Chapter I

Theoretical Models in IS Research and the Technology Acceptance Model (TAM)

Leslie Leong
Central Connecticut State University, USA

ABSTRACT
In this chapter, attempts are made to describe the theories associated with information technology and to provide an overview of the theories of and research on IT, including the technology acceptance model, the theory of innovation diffusion, the theory of task-technology fit model, the theory of planned behavior, and the theory of reasoned action. Furthermore, empirical research was conducted utilizing the widely accepted technology acceptance model (TAM) developed by Davis et al. (1989) to predict system usage. In this study, attempts were made to see if the earlier results of TAM are still valid after the recent advances in systems and technology affecting systems usage. Data were collected from a company in the Pacific Northwest of the United States. From the 250 employees who received the questionnaire via e-mail, 118 returned
usable responses. The results indicated that management support and system quality does not affect usage, and TAM was supported substantially well.

INTRODUCTION

There are two parts to this chapter. Provided in Part I is an overview of the theories or models used in information system (IS) research. These theories or models include the technology acceptance model (TAM), the theory of innovation diffusion (IDT), the task-fit technology model (TFT), the theory of planned behavior (TPB), and the theory of reasoned action (TRA). Provided in Part II is an in-depth empirical study of software usage utilizing the technology acceptance model (TAM). As the technology acceptance model (TAM) was introduced by Davis in 1985, this research study attempted to see if the earlier results were still valid after recent advances in systems and technology affecting systems usage. Therefore, this study will help organizations identify and improve user acceptance of MS Access as a software application interface to database systems.

PART I: AN OVERVIEW OF IS RESEARCH MODELS

Unlike research studies in economics, organizational behavior, marketing, etc., that consist of a large number of research studies, research in information technology (IT) has only recently become a subject of interest in the IT research field. As of January 2000, the Institute for Scientific Information’s Social Science Citation Index listed 424 journal citations to the two journal articles that introduced technology acceptance model (TAM) (i.e., Davis, 1989; Davis et al., 1989).

A key objective of IT research is to assess the value of information technology to an organization and to understand the determinants of
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