they were able to discern that information technology skills in demand were subtly changing over time and recommended that those responsible for designing curricula should assure their programs were current, perhaps by using advertised position description requirements as guidelines.

In order to continually attempt to keep their programs relevant, many IT/MIS/CIS faculty revise their curricula as new hardware, software and methodologies appear in industry. Based upon their survey of curricula, published in 2006, Kung, Yang and Zhang (2006) concluded that significant changes had occurred in the ten years since the curriculum findings of Maier and Gambill (1996) were made known.

The dynamic nature of the requirements for positions in information technology was also noted in the study by Petrova and Claxton (2005). They comment that, “the issue of developing student skills and capabilities adequate to the demands of the (information technology) industry becomes a moving target.” It is worthy of note,