

# Chapter 20

## Extending TAM and IDT to Predict the Adoption of the Internet for B-to-B Marketing Activities: An Empirical Study of UK Companies

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### ABSTRACT

*There has been considerable Research into the usage of the Internet for Business-to-Business (B-to-B) marketing activities in recent years. The need to understand how and why B-to-B companies utilize the Internet is important for researchers and practitioners alike. This study combines Davis' model-the Technology Acceptance Model (TAM)- and Roger's Theory- the Innovation diffusion Theory (IDT) to understand the process of Internet adoption for marketing purposes. It makes a comprehensive review of information technology, information systems, and marketing literature to locate factors that predict Internet use for marketing purposes. Moreover, it extends both TAM and IDT to find out factors that affect relative advantage, ease of use and compatibility of using the Internet for B-to-B marketing activities. Using a sample of 123 UK companies utilize the Internet, we found a substantial positive effect of the proposed factors on the Internet usage for B-to-B marketing activities.*

### INTRODUCTION

A number of theories that explain the adoption of different IS/IT applications have appeared in the last two decades (Eid, 2005). These theories provide managers with careful reasoned arguments and enable them to better influence the evaluation, adoption and use of Internet technology

(Karahanna and Straub, 1999). Moreover, current research into the adoption of end user technologies has been encouraged by the great need to find out factors that affect the success of IT application in the marketing context (Rose and Straub, 1998).

However, Internet marketing as a technological innovation in B-to-B companies has not been studied rigorously from the perspective of diffusion, although there are issues such as compatibility,

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complexity, and top management support can affect its adoption (Cooper and Zmud, 1990; Drury and Farhoomand, 1996; Eid and Trueman, 2004; Rose and Straub, 1998). Consequently, the main aim of this research is to investigate two theories that have been extensively used over the past twenty years to understand the adoption of IS/IT applications and links them to the marketing context. Firstly, technology acceptance model (TAM) and secondly, the diffusion of innovation theory (IDT). These models give different, though overlapping perspectives on how companies use new technologies. TAM focuses on attitudes toward using a particular IT based on perceived benefits (usefulness) and ease of use (Davis, 1989). IDT focuses on the relationship between “perceived attributes” of technology and “rate of adoption of technology” (Rogers, 1983; 1995).

Undoubtedly, this study uses TAM and IDT for predicting the adoption of the Internet in B-to-B international marketing because of their solid theoretical foundation and the fact that they have been proven successful in numerous studies. Furthermore, it extends both TAM and IDT to find out factors that affect relative advantage, ease of use and compatibility of using the Internet for B-to-B marketing activities. Therefore, this study uses exogenous, external variables such as “drivers” and “barriers” of International Internet marketing since these variables can affect behaviour and attitudes towards this technology.

## **OBJECTIVES OF THE PAPER**

To analyze the adoption of the Internet by B-to-B companies, the following main question has been developed:

- What are the factors that affect the adoption of the Internet for B-to-B international marketing?

This was the overall question to be answered by the current study; defined by the following three objectives:

- To explore the factors that influence the adoption of the Internet by B-to-B companies,
- To develop and clarify a conceptual model integrating these adoption constructs, and its consequences on B-to-B companies’ usage of the Internet for their marketing activities and,
- To specify and test hypothesised relationships derived from the conceptual framework.

In the following sections, first the development of the conceptual model and the hypotheses of the study are presented. Next, the methodology of the study is discussed followed by the analysis and results. More specifically, the conceptual model is tested using path analysis, and data collected by mail survey of 123 B-to-B UK companies. Finally, the conclusions and their implications are discussed.

## **Background and Literature Review**

### **Technology Acceptance Model (TAM)**

System usage is one of the basic dependent variables of information systems (DeLone and McLean, 1992). Researchers and practitioners often use the Technology Acceptance Model (TAM) to gain a better understanding of the use of IT/IS application (Lederer, *et al.*, 2000; Straub, *et al.*, 1997). It is one of the most important models that studies factors that affect the adoption of IS/IT applications.

Davis introduced an adoption of Theory of Reasoned Action (TRA), an especially well-researched intention theory that has explained the intended behaviour across a wide variety of IS/IT applications, but the Technology Acceptance

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