Public Abstract First Name:Marco Middle Name:Alberto Last Name:Cruz Galve Adviser's First Name:C. Alec Adviser's Last Name:Chang Co-Adviser's First Name: Co-Adviser's Last Name: Graduation Term:SS 2009 Department:Industrial Engineering Degree:MS Title:A SYSTEMATIC FRAMEWORK TO IMPROVE KNOWLEDGE MANAGEMENT THROUGH INFORMATION TECHNOLOGY

Organizations rely on their IT infrastructure to perform on a daily basis, and a constant debate on whether the IT tools used are the appropriate ones to achieve their strategic planning objectives is always present. Many IT tools are modified or purchased to encourage knowledge flow within the organization, but there are no established frameworks to help organizations link their business priorities and IT infrastructure. This research presents a systematic framework for knowledge management through IT structured according to the Baldrige Performance Criteria; which gives the framework the capacity to be implemented in any organization. A survey instrument measuring importance and user satisfaction of IT is used to analyze the impact of IT tools in an organization through the Opportunity Algorithm (OA) and Analytical Hierarchy Process (AHP). Quality Function Deployment (QFD) is finally used along with a Knowledge Management System (KMS) flowchart based on current literature to provide a guideline for organizations to define their current knowledge domains and identify issues preventing knowledge flow. The implementation of this framework at the Missouri Small Business Development Center helped management deciding what IT tools are more important based on their organizational needs. It also helped in identifying factors of each IT tool that provide the biggest opportunity for improvement, and increased collaboration for knowledge management across the company.