

**THE INTERPLAY OF ELEMENTS AFFECTING HOST COMMUNITY
RESIDENT ATTITUDES TOWARD TOURISM:
A PATH ANALYTIC APPROACH**

by

Claudia Anne Jurowski

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY


in

Hospitality and Tourism Management

APPROVED:




Muzaffer Uysal, Chairman



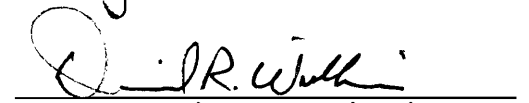
Ken McCleary



Michael D. Olsen



Suzanne Murrmann



Daniel R. Williams

April, 1994
Blacksburg, Virginia

THE INTERPLAY OF ELEMENTS AFFECTING
HOST COMMUNITY RESIDENT ATTITUDES TOWARD TOURISM:
A PATH ANALYTIC APPROACH

Claudia A. Jurowski

Committee Chair: Muzaffer Uysal

Department of Hospitality and Tourism Management
Virginia Polytechnic Institute and State University

ABSTRACT

Recent research in the field of tourism has demonstrated that the endorsement of the indigenous population is essential for the development, successful operation and sustainability of tourism. Achieving the goal of favorable community support for the tourism industry will require an understanding of how residents formulate their perceptions of the impact of tourism and their attitudes toward tourism. The purpose of this study was to examine the interplay of elements that affect host community resident attitudes toward tourism.

The principles of social exchange theory provided the framework for a tourism exchange system model which posits that tourism is a system of exchanges of resources between the tourist, the host community, and the tourist business and service sector. The research demonstrated that a propitious attitude toward tourism is a function of a favorable exchange position which is viewed as a desire to enter into or maintain a tourism exchange relationship.

Building on previous research which had demonstrated that support for tourism was dependent upon the way its impact was perceived, the analysis uncovered elements that affect the perception of the impacts of tourism, and examined the interplay of these items with support for several types of tourism. Four valued items - potential for economic gain, use of the tourism resource, ecocentric attitude and attachment to community - were found to influence perceptions of the economic, social and environmental impacts of tourism. The four elements appear to interact in the formation of the perception of the three types of impacts and vary in the way they either directly and indirectly modify support for tourism. Additionally, the study evaluated how the four valued elements and three types of impacts interact in the determination of support for various types of tourism.

Among the important implications of this work, are the deduction of the importance of examining factors that influence the perception of the impacts of tourism as well as those that affect support for varying types of tourism; the recognition of the role ecocentric attitudes and community attachment play in the formulation of attitudes; the discernment of the need for internal marketing to the community; and the establishment of a theoretical foundation for researching resident attitudes toward tourism.

. . .if one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet with a success unexpected in common hours.

Henry D. Thoreau, Walden

ACKNOWLEDGEMENTS AND DEDICATION

A project of this magnitude is not an individual endeavor. Consequently, I dedicate this dissertation to the many individuals who provided support, encouragement and assistance for its realization. First, I thank my dear friend who believed in me, carried me through the rough times, helped me with countless particulars, and provided unwavering support.

A very special thank you is extended to my committee Muzaffer Uysal, Ken McCleary, Suzanne Murrmann, Michael Olsen and Daniel R. Williams for their input and support. Committee Chairman, Dr. Uysal, has been an inspiration and a mentor for me throughout my doctoral pursuit. I am sincerely grateful for the research opportunities he afforded me. Particularly valued are his accessibility, the breadth and depth of his knowledge, and his ability to instill confidence. This special acknowledgment is offered to Muzzo for his encouragement, the opportunities, and the generous commendations which helped sustain my initiative.

For helping me stretch and reach for the best, I am grateful to Dr. Olsen. The gift he offered me was the inspiration to be all that I could be, to reach beyond what is acceptable to what is excellent. He provided ideas, material and references which have enhanced the finished work.

I wish to thank Dr. McCleary for his assistance in elucidating the research question, and rectifying unclear locution and inconsistencies. His cheerful nature, expansive knowledge and academic diligence are highly valued.

Dr. Murrmann's gift of making students feel comfortable asking questions is especially appreciated. Her probing questions were helpful in discerning the precepts underlying my research. Gratitude is expressed for her sincerity and sagacity.

Dr. Williams can be credited with leadership in the domains of theory, application, and detail. He worked closely with my chair and me in operationalizing the research effort. His efforts, along with those of Dr. Uysal, were responsible for obtaining the grant which funded the collection of the data and its coding. His untiring efforts and brilliant mind are sincerely esteemed.

I am grateful to the U.S. Forest Service for providing the funding for the operationalization of the survey. This government agency is to be commended for its interest in the community surrounding the Mount Rogers Recreation Area.

Sincere gratitude is expressed to my sisters Diana, Faith and Cynthia for their encouragement and support and to my deceased parents who had instilled in me the love of life and learning.

TABLE OF CONTENTS

CHAPTER I. Introduction	1
1.1 Research Question	1
1.2 Knowledge Foundation	3
1.3 Objective	6
1.4 Theoretical Basis	7
1.5 Propositions	18
1.6 Structural Model of the Study	24
1.7 Contribution of the Study	28
1.8 Limitations	29
1.9 Functional Definition of Terms	31
 CHAPTER II. Literature Review	 32
2.1 Relevance of this Research	33
Benefits and Costs of Tourism	35
Carrying Capacity	38
Local Involvement	41
2.2 Social Exchange	46
2.3 Support for Tourism Development	49
2.4 Economic Concerns	54
Employment Opportunities	55
Revenues from Tourists for Local Governments	57
Price of Goods and Services	58
Cost of Land and Housing	59
2.5 Social Concerns	60
Congestion	60
Crime	61
Local Services	62
Relationship Between Residents and Tourists	63
Opportunities for Shopping	64
Opportunities for Recreation	64
Preservation of the Local Culture	65
2.6 Environmental Concerns	67
2.7 Factors Influencing the Perception of the Impacts of Tourism	68
Utilization of the Tourism Resource	68
Economic Dependency	71
Attachment to the Community	72

TABLE OF CONTENTS (continued)

Ecocentric Attitude	75
2.8 Summary of Chapter II	80
CHAPTER III. Research Methodology	84
3.1 Introduction	85
3.2 Research Framework	65
3.3 Research Hypotheses	86
Path Model	87
3.4 Research Design	93
Sample	93
Non-Response Bias	95
Survey Instrument	96
Variables	97
Ultimate Dependent Variable	97
Intervening Endogenous Variables	98
Economic Impact	99
Social Impact	99
Environmental Impact	100
Exogenous Variables	100
Economic Gain	100
Use of the Tourism Resource	101
Ecocentric Attitude	102
Attachment to the Community	102
3.5 Validity and Reliability of the Data	105
3.6 Data Analysis	112
3.7 Limitations and Assumptions of the Data Analysis	115
CHAPTER IV. Results	117
4.1 Profile of the Respondents	118
Age	118
Years of Residency	118
Household	118
Occupation and Job Status	118
Income	119
4.2 Profile of the Variables	119
4.3 Hypotheses Testing	121
4.3A Analysis of Hypothesis 1	122
Support for Nature-Based Tourism	124
Support for Attraction-Based Tourism	126
Support for Culture- or Historic- Based Tourism	127
Support for Event-Based Tourism	127

TABLE OF CONTENTS (continued)

	Prohibiting All New Development	128
	Summary of the Analysis of Hypothesis 2	129
4.3B	Analysis of Hypothesis 2	130
	Attraction-Based Development	133
	Culture- or Historic-Based Development	139
	Event-Based	141
	Summary of the Analysis of Hypothesis 2	142
4.3C	Analysis of Hypotheses 3 to 6	142
	Potential for Economic Gain	145
	Use of the Tourism Resource	146
	Ecocentric Attitude	148
	Community Attachment	150
	Summary of the Analysis of Hypotheses 3 through 6	151
4.3D	Analysis of Hypothesis 7	152
	The Interactive Effect of Valued Elements in the Formation of Support for Tourism in the Event-Based Model	156
	Economic Gain	156
	Use of the Tourism Resource	157
	Ecocentric Attitude	159
	Community Attachment	160
	The Interaction of the Exogenous Variables in the Formation of Perceptions of the Impacts	160
	Perception of the Economic Impact	161
	Perception of the Social Impact	162
	Perception of the Environmental Impact	162
	Summary of the Analysis of Hypothesis 7	163
4.4	Analysis of the Implicit Hypotheses in the Model	163
4.4A	Analysis of the Effect of Exogenous Variables on the Impact Variables	164
4.4B	Analysis of the Model with Support for Nature-Based Tourism as the Dependent Variable	167
4.4C	Analysis of the Model with Support for Attraction-Based Tourism as the Dependent Variable	170

TABLE OF CONTENTS (continued)

4.4D	Analysis of the Model with Support for Culture-Based Tourism as the Dependent Variable	174
4.4E	Analysis of the Model with Support for Event-Based Tourism as the Dependent Variable	176
4.4F	Analysis of the Model with Prohibit All New Development as the Dependent Variable	179
4.5	Analysis of Hypothesis 8	184
	Effect of the Impact Variables on Various Types of Tourism	168
	Economic Gain	168
	Use of the Tourism Resource	187
	Ecocentric Attitude	187
	Community Attachment	187
	Summary of the Analysis of Hypothesis 8	187
4.6	Summary of Chapter V	188
CHAPTER V. Discussion, Implications, and Conclusion		193
5.1	Introduction	194
5.2	The Perception of the Impact of Tourism Affects Support for Tourism	196
	Perception of the Economic Impact	197
	Perception of the Social Impact	197
	Perception of the Environment	198
	Comparison of the Effect of the Three Impacts	198
5.3	Each Impact is Affected by Valued Elements	199
	Economic Impact	200
	Social Impact	200
	Environmental Impact	201
	Summary of the Effect of Valued Elements on the Perception of the Impacts	202
5.4	Each Valued Element Affects the Perception of the Impacts	202
	Potential for Economic Gain	202
	Use of the Resource	202
	Ecocentric Attitude	203
	Community Attachment	204
	Summary of the Effect of the Valued Elements on the Perception of the Impacts	206

TABLE OF CONTENTS (continued)

5.5	The Valued Elements Affect Support for Tourism	206
	Potential for Economic Gain	207
	Use of the Resource	208
	Ecocentric Attitude	209
	Community Attachment	210
5.6	The Interplay Affects Supports for Various Types of Tourism	211
	Nature-Based Tourism	211
	Attraction-Based Tourism	213
	Culture/Historic-Based Tourism	214
	Event-Based Tourism	214
5.7	Path Analysis Revealed Otherwise Hidden Information	215
5.8	Implications for Planning and Development Implications for Tourism Planning in the Early Stages	218
	Implications for Destinations in Other Stages of Development	220
5.9	Implications for Future Research Examination of Factors that Affect Perceptions of the Impact	220
5.10	Evaluation of the Attachment Variable	223
5.11	Contributions of the Study	224
	Theoretical Advancement in Tourism	224
	Theoretical Advancement in Social Exchange Theory	227
	Practical Application in Tourism Planning	227
5.12	Conclusion	228
BIBLIOGRAPHY		230
APPENDIX A Sampling Design		245
APPENDIX B Survey Instrument		248
APPENDIX C Exploratory Analysis		256
APPENDIX D Respondent Profile Data		265
APPENDIX F Analysis of Non-Response Biase		270

LIST OF TABLES

Table 3.1	Cronbach's Alpha and Item to Total Correlation of the Items Measuring Support for Tourism	107
Table 3.2	Cronbach's Alpha and Item to Total Correlation of the Items Measuring the Perception of the Impact of Tourism . .	108
Table 3.3	Cronbach's Alpha and Item to Total Correlation for the Potential for Economic Gain Scale	109
Table 3.4	Cronbach's Alpha and Item to Total Correlation of the New Environmental Paradigm Scale Used to Measure Ecocentric Attitude	110
Table 3.5	Cronbach's Alpha and Item to Total Correlation of the Items Used to Measure Use of the Tourism Resource	111
Table 4.1	Measures of Central Tendency of the Path Model Variables	120
Table 4.2	Path Coefficients of the Effect of Perception of the Impact on Support for Tourism	125
Table 4.3	Decomposition of the Correlation Between Exogenous Variables and Nature-Based Tourism	135
Table 4.4	Decomposition of the Correlation Between Exogenous Variables and Attraction-Based Tourism	136
Table 4.5	Decomposition of the Correlation Between Exogenous Variables and Culture-Based Tourism	140
Table 4.6	Decomposition of the Correlation Between Exogenous Variables and Event-Based Tourism	143

LIST OF TABLES (continued)

Table 4.7	Decomposition of the Correlation Between Exogenous Variables and Prohibiting All New Development	144
Table 4.8	Effect of Economic Gain on the Impact and Support Variables	147
Table 4.9	Effect of Use of the Resource on the Impact and Support Variables	147
Table 4.10	Effect of Ecocentric Attitude on the Impact and Support Variables	149
Table 4.11	Effect of Community Attachment on the Impact and Support Variables	149
Table 4.12	Path Coefficients of the Relationship Between Exogenous and Endogenous Variables	153
Table 4.13	Comparison of the Direct to Total Effects of the Exogenous Variables on the Support for Types of Tourism Variables . .	155
Table 4.14	Percent of Total Effect of Exogenous Variables on Support for Event-Based Tourism Which is Attributable to Its Direct and Each Indirect Effect	158
Table 4.15	Summary of the Total Effects of Antecedent Variables on Support for the Four Types of Tourism and Prohibiting Tourism	185
Table 5.1	Comparison of Direct and Total Effects of the Exogenous Variables on Support for Tourism	217
Table A.1	Geographical Description of the Twelve Sample Segments	246
Table A.2	Proportional Distribution and Return Rate of Survey Instrument by Segment	247

LIST OF TABLES (continued)

Table C.1 Correlation Matrix	264
Table D.1 Age of Respondents	265
Table D.2 Length of Residence of Respondents	265
Table D.3 Household Configuration of Respondents	266
Table D.4 Income of Respondents	266
Table D.5 Employment Status of Respondents	267
Table F.1 Results of Analysis of Variance of Responses to Selected Survey Items by Respondents and Non-Respondents	271
Table F.2 Chi-Square Test of Homogeneity of Proportions of Gender of Respondents and Non-Respondents	271

LIST OF FIGURES

Figure 1.1 The Tourism Exchange System 16

Figure 1.2 Path Analytic Model of Resident Support
for Tourism 25

Figure 3.1 Path Analytic Model of Resident Support
for Tourism 88

Figure 4.1 Path Analytic Model of Resident Support
for Tourism 123

Figure 4.2 Path Model of Resident Support for
Nature-Based Tourism 168

Figure 4.3 Revised Path Model of Resident Support for
Nature-Based Tourism 169

Figure 4.4 Path Model of Resident Support for
Attraction-Based Tourism 171

Figure 4.5 Revised Path Model of Resident Support for
Attraction-Based Tourism 173

Figure 4.6 Path Model of Resident Support for
Culture-Based Tourism 175

Figure 4.7 Revised Path Model of Resident Support for
Culture-Based Tourism 177

Figure 4.8 Path Model of Resident Support for
Event-Based Tourism 178

Figure 4.9 Revised Path Model of Resident Support for
Event-Based Tourism 180

Figure 4.10 Path Model of Resident Support for
Prohibiting All New Development 181

Figure 4.11 Revised Path Model of Resident Support for
Prohibiting All New Development 183

LIST OF EXHIBITS

Exhibit 2.1 Impacts of Tourism 30
Exhibit 4.1 Summary of Significant Relationships . 192

CHAPTER I

Introduction

The introduction specifies the research problem and provides background information on which the research question is based. Subsequently, the research objective is defined and the theoretical basis for the study is explained. Five propositions with associated hypotheses followed by a description of the structural model of the study are presented next. A discussion of the contribution the study expects to make ensues. Finally, functional definitions of terms used in the study are submitted and the scope of the study is delineated.

1.1 RESEARCH QUESTION

The support of the indigenous population is essential for the development, successful operation and sustainability of tourism. When tourists are made to feel welcome by the host community, they are more likely to return and recommend the destination to their friends. On the other hand, a destination will lose its attractiveness if tourists are treated with indifference or disdain. Furthermore, the quality of life of the residents who are impacted by tourism in their community should be a major concern for community leaders. If the development of tourism results in a lesser quality of life, residents may feel that the economic benefits are not worth the costs. The elements that affect resident reaction to tourism development are dynamic and complex. This research seeks to add to the knowledge concerning elements that shape attitudes toward tourism held within the host community.

The study explores the interplay of specific elements that affect host community resident attitudes toward tourism. Specifically, the questions this research seeks to answer are:

How do resident perceptions of the economic, social and environmental impact affect their support for tourism?

- Are the perceptions affected by:
 - 1) use of the existing tourism resource?
 - 2) potential for economic gain?
 - 3) ecocentric attitude? and/or
 - 4) community attachment?

- Do the perceptions and resulting support vary with the type of tourism, i.e., nature-, attraction-, culture/historic-, or event-based tourism?

1.2 KNOWLEDGE FOUNDATION

Previous researchers have described the impact of tourism on the host community and have delineated economic, environmental and social benefits and costs. Most travel and tourism textbooks address the issue of the impacts of tourism as an important component which needs to be considered by decision makers involved with the planning of tourism (Gee, Mackens and Choy, 1989; Gunn, 1988; McIntosh and Goldner, 1986; Murphy, 1985). In his classic book, Passport to Development, de Kadt (1979) pointed out the general failure of tourism destination planners to establish "a clear framework to determine which questions need to be considered, and what factors should enter into their decision making" (p. 41). Similarly, Matheison and Wall (1982) present a synthesis of the research on the impacts of

tourism in their book which focuses on interrelationships of a combination of phenomena associated with tourism development. They evidence the complex nature of planning tourism destinations and the need for research on the varied and often paradoxical effects:

It is easy to say that planners of tourism should maximize the benefits from tourism and minimize the costs. However, it is not possible to maximize some effects and minimize others at the same time. Trade-offs will be required and compromise will be necessary. . . . The assessment of alternative policies implies the existence of a sound knowledge base. It is necessary that studies of tourism supply the information on which sound planning decisions can be made (p. 178).

The economic impact of tourism has been commonly viewed as a positive force which increases total income for the local economy, foreign exchange earnings for the host country, direct and indirect employment, and tax revenues as well as stimulating secondary economic growth (Uysal, Pomeroy, and Potts, 1992; Peppelenbosh and Templeman, 1989; Bryant and Morrison, 1980; de Kadt, 1979; Samoui, 1979; McNicoll, 1979).

Butler (1974) breaks down the social impact of tourism into three generalized areas: 1) the resources used by local residents; 2) economic well being; and 3) life styles. A large portion of social or cultural impact studies consider tourism as a cultural exploiter or polluter (Young, 1977;

Greenwood, 1977; Fanon, 1966). Additionally, tourism has frequently been criticized for the disruption of traditional social structures and behavioral patterns (Butler, 1974; Kousis, 1989). However, tourism has also been viewed as a means of revitalizing cultures when dying customs are rejuvenated for tourists (Witt, 1990; McKean, 1977; Boissevain, 1977).

Studies of the environmental impact of tourism focus on tourism development, stress and preservation (Farrell and Runyan, 1991). Alpine areas, coastlines, islands, lakes and habitat areas are generally sensitive to intense usage resulting from tourism development (Murphy, 1985). Krippendorf (1982) urges planners to protect the resource on which tourism is dependent.

Investigations have explored the potential link between the impact of tourism and resident attitudes toward tourism by comparing residents across levels participation in recreation (Perdue, Long, and Allen, 1987; Keogh 1990), attachment to the community or length of residence (Um and Crompton, 1987), knowledge about tourism (Davis, et al., 1988), proximity to the tourist zone or contact with tourists (Belisle and Hoy, 1980; Sheldon and Var, 1987), socio-demographic characteristics (Brougham and Butler, 1981; Ritchie, 1988), political and economic position in

society (Thomason, Crompton, and Dan Kamp, 1979; Mansfeld, 1992), type and form of tourism (Murphy, 1981; Ritchie, 1988), and economic benefits derived from tourism (Pizam, 1978; Liu and Var, 1986; Ap, 1992a; Prentice, 1993). The research on resident perceptions of the impact of tourism has been descriptive and largely atheoretical. Most of our knowledge about resident attitudes toward tourism has come from the analysis of surveys which ask respondents to indicate a level of agreement with positive or negative statements about the impact of tourism (Pizam, 1978; Belisle and Hoy, 1980; Davis, Allen, and Cosenza, 1988; Allen, Hafer, Long, and Perdue 1993). A few researchers found a linear relationship between support for tourism and certain perceptions and personal characteristics (Milman and Pizam, 1987; Perdue, Long, and Allen, 1990). Other studies infer that there are varying levels of support for tourism within a community (Doxey, 1975; Dogan, 1989), and that the relationship may be nonlinear (Allen, Long, Perdue, and Keiselbach, 1988). Yet, the dynamic and complex nature of the basis on which residents draw conclusions about tourism remains unclear.

1.3 OBJECTIVES

This study seeks to build on previous research which has demonstrated the link between perceptions of the impact

of tourism and support for tourism. The research objectives are to identify :

- 1) the interactive effect of the elements specified in the research question on the perceptions of the impact of tourism and, subsequently, on expressed support for tourism;
- 2) the interactive effect of the perceptions of economic, social and environmental impacts of tourism on support for tourism; and
- 3) the affect of this interaction on support for various types of tourism.

1.4 THEORETICAL BASIS

Earlier research has failed to explain why residents respond to the impact of tourism the way they do and why there are various levels of support within the same community. Social exchange theory provides an appropriate framework for examining the question of resident reactions to tourism. Exchange theory views the trade or exchange of valued objects and sentiments as the basis of social order (Skidmore, 1974). The doctrine suggests that individuals will engage in exchanges if 1) the resulting rewards are valued; 2) the exchange is likely to produce valued rewards; and 3) if perceived costs do not exceed perceived rewards.

Social exchange theorists, Homans (1961), Blau (1964), Emerson (1969, 1976) have adopted principles from utilitarian economic theory, functional anthropology theory,

and behavioral psychology theory to formulate the principles of social exchange (Turner, 1986). Utilitarian principles propose that humans rationally weigh costs against benefits to maximize material benefits (Parsons, 1937 in Turner, 1986, p. 216). Exchange theorists have reformulated the utilitarian principles by recognizing that humans are not perfectly economically rational, and do not always seek to maximize benefits but instead engage in exchanges from which they can reap some benefit without incurring unacceptable costs. Further, Homans (1958, 1961, 1967) proposed that humans pursue more than material goals in exchanges and that sentiments, services and symbols are also exchange commodities. The following explains how Homans' doctrine discredits Talcott Parson's economic man theory, stating:

The trouble with him [the economic man] was not that he was economic, that he used resources to some advantage, but that he was antisocial and materialistic, interested only in money and material goods. . . (1962:79).

