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Department of Production Engineering**

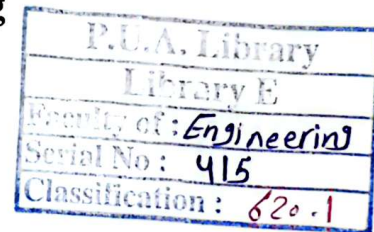
A Model of Network Organizations' Dynamics: A System Dynamics Approach

**A Thesis submitted in partial fulfillment of the requirements for
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Presented by



Rita Garbis Kevork Palabeyekian

**B.Sc. in Production Engineering, Alexandria University, 1993
M.Sc. In Production Engineering, Alexandria University, 2000**

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ABSTRACT

Innovation in technology, communication and transportation created fierce competition between organizations. Fast changing customer expectations along with market competition put organizations in a dynamic complex business environment. Business concepts along with organizational features and structures had to adapt to such a competitive business environment to keep pace with market competition.

The known hierarchical organizational structure (functional, divisional and matrix) had to give way to a new, more innovative and more flexible structure, known as network organization structure, to be able to survive the global competition. This type of organization collaborates with different entities dispersed around the globe. Different entities having different values, cultures, leaderships and goals made the process of collaboration and adaptability to changes a complex task for network organizations.

This thesis studies the organizational factors affecting the competitiveness of network organizations using a Systems Thinking approach. To understand the different factors affecting the competitiveness of network organizations and their interrelations, a thorough literature review has been performed. Factors have been classified in this work to network structure related, employee related and network psychology related factors. These factors are interrelated in a nontechnical causal loop diagram, which shows the causality between each factor. The most frequently appearing factors in the loops have been further related together in a separate, technical causal loop diagram. "Compatibility of Organizational Culture", "Trust between Organizations", and "Commitment of Network Members to Network Goals" are some of these factors among others. A system dynamics model is developed and simulated using Vensim PLE 7.3.5. A sensitivity analysis is performed using eleven scenarios. One of the findings from interpreting the results of the different scenarios is that the most influential factor on the competitiveness of network organizations is the compatibility of culture between member organizations combined with frequent communication between them.