

Chapter 10

Success Factors of Adoption of Mobile Applications in Rural India: Effect of Service Characteristics on Conceptual Model

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ABSTRACT

The framework for this research is the unified theory of acceptance and use of technology. The increasing rural proliferation of mobile services has created a unique opportunity to deliver to the rural users information and services through innovative mobile applications. This chapter develops a conceptual model of factors that make a rural mobile application successful and that are the barriers to its implementation. The conceptual framework developed has been validated by a questionnaire based field survey using structural equation modeling (AMOS). The chapter explores how the conceptual model is impacted by the service characteristics. The contribution of this research to further the understanding of technology adoption models for rural mobile applications has been discussed. The findings of the study have been corroborated with similar research focusing on adoption of rural mobile applications. The practical significance as to how the research findings help in successful implementation of mobile applications has been presented.

DOI: 10.4018/978-1-5225-5017-4.ch010

INTRODUCTION

Acceptance and use of information technology by an individual is one of the most mature stream of information system research (Benbasat and Barki, 2005; Venkatesh et al., 2007; Venkatesh et al., 2012). Apart from theoretical value, better means for predicting and explaining information system acceptance and use have great practical value (Davis, 1989).

Acceptance of information technology is an important phase towards its successful development (Loo, 2009). The enduser implicitly specifies a set of demand side conditions which the information technology should meet (Pederson, 2005). Information technology innovation evolves gradually to offer greater value to its users. How it meets his demand for service is of importance to both researchers and practitioners.

Research requires developing a hypothesized model of the issue under introspection. The model is crystallized by critical examination of prior studies and testing the hypothesized model against the new gathered data (Sundararaj, 2006). Well defined constructs and operationalizing these constructs through measurement items having high degrees of validity and reliability is a prerequisite of information system research (Moore and Benbasat, 1991).

- **Technology Adoption Models:** Various theoretical models (Fishben and Ajnen, 1975; Bandura, 1986; Compeau et al., 1995; Davis, 1989; Ajnen, 1991; Moore and Benbasat, 1991; Venkatesh and Davis, 2000) have been proposed by research that specifies factors which influence technology adoption. Many of these behavioral *constructs* have been clubbed under a unified model of Adoption and Use of Technology (UTAUT). They have been specified as *performance expectancy* i.e. perceived benefits on adopting the technology, *effort expectancy* or ease of use of adopting the technology, *social influence* to adopt or not adopt the technology, *facilitating conditions* which positively or negatively influence adoption and *behavioral intention* to adopt the technology (Venkatesh et al., 2003).

UTAUT has been used to study information systems under the category of general purpose systems like internet, computers and kiosk systems, communication systems like mobile service, email and voice systems and office systems like emails and specific softwares (Lee, 2003; Williams et al., 2012).

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