Thus, the exchange process includes not only money, information, and tangible goods but also non-materialistic benefits such as approval, esteem, compliance, love, joy, and affection (Turner, 1986). Further, the maximization of profit is not the motivating factor behind the exchange. People will enter into an exchange if they feel the transaction results in a gain, even if the gain does not

maximize profits.

Functional anthropologists focused on the patterning of interaction which constrains the kinds of social structures that emerge from a society. The structures are dependent upon the relative access of groups to power, prestige and privileges. Symbolic exchanges provide the functional structure to meet individual and societal needs (Frazer, 1919, Malinowski, 1922 in Turner 1986, p. 217- 221). The psychological needs addressed in the social exchange theory were merged with social needs by Mauss (1954 in Turner, 1986, p.221-2) who suggested that exchange relations create, reinforce and serve to regulate group morality. To complete the linkage with structuralism, Levi-Strauss (1969) proposed that the costs involved are attributed to social order and that highly valued symbolic resources are not regulated by society until they become scarce. He proposed that the norm of reciprocity requires that upon receipt of something valuable, the receiver in turn proffers a valued resource. His work differs from that of other exchange theorists in that forms of social structure are the critical variables in the exchange analysis (Turner, 1986). Structuralist exchange models provide potential explanations when the unit of analysis is the community.

However, the psychological behavioralist principles are

more useful in explaining the behavior of individuals. Its principles of reward and punishment, which were derived from the work of Pavlov, Thorndike and Watson, and Skinner, have been brought into modern social exchange theory as rewards and costs (Turner, 1986). The behavioristic approach of George C. Homans and the economic strategy developed by Peter M. Blau offer the greatest guidance for developing an explanation of why residents react to tourism the way they do. Homans argues that social structures are created and sustained by the behaviors of individuals. Thus, principles derived by him are focused on the direct exchanges among individuals. Blau limits Homans' theory which encompasses all activity as exchange to relations with others from whom rewards are expected and received. Both authors reject the theory of the economic man of classical economics and contend that individuals pursue several goals at the same time, may be inconsistent in preferences, rarely have complete information, and are bound by social associations. Furthermore, these two exchange theorists acknowledge that the media of exchange are pluralistic, i.e., individuals are likely to be evaluating a range of interacting rewards and costs in making rational decisions.

Emerson, like Homans, develops his social exchange principles around operant psychology but extends these

principles to include the complexity of social organization (Turner, 1986). His theorems provide an explanation of exchange based on the value of rewards along with the uncertainty and balance of the exchange relation. The extension encompasses the interrelationship of dependency and power in the exchange. Emerson's work moves the unit of analysis from the individual to the dyadic exchange relationship. Both Emerson and Blau set the focus of the exchange theory in societal norms. Homans' theory explains more individual actions.

Thibaut and Kelly (1959) assume that the proper theoretical standpoint from which to understand the larger group is the dyad, a point that is only implied by Homans (Skidmore, 1975). The assumption is that if the dyad, the two person group, can be explained, the theory can encompass problems of larger and more complex social relationships. Thus, group outcomes can be predicted through individual interactions. The implications of this research are based on the assumption that if the determinants of the attitude toward the exchange between residents and tourists can be explained at the individual level, the community reaction to the exchange can be understood. Consequently, the results can be used to address planning and development issues.

The exchange elements for host community residents

include economic, social and environmental rewards and costs (Matheison and Wall, 1989). An understanding of the exchanges made in all three categories is critical to explaining the interaction of factors which influence resident perceptions of tourism as an economic development strategy. Homans explains that the calculations of rewards and costs are made in light of what is personally rewarding and that which is rewarding is unique to a given individual. Resident evaluations of the economic, social and environmental rewards and costs are expected to differ based on personal reward measures. Further, social exchange principles suggest that people will enter into an exchange if they feel they can make some gain from it. This gain could be made in any one or more of the exchange segments. The exchange of valued objects from which a gain or a loss could be realized include economic, social and environmental tangible resources. Also, valued sentiments which can be psychologically, sociologically or culturally grounded can be elements of exchange.

The theory assumes individuals select exchanges after having assessed rewards and costs. The perception of the impact of tourism is a result of this assessment. The way people perceive the impact of tourism is affected by the exchange they believe they are making. Consequently,

individuals who evaluate the exchange as beneficial will perceive the same impact differently than someone who evaluates the exchange as harmful. Expressed support for tourism development is considered as a willingness to enter into an exchange with the tourists.

A few researchers have attempted to apply the principles of social exchange in an effort to explain the reaction of residents. For example, Perdue, Long, and Allen (1987) used the logic in social exchange theory to explain the differences in tourism perceptions and attitudes based on variances in participation in outdoor recreation. They hypothesized that outdoor recreation participants, when compared to non-participants, would perceive more negative impacts from tourism because of the opportunity costs associated with tourist use of local outdoor recreation areas. However, their findings failed to support this hypothesis. There are two possible explanations for this failure: 1) participants may have adopted coping mechanisms to avoid competition with tourists (Bryant and Napier, 1981); or 2) the residents may have felt that tourism had improved rather than reduced the quality of outdoor recreation opportunities. Support for the second supposition can be found in the results of several quantitative studies which found that residents view tourism

as a benefit which increases recreational opportunities (Pizam, 1978; Rothman, 1978; Murphy, 1981; Sheldon and Var, 1984; Liu, Sheldon and Var, 1987; Keogh, 1990).

Ap (1992a) also based his research on social exchange principles in an exploration of the relationship between resident perceptions of their power to control tourism and their support for tourism development. However, according to Ap (1992a), "the power discrepancy variable did not emerge as the most important variable in explaining the variance of perceived tourism impact" (p.236). Ap attributes the failure of the study to test the exchange relation concept to the non-experimental design of the study which precluded the manipulation of the power variable. He suggested that a study of the value of the resources and perceived benefits and costs may provide further insight into exchange relationships and that a quasi-experimental design might better test power discrepancy as a factor influencing host community resident attitudes toward tourism.

Another study did conclude that the social exchange model was useful in explaining the linkage between expectation of profits from outdoor recreation development and dissatisfaction with existing outdoor recreation facilities (Bryant and Napier, 1981). However, the

relatively low bivariate relationship led these researchers to determine that important explanatory variables, such as preferences, were not included in their model.

These studies suggest that exchange theory provides a suitable framework for analyzing resident attitudes toward tourism and for discovering an explanation of why resident attitudes change over time and why there may be a spectrum of different attitudes within the same community. This research is an attempt to resolve some of the methodological issues which resulted in the lack of strong evidence to support the exchange model.

Tourism is studied here as an exchange system with three components - tourist businesses/services; the host community and the tourists. The process of tourism requires each component to evaluate the benefits and costs of the exchange. In deciding the desirability of the exchange, each component brings to the relationship valued objects and sentiments. Enduring interaction will be that which satisfies both components (Skidmore 1974). The tourism exchange model depicted in Figure 1.1 provides a method for analyzing factors that affect the evaluation and the ultimate outcome of the exchange. The model describes that tourism is a system of exchanges between tourist businesses/services and the tourist, as an exchange

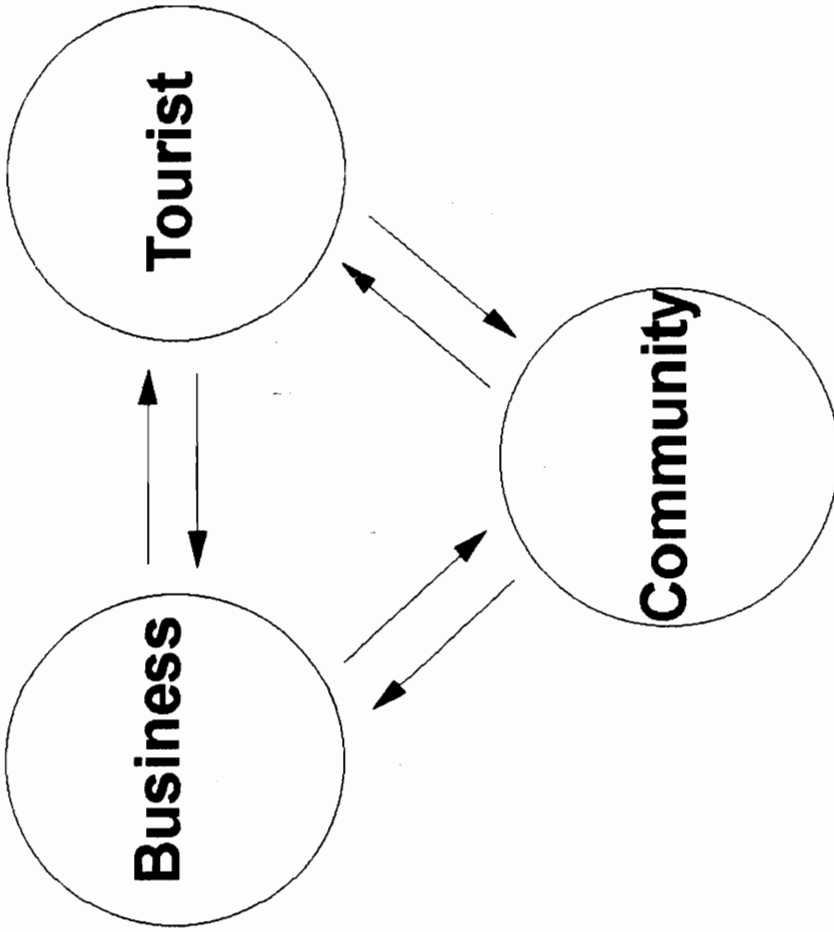


Figure 1.1 The Tourism Exchange System

between tourist businesses/services and the host community. A balanced system maintains a positive distribution of benefits over costs for each component. Theoretically, if any component perceives the distribution as positive, it will seek to maintain the exchange relationship. On the other hand, if that component perceives a negative distribution, it will seek to discontinue the relationship.

The evaluation of the tourism exchange system model is dependent upon a number of stages. First, the elements being exchanged by each component must be identified and evaluated where the unit of analysis is the individual or the social institution. Once these are identified and evaluated, research needs to determine how the factors of likelihood, distribution and comparison levels affect the exchange relationship. In this step, the unit of analysis is the dyad. Another level which needs to be evaluated is how social structure is affected by the exchange and how social structure is a means of adjusting an imbalance. In this phase, social structure is the unit of analysis.

This research is focused on the community component of the model where the unit of analysis is the individual resident. It seeks to identify the valued objects and sentiments which the community residents bring to the tourism exchange. Further, the study will evaluate how

these exchange elements interact in order to determine resident support for tourism which is viewed as a desire to enter into or maintain a tourism exchange relationship.

The attitudes residents of a destination area express toward tourism are dependent upon how they evaluate the exchange of costs (losses) versus benefits (gains) of tourism since attitudes may reflect of the sum of beliefs about the costs and benefits of tourism. The exchange principles used to guide this research apply the behaviorist approach of Homans and the economic strategy of Blau. The following principle derived from the works of these two social exchange theorists is guiding this research:

Guiding Principle: The resident evaluation of the exchange of benefits and costs affects perceptions of the impact of tourism, which in turn affect support for tourism.

From this guiding principle five propositions have been derived, each based on tenets of the social exchange theory and the findings of earlier research on resident attitudes toward tourism.

1.5 PROPOSITIONS

The first two propositions are based on Homans' success and stimulus propositions which posit that individuals are likely to perform an action when that action is rewarded and

if, in the past, the occurrence of a set of stimuli has been the occasion on which a person's action has been rewarded. The proposition is further supported by Blau's rationality principle which proffers a direct relationship between the expectation of profit (the expected reward minus the cost) and the performance of a particular activity. Consequently, resident support for tourism can be expected to vary with perceptions of the benefits of tourism. This proposition is largely confirmatory of the results of resident attitude studies which have demonstrated the linear relationship between perceptions of the impact of tourism and support for tourism (Milman and Pizam, 1987; Perdue, Long, and Allen, 1990). It is included here as the basis for the succeeding propositions.

Proposition 1 : Resident support for tourism will vary with individual perceptions of the benefits of tourism.

Hypothesis 1: A positive relationship exists between resident perception of the benefits of tourism and support for tourism.

The first proposition remains true only when individuals perceive the exchange to be mutually rewarding. Homans (1974) proposes individuals will avoid exchanges unless they are balanced, i.e., each individual receives an equal reward. If the exchange is unequal, the one with the lower reward will avoid further interaction (Homans 1974).

Therefore, the second proposition suggests that resident support for tourism is dependent upon a mutually rewarding situation, or one that does not put the resident in a weaker position.

Proposition 2 : Resident support for tourism will vary with the perception of the magnitude of benefits over costs.

Hypothesis 2: A positive relationship exists between a perceived favorable distribution of benefits over costs and support for tourism.

These first two hypotheses are designed to confirm the findings of previous researchers (Milman and Pizam, 1987; Perdue, Long, and Allen, 1990). They, however, are a necessary component of this research because they form the basis for the interactive elements being tested here.

Variance in the perception of the benefits of tourism is expected based on Homans' value proposition which states that the likelihood of performance of an action increases with the value placed on the result of such action. Kluckhohn (1951) contends that values provide the foundation for the choices, decisions and judgements people make. He defines values as, " a conception. . . of the desirable which influences the selection from available modes, means and ends of action" (p. 395). Values have a causal relationship for action because they act as the criteria for judgement preferences and choices (R. M. Williams, 1979).

Since the perceptions of the impact of tourism are founded on the evaluation of the exchange, values become a key variable in the determination of not only how individuals perceive the impact of tourism, but also of the level of support for tourism individuals express. Consequently, we can expect resident perceptions of the benefits to vary with the value they place on that which is affected by tourism such as, the resource base, economic gain, the natural environment, and/or their community. This supposition leads to the third proposition.

Proposition 3 : Resident perception of the benefits and costs of tourism and their subsequent support for tourism will vary with attitudes toward the tourism resource, their community, economic gain and the environment.

- Hypothesis 3: A positive relationship exists between the potential for economic gain and both perception of the benefits and support for tourism.
- Hypothesis 4: A positive relationship exists between the importance placed on the use of the tourism resource and both perception of the benefits and support for tourism development.
- Hypothesis 5: A negative relationship exists between ecocentric attitude and both perception of the benefits and support for tourism.
- Hypothesis 6: A negative relationship exists between the degree of attachment to the community and both perception of the benefits and support for tourism.

Both Blau and Homans acknowledged that the media of exchange are pluralistic. Individuals pursue several goals at the same time. It can, therefore, be expected that the factors delineated in Proposition 3 interact with each other in the assessment of the impacts and support for tourism. The fifth proposition is developed from this expectation.

Proposition 4 : Elements that are valued by the resident will interact with each other and with the perception of the impacts of tourism to formulate attitudes towards tourism.

Hypothesis 7: Use of the tourism resource base, expectations of economic gain, ecocentric attitude and community attachment interact in the formation of perceptions of the impact of tourism and both directly and indirectly affect expressed support for tourism.

Homans explains how the evaluations of rewards and costs are tempered by the principles of marginal utility. This axiom suggests that there are limits to the profit individuals find useful, i.e., the more one receives a particular reward, the less rewarding are further increments of that reward. Some scholars have suggested that there is a level of tourism development which, if exceeded, will result in intolerance of tourism (Doxey, 1975, Butler, 1975, Dogan, 1989, Mansfeld, 1992; Ap and Crompton, 1993). Based on this concept, Murphy (1981) hypothesized, "community attitudes will vary according to the type of tourism destination area" (p. 190). Attempts to relate the type and

form of tourism to resident approval or disapproval have supported his assumptions. Liu, Sheldon and Var (1987) concluded that sensitivity to impacts increases with the maturity of the tourist industry. Further, support for an increase in tourism was found to be positively related to the level of development (Ritchie, 1988) and negatively related to the perceived future of the community (Allen, Hafer, Long, and Perdue, 1993). When the principle of marginal utility is coupled with the value principle, the two principles explain why resident perception of the impacts and ensuing support vary with the type of tourism proposed and lead to the final proposition.

Proposition 5 : Resident support for tourism will vary with the type of tourism proposed.

Hypothesis 8: The interplay of elements affecting the perception of the impact and support for tourism will vary with the type of tourism proposed.

These propositions and their associated hypotheses suggest that resident perceptions of the impact of tourism affect their support for tourism and that these perceptions are influenced by other factors such as community attachment. The dynamic nature of these relationships requires an analytic technique which will reveal the interaction of the variables and confirm the hypothesized causal relationships. Path analysis provides the means to

examine the variability among these variables and can provide evidence of causation. By combining correlational data with an explicit theory of cause and effect, the path analytic method can provide evidence of the causes of resident support for tourism. The assumption of causation is explained by Cohen and Cohen (1983) who assert that while correlation does not imply causation, causation manifests itself in correlation. Consequently, one can use correlational data to provide evidence of theoretically derived relationships. Path analysis is primarily used to separate correlations among variables into causal and noncausal components. It is, therefore, appropriate for confirming the causal relationship of the variables and for examining the extent to which the variables interact. This method is particularly appropriate to provide evidence of causation for nonexperimental data where variables such as individual attitudes can not be manipulated (Cohen and Cohen, 1983; Keith, 1988).

1.6 STRUCTURAL MODEL OF THE STUDY

In this study, a structural model of the presumed causes of support for tourism was constructed. Formal theory, as well as previous research, formed the basis for the development of the model depicted in Figure 1.2. The path model includes the primary cause variables, resident perceptions of the impact of tourism and the effect

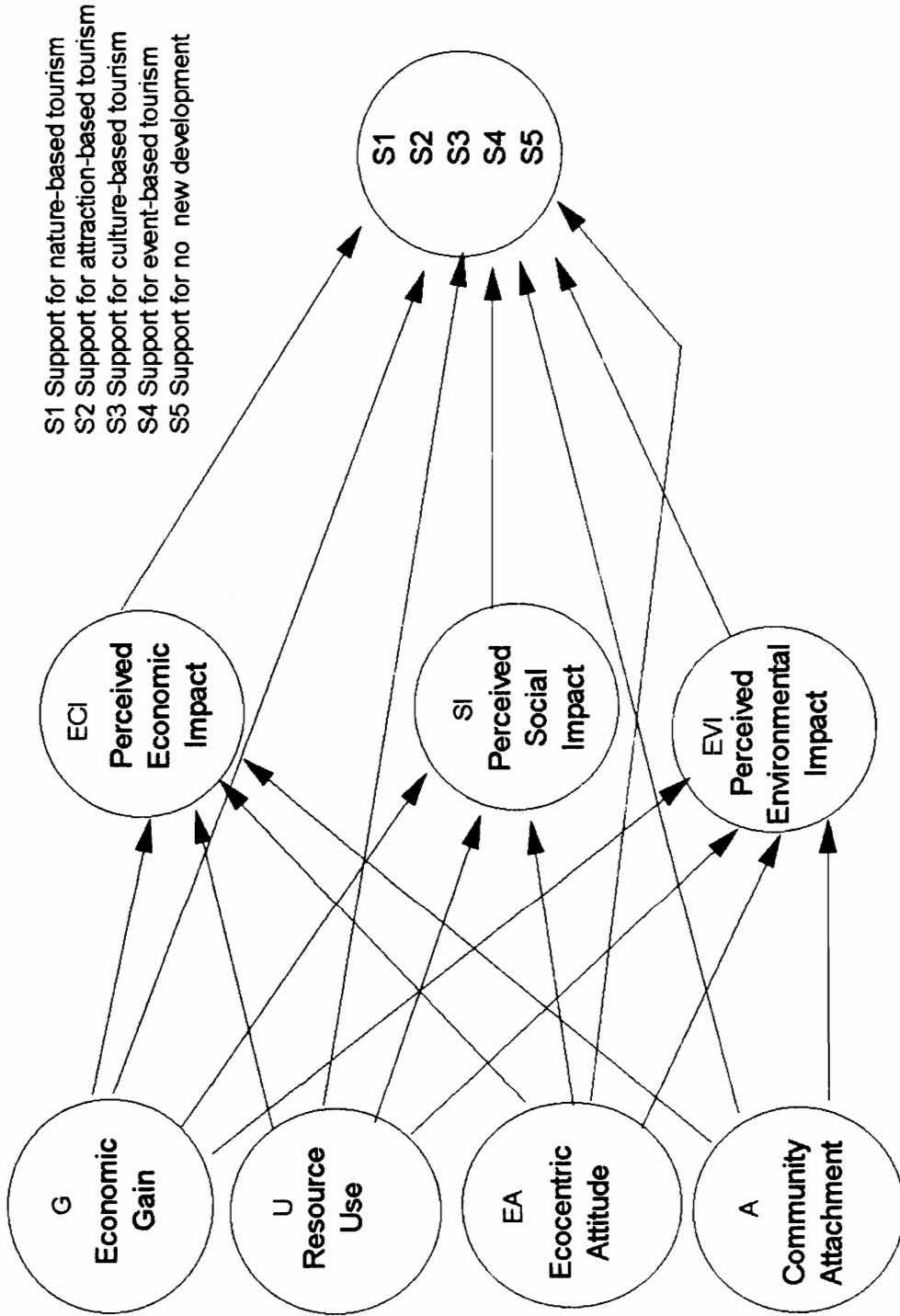


Figure 1.2 Path Analytic Model of Resident Support Ffor Tourism

variable, resident support. Also included are other variables that research has suggested affect both the presumed cause and the presumed effect; use of the tourism resource, community attachment, economic gain and ecocentric attitudes are likely to affect perceptions of the impact as well as support for tourism. The analysis will provide estimates of causal effects thought to exist.

