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DETERMINANTS OF SUCCESS IN INTERORGANIZATIONAL

COLLABORATION

FOR NATURAL RESOURCE MANAGEMENT

By

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To my family, who sacrificed in many ways to help me arrive where I am today.

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## **LIST OF ABBREVIATIONS**

AOC: Areas of Concern  
ARC: Appalachian Regional Commission  
CAC: Citizens Advisory Committee  
CCMP: Comprehensive Conservation and Management Plan  
C.F.R.: Code of Federal Regulations  
CREST: The Columbia River Estuary Study Taskforce  
DCA: Department of Community Affairs  
DLCD: Oregon Department of Land Conservation and Development  
DNR: Department of Natural Resources  
DRBC: Delaware River Basin Commission  
EDA: Economic Development Agency  
EIS: Environmental Impact Statement  
EMI: Environmental Mediation Institute  
EPA: Environmental Protection Agency  
ESA: Endangered Species Act  
FWS: Fish and Wildlife Service  
GLWQA: Great Lakes Water Quality Agreement  
HCP: Habitat Conservation Plan  
HMDC: Hackensack Meadowlands Development Commission  
IJC: International Joint Commission  
KMO: Kaiser-Meyer-Olkin  
MDNR: The Michigan Department of Natural Resources  
MOE: Ministry of Environment and Energy

NEP: The National Estuary Program  
NOAA: National Oceanic and Atmospheric Administration  
NRD: Natural Resource District  
ORSANCO: Ohio River Valley Water Sanitation Commission  
PCA: Principal Component Analysis  
RAP: The Remedial Action Plan  
RBC: River Basin Commissions  
RPAA: Regional Planning Association of America  
RPNY: Regional Plan of New York  
SAMP: Special Area Management Plan  
SEWRPC: The Southeast Wisconsin Regional Planning Commission  
SFWMD: South Florida Water Management District  
SWFWMD: Southwest Florida Water Management District  
SRBC: Susquehanna River Basin Commission  
TAC: Technical Advisory Committee  
TNC: The Nature Conservancy  
TVA: Tennessee Valley Authority  
U.S.C.: U.S. Code  
U.S. FWS: The U.S. Fish and Wildlife Service  
WDNR: Wisconsin Department of Natural Resources  
WPP: The Watershed Partnerships Project

## **ABSTRACT**

Regional planning and management are problematic in many countries. Control over land and natural resources is fragmented among different levels of government and agencies with narrow missions. Interorganizational collaboration is advocated as a solution, but research to date has predominantly involved case studies with little theoretical rigor. The main objective of this study is to identify the determinants of success in interorganizational collaboration. There is extensive literature on why organizations collaborate, but what factors make collaborations successful is not well documented. To add to the knowledge of this field, this research integrates theory and empirical research from organizational theory, management studies, public administration, urban and regional planning, and environmental planning and natural resource management to define operational measures of successful collaborative planning and applies multivariate analysis to assess hypothesized determinants of success.

Natural resource management provides a very good opportunity to examine this due to the fragmentation of administrative structure. However, the implications of the results are not limited to natural resource management. The findings will be useful in understanding collaborative planning and decision making in many other interorganizational settings including regional planning, metropolitan area planning, economic development, and growth management.

Understanding what makes collaborations work is important, because despite the documented need to collaborate, many efforts take years to bear fruit, and most do not achieve much. I believe this is due to poor understanding of the collaboration process and its elements. If this process is thoroughly examined and the factors that lead to success are determined, it will help future collaboration efforts immensely by identifying the circumstances in which collaboration is most likely to succeed and the factors that can be manipulated to enhance the likelihood of success.

The research methodology includes multivariate analysis of a mail survey of participants in 70 collaborative natural resource planning processes. Representatives of 3 to 4 organizations that collaborated in the development or revision of a management plan for one of six natural resource management program types were surveyed: (1) Remedial Action Plan development under the Great Lakes Water Quality Agreement, (2) the National Estuary Program of the United States Environmental Protection Agency Office of Water, (3) the National Oceanic and Atmospheric Administration's National Marine Sanctuary Program, (4) Habitat Conservation Plan development under the Endangered Species Act, (5) the Surface Water Improvement and Management Program of Florida Water Management Districts, and (6) National Estuarine Research Reserves administered by the National Oceanic and Atmospheric Administration. The survey included questions on the measures and determinants of success identified from the collaboration literature as well as open-ended questions designed to help identify other ways to define success and other determinants of success.

The dependent variable, success, is measured objectively and subjectively and includes responses to single survey questions as well as arithmetic average indices of four major theoretical categories (realization of goals, satisfaction of collaboration participants, enhanced interorganizational relations, and efficiency) and component-based scales. Principal Component Analysis was utilized to determine the elements of the components and their weights. The independent variables, determinants of success, are also grouped together by arithmetic average indices based on theoretical groupings as well as component-based scales. The determinants of success include member factors that are related to the participants in the collaboration, process factors that are related to discretion over the process of collaborating, and resource factors that may be beyond the control of the collaboration participants.

The results of the multivariate regression analysis support the hypothesis that most of the member factors, process factors and resource factors influence the success of interorganizational collaboration. However, due to multicollinearity between the independent variables it is not possible to investigate the individual contributions of each factor to success. The models show clearly that the relationship between the parties, equity in decision making, participant characteristics (inclusion of all affected stakeholders, proportional representation, and effective leadership), agreement between the participants on ground rules and the scope of the

collaboration, and ripeness of the issue are important for collaboration success no matter how success is measured.