

Chapter 9

An Outsourcing Acceptance Model:

An Application of TAM to Application Development Outsourcing Decisions

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ABSTRACT

The use of outsourcing is expanding rapidly. This study empirically tests a model of application development outsourcing acceptance based on the technology acceptance model (TAM). TAM suggested perceived usefulness and ease of use mediate the effects of other variables on users' attitudes towards a technology. The model tested in this study suggests perceived usefulness and ease of use of outsourcing mediate the effects of the external environment, prior outsourcing relationships, and risks on decision-makers' attitude toward application development outsourcing. One hundred and sixty respondents to a survey sent to 3000 IT decision makers provided data to confirm the applicability of TAM and the influences of these external variables. Support for applying TAM in this alternative context was found. Three sub-dimensions of risk, project management, relationship, and employee risk emerged. Project management and employee risks along with prior relationships were found to significantly influence decision maker perceptions about application development outsourcing.

INTRODUCTION

An increased reliance on information technology (IT) for success combined with the rapid,

accelerating rate of IT change, has intensified both the importance and complexity of managing this now vital corporate resource. IT outsourcing, the transferring of all or part of a company's IT

functions to an outside party, offers additional alternatives to organizational decision makers. Hence, there is an increasing focus on determining the correct sourcing strategy for IT and IT services (King, 2001). However, choosing the appropriate IT functions to outsource and the best outsourcing vendor is very complex (Kern, Willcocks, & van Heck, 2002). This is especially true now because the motivation for IT outsourcing has moved beyond traditional cost cutting or efficiency gains to become more transformational. IT outsourcing now plays a much more strategic role, enabling companies to be more adaptive and respond quickly to new opportunities (Mazzawi, 2002).

Kodak brought IT outsourcing to the forefront with their landmark decision to outsource their IT functions in 1989. Recent surveys indicate that around the globe, firms of all sizes across many industries view outsourcing as a realistic alternative for some or all of their IT functions (Barthelemy & Geyer, 2001; Kakabadse & Kakabadse, 2002). The use of IT outsourcing continues to grow at a phenomenal rate (Kernet al., 2002; Ross & Westerman, 2004).

A wide variety of IT functions are outsourced. This study focuses on one particular function, applications development (AD), defined as any efforts in the organization involved with the analysis, design, or implementation of information systems. AD was identified in multiple prior studies as an IT function commonly outsourced (McFarlan & Nolan, 1995; Hurley & Schaumann, 1997; Elmuti & Kathawala, 2000; Ross & Westerman, 2004). Furthermore, recent surveys indicate that AD outsourcing is on the rise (Hurley & Schaumann, 1997; Ketler & Willems, 1999; King & Cole-Gomolski, 1999). More and more AD outsourcing is also done offshore which adds complexity to the decision making process (Elmuti & Kathawala, 2000; Robb, 2000; Prencipe, 2001). Thus, a better understanding of the AD outsourcing decision is important. More importantly, this knowledge

may help to improve the understanding of other outsourcing decisions.

A prior outsourcing study (Benamati & Rajkumar, 2002) proposed an application of the technology acceptance model (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) as a basis for investigating AD outsourcing decision making. The model also proposed risk, prior outsourcing relationships, and an organization's external environment to be important antecedents to decision-maker perceptions and hence important factors in AD outsourcing decisions (Benamati & Rajkumar, 2002).

The goal of this research is to empirically test and validate that model as a basis for further study and shed new light on factors that influence AD outsourcing decisions. The following section reviews the proposed model of outsourcing acceptance and develops hypotheses from it. The methodology used and findings from an empirical validation of that model are then explained. Finally, implications of both the results and the model for future research are discussed. No other research has empirically applied TAM in this way. Nor has there been empirical testing of the influence of these three antecedent factors on the decision to outsource AD.

THEORETICAL BASIS FOR THE RESEARCH MODEL AND HYPOTHESIS

TAM states that users' perception of the usefulness of a technology, defined as the degree to which a person believes that using the technology will enhance his or her job performance, and ease of use, defined as the degree to which a person believes that using the technology will be free of effort (Davis, 1989), directly affect the users' attitude about and hence their intention to use the technology. These two perceptions also moderate the effects of antecedent constructs on the decision to use the technology.

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