The model proposes that expressed support for tourism development is a function of perceived economic, social and environmental impact, potential economic gain, frequency of use of the tourism resource and attachment to the community and can be expressed:

$$S_{1-5} = F(\text{ECI}, \text{SI}, \text{EVI}, \text{U}, \text{EA}, \text{G}, \text{A})$$

where:

$$\text{ECI} = F(\text{U}, \text{EA}, \text{G}, \text{A})$$

$$\text{SI} = F(\text{U}, \text{G}, \text{A})$$

$$\text{EVI} = F(\text{U}, \text{EA}, \text{G}, \text{A})$$

where:

- S_1 = support for nature-based tourism
- S_2 = support for attraction-based tourism
- S_3 = support for culture- or historic-based tourism
- S_4 = support for event-based tourism
- S_5 = prohibition of new development
- ECI = economic impact
- I = social impact
- EVI = environmental impact
- U = use of the tourism resource area
- EA = ecocentric attitude
- G = potential economic gain
- A = attachment to the community

The path model describes the logical flow of factors which impact resident support for tourism. The direction of

the arrow at the end of a line depicts a progressive, causal linkage between the variables. The arrow specifies that, if there is a causal relation, it is in the direction depicted. In this model, recreation use, economic goal, ecocentric attitude and community attachment are considered exogenous variables, i.e., variables that are not predicted by any other variables in the model. These four variables are considered to be partial causes of the perception of impacts and support for tourism. The arrows lead from the exogenous variables to the other variables which are thought to be at least partially caused by these variables. For example, the arrows which lead from ecocentric attitude to the perception of environmental impacts propose that ecocentric attitude cause the resident's perception of the environmental impacts of tourism.

The other variables in the model are considered endogenous, i.e., variables that are the dependent variable in at least one causal relationship. For example, the perception of the environmental impact is the dependent variable in the causal relationship with ecocentric attitude.

The endogenous variable, expressed support for tourism, is causally affected both directly and indirectly by the four exogenous variables. The indirect effect of variables

on support for tourism will be contingent upon the manner in which they modify the respondents' view of environmental, economic and social impact. Their total effect on support for tourism is comprised of both direct and indirect effects.

Potential economic gain, community attachment levels and tourism resource utilization are expected to affect the way residents perceive all three types of impact. Ecocentric attitude are expected to modify the perception of economic and ecological impact, but not social impact.

The effect of all the variables is expected to vary with the type of tourism proposed; i.e., attraction-, nature-, culture/historic-, event-based or no-growth.

1.7 CONTRIBUTION OF THE STUDY

The potential contribution of this study can be found both in theoretical and practical perspectives:

Theoretical advancement in tourism study

This study contributes to the theoretical advancement in the field of tourism by proposing a model to explain the effect of the interaction of elements important to individuals and their perceptions of the impact of tourism on their support for tourism. It adds to existing knowledge by creating a model which explains factors that influence the perception of the impacts of tourism which subsequently affect attitudes toward tourism. Its uniqueness lies in the

interactive treatment of the variables. The dynamic nature of the proposed structural model provides new insights into understanding factors which affect resident attitudes toward tourism.

Practical application for tourism planing programs

From the practical aspect, the findings of this study will aid in the planning of strategic development programs for tourist destinations. The model can be helpful in understanding factors that need to be addressed in economic development programs which focus on increasing tourism. An understanding of what is important to the individuals within a community will assist resource planners preserve that which is most valued. Further, communication messages designed to elicit support for tourism development can be more effectively designed if planners are cognizant of the values of their audience.

1.8 LIMITATIONS

This research is focused on factors that are important to individuals within the community and excludes the examination of social structure elements such as political power and community cohesiveness. Further, while many other factors may influence the manner in which an individual perceives the impact of tourism, this study is limited to the examination of the specific elements listed in the research question.

The term perception should not be interpreted as either attitudes or beliefs but rather as a concept that is developed through the analytical processes residents use to develop their understanding of the impact of tourism as it relates to the specifically defined impacts examined in the research.

While the research questions were specifically designed to test the hypotheses in this research, the questionnaire used to gather the data also contained questions designed for other purposes. Consequently, the number of questions concerning the issues studied herein was constrained by the needs of the funding agency and the practical need to produce a parsimonious questionnaire.

1.9 FUNCTIONAL DEFINITION OF TERMS USED IN THIS STUDY

Attachment	the social bond and local sentiment (Goudy, 1990) residents express toward their community
Benefit	anything contributing to an improvement in condition; advantage, gain, profit
Community	the people living in a locality which individuals identify as where they live
Cost	loss, sacrifice, detriment, effort, etc. required to achieve an end
Element	factor, determinant
Exchange	the giving and receiving of one thing for another
Impact	effect, result, consequence, repercussion
Interplay	interaction; action, effect or influence on each other or one another
Perception	the understanding, awareness and knowledge of individuals
Resident	an individual that resides within any county adjacent to the destination area in question
Social Exchange Theory	a general theory concerned with understanding the exchange of resources within a social structure
Support	the expressed support for tourism development and/or expansion

CHAPTER II

Literature Review

This chapter begins with a review of the literature which supports the need for this research. Next, social exchange literature will be presented to link the theoretical basis of the study with the elements in the model which provide the organizational scheme for the remainder of the literature review. Working backward through the model the review will continue with an examination of the literature concerning resident reactions to tourism which will be followed by an explanation of the impact measures. The literature concerning, attachment, environmental attitudes, economic gain, and use of tourism resources will follow to support the theory that resident perceptions of the impacts of tourism and their support for tourism are related to these factors.

2.1 RELEVANCE OF THIS RESEARCH

Tourism has been a formidable economic diversification and development tool since the 1960's. Early development projects focused on economic benefits with almost complete disregard for social and environmental impacts. The planning and marketing of tourism have been primarily oriented towards the needs of tourists, but the need to include efforts to manage the welfare of the host population is aptly described by Zehnder:

People in marketing know very well that of all the factors which determine pleasure and enjoyment in travel, there is none more important than the way travelers are treated by local residents of tourist areas. Their attitudes toward tourists are extremely important: for most of us avoid places where we are not readily accepted (1976:212).

Failure to consider the needs of the indigenous population has resulted in the destruction of cultures and values, the disruption of economic systems, the trinketization of crafts and the deterioration of the physical and social environment. Krippendorf (1982) cautioned planners to avoid an imbalance of economic benefits when weighed against social and environmental costs.

The research of the past two decades has demonstrated that tourism development has costs as well as benefits and tourists have been accused of destroying the very thing they

came to enjoy (Krippendorf, 1982). Consequently, sustainable development has become an important topic in the tourism literature. Because the host population is a key element in the success of a tourist destination, sustainable tourism is dependent upon the willingness of the host community to service the tourists.

Yet, the complex nature of planning tourism destinations results in varied and often paradoxical effects. Matheison and Wall (1982) point out the difficulties that arise when planners of tourism attempt to maximize the benefits of tourism and minimize the costs at the same time. They specify the need for trade-offs and compromises. These two authors propose a sound argument for the type of information this research is designed to furnish, "The assessment of alternative policies implies the existence of a sound knowledge base. It is necessary that studies of tourism supply the information on which sound planning decisions can be made" (1982:178).

The following section provides an overview of the complexities with which tourism planners deal. It outlines major benefits and costs which are considered in the development of alternative plans.

Benefits and Costs of Tourism

Tourism can create jobs, provide foreign exchange, produce return on investment for emerging economies, bring technology and training to improve living standards as well as enhance cross-cultural understanding. Hence, economic developers are attracted to the benefits tourism can offer.

The degree to which tourism has generated jobs varies. In Bermuda 75% of the active population is employed in the tourist industry while in Fiji and Bali only 5% to 10% of the population is engaged in tourism related activities (Peppelenbosch and Templeman, 1989). A study in Tunisia revealed that every hotel bed created 1.5 to 2 more jobs in the direct employment category and two additional jobs in the indirect employment grouping and another one-third job connected with investments (mostly construction) (Samoui, 1979). Other researchers (Archer, 1973; Brownrigg and Greig, 1974 and McNicoll, 1976) suggest that for each 10,000 pounds of tourist expenditure 3 to 5 jobs are created. A World Bank study calculated that the creation of one new hotel job would require investments somewhat lower than the investment needed to create a job in heavy manufacturing, but considerably higher than investments necessary for small industries, such as handicrafts (Peppelenbosch and Templeman, 1989).

Like in many other industries, the measure of receipts and especially the net income generated by those receipts a community can expect from tourism expenditure is dependent upon government policies and a variety of local economic characteristics. Bermuda derives 25% of her foreign currency receipts from tourism while Sri Lanka can attribute only 1.5% of its foreign currency receipts to tourism. Studies reveal that net income from tourism ranges from 25% to 90% of the total receipts depending upon the share of national and local interest in the tourist business (Peppelenbosh and Templeman, 1989). The differences in economic benefits derived from tourism accentuate the need for development programs based on the unique characteristics of a community.

Policy decisions increase in their importance when one considers that the benefits are not without economic and social costs. Loss of workers in the agricultural segments has resulted in abandonment of certain crop cultivation. For example, in St. Lucia, because the banana harvest and peak tourism season coincided, no workers could be found to harvest the crop (Young, 1973). Rapid construction has led to heavy unemployment after completion and the frequently seasonal nature of the industry disrupts the employment structure.

Additionally, tourism has frequently been criticized for the disruption of traditional social structures and behavioral patterns. Destination areas that have embraced tourism for its economic benefits have witnessed heightened levels of crime and prostitution, displacement due to rising land costs and loss of cultural heritage of its people, particularly its youth. It has been charged not only with the debasement of sociocultural factors but also with degradation of the environment.

Exploitation and cultural pollution have been seen as the principle consequences of tourism development. Greenwood (1977) and Fanon (1966) argued that tourism exploited the people and cultures of the periphery for the pleasure of the rich tourist proposing that the profits of the tourist industry flowed back to the core areas.

On the other hand, many areas have used tourism to stimulate education and vocational training, improve infrastructure, activate interest in folk arts and traditional handicrafts, encourage conservation of the environment and increase the pace of modernization. Wu (1982) points out that tourism offers economic participation through the informal sector to many low skilled or unskilled individuals. He suggests that tourism offers the poorest segment (those who peddle handicrafts, act as guides, sell

food or drink on the sidewalk, etc.) the opportunity to establish upward links with the formal sector.

The foregoing discussion illustrates the need for an analytical tool designed to explain how residents of a community view the impacts of tourism. Even though the major positive and negative impacts of tourism development discussed in the literature can be inventoried as in Table 2.1, each impact must be appraised in light of the benefits and costs as perceived by the indigenous population.

Carrying Capacity

The debate over the cost/benefit ratio of tourism has incited solutions from theorists seeking to eliminate the negative impact of tourism development. Many of the studies infer that a destination has a carrying capacity and that the cost/benefit balance is a matter of scale. (Wheeller, 1991; Ahmed, 1986; Allen et al., 1988; Cooke, 1982; Cheng, 1980; Doxey, 1976; Young, 1973).

In 1973, George Young hypothesized that a saturation level for tourism in a given locality could be established. Factors such as the availability of labor, the amount of land suitable for hotel development, the capacity of the roads or the principal tourist attraction in the area would

Exhibit 2.1
IMPACTS OF TOURISM

BENEFICIAL ECONOMIC IMPACTS

1. Provides employment opportunities for both skilled and unskilled workers.
2. Generates supply of foreign exchange.
3. Increases income.
4. Increases gross national product.
5. Requires the development of an infrastructure that stimulates local commerce and industry.
6. Raises government revenues.
7. Diversifies the economy.

NEGATIVE ECONOMIC IMPACTS

1. Causes inflation of land values
2. Increases demand for local products, raising prices on food and other products.
3. Diverts funds from other economic development projects
4. Encourages duality.
5. Creates leakages through demand for imports.
6. Results in seasonal employment.
7. Displaces traditional patterns of labor.

BENEFICIAL SOCIAL IMPACTS

1. Creates a favorable image of the country.
2. Provides recreational facilities for residents as well as tourists.
3. Encourages pride in local arts, crafts, and cultural expressions.
4. Facilitates the process of modernization.
5. Provides opportunities for education.

NEGATIVE SOCIAL IMPACTS

1. Creates demonstration effect whereby natives imitate tourists and relinquish cultural traditions.
2. Creates resentment and antagonism related to dramatic differences in wealth.
3. Encourages the trinketization of crafts.
4. Causes overcrowding, congestion, traffic jams.
5. Invites moral degradation resulting in increased crime, prostitution, drug trafficking.
6. Causes conflict in traditional societies.

BENEFICIAL ENVIRONMENTAL IMPACTS

1. Justifies environmental protection and improvement
2. Protects wildlife
3. Encourages reduction of pollution

NEGATIVE ENVIRONMENTAL IMPACTS

1. Fosters Water pollution
2. Tramples delicate soil
3. Destroys coral and coastal dunes
4. Disrupts wildlife

This list of impacts of tourism was compiled by the researcher from the literature on the impacts of tourism (Mathieson and Wall, 1984; Gee, Mackens and Choy, 1989; Gunn, 1988; McIntosh and Goldner, 1986; Murphy, 1985; de Kadt, 1979; Young, 1977; Greenwood, 1977; Fanon, 1968; Butler, 1974; Kousis, 1989; Witt, 1990; McKean, 1977; Boissevain, 1977; Farrell and Runyan, 1991. Krippendorf, 1982).

dictate this saturation level where, if exceeded, the costs of tourism would begin to outweigh the benefits. He advocated a national tourism policy that was sensitive to limits on the division of land, employment and infrastructure.

Empirical studies indicate that resident attitudes towards tourism are related to scale. Studies by Long, Perdue, and Allen (1988) and Allen (1987) indicated that resident attitudes toward tourism development were positive until the percentage of retail sales receipts derived from tourism reached between 3.5 and 10.5% annually. A follow up study by Botlein, McGowan, and Digrion (1991) found that the perceived contribution of tourism to quality of life peaked when the amount of retail sales derived from tourism was approximately 9 percent of the total retail sales.

Piperoglou (1967) noted that regions should be appraised for their capacity to absorb tourists. Physical, environmental, and perceptual or psychological carrying capacities, are reached, respectively, when an area is saturated, the environment is degraded or the visitor enjoyment is diminished (Pearce 1981). Community or social carrying capacity is reached, according to Cooke (1982) and d'Amore (1983), when local residents perceive an unacceptable level of social disbenefits from tourist

development. Lindsay (1986) identified the following factors as determinants of carrying capacities of national parks: the quantity of the park's resources, the tolerance of its resources to use, the number of visitors, the type of use, the design and management of visitor facilities and the attitude and behavior of its visitors and managers.

Milman and Pizam (1988) suggest the delineation of critical limits of how many tourists an area can sustain. Just as a tourism resource has a finite physical carrying capacity, it is hypothesized that communities have a social carrying capacity. These researches noted that tourism has led to changes in value systems, individual behavior, family relationships, collective lifestyles, traditional ceremonies, or community organization. Their findings imply that success of the development programs depends upon the inclusion of the local community in development planning.

Local Involvement

Acknowledgment of the detrimental impacts of tourism development without local involvement can be found in numerous studies (Bryden, 1973; Butler, 1975; Coppock, 1977; Frechtling, 1978; MacCannell, 1977; O'Loughlin, 1970; Young, 1973). Research by O'Leary (1976) found that local residents felt "forced out" of traditional leisure places by increased tourist traffic and because of management agency

regulations and indifference. O'Leary attributed the antagonism expressed by the community to "the failure of non-local agencies to consider locally defined leisure boundaries" (p.263).

The host population perceptions and attitudes have been recognized as essential considerations in tourism planning by numerous researchers (Haywood, 1975; Hiller, 1976; Moseana, 1972; Noronha, 1977; Wilkinson, 1976). Zehnder's (1976) research discusses the importance of the community attitude to the success of tourism development finding that pleasure and enjoyment in travel is dependent upon the way travelers are treated by the local residents of the tourist areas. He points to the fact that people will avoid places where they are not readily accepted.

Doxey's (1976) research proposed that the failure to address the issue of community attitudes, may lead to "irritations" that prove harmful in the long run to tourism development. He explains that outsiders can represent a challenge to the life style of the destination and hypothesizes a four stage "irridex" measure of tolerance threshold for tourism communities. At first the community welcomes the visitors and investors but with little planning, in time tourists are taken for granted and contacts between residents and outsiders become more formal.

In the third stage, residents begin to show annoyance toward the visitors. If policy makers can not reverse this trend, a community becomes openly antagonistic to the tourist industry. At the initial signs of apathy and annoyance, Doxey suggests that policy makers set limits on growth rather than concentrate resources on infrastructure development to avoid moving the irridex into the antagonism stage.

Martin and Uysal (1990) link Doxey's irridex to the life-cycle concept which suggests that the popularity of destinations moves across a spectrum of introduction to decline (Meyer-Arendt, 1985; Crompton and Hensarling; 1978, Plog, 1974, cited in Martin and Uysal). Martin and Uysal (1990) contended that carrying capacity for a destination area is different for each lifestage and that an understanding of the two concepts is crucial for development strategy.

The scale of tourism development was shown to influence the economic impact and indigenous adaptation to tourism by Rodenburg (1980) who found that smaller scale tourism is more likely to offer local people a greater opportunity for profit and control. The small scale projects are hypothesized to result in a more favorable attitude towards tourism.

However, there is evidence to suggest that a homogeneous attitude towards tourism does not exist within communities. Butler (1975) proposed that attitudes and behaviors of groups or individuals to tourism may be positive or negative, active or passive and that combinations of these factors coexist within the same community.

Similarly, Dogan (1989), in an examination of international tourism in Third World countries, suggested that hosts adopt a range of strategies to cope with changes brought about by tourism. The adaptive strategies range from active resistance to complete adoption of Western culture. Four types of responses were identified : resistance, retreatism, boundary maintenance, and adoption. Dogan theorizes that the strategy adopted depends upon the sociocultural structure of the country, the type of tourism and tourists, and the level of tourism development. He explains:

Perception of the sociocultural changes resulting from tourism generally leads to some reactions on the part of the residents to adjust themselves to the new condition. To the extent that the impacts of tourism are perceived as positive, their reaction takes the form of acceptance of the change; to the extent that it is perceived as negative their reaction becomes more of a resistance. (p. 220)

As a result of the variations in perceptions of the impacts all four response strategies may exist simultaneously within a community. He suggests that the differences occur because of the different sections of the local population are not uniformly exposed to the benefits and costs, have different life styles, are composed of varying age groups, and because tourism can change the power relationships and increase conflict within a destination. He further suggests that the role the state plays in the development and their willingness to protect that which is valued by the varying community groups will influence the adaptation strategy of the residents.

Most recently Ap and Crompton (1993) recognized that resident reactions and behavioral strategies are likely to be different within a community. They have suggested that residents reactions to tourism fall on an embracement-withdrawal continuum and that over time, residents may shift from one strategy to another as tourism develops and changes the way residents perceive impacts.

The principles of the social exchange theory offer an explanation of why resident attitudes change over time and why there may be a spectrum of different attitudes within the same community.

2.2 SOCIAL EXCHANGE

Social exchange theory is a synthesis theory which combines principles from utilitarian economic theory, functional anthropology theory, conflict sociology theory and behavioral psychology theory to formulate the principles of social exchange (Turner, 1986). Utilitarian principles proposes that humans rationally weigh costs against benefits to maximize material benefits. Exchange theorists have reformulated the utilitarian principles by recognizing that humans are not perfectly economically rational and do not always seek to maximize benefits but instead engage in exchanges from which they can reap some benefit without incurring unacceptable costs. Further, Homans (1958, 1961, 1967) proposed that humans pursue more than material goals in exchanges and that sentiments, services and symbols are also exchange commodities.

Anthropologists focused on the patterning of interaction which constrain the kinds of social structures that emerge from a society. The structures are dependent upon the relative access of groups to power, prestige and privileges and symbolic exchanges provide the functional structure to meet individual and societal needs. (Frazer, 1919, Malinowski, 1922 in Turner, 1986, p. 217- 221). The psychological needs addressed in the social exchange theory

were merged with social needs by Mauss (1954 in Turner, 1986, p.221-2) who suggested that exchange relations create, reinforce and serve to regulate group morality. To complete the linkage with structuralism, Levi-Strauss (1969) proposed that the costs involved are attributed to social order and that highly valued symbolic resources are not regulated by society until they become scarce. Levi-Strauss also proposed the norm of reciprocity which requires that upon receipt of something valuable, the receiver in turn proffers a valued resource. His work differs from that of other exchange theorists in that forms of social structure are the critical variables in the exchange analysis (Turner, 1986).

Psychological behavioralist principles were derived from the work of Pavlov, Skinner, and Thorndike and Watson. The behavioralist principles of reward and punishment have been brought into modern social exchange theory as rewards and costs. Sociological conflict theory, however, has been considered a variety of exchange theory (Turner 1986).

The behavioristic approach of George C. Homans and the economic strategy developed by Peter M. Blau offer a framework for examining why residents react to tourism the way they do. Homans argues that social structures are created and sustained by the behaviors of individuals. Thus, principles derived by him are focused on the direct

exchanges among individuals. Blau limits Homans theory which encompasses all activity as exchange to relations with others from whom rewards are expected and received. Both authors reject the theory of the economic man of classical economics and contend that individuals pursue several goals at the same time, may be inconsistent in preferences, rarely have complete information, and are bound by social associations. Furthermore, these two exchange theorists acknowledge that the media of exchange are pluralistic, i.e., that rewards encompass a great deal more than money.

Emerson, like Homans, develops social exchange principles around operant psychology but extends these principles to include the complexity of social organization (Turner, 1986). His theorems provide an explanation of exchange based on the value of rewards along with the uncertainty and balance of the exchange relation. The extension encompasses the impact of dependency and power relations in the exchange. While Emerson and Blau set the focus of the exchange theory in societal norms, Homans' theory explains more individual actions. Following from Homans' explanation of individual actions, Thibaut and Kelly (1959) assume that the proper theoretical standpoint from which to understand the larger group is the dyad, a point that is only implied by Homans (Skidmore, 1975). The

assumption is that if the dyad, the two person group, can be explained, the theory can encompass problems of larger and more complex social relationships. Thus, group outcomes can be predicted through individual actions.

The following sections of this chapter detail the literature on each element considered in the model depicted in Figure 2.1. First, prior research on support for tourism will be reviewed, followed by a literature review of the perceived impact of tourism. Finally, studies on the factors delineated as affecting perceptions will be addressed.

