

## **The electronic, computer and telecommunication sector in the input-output matrix for 2003, 2008. A network approach.**

Topic: Input-Output and the Network Theory

Author: Raul Peon

Co-Authors: Rafael César Bouchain

This text analyzes the Mexican economy with information from 2003 and 2008 using the input-output matrix from the perspective of network theory to find properties that are hidden in the traditional analysis of Leontief's matrix. In this way, we identified all sectors with great effect on the demand and supply system and therefore, they constitute the basis for the economic growth and development. In particular we will find how the electronic, computer, and telecommunication sector in Mexico is positioned and the role they play in relation to other sectors and themselves within 2003 and 2008 whether in a relationship of domestic and total market, using indexes, measures and other network analysis tools. Some of the measures assessed by these systems are: InDegree, OutDegree, Betweenness, InCloseness, OutCloseness, OutDegree, Eigenvectorcentrality, Shortest path, Centrality and Influence. With these tools we make an approximation to understand the performance and Interconnection of these sectors in the economy of Mexico and see if this paradigm shift has changed the role of these sectors in Mexico. Centrality measures, or at least popular interpretations of these measures, make implicit assumptions about the manner in which traffic flows through a network.