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# Theory Development Explaining Consumer Adoption of Electronic Commerce

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## INTRODUCTION

The primary topic of this research is the study of consumer motivation in the adoption of electronic commerce as a medium for retail purchase transactions. The objective of this study is to identify factors that explain consumer adoption of electronic commerce versus traditional retail stores. International Data Corporation (IDC) states that \$300 million in transactions were completed over the web in 1995 and expect growth to \$150 billion by the year 2000. Consumers are spending less time shopping in malls and more time "surfing" the web [Yesil, 1997].

## CONCEPTUAL MODEL AND LITERATURE REVIEW

The main argument in this research is that existing theories of IT adoption do not sufficiently explain the adoption of electronic commerce. This research attempts to develop a new theory explaining electronic commerce adoption behavior using existing theories of adoption and industrial economics.

IT adoption theories considered in this research include Davis' (1974) Technology Acceptance Model (TAM), Ajzen's (1989) Theory of Planned Behavior (TPB), and Triandis' (1971) Theory of Motivation. Triandis' (1971) Theory of Motivation is more suitable for this study as it introduces factors to the existing Fishbein and Ajzen (1975) model that are expected to be relevant to the adoption of electronic commerce. Specifically, three factors introduced by Triandis (1971) seem relevant to electronic commerce adoption but are not included in TPB (1989). These factors are 1) habits, 2) relevant arousal, and 3) facilitating conditions [Bergeron et. al, 1995]. Habits are defined as automatic behavior that is influenced by past experience. Traditional shopping methods may be habitual for consumers indicating a negative relationship with electronic commerce. Relevant arousal is a physiological factor that explains factors like "hype". Hype is defined as excitement surrounding a new technology and is expected to have a positive relationship with electronic commerce adoption. Facilitating conditions prevents an act from being performed. Facilitating conditions relevant to electronic commerce are access and security which are expected to have a negative relationship with electronic commerce adoption.

Cronin (1996) suggests that consumers will also be motivated to choose the medium that reduces the most "friction" during a transaction. Economic literature defines a component of friction as transaction cost [Brito and Hartley, 1995; Chan, 1996; Rogoff, 1996]. Transaction cost theory supports the proposition that consumers will choose the purchase medium that allows them to minimize transaction costs. This study proposes that transaction costs are dependent on the product being purchased. Consumer products are defined using the four operational dimensions of transaction cost economics: asset specificity, frequency of transactions, degree of uncertainty, and opportunism [Williamson, 1992]. Products that are high in asset specificity, high in frequency of transactions, low uncertainty and low opportunism will be purchased through electronic commerce as this alternative will allow consumers to minimize transaction costs. A broad range of products will be tested in this research.

## RESEARCH CONTRIBUTION

The contributions of this research are three-fold. First, the research will attempt to build a theory that addresses the gaps in IT adoption literature and more clearly explains electronic commerce adoption. The second contribution is the introduction of new methodologies for data collection using Internet-based

surveys and electronic behavior tracking. Lastly, this research offers a practical contribution as it integrates technology with marketing strategy. This research will identify factors relevant to electronic commerce adoption and products that consumers will tend to buy electronically. Both of these issues will be valuable to retail organizations who are deciding how to use electronic commerce in their retail marketing strategy.