2.3 SUPPORT FOR TOURISM DEVELOPMENT

The findings of most of the studies on resident attitudes towards tourism development in industrialized countries suggest that the majority of resident support tourism as an economic development strategy (Rothman, 1978; Thomason, Crompton, and Kamp, 1979; Murphy, 1981; Sheldon and Var, 1984; Tyrrell and Spaulding, 1984; Meleghy, Preglau, and Tafershofer, 1985; Var, Kendall, and Tarakcoglu, 1985; Liu and Var, 1986; Liu, Sheldon and Var, 1987; Perdue, Long, Allen, 1987; Um and Crompton, 1987; Brayley, Var, and Sheldon, 1990; Keogh, 1990; Long, Perdu, and Allen, 1990; Perdue, Long, Allen, 1990; Prentice, 1993; Allen, Hafer, Long, and Perdue, 1992). Studies conducted in

Third World countries also demonstrated a highly favorable attitude of the host residents to tourism (Sethna and Richmond, 1978; Belisle and Hoy, 1983). Studies conducted in Third World settings of Zambia (Husbands, 1989) and Israel (Mansfeld, 1992) demonstrated that resident perceptions of tourism varied with social class. In like manner, a study by Murphy (1983) of three tourist centers in the United Kingdom found that attitudes towards tourism differed by population segments. His research demonstrated that the attitudes of the business sector differed from those of public administrators and that the attitude of the remaining residents varied from those of the other two groups. Tyrrell (1984) found similar variations in his study of the residents of the state of Rhode Island. Variance in resident support for tourism was also found on the basis of length of residence (Sheldon and Var, 1984; Um and Crompton, 1987), type of development (Murphy, 1981), level of development (Allen, Perdue, Long, Kieselback, 1988), state of the local economy (Perdue, et al., 1990; Allen, et al., 1993), geographic region (Ritchie, 1988) and perceived power (Ap, 1992).

A generally negative attitude by the majority of residents was found in a few studies. Pizam (1978) found that the portion of the residents sampled that felt an

overall negative effect from the impacts of tourism was larger than the segment that assessed the overall impact positively. An interpretive study by Cheng (1980) found that some residents of Canmore were anxious to avoid negative social impacts being felt by the neighboring town of Banff which was experiencing a boom in tourist trade. Knopp (1980) reported on the conflicts between residents and the U.S. Forest Service in the Boundary Waters Canoe Area of Northeastern Minnesota in another qualitative study. O'Leary (1976) found a similar antagonistic attitude towards resource management and concluded that the failure to consider the implication of leisure as an important component of community life resulted in the negative reaction.

The studies have been conducted in many different American states including Washington (O'Leary, 1976), Delaware (Rothman, 1978), Massachusetts (Pizam, 1978), Minnesota (Knopp, 1980), Texas (Thomason, Crompton, and Kamp, 1979; Um and Crompton, 1987; Ap, 1992), Rhode Island (Tyrrell and Spaulding, 1984), Hawaii (Liu, Var, 1986, Liu, et al., 1987; Braley, et al., 1989), Colorado (Perdue, et al., 1987; Allen, et al., 1988; Long, et al., 1990; Allen, et al., 1993); West Virginia (Pearce, 1980), Florida (Davis, Allen, and Cosenza, 1988) and Canadian provinces: British

Columbia, Alberta (Cheng, 1980; Ritchie, 1988) and New Brunswick (Keogh, 1990). Other resident attitude studies available in English include those conducted in the United Kingdom (Murphy, 1981, 1983; Sheldon and Var, 1984; Prentice, 1993), Austria (Meleghy, et al., 1985), Turkey (Var, Kendall, Tarakcoglu, 1985), Australia (Soutar and McLeod, 1993), Colombia (Belisle and Hoy, 1983), the Virgin Islands (Sethna and Richmond, 1978), Zambia (Husbands, 1989) and Israel (Mansfeld, 1992).

Very little research has been conducted on the attitude of residents towards proposed development. Harrison County, West Virginia residents were questioned about how they felt residents would react to foreign visitors (Pearce, 1980). Only 11% of the respondents anticipated negative reactions in their communities. Keogh (1990) examined the concerns of residents of a small coastal community in New Brunswick about a proposed park development. He established that the residents anticipated both positive and negative impacts but failed to find any difference between current users and non-users of the site proposed to be changed.

A continuum of responses to tourism impacts was conceptualized by Dogan (1989) and by Ap and Crompton (1993). Davis, et al., (1988) attempted to group residents by their attitudes, interests and opinions on tourism. They

found five identifiable segments of local residents and entitled the segments : "Lovers," "Haters," "Cautious Romantics," "In-betweeners," and "Love'Em for a Reason."

Studies have suggested that resident attitudes toward tourism may be related directly to the degree and/or stage of development within the host community (Doxey, 1975; Butler, 1980; Cooke, 1982; Allen, et al., 1988; Allen, et al., 1993). For example, Long, et al., (1990) found a curvilinear relationship between resident attitude toward tourism and the level of tourism development when tourism development was defined as a percentage of total retail sales. In a later study, Allen and his colleagues (1993) found that resident attitudes were more positive toward tourism in communities where economic development and tourism development were both at high or low levels than when one was high and the other low.

Comparably, residents living in areas with higher tourist resident ratios were found to be more aware of both positive and negative impacts (Liu, et al., 1987). Murphy (1981) was able to demonstrate differences in resident attitudes towards tourism in three different types of tourism areas which he classified as day-trip, short-stay and long-stay centers.

One study asked residents the degree to which they would encourage or discourage development of different types of tourism (Ritchie, 1988). The results of this investigation imply that the residents of Alberta and British Columbia favored most strongly festivals, museums, camping and hiking facilities, and events. Two types of development that were clearly viewed less favorably were hunting facilities and casinos. Support for resorts and theme parks was moderate compared to that for festivals and events. These findings provide evidence to strengthen the notion that support for tourism may not be related as much to the maturity of the industry or to the level of development but rather to the type of tourism.

2.4 ECONOMIC CONCERNS

The most prominent benefits used to promote tourism development are the economic benefits communities can expect to derive from an increase in tourism activity. Every study of resident attitudes towards tourism has included questions concerning economic factors. The research has demonstrated that residents feel tourism helps the economy (Sethna and Richmond, 1978; Ritchie, 1988; Husbands, 1989), brings in new business (Sethna and Richmond, 1979); and reduces unemployment (Milman and Pizam, 1987). Some researchers concluded that residents agreed that economic gains were

greater than social costs (Sheldon and Var, 1984; Liu and Var, 1986). For example, residents in Turkey acknowledge a willingness "to put up with some inconvenience in exchange for tourist money" (Var, et al., 1985, p. 654). The vast majority of studies have focused on employment opportunities and the revenue communities derive from tourism activities.

Employment Opportunities

A study conducted in British Columbia and Alberta Canada revealed that 87% of the respondents felt that tourism was important to the number of jobs in the province while only 10% did not consider tourism an important contributor to employment (Ritchie, 1988). In Columbia, Belisle and Hoy (1980) found similar results in a study which demonstrated that more than 84% of the respondents felt that tourism had generated employment in the area. Tyrrell and Sheldon (1984) found that the creation of jobs was one of the four most frequently mentioned benefits of tourism. Eighty-five percent of the respondents in a study in Marmaris, Turkey agreed that tourism creates business and reduces unemployment (Var, et al., 1985). Nearly all of the students (94.4%) who were asked if tourism creates employment opportunities in Hawaii responded positively. When local residents were segmented into groups according to their attitude towards tourism, all five clusters ranked

employment as the greatest benefit (Davis, et al., 1988). Many other studies found a recognition by the residents of an increase in the number of jobs from tourism (Pizam, 1978; Sheldon and Var, 1984; Liu and Var, 1986; Liu, et al., 1987; Um and Crompton, 1987; Milman and Pizam, 1988; Davis, et al., 1988; Keogh 1990; Soutar and McLeod, 1993). The only empirical evidence this researcher has found to contradict the belief that tourism creates jobs is in a study by Husbands (1989). When residents of Livingston, Zambia were asked if a large portion of the jobs in their community was due to tourism, the response was largely negative. It is likely that the inclusion of the words, "a large portion" in the survey question is responsible for the contradictory finding.

Researchers have also asked residents if they felt that tourism improved the economy (Ritchie, 1988; Davis et al., 1988; Braley et al., 1989; Perdue, et al., 1987; Prentice, 1993; Allen et al., 1993) , provided an improved standard of living (Belisle and Hoy, 1980; Liu and Var, 1986; Milman and Pizam, 1988), greater income(Rothman, 1978; Liu and Var, 1986; Milman and Pizam, 1988; Um and Crompton, 1990; Keogh, 1990), increased investment (Sheldon and Var, 1984; Liu and Var, 1986; Liu et al., 1987) and more business activities (Tyrrell and Spaulding, 1984; Liu and Var, 1984; Husbands,

1989; Prentice, 1993). The findings of these studies suggest that residents perceive an improvement in income, standard of living, investments and business activities ensuing from tourism activities.

Revenues from Tourists for Local Governments

The research on resident perceptions of tax revenues has been mixed. In Rhode Island and Florida the residents expressed a belief that tax revenues derived from tourist expenditures and tariffs could lower their own taxes (Tyrrell and Spaulding, 1984; Davis et al., 1988). Other research found that residents felt that tax revenues would improve if tourism increased (Milman and Pizam, 1988). On the other hand, Keogh (1990) observed that residents thought a proposed park would raise local taxes. Mixed results on this question were found in several studies (Pizam, 1978; Murphy, 1983; Davis et al., 1988; Perdue et al., 1990; Long et al., 1990). Sixty-four percent of the respondents in a Hawaiian survey felt that the revenues from the tourism industry were more important to the state than revenues from the pineapple industry but approximately the same percentage felt that tax revenues should be used to reduce crime rather than promote more tourism (Liu and Var, 1986). Some residents felt that tourism caused an increase in taxes because of the augmented demand on local services (Davis et

al., 1988; Keogh, 1990). Other studies found that residents felt their property taxes increased as a result of tourism (Perdue et al., 1987; Allen et al., 1993). When the word "unfairly" was added to the question concerning property tax increases, residents failed to agree with the statement (Long et al., 1990).

Agreement on taxation of tourists and tourist businesses has been mixed. The majority of residents in a Columbian study did not agree that higher taxes should be levied on tourist expenditures (Belisle and Hoy, 1980). Brougham and Butler (1981) found about as many in favor of using public money for the promotion of tourism as they did opposed to such expenditures. Only one segment of five in a study of Florida residents agreed that tourists should be taxed more than the local citizens and few felt that tourists should pay special taxes on lodging or outdoor recreation facilities in a Colorado study (Perdue et al., 1990). Residents were unlikely to support tax expenditure for tourism if they did not directly benefit from the industry (Prentice, 1993).

Price of Goods and Services

Economic disbenefits from tourism caused by an increase in the price of goods and services have also been perceived by residents in several surveys (Pizam, 1978; Belisle and

Hoy, 1980; Liu and Var, 1986; Milman and Pizam, 1988; Keogh, 1990). Sheldon and Var (1986) found only moderate agreement with a statement which suggested that increases in tourism were the cause of increased prices of goods and services. Tourism was blamed by more than 70% of the respondents in the Columbian study for seasonal variations in food prices. Very few respondents perceived tourism as the cause of the high cost of living in Zambia (Husbands, 1989). Only 26% of a sample of New Brunswick residents felt that the addition of a new park would cause price inflation in stores (Keogh, 1989).

Cost of Land and Housing

Tourism can cause the price of land to rise rapidly as noted by Lundburg (1974) who found that the cost of land for new hotel construction rose from 1 percent to nearly 20 percent as the destination developed. An early study by Pizam (1978) found that residents viewed the cost of land and housing as a negative effect of tourism. More than 70% of the respondents in a Turkish study agreed that tourism increases property value and housing prices (Var et al., 1985).

However, other studies found more neutral attitudes. For example, Belisle and Hoy (1980) determined that approximately 90% of the respondents described the effect of

tourism on the cost of land and housing as neutral, i.e., neither positive nor negative. Similarly, about half of the respondents agreed with the statement that tourism unfairly increases real estate costs while the other half disagreed in a study of Colorado residents (Perdue et al., 1987). Only 26% of the residents in a study concerning the potential impacts of proposed outdoor recreation development expressed a concern about inflation of land prices (Keogh, 1990). These mixed findings suggest that even though dramatic real estate changes have commonly been associated with tourism development, the perception of the effect of these changes on the residents is mixed and irregular.

2.5 SOCIAL CONCERNS

Congestion

Another common theme in tourism resident attitude literature is that of crowding and congestion, specifically focused on traffic inconveniences. Rothman concluded from his study on seasonal visitors that residents curtailed their activities during the peak tourism season because of congestion (1978). Similarly, Tyrrell and Spaulding (1980) determined that the residents of the state of Rhode Island saw congested roads as well as parking and shopping areas as a problem caused by tourism. Several other studies also found that residents perceived that traffic was a major

problem created by tourism activities (Sheldon and Var, 1984; Milman and Pizam, 1987; Ritchie, 1988; Long et al., 1990; Keogh, 1990 and Prentice, 1993). However, resident perceptions of the congestion caused by a major world event, the America's Cup Defense Series, was less than predicted (Soutar and McLeod, 1993). Likewise, the majority of respondents in a Florida study did not agree with a statement which suggested that traffic problems would disappear with the tourists (Davis et al., 1988).

A concept that is closely related to congestion is that of carrying capacity which is defined in the literature as the level at which the tolerance is exceeded. The concept of carrying capacity is fully examined in section 2.1. The residents in Columbia disagreed with statements that suggested that the government should determine and enforce carrying capacity (maximum number of visitors) of the island (Belisle and Hoy, 1980). Mansfeld (1990) suggested that carrying capacity was related to peripheral versus core group membership.

Crime

Crime is conceptualized here as any anti-social behavior including increased sale or consumption of drugs and alcohol, as well as behavior considered immoral by the society as a whole. Studies which asked residents if they

perceived that tourism increased crime generally have reported a minority of respondents which felt that tourism contributed to crime (Sethna and Richmond, 1978; Rothman, 1978; Pizam, 1978; Belisle and Hoy, 1980; Var et al., 1985; Liu and Var, 1986). On the other hand, a Florida study revealed that residents perceived tourism as a causal factor in increasing crime and alcoholism.

Other researchers who have examined resident attitudes towards crime and tourism development found little perceived relationship between crime and tourism overall (Sheldon and Var, 1984; Tyrrell and Spaulding, 1984; Liu et al., 1987; Perdue et al., 1987; Allen et al., 1993).

Local Services

Along with tax revenues and employment opportunities, residents have differing views on the effects of tourism on local services. An early study by Sethna and Richmond (1978) found that residents in the Virgin Islands agreed that the money acquired from tourism contributed to the improvement of public services. Likewise, residents in Cape Cod expressed a positive effect of tourism on local services (Pizam, 1978). The Rhode Island study found that only government officials perceived an increase in the cost of police services (1984). An important finding in the aspect of services was made by Murphy who examined the differing

views of residents, administrators and business owners (1983). He found that the three groups differed in their perception of the impact of tourism on local services.

Allen et al. (1988) discovered that tourism development increases the sensitivity to change of public services but concluded that satisfaction with and the availability of services was more a function of population size than tourism development. One study found a relationship between satisfaction with local services and tourism development. As development increased, satisfaction with public services decreased. Research results on the whole suggest that residents feel that tourism improves local services (Rothman 1978; Thomason et al., 1979; Ritchie, 1988; Keogh, 1990).

Relationship Between Residents and Tourists

Residents of the Virgin Islands viewed the interaction with tourists as a positive consequence of tourism activities (Sethna and Richmond, 1978). Likewise, residents of Hawaii and North Wales found the cultural exchange between residents and tourists to be valuable and generally rated tourists nice and considerate. The respondents in this study appeared to desire to meet tourists from other countries (Liu et al., 1987). Belisle and Hoy (1980) concluded that residents felt the exposure to cultural differences to be a positive affect of tourism. Other

researchers have found resident attitudes approved of tourists (Thomason et al., 1979; Davis et al., 1988; Allen et al., 1988; Keogh, 1990). However, Cheng found residents of Canmore, British Columbia who felt that they "were not among 'real people' when large numbers of tourists and transients are in town" (1980, p. 78). Her investigation also found unhealthy attitudes toward tourists.

Opportunities for Shopping

Pizam (1978) found a positive relationship between opportunities for shopping and attitudes toward tourism. Similarly, residents of three Delaware communities agreed that tourism increased shopping opportunities (Rothman, 1978). Respondents failed to agree with statements which suggested that shopping opportunities are diminished because of crowding caused by tourism (Belisle and Hoy, 1980; Tyrrell and Spaulding, 1984; Sheldon and Var, 1984; Liu et al., 1987).

Opportunities for Recreation

O'Leary (1976) found that the residents, "view themselves as being forced out of traditional leisure places thorough management agency regulations and indifference, and through sharp increases in tourist visitations" (p. 263). In a similar vein, another qualitative study uncovered resident expectations of loosing leisure time because of the

need to keep longer business hours as tourism increased (Cheng, 1980).

However, the results of most quantitative studies imply that residents view tourism as a benefit which increases recreational opportunities (Pizam, 1978; Rothman, 1978; Murphy, 1981; Sheldon and Var, 1984; Liu et al., 1987; Allen, et al., 1988; Ritchie, 1988; Davis, et al., 1988; Keogh, 1990; Long, et al., 1990; Perdue et al., 1990).

Preservation of the Local Culture

There is some debate over whether tourism preserves or destroys cultures but the primary position is that the impact is deleterious (Matheison and Wall, 1982). Tourism has been denounced as being responsible for the depletion of the diversity of non-western cultures (Turner and Ash, 1975). This position is supported by the documentation of rapid and dramatic changes in social structures, land use patterns and values systems in traditional Mexican and Indian cultures (Nunez, 1977; McKean, 1976).

Anthropologists have written about the changes in style and form of traditional arts and crafts caused by the commercial demands of tourists for native wares (Grabrun, 1976; Schadler, 1979). Others, however, claim that tourism revitalizes cultures. Studies have shown that tourism contributes to the renaissance of traditional art, crafts

dance and music (Forster, 1964; Grabrun, 1976; Brody, 1976; Deitch, 1977; McKean, 1977).

Resident attitude studies do not coincide with anthropological analyses of the impact of tourism on the local culture, i.e., residents appear to believe that tourism is a vehicle for the preservation and enrichment of local culture. Pizam (1978) found that Cape Cod residents perceived tourism as having a positive impact on cultural identity. Comparable data suggest that only 2.8% of Santa Marta residents found tourism to have a negative affect on the evolution of cultural traditions (Belisle and Hoy, 1980). Similarly, residents of North Wales disagreed with statements that suggested that tourism had a negative effect on social structure (Liu et al., 1987). Virgin Islanders exhibited consensus that tourists seem to respect local traditions and cultures and want to know more about them (Sethna and Richmond, 1978).

A study which examined tourism in two Alpine villages, one with capitalist structures and values, and the other with a more traditional culture, implied that a harmonious relationship can exist between tourism and local culture (Meleghy et al., (1985). These authors concluded that "tourism does not demand modern capitalist structures and values, but that it is thoroughly compatible with

traditional precaptialist structures and values. . . .
Provided that development is relatively slow and of equable nature, tourism can integrate itself into traditional structures; instead of causing their destruction, it can make their survival possible" (p.195).

2.6 ENVIRONMENTAL CONCERNS

Studies of residents perception of the impact of tourism on the environment imply that residents may view tourism as having either a positive or negative impact on their environment. Residents have expressed agreement with statements that suggest that tourism improves the appearance of their town or surroundings (Murphy, 1983; Allen et al., 1988; Perdue et al., 1987). Ritchie (1988) found that 91.3% of the respondents agreed that tourism impacted the quality and upkeep of attractions and 92.6% believed that tourism impacted the quality of National and Provincial Parks.

Sethna and Richmond (1978) found that Virgin Islanders agreed with a statement that suggested that the water and beaches were being spoiled by tourism. Residents of Cape Cod expressed the opinion that tourism negatively affected noise, litter, and air and water quality (Pizam, 1978).

The most complete study of resident perception of the environment impacts of tourism was a cross-national study by Liu et al., (1987). Hawaiian residents failed to agree with

statements that proposed that the economic gains of tourism were more important than the protection of the environment and that tourism had not contributed to a decline in the ecological environment. An inquiry of Hawaiian students revealed that the majority of the sample did not agree that tourism conserves the natural environment (Braley et al., 1989). Those in North Wales also failed to agree with a negative statement absolving tourism of contributing to ecological degradation. This segment felt, however, that long-term planning could control the environmental impact of tourism. The Turkish residents appeared to feel that they were more responsible for litter than were the tourists.

2.7 FACTORS INFLUENCING PERCEPTION OF THE IMPACTS OF TOURISM

Utilization of the Tourism Resource

Tourism can be viewed as either a positive or negative factor that affects utilization of the tourism resource. It can increase leisure facilities and opportunities for the community residents or it may result in crowding the indigenous population out of traditional leisure pursuits.

A review of the literature on the impacts of tourism lead Kendall and Var (1984) to conclude that tourism impacted use of the resource base positive because it improved leisure facilities. According to Allen et al., (1993), residents of ten rural Colorado towns, "felt tourism

development increased recreation opportunities and did not negatively affect the quality of existing outdoor recreation opportunities" (p.31).

Other researchers have generally concluded that tourism improves entertainment and recreational opportunities for the residents (Pizam, 1978; Rothman, 1978; Murphy, 1981; Liu et al., 1987; Davis et al., 1989).

Because tourism could have the adverse impact of crowding, researchers have hypothesized that residents who participated in outdoor recreation activities would have a more negative perception of the impacts of tourism. O'Leary (1976) declared that some residents developed antagonistic attitudes toward tourism when the number of visitors to a recently established national park increased rapidly. He found that residents felt "forced out" of areas which had been historically their recreational spot.

Two studies were unable to support the hypothesis that the use of a recreation area was negatively related to support for tourism development. Perdue et al. (1987) concluded that the perceptions of and attitudes towards tourism of outdoor recreation participants were not different from those of non-participants. Likewise, Keogh (1990) found that participants, in contrast to non-participants, actually held a more favorable opinion toward

the development of a park despite a potential increase of pressure on local recreation resources.

Literature on place attachment may provide any explanation why in O'Leary's (1976) study the residents felt negatively about tourism but the findings of resident attitudes studies were unable to discern either positive or negative attitudes of users of the resource base. Resident attitude studies separated residents into two categories - user or non-users which does not measure the importance residents place on using a specific place. Studies of attachment to natural settings have focussed mainly on visiting recreational users (D. R. Williams, Patterson, Roggenbuck, and Watson, 1992). This study demonstrated that place attachment is associated with rural residence as well as previous visits. Bonds with natural settings are well recognized in recreation and leisure research (Schreyer, Knopf, and D. R. Williams, 1985; D. R. Williams, Patterson and Roggenbuck, 1992). Place attachment research in relation to rural recreational settings suggests that place attachment may play a role in determining how important use of the resource base may be to local residents of communities located in proximity to recreational resource bases.

Economic Dependency

The results of previous research indicate that economic dependency on tourism is an important predictor of the way residents perceive the impacts of tourism and expressed support for tourism. However, the research also indicated that economic dependency is not the sole predictor.

