Knowledge management (KM) encompasses the set of capabilities, processes, tools, and techniques for the most effective use of knowledge by an organization. The goal of KM is to improve the organization’s ability to create, transfer, retain, and apply knowledge.

Knowledge management is a goal that many organizations seek to achieve. Organizations apply their strategies, plans, and implementation to achieve KM. Organizations use technology to implement their KM strategy. For some, this approach has worked well; however, for others, the results have fallen short. KM shortcomings revolve around employees’ infrequent use of the technology. This research seeks to understand what influences a user’s behavior to use a KM system and why a user becomes a routine user.

This research provides a model of KM continuance behavior and post-acceptance usage behavior. The KM continuance model incorporates technology, community, individual, and organizational elements that influence a user’s intentions and actual use of a KM system. Post-acceptance usage behavior is how an individual decides to use a system after its initial acceptance.

The specific context of this research is a KM system known as the Air Force Knowledge Now (AFKN) system. AFKN emphasizes KM through expertise-sharing activities in Communities of Practice (CoPs). The AFKN KM system facilitates and enhances the relationships in the community.

The data for this study were obtained by using an online questionnaire. The results are analyzed using Partial Least Squares structural equation modeling with a two-step data analysis approach. The first step assessed the properties of the measurement model. The second step assessed the path model. Path coefficients and t-values are generated to evaluate the fourteen proposed hypotheses.

The results of the investigation show that community and technology KM both positively influence a user’s evaluation of the KM environment. The results produced a coefficient of determination of 60% for KM continued use intention and 31% for KM continued use behavior.

The outcome of this research is a model that allows organizations to tailor their KM systems efforts to the organizational environment in order to maximize their resources. This investigation serves as a foundation for further research and development in areas of KM, KM systems, and post-acceptance usage.

Major: Industrial Engineering and Management Systems

Educational Career:
Bachelor’s of Aeronautical Engineering, BS, 1994, United States Air Force Academy
Master’s of Engineering and Technology Management, MS, 2002, Oklahoma State University

Committee in Charge:
Timothy Kotnour, Chair, Industrial Engineering and Management Systems
Mansoor Mollaghasemi, Industrial Engineering and Management Systems
Dima Nazzal , Industrial Engineering and Management Systems
Robert Armacost, Industrial Engineering and Management Systems

Approved for distribution by Timothy Kotnour, Committee Chair, on June 3, 2010.

The public is welcome to attend.