AN ACCOUNTING CURRICULUM ISSUE: THE IMPORTANCE OF MICROCOMPUTER KNOWLEDGE TO THE ACCOUNTING PRACTITIONER

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Much has been published in recent years concerning the use of microcomputers in accounting education. However, little has been written on the benefits to the accounting practitioner. This paper directly addresses that benefit by applying Lucas’ Model of successful system implementation to microcomputer-based accounting software. Using the user satisfaction instrument developed by Bailey and Pearson, subsequently modified by Ives, Olson, and Baroudi, the authors sampled 108 accountants practicing in small businesses. Using the Kruskal-Wallis one-way analysis of variance and Kendall’s Tau, the data was analyzed to show that microcomputer knowledge is directly correlated with user satisfaction. Furthermore, it is shown that students should not just learn software packages, but should understand microcomputer operating systems and hardware technology as well.

Much has been published in recent years concerning the use of microcomputers in accounting curricula. Romney (1983) suggests several uses for computers in accounting classes. Borthick and Clark (1986) evaluated the changes in educational practices in accounting curricula and their effects on accounting students. They found that after an initial enthusiasm for the use of the microcomputers, the enthusiasm dropped, but the need for further use was recognized. Students specifically stated that the use of the microcomputer assisted in learning managerial/cost accounting and in preparing many small account problems. Er and NG (1989-90) examined the need for computer programming within an accounting curriculum, and concluded that specific programming knowledge was not a prerequisite for successful use. They stated that knowledge of spreadsheets, word processing, and databases was more important than computer programming. While the exact form and content of microcomputer knowledge is still open to debate, there is no doubt about the necessity of microcomputer knowledge by accounting students.

The question still remains about the translation of knowledge about microcomputers into successful use of account software by the practitioner. Does knowledge of microcomputers, in whatever form and however acquired, translate into more successful selection, implementation, and
use of accounting software in the workplace? Can an accountant make practical use of knowledge of microcomputers?

More specifically, since the advent of the microcomputer has spawned a large number of inexpensive and easily obtained accounting systems, can an accountant who has knowledge of computers use this knowledge to better evaluate and select an accounting system? Are high levels of knowledge of computers associated with higher levels of satisfaction with accounting systems purchased from microcomputer store dealers or from mail order catalogs? This research attempts to answer these questions by examining the levels of computer knowledge of accountants in small businesses and their satisfaction with the systems they are using.

**Research Premise**

Lucas (1974) suggests that a measure of success of systems is user satisfaction with their systems. His research has shown that users are more satisfied with their systems if they participate in the development of the systems. The advent of the microcomputer-based accounting systems that have been developed by software manufacturers and are sold “as is” through microcomputer stores and through mail order catalogs has eliminated the possibility of accountants participating in the full development of an accounting system. This situation may not be detrimental since accountants can still participate in the most important phases of system development.

McKeen (1983) identified five phases of system development: analysis, design, coding, system testing, and implementation. Higher levels of user satisfaction with systems has been associated with higher levels of user involvement in the first, second, and fifth phase of the process, as illustrated in Table 1.

Since the typical accounting system available from dealers or mail order catalogs have been coded, tested, and documented, the users cannot participate in these phases. They can, however, in a post-priori manner, participate in the analysis and design of the systems through the process of evaluation and comparison of various systems to select the system that best meets specific requirements. Or, more simply stated, through the purchasing decision process users are involved in analysis and design of the system. They can use their knowledge of computers to assist in the installation, implementation, and initial use of the system. Since accountants can, in effect, participate in system development in the three phases where user participation has a positive effect, the opportunity to use knowledge of computers in the process exists. Activities that accountants can participate in during the various phases of the System Development Life Cycle are illustrated in Table 2.

**Research Hypothesis**

If knowledge of computers can be utilized to evaluate, compare, and implement accounting system purchases from dealers or mail order catalogs, higher levels of computer knowledge should

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<tr>
<th>Phase of System Development Lifecycle</th>
<th>Correlation Between User Participation and Satisfaction</th>
</tr>
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<tbody>
<tr>
<td>Analysis</td>
<td>Positive</td>
</tr>
<tr>
<td>Design</td>
<td>Negative</td>
</tr>
<tr>
<td>Coding, Testing, Documenting</td>
<td>Positive</td>
</tr>
<tr>
<td>System Testing</td>
<td>Positive</td>
</tr>
<tr>
<td>Implementation</td>
<td>Positive</td>
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**Table 1: McKeen’s Study Results**
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