Conclusive evidence of the relationship between economic dependency on tourism and support for tourism was found by Pizam (1978). The results of his study imply that economic dependency on tourism and entrepreneurial contact with tourists are good predictors of attitudes toward tourism. Pizam concludes, "the more dependent a person was on tourism, as a means of livelihood, the more positive was his overall attitude toward tourism on Cape Cod" (p. 12). Other researchers have demonstrated the positive relationship between employment in the tourism industry and/or entrepreneurial contact with tourists and support for tourism (Rothman, 1978; Murphy, 1981; Liu et al., 1987; Milman and Pizam, 1987; Ap, 1992a). Household economic benefit from tourism emerged as the most prominent factor in separating supporters from non-supporter of tourism in a study of an upland area of the UK (Prentice, 1993).

The results of a Florida resident study indicate that support for tourism increases with knowledge about the

industry (Davis et al. 1988). It is assumed that employment in the industry and entrepreneurial contact with tourists increase knowledge about tourism. A qualitative study of three Texas tourist destinations drew similar conclusions (Ap and Crompton, 1993). Respondents who were direct beneficiaries of tourism were categorized as "embracers" of tourism, i.e., they zealously welcomed the tourists.

In testing a hypothesis that support for increased tourism development was positively related to the perceived impacts of tourism, Perdue et al. (1990) controlled for personal benefits from tourism in an effort to reduce the affect of this important variable. They found that anticipation of personal benefits was the best predictor of positive perceptions of the impacts of tourism development. However, removing the effect of personal benefits from tourism development did not affect the significance of the relationship between the perception of impacts and support for tourism development.

Attachment to the Community

Attachment to the community has been defined as the level of local social bonds such as friendships, community sentiment and social participation (Goudy 1990). Early research in community attachment focused on social structure. Theorists (Toennies, 1887; Durkheim, 1893;

Simmel, 1902; Summer 1906, and Wirth, 1938 in Sampson, 1988) hypothesized that population size, density socioeconomic factors and life cycle factors strengthened or weakened community kinship and friendship bonds, social participation in local affairs and affection ties for the community.

Kasarda and Janowitz (1974) rejected this linear model, proposing a systemic model. Their findings support a model which demonstrated that length of residence is a key exogenous factor that influences attitudes and behavior toward the community. Specifically, length of resident was positively related to individual local friendship, community sentiment and participation in local affairs (Sampson 1988). They present a strong argument for their position:

Since assimilation of newcomers into the social fabric of local communities is necessarily a temporal process, residential mobility operates as a barrier to the development of extensive friendship and kinship bonds and widespread local association ties. Once established, though, such bonds strengthen community sentiments (cited in Sampson, p. 767).

Goudy (1990) examined both the linear and systemic model of community attachment and found similar results. He suggested that the unit of analysis appropriate for the investigation of attachment is the individual and not macro-level factors. Length of residence, income and age are identified as variables in the systemic model which are the

most strongly related to the bonds and sentiments. Differences occur among relatively homogeneous community structures.

Shanai (1991) proposed a scale of sense of place which is closely related to community attachment. His definition of sense of place includes feelings, attitudes and behavior toward a place which varies from person to person and from vicinity to vicinity. He contends that sense of place consists of knowledge, belonging, attachment and commitment to a place or part of it. The scale is comprised of seven levels : 1) not having any sense of place; 2) knowledge of being located in a place; 3) belonging to a place; 4) attachment to a place; 5) identification with the place's goals; 6) involvement in a place; and 7) sacrifice for a place. These levels represent stages of increasing strength of attachment or sense of place. There is a close relationship between the affective concept of community attachment and Shamai's (1991) sense of place.

Few studies have examined community attachment in relation to attitudes toward tourism development. Um and Crompton (1987) measured attachment levels using a Guttman scale (a cumulative scale used to determine whether a set of variables measures a single concept). They combined a set of variables such as birthplace, years of residence, and

heritage to determine their influence on perceived tourism impacts. Their findings imply that the more attached residents were to the community in terms of birthplace, heritage and years of residence, the less positively they perceived the tourism impacts on their community.

McCool and Martin (1994) were unable to find a clear connection between attachment and perceptions of the impacts of tourism. Their study found that strongly attached respondents rated the positive dimensions of tourism higher than the unattached respondents. However, the same group also viewed the costs with more concern

Ecocentric Attitudes

Information about the nature of ecocentric sensitivity and site specific preferences is particularly important for the management of national recreation areas because their administration requires both the protection of natural resources and the provision of recreational opportunities. These somewhat confrontational responsibilities require resource managers to recognize both ecocentric sensitivities and tourist preferences. As acknowledged by Jackson (1987, p. 235), "one of the most urgent issues in resources management is the problem of finding an acceptable compromise between the development of land for recreation, and its preservation for ecological, scientific, cultural,

historical, and aesthetic reasons" (p.235).

The difficult challenges confronting leisure resource managers in achieving a balance between preservation and utilization has been discussed by other researchers. For example, Burton (1981) and Jackson and Dhanani (1984) proposed that the resolution of the conflict will require a clear understanding of public values and preferences and the incorporation of these attitudes into decision making. Similarly, Uysal, Noe, Jurowski, and McDonald (1993) asserted that the ability to offer preferred recreational opportunities, in a sustainable manner, is largely a function of expectations, preferences and attitudes of the users toward the environment and resource management actions. The dual purpose of national recreation areas increases the need for information on the divergent segments utilizing the natural resources, especially when extremely sensitive decisions concerning site alteration are being considered. One study linked user preferences to ecocentric attitudes in an effort to assist national park managers reconcile the public demand for both protection of the natural environment and its utilization (Jurowski, Uysal, Williams, and Noe, 1993). Support was found for the hypothesis that users with ecocentric views prefer that resources be allocated to protect and preserve the

environment while those with anthropocentric inclinations will favor transforming the environment. These results suggest that divergent views may exist within the community and that these ecocentric views may affect the way residents perceive the environmental impacts of tourism. Subsequently, the perceptions will affect their support or opposition of tourism development.

Most resident attitude studies correlate resident support for tourism activities with the economic benefits and resident opposition to tourism with negative social and environmental impacts (Pizam, 1978; Brougham and Butler, 1981; Sheldon and Var, 1984; Witter, 1985; Milman and Pizam, 1988; Perdue et al., 1990; Keogh, 1990). The balance of benefits and disbenefits a community is willing to accept has never been clearly defined. For example, a study by Liu and Var (1986) on resident attitudes toward tourism development in Hawaii demonstrated that residents regarded environmental protection as more important than economic benefits. Yet, these same residents were unwilling to sacrifice their standard of living for environmental improvements. This apparent conflict may be a function of the spatial interaction between the travelers and the destination community hosts. A few researchers have

examined the interactions between tourists and host community residents as elements that effect natural resource utilization (March and Henshall, 1987; Travis, 1988).

Research has demonstrated that the nature and extent of this interaction impacts the level of environmental and social costs perceived by the host community (Martin and Uysal, 1990; May, 1991; Valentine, 1990). This level has been shown to be dependent upon the expectations, preferences and attitudes toward the natural environment of both the local residents and the tourists (Wheeller, 1991; Gaylord, 1990).

Consequently, the economic benefits and environmental costs a host community accrues may be contingent upon matching the ecocentric attitudes of the host community with those of the visitors. The type of tourists and tourist activities a host community attracts may play a key role in determining the environmental impact of tourism.

The literature is replete with studies that have examined ecocentric attitudes, recreation behavior and the relationships between the two (Wall and Wright, 1977; Matheison and Wall, 1982; McCool, 1978; Murphy, 1985; Farrell and McLelland, 1987; Prentice, 1989). Factors that influence ecocentric attitudes (Van Liere and Dunlap, 1981; Buttel, 1979; Dunlap and Catton, 1980) as well as the relationship between demographic characteristics and

ecocentric attitudes have been examined (Honnold, 1984; Samdahl and Robertson, 1989; Arcury, 1990).

One characteristic that seems to be consistently related to concern for the environment is educational level. Arcury (1990) demonstrated that the level of ecocentric knowledge is consistently and positively related to ecocentric attitudes. Another demographic attribute that seems to correlate with support for preservation of the natural environment is rural versus urban residence. The results of several studies indicate that a positive association exists between the degree of urbanization and the degree of concern about environmental issues (Tremblay and Dunlay, 1978; Buttel and Flinn 1979; Lowe and Pinhey, 1982; Mohai and Twight, 1986; Saremba and Gill, 1991).

Recreational behavior also has been found to affect attitudes towards the environment. For example, Jackson (1986) found that people who prefer outdoor recreation activities which were labeled appreciative (cross-country skiing, hiking and canoeing) hold significantly more ecocentric attitudes than those who prefer fishing and hunting or mechanized activities such as snowmobiling or trail biking. However, latter studies showed only weak support for the correlation between ecocentric attitudes and

activity type and recommended further exploration of the relationship (Jackson 1987).

Van Liere and Dunlap (1984) reviewed and examined a wide range of studies reporting sociodemographic correlations of ecocentric concern and concluded that this line of research had shown only limited success in explaining ecocentric attitudes. Ideological shifts in predicting ecocentric concern have also been explored by these two researchers. They found that an emerging "dominant social paradigm" could explain more variation in levels of ecocentric concern than could sociodemographic variables. Consistent with this finding is the study by Samdahl and Robertson (1989), who suggested sociodemographic, residence, and political ideology variables are inadequate in explaining varying degrees of ecocentric support. A study by Jurowski et al. (1993) found that place specific preferences and trip behavior rather than demographic characteristics accounted for most of the ecocentric concerns.

2.8 SUMMARY OF CHAPTER III

Research of the early 1960's focused on the benefits of tourism to the host community, in the 1970's the negative effects of tourism were discussed in the literature. More recent literature has attempted to examine the need to

achieve a balance between benefits and costs of tourism. Achieving this balance will require an analytical tool designed to explain the factors that influence how residents arrive at their assessment of the impacts of tourism and consequently their support for tourism.

The review of the literature on the benefits and costs of tourism discussed economic, social and environmental elements that are being exchanged by the residents of tourist destinations. A list of the impacts that have been identified in the literature was included as Exhibit 2.1. Among the issues which developed from the impact literature were carrying capacity and local involvement. Evidence of variations of perceptions of the impact within a host community was presented.

The chapter proffered principles of the social exchange theory as an explanation of why resident attitudes change over time and why there may be a spectrum of different attitudes within the same community. The behavioristic approach of Homans and the economic strategy of Blau were described as the basis for the exchange relationships examined in the study.

The studies on resident attitudes towards tourism have found that host community residents demonstrate considerable support for tourism. Little research was found which

discussed the attitude of residents toward proposed development.

Another section of this chapter detailed the literature on economic, social and environmental concerns that theoretically influence resident perceptions of tourism exchanges. Prior research on the influence of the economic concerns included literature on employment opportunities, revenues from tourists for local governments, the price of goods and services and the cost of land and housing. Social concerns reviewed include congestion, crime, local services, the relationship between residents and tourists, opportunities for shopping, opportunities for recreation, and preservation of the local culture. Studies of resident perceptions of the impact of tourism on the environment indicated that residents may view tourism as having either a positive or negative impact on their environment.

The final segment explored previous research on four factors that influence resident perception of the impact of tourism. The literature demonstrated that use of the tourism resource base may have either a positive or negative effect the perception of the impact of tourism and on support for tourism. This investigation was followed by an examination of the role economic dependency plays in the development of perceptions and attitudes toward tourism.

Conclusive evidence was provided that economic dependency on tourism and entrepreneurial contact with tourists are good predictors of attitudes toward tourism.

The literature on community attachment was less clear. No conclusive evidence was found concerning the best measure for community attachment. Finally, studies on environmental attitudes suggested that this element may play a key role in the determination of willingness to enter into a tourism exchange.

CHAPTER III

Research Methodology

This chapter explains the methods used to assess the model identified in the study. The sample and survey instrument are described in the first part of the chapter. Techniques used to operationalize the theoretical constructs are then explained followed by a discussion of the methods for testing the hypothesized model. Finally, limitations and assumptions of the data analysis are delineated.

3.1 INTRODUCTION

The preceding chapters defined the research domain as the relationship between elements of value which influence resident perceptions of the impact of tourism and their support for tourism. The elements of value to the residents include economic gain, use of the tourism resource base, the environment and their community. Path analysis will be used to demonstrate the interaction of the variables and confirm hypothesized causal relationships.

The information needed for the study of the factors that affect the way residents perceive the impact of tourism and the subsequent influence of this perception on support for tourism was collected using a social survey, specifically a self-administered questionnaire. A stratified random sample of residents of the five counties surrounding the Mount Rogers Recreation Area was taken in order to gain data representative of those residents that would be impacted by an increase in the number of tourists coming to the Mount Roger National Recreation Area (NRA).

3.2 RESEARCH FRAMEWORK

This study endeavors to test a model of resident support for tourism as related to resident perception of the impact of tourism and factors that affect both support and perceptions. The major emphasis of the literature search

was on discovering factors and processes which were integrated by the model. The following are specific questions which this research is seeking to answer:

How do resident perceptions of the economic, social and environmental impact affect their support for tourism?

- Are the perceptions affected by:
 - 1) use of the existing tourism resource?
 - 2) potential for economic gain?
 - 3) ecocentric attitude? and/or
 - 4) community attachment?

- Do the perceptions and resulting support vary with the type of tourism, i.e. nature, attraction-, culture/historic-, or event-based tourism?

Specific research hypotheses related to the above objectives are advanced and presented in the following section.

3.3 RESEARCH HYPOTHESES

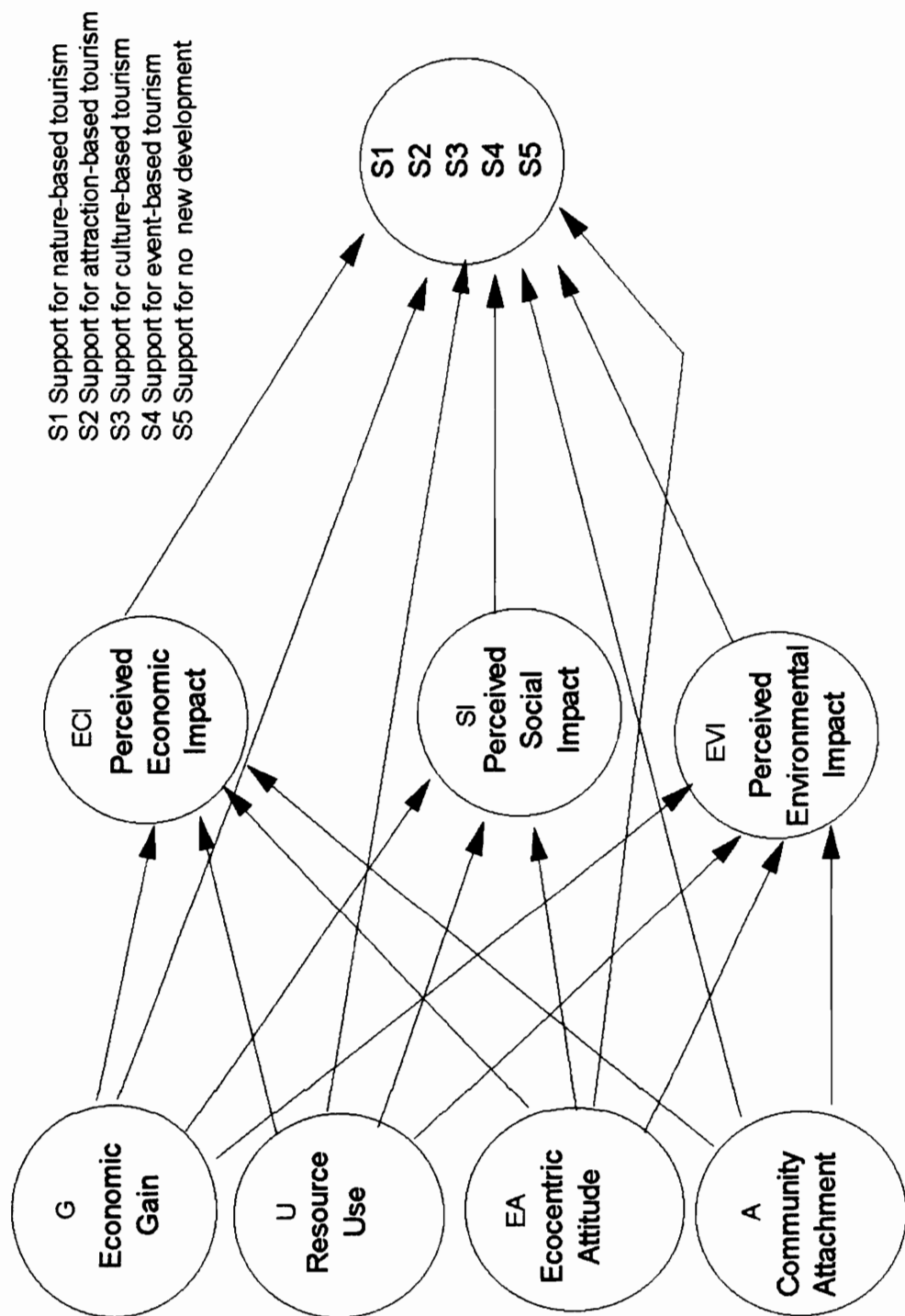
Eight research hypotheses and a path model are tested to determine how resident perceptions of the impact of tourism affect their support for tourism and how these perceptions are influenced by valued elements. The path model is presented in Figure 3.1 and discussed below. The eight hypotheses proposed in Chapter I are reiterated here:

Research Hypotheses

- H₁: A positive relationship exists between resident perception of the benefits of tourism and support for tourism.
- H₂: A positive relationship exists between a perceived favorable distribution of benefits over costs and support for tourism.
- H₃: A positive relationship exists between the potential for economic gain and both perception of the benefits and support for tourism.
- H₄: A positive relationship exists between the importance placed on the use of the tourism resource and both the perception of the impact and support for tourism development.
- H₅: A negative relationship exists between ecocentric attitude and both perception of the impact and support for tourism.
- H₆: A negative relationship exists between the degree of attachment to the community and both perception of the impact and support for tourism.
- H₇: Use of the tourism resource, potential for economic gain, ecocentric attitude and community attachment interact in the formation of the perception of the impact of tourism and both directly and indirectly affect expressed support for tourism.
- H₈: The interplay of elements affecting the perception of the impact and support for tourism will vary with the type of tourism proposed.

Path Model

The dynamic nature of the relationships being examined requires an analytic technique which will reveal the interaction of the variables and confirm hypothesized causal relationships. Path analysis was used to model the relationships between the elements of value, the perception of the impact of tourism and resident support for tourism. This variation of regression analysis can be used to test a causal model based on a theoretical framework. It is



S1 Support for nature-based tourism
 S2 Support for attraction-based tourism
 S3 Support for culture-based tourism
 S4 Support for event-based tourism
 S5 Support for no new development

Figure 3.1 Path Analytic Model of Resident Support For Tourism

important to note that the causal associations are based on theory because correlation does not imply causation. However, path analysis provides the means to examine the variability among these variables and can provide evidence of causation. By combining correlational data with an explicit theory of cause and effect, the path analytic method can provide evidence of the causes of resident support for tourism. The assumption of causation is explained by Cohen and Cohen (1983) who assert that while correlation does not imply causation, causation manifests itself in correlation. Consequently, one can use correlational data to provide evidence of theoretically derived relationships.

Path analysis is primarily used to separate correlations among variables into causal and noncausal components. It is, therefore, appropriate for confirming the causal relationship of the variables and for examining the extent to which the variables interact. This method is particularly appropriate for providing evidence of causation for nonexperimental data where variables such as individual attitudes can not be manipulated (Cohen and Cohen, 1983; Keith, 1988).

The path model that is being tested includes the primary cause variables, resident perceptions of the impact of

tourism and the effect variable, resident support. Also included are other variables that research has suggested affect both the presumed cause and the presumed effect; use of the tourism resource base, community attachment, economic gain and ecocentric attitude are likely to affect perceptions of the impact as well as support for tourism. The analysis will provide estimates of causal effects thought to exist.

The model proposes that expressed support for tourism development is a function of the perception of economic, social, and environmental impacts, potential for economic gain, use of the tourism resource, ecocentric attitude and attachment to the community and can be expressed:

$$S_{1-5} = F(\text{ECI}, \text{SI}, \text{EVI}, \text{U}, \text{EA}, \text{G}, \text{A})$$

where:

$$\begin{aligned} \text{ECI} &= F(\text{U}, \text{EA}, \text{G}, \text{A}) \\ \text{SI} &= F(\text{U}, \text{G}, \text{A}) \\ \text{EVI} &= F(\text{U}, \text{EA}, \text{G}, \text{A}) \end{aligned}$$

where:

$$\begin{aligned} S_1 &= \text{support for nature-based tourism} \\ S_2 &= \text{support for attraction-based tourism} \\ S_3 &= \text{support for culture- or historic-based tourism} \\ S_4 &= \text{support for event-based tourism} \\ S_5 &= \text{prohibition of new development} \\ \text{ECI} &= \text{economic impact} \\ \text{SI} &= \text{social impact} \\ \text{EVI} &= \text{environmental impact} \\ \text{U} &= \text{use of the recreation area} \\ \text{EA} &= \text{ecocentric attitude} \\ \text{G} &= \text{potential for economic gain} \\ \text{A} &= \text{attachment to the community} \end{aligned}$$

The path model describes the logical flow of factors which impact resident support for tourism. The arrow at the end of a line depicts a progressive, causal linkage between the variables. The direction of the arrow specifies that, if there is a causal relation, it is in the direction depicted. Each linkage implicitly represents a hypothesis which will be tested by estimating the magnitude of the relationship. In this model, resource use, potential for economic gain, ecocentric attitude, and community attachment are considered exogenous variables, i.e., variables that are not predicted by any other variables in the model. These four variables are considered to be partial causes of the perception of the impact and support for tourism. The arrows lead from the exogenous variables to the impact variable which is thought to be at least partially caused by the preceding variables. For example, the arrow which leads from ecocentric attitude to the economic impact variable propose that ecocentric attitude causes the resident perception of the economic impact of tourism.

The other variables in the model are considered endogenous, i.e. variables that are the dependent variable in at least one causal relationship. For example, the first endogenous variable in the model is the economic impact variable. It is the dependent variable in the causal

relationship with potential for economic gain, use of the tourism resource base, ecocentric attitude, and community attachment. Three endogenous variables intervene between the exogenous variable and the ultimate dependent variable. The three impact variables will heretofore be referred to as impact variables or intervening variables.

