# Chapter 7 Organisational Change and Acceptance: Perspectives of the Technology Acceptance Model

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## **ABSTRACT**

This chapter reports on the development of the technology acceptance model from 1986 when Davis investigated technology acceptance from an individual's view as to the ease of use and perceived usefulness of a system. Since then, many variations have been presented in attempts to explain how and what influences a computer system user's uptake of new technology within an organisation. Whilst all variations were developed explicitly to predict users' acceptance or rejection of new technology, these variations are in essence predictors of acceptance or rejection of change. Factors such as the organisational change environment and informal communication (rumours), together with social influence as exercised by colleagues should be considered major contributors to the perceptions of new technology and therefore acceptance. This chapter extends the original model to include the variations and proposes that rather than look at technology acceptance in isolation, acceptance of new technology should be viewed as acceptance of change. The author proposes the model Social Influence and Change Acceptance (SICAM) to reflect the inclusion of TAM's variations in an organizational change context.

# INTRODUCTION

Change is an ongoing process in any organisation and changes due to the introduction of new technology or processes, and the ensuing relationships formed from those changes, provide a breeding

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ground for innovation and further avenues for change (Wells, 2009). Change literature tends to concentrate on organisational change as led from the top, and involves discussion of changing the organisation as a whole through changing or enhancing an organisation's core competencies (see for example, Prahalad, 2008). Whiteley (1995) suggests that changing core values of both

management and staff will produce a change in the organisation, whereas, Pettigrew (1987, 1979) suggests organisational change is brought about through changing culture *or* processes. Organisational change initiatives often cause staff affected by the change to resist the change. Therefore, there is a need to develop strategies that predict change acceptance and the subsequent acceptance by staff of that change.

The "Technology Acceptance Model" (TAM) was developed in 1986 by Davis to assist in predicting acceptance of new information systems (IS). The opposite of acceptance (non-acceptance) can be viewed as resistance to the new technology and by extension resistance to change acceptance. Since the initial TAM was proposed many researchers have extended TAM to include independent variables such as experience, relevance, gender, age, and social influence. This chapter reviews various extensions to TAM and proposes a conceptual model that incorporates some TAM variations and other factors in a framework that is useful to explain organisational change itself and not just change engendered by the introduction of new IS. When TAM and all its variations are viewed through the lens of organisational change, it can be seen as a model of change acceptance, not exclusively a model of technology acceptance. As change and the subsequent flow-on affect often causes staff uncertainty, it is relevant to look at the overall issues rather than focusing on technology alone as a means to explain staff behaviour.

This chapter will address the major variations to TAM since its proposal by Davis (1986) and offers some views and suggestions that will assist system implementers with introducing new technology into an organisation, and the consequent organisational change. Unlike previous meta-analyses of TAM (for example, Lee, Kozar and Larsen, 2003); this chapter does not offer a chronological study of TAM but rather introduces TAM to the reader through the major themes or concepts that have evolved since 1986.

## RESEARCH METHODOLOGY

The research methodology for this chapter follows two paths. The first entails a qualitative review of literature since 1986 to 2009 involving significant stages of the evolution of TAM. A perceived bias in making this selection is that published research is assumed to have some significance. A second bias is evident in that by limiting the search and selection of papers based on the number of citations since publication, it is assumed that all papers will earn a similar number over time. A third bias is introduced as the number of citations depends on the type of study (qualitative or quantitative) and which evolution the researcher is using or proposing.

A search for studies related to TAM was undertaken across the publications types: referred journals, conference papers and proceedings, and theses. The keyword search criteria for indentifying the papers were "technology acceptance model" or "TAM." Irrelevant papers (such as those with the acronym TAM meaning test access mechanism) were removed from the list. Once the core set of articles was determined, the articles were sorted into categories based on the main concepts contained therein.

The second path for the research methodology from which Social Influence and Change Acceptance Model (SICAM) derives involved a qualitative study using a series of in-depth oneon-one conversational interviews as defined by Van Manen (1990). An interview guideline was compiled before the first round of interviews and this guide formed the basis of each interview (Patton, 1990). Each interview lasted an average of 45 minutes and, based on the participant's responses, a general conversation ensued around the original question. An amended set of questions were used for each subsequent session, based on the findings in the previous set of interviews. The data was collected from 21 interviews over a period of three years and totalled 17 hours of interview time. The conversational interviews

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