Chapter 8
The Influence of Trust in the UTAUT Model

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ABSTRACT
This chapter tests the appropriateness of the Unified Theory of Acceptance and Use of Technology (UTAUT) model in the context of end user consumption by means of an online survey with 475 respondents (24% response rate). The study shows which factors have the greatest impact on the adoption process of VoIP technology in the US market in addition to the interactions of the main variables in the model (Performance Expectancy, Effort Expectancy, Social Influence, and Behavioral Intention to Adopt) and whether Trust can improve the predictive value of the UTAUT model to explain intention to adopt. Partial Least Squares (PLS) is used to evaluate the interactions of the main variables. The model includes four moderator variables (Gender, Age, Experience, and Voluntariness of Use). The results support most of the relationships identified in the original UTAUT model. More specifically, Performance Expectancy appears to have the strongest influence on the Intention of a consumer to adopt a new technology. The study provides information about whether the inclusion of Trust can generate good results for industry.

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ADOPITON PROCESS FOR VoIP: THE UTAUT MODEL

In recent years, consumer research has used different models to find the variables that help consumers make decisions as to whether to adopt a new technology or not. Some of the more popular models used for this purpose are: Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Innovations Diffusion Theory, among others. Recently, Venkatesh, Morris, Davis, & Davis (2003) tried to unify the different constructs of all these models in one unique model, and with this in mind developed the Unified Theory of Acceptance and Use of Technology (UTAUT). It is the objective of this study to test the usefulness of this model in the context of end user consumption, a task not specifically attempted by Venkatesh, et al. 2003. The setting for this test is Voice over Internet Protocol (VoIP) technology.

What Exactly is VoIP?

VoIP, or Internet phone service, is a technology that substitutes for the regular phone service and allows the making of phone calls using broadband internet connection. The analog voice signals used (in simple words, the voice of people when they talk by phone) are converted into digital packets. These packets can be transferred via cable lines (internet) and later, they are reconverted into analog voice signals. The decreased use of slower options services (like dial-up) and the increasing availability of speedier services (such as ISDN, DSL, ADSL, cable, etc.) is one of the reasons why the use of VoIP is increasing among commercial and private users.

The commercial market has tried to exploit this new technology with different approaches. Each provider has chosen the terms they think better accord with their marketing strategy. VoIP, Broadband phone, Internet phone and Digital voice are different names used for the same concept, depending on the marketing strategy selected by each service provider. All of them use the same core technology and need only a high speed internet connection (DSL or cable) to work. If there is a difference it is related to the kind of calling devices utilized (McIver, 2007).

The Adoption Process

As with any new technology, consumers’ adoption process of VoIP has been slow (Harbert, 2005). VoIP phones are not free of some disadvantages so suppliers need information about what factors are more important to customers. Suppliers can then develop strategies to increase the speed of the adoption process in order to maximize their profits. It was the intention of this study that as a by-product of testing the UTAUT model, information would be developed that is useful to the companies and end-users of VoIP.

In summary, the primary objective of this study is to test the usefulness of the UTAUT model in the context of end user consumption, specifically the use of VoIP technology. In the process, the study will show which factors have the greatest impact in the adoption process of VoIP technology in the US market.

Estimation of the UTAUT model was made using Partial Least Squares (PLS) as a technique to measure the relationships between variables, the effect of the interactive effects and the level in which the variance of the dependent variables is explained by the model. PLS is a relatively new procedure that is becoming popular because of its minimal demands of measurement scales, sample sizes, and residual distributions (Chin, Marcolin & Newsted, 1996). The applications of this technique to the field of consumer behavior, and specifically, to the adoption process
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