The ultimate endogenous variable, expressed support for tourism, is thought to be causally affected both directly and indirectly by the four exogenous variables. The indirect effect of variables on support for tourism will be contingent upon the manner in which they modify perception of environmental, economic and social impact. Their total effect on support for tourism is comprised of both direct and indirect effects.

Potential for economic gain, community attachment levels and the importance placed on the use of the tourism resource are expected to affect the way residents perceive all three types of impact. Ecocentric attitude is expected to modify the perception of economic and environmental impact, but not social impact.

The effect of all the variables is expected to vary with the type of tourism proposed; i.e., attraction-, nature-, culture-, event-based or no-growth.

3.4 RESEARCH DESIGN

Sample

The study took place in the five counties surrounding the Mount Rogers National Recreation Area (NRA) located in Southwest Virginia. A random sample of residents of Grayson, Smyth, Carroll, Wythe and Washington counties were sent a survey and asked to complete a self-administered questionnaire which focused on attitudes towards community issues, economic development, tourism, their community, the Mount Rogers National Recreation Area (NRA), their feelings about life and entrepreneurship.

The population of this study is individuals who are 18 years of age or older and are a member of a household in Grayson, Smyth, Carroll, Wythe and Washington counties in Southwest Virginia. These five counties surround the Mount Rogers NRA. This area was selected because of local interest in promoting recreational opportunities in an effort to attract more visitors.

Prior to the study, a focus group met in Damascus, Virginia to discuss the questions on the survey. Participants were asked what they understood the questions to mean and if anything was left out that they felt should have been included. Further, they were encouraged to speak freely about the survey and other issues concerning them.

Next, 100 names were selected randomly from five telephone directories that service this area. This group was mailed a pre-test survey and asked to complete the survey and return it. A weak response to the pre-test prompted telephone calls to those who had not responded. They were asked if they intended to complete the survey and their general attitude toward it. The feedback from these two groups elicited significant revisions in the style of the questionnaire as well as the items included.

The primary means of data collection was a mail survey questionnaire using a modified total design method (Dillman, 1978). Mail-in questionnaires were sent to 2,494 individuals who meet the above defined sample characteristics. A random sample of individuals from this population was selected from the telephone directories. The area was broken into 12 segments and the sample was drawn that represented the population in each of the segments. Residents who lived closer to the NRA were more heavily represented than those who resided in the outlying regions of the five counties. The sample was stratified to more heavily represent residents most affected by tourism development in the NRA. One thousand sixty-nine (1,064) usable surveys were returned for a response rate of 42.7%.

Appendix A describes the sampling design and the number of responses received from each of the 12 sample segments.

Several measures were used to ensure an adequate response rate. At the same time that the survey was mailed out, a press release explaining the project was issued to the papers servicing this area. Approximately three weeks after the initial mailing, those who did not return their survey were sent a reminder postcard. In another two weeks, the remaining non-respondents were sent a letter and a second survey. If no response was received from the second mailing of the survey, a final reminder postcard was sent after two more weeks.

Non-Response Bias

To check for non-response bias, a random sample of forty-one individuals who did not complete the survey were telephoned to determine if non-respondents were significantly different from respondents. Demographic information was collected on age, gender, last year of school completed, occupation, and length of residence. Respondents were asked several questions from the survey instrument. Results of the analysis imply that non-respondents are less educated, use the resource base less frequently and are less supportive of tourism and economic development. The apparent bias does not, however, affect

the relationships being examined in this study. Results and discussion of the analysis are presented in Appendix F.

Survey Instrument

The survey instrument consists of a pamphlet which includes a cover page and six major parts. A copy of the instrument is presented in Appendix C. The first part, entitled, "Concerns About Your Community" includes questions of general concern such as quality of life, important issues facing the community, attitude toward economic development and opinions about community life. The second part is titled, "Your Feelings About Tourism Development." The residents are asked if they feel aspects of their life would improve or worsen if the number of tourists increased and the level of support they would give to several strategies for tourism development. This section is followed by questions concerning resident feelings about their community. The fourth section asks for usage levels and opinions about the Mount Rogers NRA. The fifth section seeks information on respondents' feelings about time, personal values, status and entrepreneurship. The final section contains questions designed to gather demographic characteristics and a final question about the likelihood of household income increases if the number of tourists increased.

Variables**Ultimate Dependent Variable: Support for Tourism**

Support for tourism was measured by a scale comprised of 12 items which asked the respondents if they would support or oppose specific types of tourism development (See question 8 in the survey instrument in Appendix B). Six items refer to different types of tourism including nature-based development, attractions designed for large numbers of tourists, culture or historic-based attractions and cultural and folk events. Additionally, respondents were asked if they would support or oppose prohibiting all new development. The other five items concerned promotion and visitor services development: improved transportation, facilities and roads, information for tourists, small, independent businesses, visitor services and promotion of the area as a tourist destination. Specifically, respondents were requested to indicate their support or opposition on a five point Likert type scale where 1=strongly oppose, 3=neither support or oppose and 5=strongly support. The following six items which refer to the different types of tourism will be tested as the ultimate dependent variable in the model:

Question : Indicate how much you would oppose or support

- S₁ = Nature-based development (for example, cabins in the forest, cross-country ski trails)
- S₂ = Attractions designed for large numbers of tourists such as theme parks and large resort complexes
- S₃ = Culture or historic-based attractions, (such as visitor centers or museums)
- S₄ = Cultural and folk events (such as concerts, art and crafts, dance festivals)
- S₅ = Prohibiting all new development

Intervening Endogenous Variables

An examination of resident attitude studies led to the development of the items used to measure the impact of tourism. The items in thirty-three studies were content analyzed to determine which impact concept was being tested. Those concepts which appeared most frequently were included as items in this study. These items were measured in most studies by asking respondents the extent to which they agreed or disagreed with statements constructed by the researchers. In this study, an effort was made to avoid bias commonly associated with agree/disagree statements. In order to appear neutral, the instrument was designed without statements that might suggest a desired response.

Respondents were asked, "If the number of tourist coming to Mt. Rogers increases, do you believe the following will improve or worsen for you?" A 5 point anchor scale with the word "worsen" at the low end of the scale and the word "improve" at the high end was used to measure the

impact items. (See question 7 in the survey item in Appendix B.)

Economic Impact

Four items were used to measure the perceptions respondents had of economic impacts. They were employment opportunities, revenues from tourists for local governments, the price of goods and services and the cost of land and housing. The literature suggests that economic impact can be both positive and negative. The two items considered to be economic benefits are employment opportunities and revenues from tourists for local governments. The remaining two items may be considered either costs or benefits.

Social Impact

Seven items were used to measure the perceptions respondents had of social impacts. These were opportunities for shopping, opportunities for recreation, traffic congestion, the crime rate, local services such as police and fire protection, the preservation of the local culture and relationships between residents and tourists. Two of these items are considered in the literature to be social benefits - opportunities for shopping and opportunities for recreation. Two are generally considered social costs - traffic congestion and crime. The other three may be considered either as potential benefits or costs.

Environmental Impact

One item measured respondents perception of the environmental impact - the quality of the natural environment.

Exogenous Variables

Economic Gain

The potential for economic gain that respondents perceive would result from an increase in the amount of tourists visiting the Mount Rogers NRA is measured by responses to three questions (See questions 47,49 and 50 in Appendix B). First, respondents were asked how likely it was that their current household income would increase if the number of visitors to the Mt. Rogers NRA increased. This item was measured on a seven point anchor scale (1=not at all likely; 7=extremely likely). A second item elicited opened ended responses to a question which asked respondents what percent of their current income comes from the money spent by the visitors to the Mt.Rogers NRA? The third item was intended to measure employment ties to the tourism industry. A five-point Likert-type scale measured responses to the following question, "How much of the income of the company you work for (or business you own) comes from the tourist trade? (1=none; 2=a little; 3=some; 4= a lot; 5= almost all).

Use of the Tourism Resource Base

Eight items were used to measure the importance residents placed on the use of the tourism resource. Six of the items were Likert-scaled statements adapted from ones designed by D. R. Williams and Roggenbuck (1989). Three of the items measure place dependence which appraises the potential of a particular place to satisfy the needs and goals of an individual as well as how the specific place compares with other places that might meet the same goal (Stokols and Shumaker, 1981 in D. R. Williams et al., 1992). The other three items measure place attachment or how central the place is to a person's life. These two dimensions represent an affective measure of utilization of the resource base.

A five-point Likert type scale with strongly disagree on one end of the scale and strongly agree on the other end was used to measure agreement with the six statements concerning feelings of identity and dependency in relation to the Mt. Rogers NRA. The scale which was designed to measure place attachment and dependency is being used here as a measure of the importance residents place on use of the resource base.

The seventh item was an open ended question which asked how many times respondents had participated in outdoor

recreation activities in the Mt. Rogers NRA in the last 12 months. The final item asked respondents how much they knew about recreation opportunities in the Mt. Rogers NRA. Responses were measured on a five point scale where 1=nothing; 2=a little; 3=some; 4=a lot; and 5=a great deal (See questions 32, 21 and 28 in Appendix C).

Ecocentric Attitude

Ecocentric attitude is measured by the New Ecological Paradigm Scale developed by Dunlap, Van Liere, Mertig, Catton and Howell (1992). This scale is a set of 15 items designed to tap five elements of an ecological worldview: the reality of limits to growth, the fragility of nature's balance, a rejection of exemptionalism, a rejection of anthropocentrism, and the possibility of an ecological catastrophe (Dunlap et al., 1992). A composite score on this scale will be used as a measure of the strength of the ecological sensitivity of the respondents. A high score on this scale is an indication of a highly ecocentric attitude.

Attachment to the Community

The concept of community attachment can include several components: 1) the extent and pattern of social participation; 2) the extent and pattern of integration into the community; and 3) the sentiment or affect toward the community (McCool and Martin, 1994). The first two elements

have been represented in resident attitude toward tourism research by length of residence and place of birth (Davis, Allen, and Cosenza, 1988; Liu and Var, 1986; Pizam, 1978; Sheldon and Var, 1984; Um and Crompton, 1987; McCool and Martin, 1994). In this study the first two elements are measured by open-ended questions which ask respondents how long in years and months they have lived in their community and how many generations of their family have lived in the Mt. Rogers area.

McCool and Martin (1994) questioned the validity of using length of residence as a measure of attachment. These researchers suggested it may not be an appropriate measure of attachment in tourist communities because people who have recently settled into an area in which they had spent vacation or leisure time may have already developed an emotional attachment. Long time residents who have grown used to the attributes of an area may have feelings of attachment different from the newcomers. In their study community attachment was measured by both the objective length of residence measure and an affective measure.

The affective component in the McCool and Martin study (1994) was measured by three questions designed by Goudy (1982). The same questions were used in this study (See questions 17-19 in Appendix C). One question asked, "How

much do you feel at home in this community?" Possible responses included "not at all, a little, some, a lot, very much." The same choices were offered to respondents on a question which asked what interest they had in knowing what goes on in their community. Finally, respondents were asked how sorry they would be to leave if for some reason they had to move away from their community. Five possible answers were posed, "very sorry, sorry, no difference, pleased and very pleased."

The ambiguity surrounding the assessment of attachment precipitated the inclusion of another measure of community attachment. A team of researchers constructed a Guttman scale (a cumulative scale in which each item is designed to measure an increasing level of attachment) based on the work of Shamai (1991). Seven statements were designed to represent the seven levels of sense of place developed by Shamai (1991). The items were constructed based on the definitions given for the following seven levels: 1) not having any sense of place; 2) knowledge of being located in a place; 3) belonging to a place; 4) attachment to a place; 5) identification with the place's goals; 6) involvement in a place; and 7) sacrifice for a place. Each item was designed to represent an increasing level of attachment.

The question asked the respondents to indicate whether

they felt the statement was true or false for five locations: their community, their town, the Mount Rogers Region, Southwest Virginia, the Southern Appalachian Region. The places chosen follow the pattern established by Shamai (1991) who used a series of places which increased in geographic size from the city of Toronto to the country of Canada.

A false response was scored as one while a true response was given a value of 0 for the first three statements. A true response=1 and a false response=0 for the final four statements. A score is obtained by summing all seven responses in the five categories. The seven statements can be found in question 20 in the survey instrument located in Appendix C.

3.5 VALIDITY AND RELIABILITY OF THE DATA

Reliability refers to the degree to which observations are consistent or stable (Rosenthal and Rosnow, 1984). Validity refers to the relationship between a construct and its measures. Construct and internal reliability issues were addressed for each of the variables in the study. An internal consistency reliability coefficient was estimated using a coefficient alpha measure to test the internal consistency of items relating to each concept within the questionnaire (Nunnally, 1978). The test was performed for

the support, impact, recreation use, economic gain, environmental attitude and community attachment variables. Nunnally (1978) regards a coefficient of .70 or better as acceptable. Of the six concepts tested, two failed to meet this criteria. The community attachment variable was refined to include only the newly developed scale. Following the exclusion of these items the alpha level was raised from .6615 to .9196. Explanation of the refinement of this scale is included in Appendix D.

The economic gain variable, Cronbach's $\alpha = .6644$, consisted of only three items. Since the value of alpha depends largely on the average inter-item correlation and the number of items in the scale, an acceptable alpha level is lower for scales comprised of a small number of items (Carmines and Zeller, 1979). For example, the alpha level of a ten-item scale with an inter-item correlation (.4) would be .87 while that of a two item scale with the same inter-item correlation is .572. Consequently, this three item scale with an average inter-item correlation of .399 is considered to be internally consistent. The Cronbach's alpha coefficient and inter-item correlations are depicted in Table 3.1 through Table 3.5.

Table 3.1

Cronbach's Alpha and Item to Total Correlations
of the Items Measuring Support for Tourism

Cronbach's Alpha = .8800

Item Correlation	Item to Total
Nature-based development	.5818
Attractions designed for large numbers of tourists	.4718
Cultural or historic-based attractions	.7091
Visitor services	.6688
Small, independent businesses	.7335
Cultural and folk events	.6748
Outdoor recreation programs	.7512
Nature programs	.6455
Promotion of the area as a tourist destination	.7235
Improved transportation, facilities, roads	.6109
Information for tourists	.7147
Prohibiting all new development	-.3205

A 5 point modified anchor scale was used to measure how much respondents would oppose or support each of the items (1=strongly oppose, 3=neither support or oppose, 5=strongly support)

Table 3.2

Cronbach's Alpha and Item to Total Correlations
of the Items Measuring the Perception of
the Impact of Tourism

Cronbach's alpha= .8663

Item Correlation	Item to Total
Employment Opportunities	.5353
Revenues from tourists for local governments	.4473
The price of goods and services	.6296
The cost of land and housing	.5232
Opportunities for Shopping	.5132
Opportunities for Recreation	.5076
Traffic congestion	.5179
The crime rate	.4718
Local services	.5841
Preservation of the local culture	.6104
Relationships between residents and tourists	.6020
The quality of the natural environment	.6378

A 5 point anchor scale was used to measure these items. Respondents were asked to indicate whether they believed each item would improve or worsen for them if the number of tourists coming to Mount Rogers NRA increased. (1=worsen; 5=improve).

Table 3.3

Cronbach's Alpha and Item to Total Correlation
of the Potential for Economic Gain Scale

Cronbach's alpha=.6644

Item Total	Item to Total Correlation
Likelihood of household income increase ^a	.4736
Current % of income from tourist trade ^b	.4845
Employer's level of income from tourist trade ^c	.4663

^a Likelihood of household income increase was measured on a seven point anchor scale (1=not at all likely; 7=extremely likely). Respondents were asked how likely it was that their current household income would increase if the number of visitors to the Mt. Rogers NRA increased?

^b Current % of income from tourist trade was measured by an open-ended response to the question: " What part of your current income comes from the money spent by the visitors to the Mt. Rogers NRA?"

^c The employer's level of income was measured by the response to a question which asked how much of the income of the company the respondent works for (or business he/she owns) comes from the tourist trade. A five point Likert-type scale was used where (1=none; 2=a little; 3=some; 4=a lot; 5=almost all).

Table 3.4
Cronbach's Alpha and Item to Total Correlations
of the New Ecological Paradigm Scale
Used to Measure Ecocentric Attitude

Cronbach's Alpha = .8181

Item	Item to Total Correlation
We are approaching the limit of the number of people the earth can support	.4088
Humans have the right to modify the natural environment to suit their needs*	.4391
When humans interfere with nature it often produces disastrous consequences	.4618
Human ingenuity will insure that we do NOT make the earth unlivable*	.3552
Humans are severely abusing the environment	.4068
The earth has plenty of natural resources if we just learn how to develop them*	.3116
Plants and animals have as much right as humans to exist*	.4063
Despite our special abilities humans are still subject to the laws of nature	.6030
The so-called "ecological crisis" facing humankind has been greatly exaggerated*	.3463
The earth is like a spaceship with very limited room and resources	.5642
Humans were meant to rule over the rest of nature*	.4885
The balance of nature is very delicate and easily upset	.3262
Humans will eventually learn enough about how nature works to be able to control it*	.5093
If things continue on their present course, we will soon experience a major ecological catastrophe	.5528

A five point Likert-type scale measured respondents agreement with the NEP statements (1=strongly disagree; 2=disagree; 3=unsure; 4=agree;5=strongly agree). Items followed by * were reversed scored.

Table 3.5

Cronbach's Alpha and Item to Total Correlations
of the Items Used to Measure Use of the Tourism Resource Use

Cronbach's alpha = .8913

Item	Item to Total Correlation
This is my favorite place to go during my free time	.4475
Because of my lifestyle this place is important to me	.4265
No other place can compare to this area in terms of what I like to do	.3436
Coming here is one of the most satisfying things I do	.4203
I wouldn't substitute any other area for doing the type of things I do here	.3616
I use this place to help define and express who I am inside	.3739
Number of times participated in recreation activities in the NRA	.2589
Knowledge of recreational opportunities in the NRA	.2779

The first six items were measured on a five point likert-type scale (1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree). Number of times participated was an open-ended question. Knowledge was measured on a five point likert scale in response to the question, "How much do you know about recreational opportunities in the Mt. Rogers NRA? (1=nothing; 2=a little; 3=some; 4=a lot; 5=a great deal).

3.6 DATA ANALYSIS

Prior to conducting hypothesis tests, variables were refined and exploratory analysis was done to determine the nature of the data (Hartwig and Dearing, 1979). Frequencies, descriptive statistics and the assumptions for regression and path analysis were examined. Details of the exploratory analysis are included in Appendix D.

The hypothesized path model was tested by obtaining estimates for each of the linkages represented in Figure 3.1. The strategy of the path analysis is to obtain estimates of the extent to which intervening variables account for relationships among prior and subsequent variables. The relationship of substantive interest here is that between the valued elements (e.g. economic gain) and support for tourism. The total association between these two variables may be measured by their correlation coefficient. This correlation may be decomposed into several useful components (Duncan, 1966).

To obtain estimates of the main path coefficients, each endogenous variable is regressed on those variables that directly impinge upon it. Potential economic gain, tourism resource utilization, ecocentric attitude and community attachment were regressed against the impact variables. The four exogenous variables and the intervening impact

variables, were regressed against the support variable. The standardized beta coefficients which result from the regression equations are the estimated path coefficients for each linkage. Path coefficients are essentially the same as beta coefficients and represent the direct relationship. The difference between regression and path analysis is that each variable that is considered to be caused by another variable is treated as a dependent variable in a separate regression equation. The beta coefficients from the regression equations are the coefficients for paths leading from one set of independent variables to the dependent variables (Wright, 1985).

The most explanatory information lies in the decomposition of the correlations between the variables which is equal to the sum of simple and compound paths. The total effect of a variable is the sum of the direct effects measured by the simple path and indirect effects measured by the compound path. The indirect effect is the part of a variable's total effect that is transmitted or mediated by intervening variables between the cause and effect variables (Alwin and Hauser, 1978). To calculate indirect effect, one multiplies the path coefficient leading from an exogenous variable to an intervening variable by the path coefficient that leads from the same intervening variable to its dependent variable. For example, the indirect effect of economic gain will be measured by multiplying the path from

economic impact by the path from economic impact to support for tourism. Total effects are the sum of all simple and compound paths.

The estimation of the indirect affect reveals the influence of one variable on another through an intervening variable. The components yielded through this decomposition may be interpreted as a percentage of the total association between two variables (Wolfle, 1980). The examination of this decomposition is especially valuable when indirect effects reveal counterbalancing multivariate effects which would go unrecognized in the absence of decomposition.

To decompose a correlation, one moves from one variable to another in a path diagram without violating instructions established by Wright (1934 in Asher, 1976, p. 33):

1. No path may pass through the same variable more than once.
2. No path may go backward on (against the direction of) an arrow after the path has gone forward on a different arrow.
3. No path may pass through a double-headed curved arrow (representing an unanalyzed correlation between exogenous variables) more than once in any single path.

A simple path without mediating variables is the direct effect, all other routes go through at least one other variable and are compound paths. The sum of the product of the simple path that make up every relevant compound path is the indirect effect of a variable. The sum of the direct and indirect effect is the total effect.

The path coefficients of the hypothesized linkages are evaluated according to the following criteria¹:

0.000 - 0.05 = weak

0.051 - 0.30 = moderate

0.301 - 1.00 = strong

A path will be judged as insignificant if the probability level is greater than .05. Insignificant path coefficients will result in the elimination of that path and the construction of a modified model.

To test the hypothesis that the relationships will not hold constant for various types of tourism, the model will be tested with specific types of tourism, i.e. attraction-based, nature-based, culture-based, folk event-based and no-growth. Differences in the total effects of each of the exogenous variables will be compared for each model based on the aforementioned criteria.

3.7 LIMITATIONS AND ASSUMPTIONS OF THE DATA ANALYSIS

The results of this study may be limited in generalizability only to the residents of the five counties surrounding the Mount Rogers Recreation Area and to other rural areas with similar social and economic structures in the early stages of tourism development.

The study assumes that the instrument used to collect data actually measures the salient variables for the study of factors

¹The criteria established here are commonly used in social science research. See for example Andereck, 1989.

that influence resident perceptions of the impacts of tourism and subsequently support for tourism. It also assumes that individuals responded to the questionnaire items truthfully and accurately.

CHAPTER IV

RESULTS

This chapter reports results of the data analysis and hypothesis testing. Preliminary data on characteristics of the respondents is presented as background information. Information concerning frequencies and measures of central tendency of the major variables in the study are presented next. Hypotheses are then tested and the chapter is summarized.

4.1 PROFILE OF THE RESPONDENTS

Age

The majority of residents in the sample are middle aged or older with 40.0% between the ages of 35 and 54 and another 46.9% who are 55 and over. Details are Appendix D.

Years of Residency in Community

Length of residency in the study area averaged 32.4 years for the sample group. Only 20.8% of the respondents had lived in their present community for ten years or less. Another 29% had resided in the same locality for 11 to 30 years. Some 28.4% fell into the 31 to 50 year block and 20.1% reported a length of residency of 51 years or more.

Household

The largest percentage of households reported (43.2%) fell into the category "married no children at home." 33.1% were married with children living at home. Only 5.3% of the respondents described their household makeup a single parent with children.

Occupation and Job Status

Some 30.2% of the respondents reported their job status as retired. While 13.2% work at trades, 13.6% hold professional or technical positions. Another 6.5% work in middle management or sales and 5.9% in clerical or

secretarial positions. Of those remaining, 7.3% labeled themselves as homemakers and 9.3% are self-employed.

Income

Of the total sample group 41.3% reported incomes between \$10,00 and \$30,00 per year. Another 29.3% earned between \$30,00 and \$50,00. 16.0% earned less than \$10,00 annually while only .2% reported yearly income of over \$50,00.

4.2 Profile of the Variables

Variables estimating potential for economic gain, use of the tourism resource, environmental attitudes, community attachment, economic, social and environmental impacts and support for tourism were used to analyze the relationship between resident support for four types of tourism development and opposition to all development. The review of published works in Chapter II provides the theoretical basis for the inclusion of these variables in the study. Chapter III explains the measurement of each of the variables and provides the reliability analysis of each construct. The variables with measures of central tendency are listed in Table 4.1.

The questionnaire located in Appendix B may be used for referencing the measurement of the variables. Discussion of the construction of each of the variables is in Chapter III.

Table 4.1
Path Model Variable Measures of Central Tendency

Variable	Scale	Mean	Median	Std dev
Support	1-5	3.6	3.7	.675
Nature-Based Tourism	1-5	3.5	4.0	.036
Attraction-Based Tourism	1-5	2.9	3.0	1.341
Culture/Historic-Based Tourism	1-5	3.9	4.0	.927
Event-Based Tourism	1-5	4.0	4.0	.998
Prohibiting all new development	1-5	2.1	2.0	1.155
Economic Impact	1-5	3.3	3.2	.832
Employment Opportunities	1-5	3.6	4.0	.962
Revenues for local governments	1-5	3.8	4.0	.974
Price of goods and services	1-5	2.9	3.0	1.164
Cost of land and housing	1-5	2.9	3.0	1.293
Social Impact	1-5	3.1	3.1	.739
Opportunities for shopping	1-5	3.8	4.0	.994
Opportunities for recreation	1-5	3.8	4.0	1.043
Traffic congestion	1-5	2.2	2.0	1.085
The crime rate	1-5	2.2	2.0	1.064
Local services	1-5	3.3	3.0	1.072
Local Culture	1-5	2.9	3.0	1.113
Relationship between residents and tourists	1-5	3.1	3.0	.987
Environmental Impact	1-5	2.7	3.0	1.074
Economic Gain*				
Likelihood of income increase due to tourism	1-7	1.7	1.0	1.295
Percent of current income from tourism	open	1.0	0.0	5.253
Amount of income employer receives from tourism	1-5	1.6	1.0	.925
Use of Tourism Resource Base*				
Number of times used	open	3.6	0.0	15.670
Affective scale	1-5	3.2	3.0	.814
Knowledge	1-5	2.4	2.0	1.036
Ecocentric Attitude Scale	1-5	3.4	3.4	.530
Community Attachment Scale	1-35	25.4	29.0	9.632

* Indicates the variable was standardized

4.3 HYPOTHESES TESTING

The principle purpose of this study was to investigate the relationship between 1) resident perception of the impact of tourism and support for tourism and 2) between elements of value to the residents (economic gain, use of the tourism resource, the natural environment, and community attachment) and resident perception of the economic, social, and environmental impact of tourism.

Further, the study seeks to determine how the perception of the impacts and the various elements interact to formulate resident attitudes toward tourism. The research was designed to test whether the interplay of items varied with the type of tourism proposed.

Chapter III presented the basic research model guiding this study and seven research hypotheses were defined in Chapter I. Each hypothesis is reiterated below in terms of a research hypothesis, and then the results of statistical analyses are reported. The hypotheses are evaluated based on the results of regression equations used to test the model. Path coefficients will be considered weak if the range is between 0 and 0.05; moderate between 0.051 and 0.30; and strong between the range of 0.301 and 1.00. Path coefficients will be considered significant at the .05 or

better probability level. The discussion arising from these results is presented in Chapter V.

The following symbols are used in the discussion and the path model depicted in Figure 4.1:

X_1 = support for tourism
 X_2 = perceived economic impact
 X_3 = perceived social impact
 X_4 = perceived environmental impact
 X_5 = economic gain
 X_6 = use of the resource
 x_7 = ecocentric attitude
 x_8 = community attachment

p = the path coefficient.

The first variable that follows p as a subscript indicates the dependent variable and the second number the independent variable in the relationship between the two variables. The number corresponds to the subscript number which follows X in the variable designation above. For example, p_{12} is the path from perceived economic impact (X_2) to support (X_1); p_{25} represents the path from economic gain (X_5) to perceived social impact (X_2).

S_1 = support for nature-based development
 S_2 = support for attraction-based development
 S_3 = support for culture-based development
 S_4 = support for event-based development
 S_5 = support for prohibiting all new development

4.3A ANALYSIS OF HYPOTHESIS 1

H_1 : A positive relationship exists between resident perception of the benefits of tourism and support for tourism.

The results of this study partially confirm the findings of previous research which has shown a positive linear relationship between the perception of the benefits

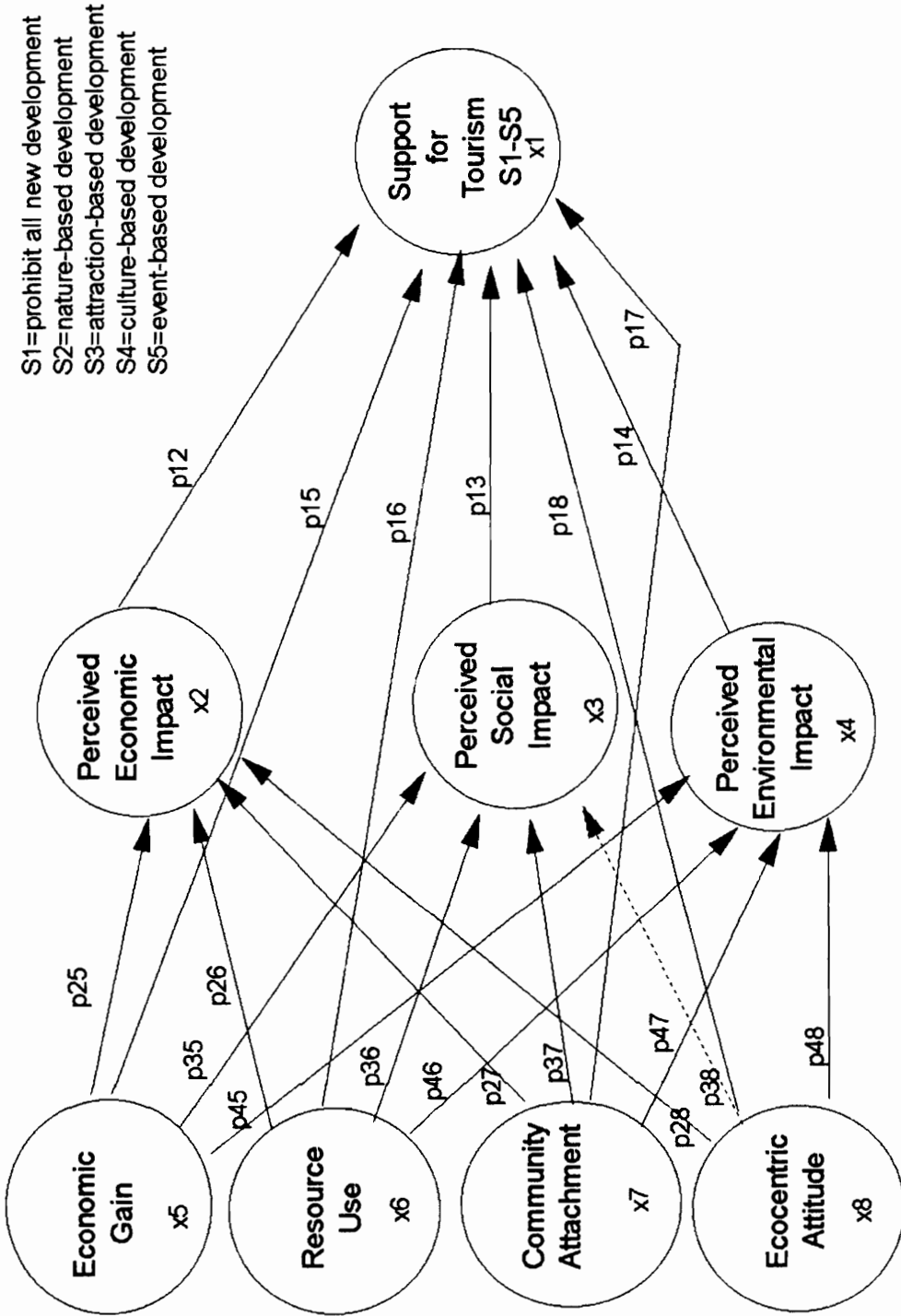


Figure 4.1 Path Analytic Model of Resident Support for Tourism

of tourism and support for tourism. Perception of the benefits is measured as the perception that the items which make up the impact will improve if the number of tourists coming to the Mt. Rogers NRA increases. A positive relationship between perception of the economic (X_2), social (x_3), and/or environmental (x_4) impact of tourism and the support variable (x_1) supports the research hypothesis.

While the relationship between the positive perception of the impact and support for tourism holds true for each type of tourism, the findings imply that perceived economic and environmental impacts may not be significant contributors to support for certain types of tourism. Furthermore, the strength of this relationship varies with the type of tourism as well as the type of impact. The path coefficients leading from each of the impact variables to the five different support variables are delineated in Table 4.2.

The relationship between the impact variables and each support variable will be discussed separately in the following section.

S₁: Support for Nature-Based Development

The dependent variable nature-based tourism measures the level of support respondents reported they would give to nature-based development such as cabins in the forests and

Table 4.2

Path Coefficients of The Effect of Perception of the Impact
on Support for Tourism

Type of Tourism Impact Type	Nature	Attraction	Culture	Event	Prohibit
Economic	.1172*	.1711*	.0902*	.0875*	-.0379
Social	.1694*	.1337*	.4192*	.3241*	-.1546*
Environmental	.0361	.2067*	.0545	-.0261	.0328

* Designates that the coefficient is significant at the .05 or better probability level.

Note:

Economic refers to perception of the economic impact.

Social refers to perception of the social impact.

Environmental refers to perception of the environmental impact.

Nature refers to support for nature-based tourism.

Attraction refers to support for attraction-based tourism

Culture refers to support for culture- or historic-based tourism.

Event refers to support for event-based tourism

Prohibit refers to support for prohibiting all new development.

cross country-ski trails. The path coefficients from economic impact ($p_{12}=.17$) and social impact ($p_{13}=.16$) to support for nature-based tourism are moderate and significant indicating that the perception of the economic and social impacts positively and moderately affect support for nature-based development. The path coefficient from environmental impact to support for nature-based development ($p_{14}=.04$) is weak and insignificant at the .05 probability level. The hypothesized positive relationship between the impact variables and support for nature-based tourism is supported for the social and economic impact of tourism but not for the environmental impact when support for nature-based development is the dependent variable.

S₂:Support for Attraction-Based Development

Support for attraction-based tourism measured respondents willingness to support tourism based on attractions designed for large numbers of tourists such as theme parks and large resort complexes. The hypothesis is fully supported for the path model where attraction-based development is the dependent variable. All paths coefficients ($p_{12}=.17$; $p_{13}=.13$; $p_{14}=0.20$) are moderate and significant at the .05 or better probability level.

S₃:Support for Culture-or Historic-Based Development

The culture- or historic-based development variable measures the support respondents expressed support for tourism based on cultural or historic attractions such as visitor centers or museums. The relationship between perception of the impacts of tourism and support for culture- or historic-based development (hereafter referred to as culture-based) is similar to that of nature-based development where the path coefficients from economic and social impacts are significant ($p_{12}=.09$ $p_{13}=.31$) and where the path coefficient from environmental impact to the support variable is negative, but weak and insignificant ($p_{14}=-.02$) at the .05 probability level. The positive relationship between the social and economic impact variables and the support variable supports the hypothesis. However, there appears to be no significant relationship between environmental impact and support for culture-based tourism.

S₄:Support for Event-Based Development

This variable represents respondent support for tourism based on cultural and folk events such as concerts, art and crafts, dance and festivals. The path coefficient from social impact to support for event-based development demonstrates a strong positive relationship between the way residents perceive the social benefits of tourism and

support for this type of tourism ($p_{13} = .41$). A relatively moderate relationship exists between the perception of economic impacts and the support variable ($p_{12} = .09$). A negative path coefficient from environmental impact to the support variable ($p_{14} = -.09$) suggests that support for event-based tourism decreases with an increase in the positive perception of the environmental impact.

S₅: Prohibiting All New Development

This variable was designed to measure opposition to tourism development. Respondents were asked how much they would support or oppose prohibiting all new development. A high score on this variable represents opposition to tourism development. The path coefficients leading from perceived economic impact ($p_{12} = -.04$) and perceived environmental impact ($p_{14} = .03$) are weak and insignificant indicating that the perception of the economic and environmental impacts do not significantly contribute to support for prohibiting all new development. The moderate and negative path coefficient from social impact to support for prohibiting all new development ($p_{12} = -.15$) indicates that the perception of social impacts of tourism leads to opposition to prohibiting all new tourism development. The hypothesis is supported for social impact of tourism but not for environmental and economic impacts when prohibiting all new development is the

dependent variable. The relationship between the perception of the economic impact and opposition to development is negative while that between the environmental impact and support for prohibiting new development is positive. However, these relationships are insignificant at the .05 probability level.

Summary of the analysis of Hypothesis 1

H₁: A positive relationship exists between resident perception of the benefits of tourism and support for tourism.

The results of this analysis suggest that H₁ was only partially supported. For attraction-based tourism, the hypothesis is fully supported. Furthermore, a positive relationship exists between support for all types of tourism tested and the perception of economic and social impacts of tourism. However, the perception of the economic impact of tourism does not appear to be significant for prohibiting all new development. The relationship between environmental impact and nature-based tourism, culture-based tourism and prohibiting development appears to be insignificant. A relatively strong positive relationship exists between the environmental impact variable and support for attraction-based tourism. This finding indicates that a belief that an increase in tourism would result in improving the quality of the natural environment leads to support for attraction-

based tourism. For event-based tourism, this relationship is moderately negative, suggesting that a belief that an increase in tourism would result in a worsening of the quality of the natural environment would lead to support for event-based tourism.

4.3B ANALYSIS OF HYPOTHESIS 2

H₂: A positive relationship exists between a perceived favorable distribution of benefits over costs and support for tourism.

The perceived favorability of distribution of benefits over costs is evaluated by the magnitude of the score on the economic, social and environmental impact variables. The economic impact variable is comprised of items which could be considered either costs or benefits - employment opportunities, revenues from tourists for local governments, the price of land and housing, the cost of goods and services. For example, rising prices of land and housing could be a benefit for those who had property they wished to sell or rent. However, an increase in price could be a cost for individuals who might perceive higher costs of living as economically disadvantageous. The summation of the items in the economic impact scale eliminates the ambiguity of this variable. If respondents see the increase in price as an improvement, they will score this item as improving (a high score). If, on the other hand, respondents see rising

prices as a disadvantage, they will score the item as worsening (a low score). The magnitude of the summated score represents the extent to which respondents view the benefits exceeding the costs. Consequently, as the score rises, the favorability of the distribution of costs over benefits increases. That is, a high score represents a belief in a favorable distribution while a lower score represents a belief that the distribution is less favorable.

The social impact scale mixes items which are thought to worsen, such as traffic congestion, with those that are thought to improve, such as shopping opportunities. The summated social impact scale includes both types of items. Again, increases in this score are an indication of the magnitude of the perceived benefits over costs.

The environmental impact variable is comprised of one item which measures whether respondents feel that the natural environment would improve or worsen if the number of visitors increased. The higher the score on this variable the greater the perception of benefits over costs.

The effect of the favorable distribution of benefits over costs can be observed in the examination of the decomposition of the correlations between the exogenous variables and the support variable. The decomposition of the model indicates how the intervening variables (here, the

impact variables) influence the total effect of an exogenous variable on the ultimate dependent variable (in this case, the support variable). The total effect of an exogenous variable is the sum of its direct and indirect effects on the ultimate dependent variable. The direct effect measures the effect of an exogenous variable on the support variable when it is entered into a multiple regression equation with all variables in the model. Each exogenous variable passes through three impact variables in this model, creating three compound paths which when summed equal the indirect effect. The indirect effect of an exogenous variable is measured as the sum of the compound paths which lead from it through intervening endogenous variables to the ultimate dependent variable. The total effect is the sum of the direct and indirect effects.

The difference between the total effect coefficient and the direct effect coefficient indicates the influence of the intervening variables (in the model, the impact variables). This difference is interpreted as the change in support for tourism that occurs because of the influence of the impact variables. Consequently, an increase in the total over the direct effects of an exogenous variable caused by the indirect effect of the intervening impact variables is an indication of the effect of a perceived favorable

distribution of benefits over costs (measured by a higher score on the impact variables). An increase is thus considered support for the second hypothesis. A decrease in the total over the direct effects of an exogenous variable indicates that the impact variables act as a suppressor to support for tourism.

Changes in the total effects of the exogenous variables from the contributing indirect effects of the intervening impact variable will be explained in detail for the model with attraction-based as the dependent variable. Results of the culture- and event-based models will be summarized. The changes in the nature-based model are the same as those in the culture-based model. Discussion of this model would be needlessly repetitive. However, the results are displayed in Table 4.3. The direct, indirect and total effects along with the percent of the total effect on the dependent variable caused by each independent variable for each model are included in Tables 4.3 through 4.7.

S₂: Attraction-Based Development

Support for attraction-based tourism is measured as respondents support or opposition to attractions designed for large numbers of tourists such as theme parks and large resort complexes. The results of the analysis of the antecedent variables on this ultimate dependent variable can

be found in Table 4.4. The total association between economic gain and support for attraction-based development is measured by the correlation between the two variables ($r=.08$). This correlation may be decomposed into direct and indirect effects. The direct effect of economic gain on support is equal to the path coefficient from economic gain to support for tourism. The indirect effects are the sum of the effects of the product of the coefficients of the path from the exogenous variable through the impact variables to the support variable. For example, the indirect effect of economic gain through economic impact is measured by multiplying the path from economic gain to economic impact ($p_{15}=.15$) by the path from economic impact to support ($p_{12}=.17$). This results in the computation of one indirect effect, that of economic gain on support, $p_{12}p_{15}=-.03$. Consequently, economic gain not only has a direct effect on support, it also has an indirect effect because it affects the perception of the economic impact which is itself a cause of support. The total effect is the sum of the direct effect and all indirect effects; that is the total effect of economic gain on support for tourism is interpreted as the sum of all effects whether they occur directly or through intervening variables. The total effect is the sum of p_{15} (.03) plus $p_{12}p_{15}$ (.02), plus $p_{35}p_{13}$ (.02), plus $p_{45}p_{14}$ (.01).

Table 4.3
Decomposition of the Correlation Between Exogenous Variables and
Nature-Based Tourism Development

Economic Gain

Variable	A Effect of Economic Gain on Impact	B Effect on Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Economic Gain (Direct Effect)		.0875*		61.19
Economic Impact	.1521*	.1760*	.0268	18.74
Social Impact	.1659*	.1616*	.0268	18.74
Environmental Impact	.0504	.0386	.0019	1.33
Total Indirect Effects			.0555	
Total Effects(Direct + Indirect Effects)		.1430	100.00	

Use of the Tourism Resource Base

Variable	A Effect of Use on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Use of Resource (Direct Effect)		-.0055		-31.98
Economic Impact	.0682	.1760*	.0120	69.77
Social Impact	.0468	.1616*	.0076	44.19
Environmental Impact	.0802*	.0386	.0031	18.02
Total Indirect effects			.0227	
Total Effects (Direct + Indirect Effects)		.0172	100.00	

Ecocentric Attitude

Variable	A Effect of Ecocentric Attitude on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Ecocentric Attitude (Direct Effect)		.0126		-27.16
Economic Impact	-.1520*	.1760*	-.0268	57.76
Social Impact	-.1316*	.1616*	-.0213	45.91
Environmental Impact	-.2630	.0386	-.0109	23.49
Total Indirect Effects			-.0590	
Total Effects (Direct + Indirect Effects)		-.0464	100.00	

Community Attachment

Variable	A Effect of Attachment on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Community Attachment (Direct Effect)		.0731*		68.90
Economic Impact	.1054*	.1760*	.0186	17.53
Social Impact	.1047*	.1616*	.0169	15.93
Environmental Impact	-.0660*	.0386	-.0025	- 2.36
Total Indirect effects			.0330	
Total Effects (Direct + Indirect Effects)		.1061	100.00	

* Designates that the coefficient is significant at the .05 or better probability level.

Table 4.4
Decomposition of the Correlation Between Exogenous Variables and
Attraction-Based Tourism Development

Economic Gain

Variable	A Effect of Economic Gain on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Economic Gain (Direct Effect)		.0208		26.03
Economic Impact	.1521*	.1776*	.0270	33.79
Social Impact	.1659*	.1330*	.0221	27.66
Environmental Impact	.0504	.1990*	.0100	12.52
Total Indirect Effects			.0550	
Total Effects (Direct + Indirect Effects)		.0881	100.00	

Use of the Tourism Resource Base

Variable	A Effect of Use on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Use of Resource (Direct Effect)		-.1253*		137.69
Economic Impact	.0682	.1776*	.0121	-13.30
Social Impact	.0468	.1330*	.0062	- 6.81
Environmental Impact	.0802*	.1990*	.0160	-17.58
Total Indirect effects			.0343	
Total Effects (Direct + Indirect Effects)		-.0910	100.00	

Ecocentric Attitude

Variable	A Effect of Ecocentric Attitude on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Ecocentric Attitude (Direct Effect)		-.0951*		48.55
Economic Impact	-.1520*	.1776*	-.0270	13.78
Social Impact	-.1316*	.1330*	-.0175	8.93
Environmental Impact	-.2830*	.1990*	-.0563	28.74
Total Indirect Effects			-.1008	
Total Effects(Direct + Indirect Effects)		-.1959	100.00	

Community Attachment

Variable	A Effect of Attachment on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Community Attachment(Direct Effect)		-.0469		171.17
Economic Impact	.1054*	.1776*	.0187	-68.25
Social Impact	.1047	.1330*	.0139	-50.73
Environmental Impact	-.0660	.1990	.0131	47.81
Total Indirect effects			.0195	
Total Effects (Direct + Indirect Effects)		-.0274	100.00	

* Designates that the coefficient is significant at the .05 or better probability level.

This sum (.08) is equal to the correlation between economic gain and support (.08) for tourism. Any difference between the correlation and the total effects is caused by the correlations between the exogenous variables. These components are referred to as "joint associations" (Wolfle 1980, p.191).

The decomposition allows us to examine the percentage of the total effects of the exogenous variable on the support variable that are derived from its influence on the impact variable. The increase in total effects of the economic gain variable on support for attraction-based tourism is .06. This increase in the total effect over the direct effect of the variable is attributable to the effect the exogenous variable has on the impact variables which measure the strength of the favorable distribution of benefits over costs. Consequently, the observed increase in the total effect of economic gain over its direct effect on support is interpreted as support for the second hypothesis.

A similar increase in the support for attraction-based development is seen from the effect of the exogenous variable, use of the resource, on the impact variables. A negative direct effect of $-.12$ is reduced to a negative total effect of $-.09$ by the positive effect of use of the resource on the impact variables - an increase of .01 from

the indirect effect of use of the recreation resource through perceived economic impacts, an increase of .01 through the social impact another increase of .01 through the environmental impact variable.

The negative effect of ecocentric attitude on support for attraction-based tourism is intensified by the negative effect of this variable on the impact variables. The total negative effects of ecocentric attitude on the support variable nearly doubles when the interaction with the intervening impact variables is considered. The analysis demonstrates that ecocentric attitudes result in a negative assessment of the distribution of costs over benefits which intensifies the negative direct relationship between ecocentric attitudes and support for attraction-based development.

The direct effect of the community attachment variable is negative and insignificant at the .05 probability level ($p_{18} = -.05$). However, its moderate positive influence on the economic and social impact variables slightly suppresses the negative effect of this variable on the support variable. Its negative effect on the environmental impact variable nearly cancels the influence this variable has on the social impact variable resulting in an even weaker total effect of $-.03$.

S₃ Culture- or Historic-Based Development

The dependent variable in the culture-based model measures support for cultural or historic attractions such as museums and visitor centers. Table 4.5 specifies the results of the analysis of this model. Examination of the change from the direct effect to the total effect of economic gain on the culture-based support variable indicates the importance of examining the effect of the intervening variable. The path coefficient $p_{15} = .04$ suggests that the path from economic gain to support for tourism is insignificant. However, the effect of this variable on support for culture-based tourism is in fact moderate (total effect = .10). More than 60% of the correlation between the economic gain and support variables can be accounted for by the effect of the compound paths. More than half of the total effect of the economic gain variable is attributable to the indirect effect this variable has on the perception of the social impact. While most of the effect of use of the resource (74%) comes from its direct effect on support for culture-based tourism, another 20% comes from its influence on the social impact variable. The effect of the community attachment variable on the impact variables increases its total effect .04 over its direct effect. The direct effect of ecocentric attitude

Table 4.5
Decomposition of the Correlation Between Exogenous Variables and
Culture-Based Tourism Development

Economic Gain

Variable	A Effect of Economic Gain on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Economic Gain (Direct Effect)		.0363		36.05
Economic Impact	.1521*	.0832*	.0127	12.61
Social Impact	.1659*	.3186*	.0529	52.53
Environmental Impact	.0504	-.0232	-.0012	- 1.19
Total Indirect Effects (Direct + Indirect Effects)			.0644	
Total Effects (Direct + Indirect Effects)		.1007	100.00	

Use of the Tourism Resource Base

Variable	A Effect of Use on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support Variable
Use of Resource (Direct Effect)		.0537		74.17
Economic Impact	.0682*	.0832*	.0057	7.87
Social Impact	.0468	.3186*	.0149	20.58
Environmental Impact	.0802*	-.0232	-.0019	-2.62
Total Indirect effects			.0187	
Total Effects (Direct + Indirect Effects)		.0724	100.00	

Ecocentric Attitude

Variable	A Effect of Ecocentric Attitude on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Ecocentric Attitude (Direct Effect)		.0217		-82.82
Economic Impact	-.1520*	.0832	-.0126	48.09
Social Impact	-.1316*	.3186*	-.0419	159.92
Environmental Impact	-.2830	-.0232	.0066	-25.19
Total Indirect Effects (Direct + Indirect Effects)			-.0479	
Total Effects			-.0262	100.00

Community Attachment

Variable	A Effect of Attachment on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Community Attachment (Direct Effect)		.0383		46.71
Economic Impact	.1054*	.0832*	.0088	10.73
Social Impact	.1047*	.3186*	.0334	40.73
Environmental Impact	-.0660*	-.0232	.0015	1.83
Total Indirect effects			.0437	
Total Effects (Direct + Indirect Effects)		.0820	100.00	

* Designates that the coefficient is significant at the .05 or better probability level.

on the support variable, though insignificant, is positive ($p_{17} = .02$). However, the negative effect of ecocentric attitudes on the impact variables alter the total effect of ecocentric attitudes to a negative relationship with the support variable (total effects = $-.03$). These findings support the hypothesis that a perceived favorable distribution of benefits over costs results in support for tourism and provides evidence that a negative relationship exists when the distribution of benefits over costs is perceived as unfavorable.

Event-Based Development

The analysis of event-based tourism as the support variable results in findings similar to those in the culture-based model. The largest portion of the effect of the economic gain variable is evidenced through its effect on the intervening variables. The positive relationship between use and the support variable is strengthened through the impact variables. Likewise, the effect of the community attachment variable increased from its influence on the intervening variables. The positive relationship of ecocentric attitudes and the support variable is reduced by its effect on the intervening variables. Further support was found to suggest that a perceived favorable distribution of the impacts of tourism results in strengthening support

for tourism. The details concerning the analysis of the event-based model are depicted in Table 4.6. Table 4.7 is useful for examining the results of the evaluation of the distribution of benefits over costs when the dependent variable is support for prohibiting new development.

Summary of the Analysis of Hypothesis 2

H₂: A positive relationship exists between a perceived favorable distribution of benefits over costs and support for tourism.

The analysis fully supports the hypothesis that a positive relationship exists between a perceived favorable distribution of benefits over costs and support for tourism. In every case, the total effects of the exogenous variable were positively increased when the relationship between the exogenous variable and the impact variable was positive and negatively affected when the relationship between the exogenous variable and the impact variable was negative. The decomposition of the correlation demonstrates the mitigating effect of the impact variable on the relationship between the exogenous variable and the support variable.

4.3C ANALYSIS OF HYPOTHESES 3 To 6

Hypotheses 3 through 6 concern the relationship between the elements of value (economic gain, use of the tourism resource, ecocentric attitudes, and community attachment) and the perception of the three types of impacts (economic,

Table 4.6
Decomposition of the Correlation Between Exogenous Variables and
Event-Based Tourism Development

Economic Gain

Variable	A Effect of Economic Gain on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Economic Gain (Direct Effect)		.0083		9.62
Economic Impact	.1521*	.0885*	.0135	15.64
Social Impact	.1659*	.4139*	.0687	79.61
Environmental Impact	.0504	-.0828*	-.0042	-4.87
Total Indirect Effects (Direct + Indirect Effects)			.0780	
Total Effects			.0863	100.00

Use of the Tourism Resource Base

Variable	A Effect of Use on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Use of Resource (Direct Effect)		.0374		65.55
Economic Impact	.0682*	.0885*	.0060	10.68
Social Impact	.0468	.4139*	.0194	34.52
Environmental Impact	.0802*	-.0828*	-.0066	-11.74
Total Indirect effects			.0780	
Total Effects (Direct + Indirect Effects)		.0863		100.00

Ecocentric Attitude

Variable	A Effect of Ecocentric Attitude	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Ecocentric Attitude (Direct Effect)		.0991*		181.83
Economic Impact	-.1520*	.0885*	-.0135	- 24.77
Social Impact	-.1316*	.4139*	-.0545	-100.00
Environmental Impact	-.2830*	-.0828*	.0234	42.94
Total Indirect Effects			-.0446	
Total Effects (Total Direct + Indirect Effects)			.0545	100.00

Community Attachment

Variable	A Effect of Attachment on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Community Attachment (Direct Effect)		.1027*		63.87
Economic Impact	.1054*	.0885*	.0093	5.78
Social Impact	.1047*	.4139*	.0433	26.93
Environmental Impact	-.0660*	-.0828*	-.0055	3.42
Total Indirect effects			.0581	
Total Effects (Direct + Indirect Effects)		.1608		100.00

* Designates that the coefficient is significant at the .05 or better probability level.

Table 4.7
Decomposition of the Correlation Between Exogenous Variables and
Prohibiting All New Development

Economic Gain

Variable	A Effect of Economic Gain on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Economic Gain (Direct Effect)		-.0518		62.56
Economic Impact	.1521*	-.0455	-.0069	8.33
Social Impact	.1659*	-.1538*	-.0255	30.80
Environmental Impact	.0504	.0272	.0014	-1.69
Total Indirect Effects			-.0310	
Total Effects (Total Direct + Indirect Effects)			-.0828	100.00

Use of the Resource Base

Variable	A Effect of Use on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Use of Resource Base (Direct Effect)			.0696*	113.17
Economic Impact	.0682*	-.0455	-.0031	- 5.04
Social Impact	.0468	-.1538*	-.0072	-11.71
Environmental Impact	.0802*	.0272	.0022	3.58
Total Indirect effects			-.0081	
Total Effects (Direct + Indirect Effect)		.0615	100.00	

Ecocentric Attitude

Variable	A Effect of Ecocentric Attitude on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Ecocentric Attitude (Direct Effect)		.0021		9.77
Economic Impact	-.1520*	-.0455	.0069	32.09
Social Impact	-.1316*	-.1538*	.0202	93.95
Environmental Impact	-.2830*	.0272	-.0077	- 35.81
Total Indirect Effects			.0194	
Total Effects (Direct + Indirect Effects)		.0215	100.00	

Community Attachment

Variable	A Effect of Attachment on Impact	B Effect of Variable on Support	Indirect Effect (A x B)	Percent of Total Effect of Variable on Support
Community Attachment (Direct Effect)		-.0959*		80.86
Economic Impact	.1054*	-.0455	-0.0048	4.05
Social Impact	.1047*	-.1538*	-0.0161	13.58
Environmental Impact	-.0660*	.0272	-0.0018	1.52
Total Indirect effects			-0.0227	100.01++
Total Effects (Direct + Indirect Effects)		-0.1186		

* Designates that the coefficient is significant at the .05 or better probability level.

++ Total Percentage does not equal 100.00 due to rounding.

social, environmental) as well as the support variables. The following section discusses the results displayed in Table 4.8 through 4.11.

Potential for Economic Gain

H₄: A positive relationship exists between the potential for economic gain and both perception of the benefits and support for tourism.

The potential for economic gain appears to moderately and positively affect the perception of economic and social impacts ($p_{25} = .15$; $p_{35} = .16$) and weakly the perception of the environmental impact ($p_{45} = .04$). This part of the hypothesis is supported. However, the potential for economic gain does not appear to have a significant direct effect on support for tourism as was expected. In only the nature-based model was potential for economic gain significantly related to support for tourism ($p^{15} = .09$). In attraction-based, culture-based and event-based models the relationship was positive, weak and insignificant at the .05 probability level. The relationship between prohibiting all new development and economic gain was, as expected, negative ($p^{15} = -.06$). The hypothesized positive direction of the relationship between economic gain and support for tourism was sustained. A summary of the analysis discussed in this section is delineated in Table 4.8.

Use of the Tourism Resource

H_3 : A positive relationship exists between the importance placed on the use of the tourism resource and both the perception of the impact and support for tourism development.

Table 4.9 presents in outline form the direction, strength and significance of the relationship of the use of the resource variable with the endogenous variables in the model. A moderate positive relationship exists between use of the tourism resource and perception of all three impacts ($p_{26}=.07$; $p_{36}=.05$; $p_{46}=.08$). This part of the research hypothesis is supported. The relationship between use of the tourism resource and support for tourism is less clear. Three of the paths from the use variable to the various support variables are generally weak and insignificant at the .05 probability level. Use of the resource appears to affect support for nature-based tourism negatively but culture and event-based tourism positively. The only significant path is that between the use variable and support for attraction-based tourism ($p_{16}=-.12$). These results suggest that those who find the use of the resource important look favorably upon event- and culture-based tourism but negatively on attraction- and nature-based tourism. The explanation for this lies in the fact that attraction- and culture-based tourism are likely

Table 4.8

Effect of Economic Gain on the Impact and Support Variables

Dependent Variable	Strength of Path Coeff.	Sig @ <.05	Direction
Economic Impact	.15	yes	+
Social Impact	.17	yes	+
Environmental Impact	.05	no	+
Nature	.09	yes	+
Attraction	.02	no	+
Culture	.04	no	+
Event	.01	no	+
Prohibit Development	.05	no	- (*)

(*) A negative relationships with this variable indicates opposition to prohibiting development

Table 4.9

Effect of Use of the Resource on the Impact and Support Variables

Dependent Variable	Strength of Path Coeff.	Sig @ <.05	Direction
Economic Impact	.07	yes	+
Social Impact	.05	no	+
Environmental Impact	.08	yes	+
Nature	.01	no	-
Attraction	.12	yes	-
Culture	.05	no	+
Event	.04	no	+
No New	.07	yes	+(*)

(a) A positive relationship to this variable indicates opposition to development.

to lead to crowding and/or competition for use of the resource while event-based tourism is more likely to provide additional activities for the user.

Ecocentric Attitude

H₅: A negative relationship exists between ecocentric attitude and both perception of the impact and support for tourism.

The results of the analysis confirm the negative relationship between the strength of the ecocentric attitude of the respondents and the perception of the impacts of tourism ($p_{27} = -.14$; $p_{37} = -.11$; $p_{47} = -.27$). The strength of the path coefficients, their significance and their direction are outline for ease of understanding in Table 4.10. A strong ecocentric attitude results in a negative relationship with support for attraction-based tourism ($p^{15} = -.10$) and a positive relationship with support for event-based tourism ($p^{15} = .10$). The relationships between ecocentric attitudes and support for the other types of tourism are insignificant. The research hypothesis is supported for the relationship between ecocentric attitudes and the perception of the impact of tourism but only partially for the relationship between ecocentric attitudes and support for tourism.

Table 4.10
Effect of Ecocentric Attitude on the Impact and Support Variables

Dependent Variable	Strength of Path Coeff.	Sig @ <.05	Direction
Economic Impact	.15	yes	-
Social Impact	.13	yes	-
Environmental Impact	.28	yes	-
Nature	.01	no	+
Attraction	.09	yes	-
Culture	.02	no	+
Event	.10	yes	+
No New	.00	no	+(*)

(*) A positive relationship to this variable indicates opposition to development.

Table 4.11

Effect of Community Attachment on the Impact and Support Variables

Dependent Variable	Strength of Path Coeff.	Sig @ <.05	Direction
Economic Impact	.10	yes	+
Social Impact	.10	yes	+
Environmental Impact	.07	yes	-
Nature	.07	yes	+
Attraction	.05	no	-
Culture	.02	no	+
Event	.10	yes	+
No New	-.10	yes	-(*)

(*) A negative relationships with this variable indicates opposition to prohibiting development

Community Attachment

H₆: A negative relationship exists between the degree of attachment to the community and both perception of the impact and support for tourism.

The hypothesized direction of the relationship between community attachment and support for tourism can not be supported. Community attachment has a moderate positive effect on the perception of both economic and social impacts ($p_{28}=.10$; $p_{38}=.10$). However, the effect of this variable on the perception of the environmental impact is, as hypothesized, negative ($p_{48}=-.07$). Except for attraction-based tourism, community attachment appears to have a positive impact on the support variable. Two of the path coefficients from community attachment to the support variable are significant indicating that community attachment may be a good predictor of support for nature-based and event-based development. However, the relationship between community attachment and support for attraction-based tourism is negative as hypothesized. The explanation for the varied directions in support for tourism lies in an understanding of the effect each type of tourism may have on the community. High impact tourism, represented here by the attraction-based variable is more likely to change the nature of the community and result in negative effects. However, event-based and nature-based reinforce

the current nature of this community. The relationship between community attachment and support for tourism appears to be dependent upon the type of tourism proposed. Table 4.11 provides a summary of the relationships discussed in this section.

Summary of the Analysis of Hypothesis 3 through 6

H₃ : A positive relationship exists between the importance placed on the use of the tourism resource and both the perception of the impact and support for tourism development.

H₄: A positive relationship exists between the potential for economic gain and both perception of the benefits and support for tourism.

H₅: A negative relationship exists between ecocentric attitudes and both perception of the impact and support for tourism.

H₆: A negative relationship exists between the degree of attachment to the community and both perception of the impact and support for tourism.

Evidence was found to support all but one of the four hypothesis. The direction of the relationship between economic gain and both the impact and support variables was found to be positive while that between ecocentric attitudes and the two sets of endogenous variables was found to be negative. While the relationship between use of the resource and two of the impact variables was found to be positive, the direction of the remaining relationships was mixed. Use of the resource was found to predict opposition to attraction-based tourism and support for prohibiting all new development. However, the direction of the relationship

with the remaining types of tourism was positive though not significant at the .05 probability level. The evidence presented suggests that the hypothesized positive relationship could not be fully supported. In parallel fashion, the hypothesized negative relationship of community attachment and the impact and support variables was not supported. Community attachment appeared to have a negative affect on the environmental impact variable and the attraction-based tourism support variable. Otherwise the relationship between community attachment and perception of the impact of tourism as well as support for tourism was positive. Table 4.12 summarizes the path coefficients of each exogenous variable to each endogenous variable.

4.3D ANALYSIS OF HYPOTHESIS 7

H₇: Use of the tourism resource, potential for economic gain, ecocentric attitudes and community attachment interact in the formation of the perception of the impact of tourism and both directly and indirectly affect expressed support for tourism.

Examination of the decomposition of the correlation¹
between the exogenous variable and the ultimate endogenous

¹ The total effects of the exogenous variable on the support variable is considered here as the correlation between the two variables. The joint associations which account for any difference between the total effects and the Pearson's Product Moment correlation coefficient of an exogenous variable with the ultimate dependent variable are in this analysis set to zero by theoretical assumption. Setting the correlations between the exogenous variables to zero is a practical determination to simplify explanation. In fact, the total association between an exogenous variable and the ultimate endogenous variable may not equal the Pearson's Product Moment correlation coefficient. The difference may be attributable to the correlations between the exogenous variable, unanalyzed correlations or to common causes (spurious) (Wolfe 1980).

Table 4.12

Path Coefficients of the Relationship between
Exogenous and Endogenous Variables

Exogenous Variable	Economic Gain	Use of the Tourism	Ecocentric Attitude	Community Attachment
Endogenous Variable				
Economic Impact	.1521*	.0682*	-.1520*	.1054*
Social Impact	.1659*	.0468	-.1316*	.1047*
Environmental Impact	.0504	.0802*	-.2830*	-.0660*
Nature Attraction	.0875*	-.0055	.0126	.0731*
Culture Event	.0208	-.1253*	-.0951*	-.0469
Prohibit	.0537	.0217	.0217	
	.0083	.0374	.0991*	.1027*
	-.0518	.0696*	.0021	-.0959*

* Denotes significance at .05 or better probability level.

variable provides decisive evidence to support this hypothesis. The total association of the support variable and each of the four valued element variables mentioned in the hypothesis is comprised of direct and indirect effects in every case in all models. The interplay of the elements is evidenced by the proportion of the total correlation explained by each component of the model. The event-based model will be used to explain the interactive effect of the various elements in the formation of the perception of the impact of tourism and the resultant direct and indirect effects on the support variable. Evidence that each of the five models provides support for the hypothesis is displayed in Table 4.13 which defines the percent the total effect is changed by the interplay of the exogenous variables and the intervening impact variables², i. e., the indirect effects. Confirmation of the strength of the interplay can be found in examining the extent of the change in the total effect over the direct effect of the exogenous variable on the ultimate dependent variable.

² The interplay of the elements is measured by the compound path of the exogenous variable passing through the intervening variable to the ultimate dependent variable.

Table 4.13
 Comparison of the Direct to Total Effects of the Exogenous Variables
 on the Support for Types of Tourism Variables

Economic Gain

Dependent Variable	Nature- Based	Attrac- tion Based	Culture- Based	Event- Based
Direct Effect	.0875	.0208	.0363	.0083
Total Effect	.1430	.0550	.1007	.0780
Difference	.0555	.0342	.0550	.0697
% Change from direct to total effect of the exogenous var. on the support variable	39%	62%	64%	89%

Use of Resource Base

Dependent Variable	Nature- Based	Attrac- tion Based	Culture- Based	Event- Based
Direct Effect	-.0055	-.1253	-.0537	.0374
Total Effect	.0172	-.0910	.0724	.0780
Difference	.0227	.0343	.1261	.0406
% Change from direct to total effect of the exogenous var. on the support variable	132%	38%	174%	52%

Ecocentric Attitude

Dependent Variable	Nature- Based	Attrac- tion Based	Culture- Based	Event- Based
Direct Effect	.0126	-.0951	.0217	.0991
Total Effect	-.0464	-.1959	-.0262	.0545
Difference	-.0590	-.2910	-.0419	-.0446
% Change from direct to total effect of the exogenous var. on the support variable	-149%	-182%	-82%	

Community Attachment

Dependent Variable	Nature- Based	Attrac- tion Based	Culture- Based	Event- Based
Direct Effect	.0731	-.0469	.0383	.1027
Total Effect	.1061	-.0274	.0820	.1608
Difference	-.0401	.0194	.0431	.0581
% Change from direct to total effect of the exogenous var. on the support variable	322%	71%	53%	37%

The Interactive Effect of Valued Elements in the Formation of Support for Tourism In the Event-Based Model
Economic Gain

Analysis of the regression equation in which the four exogenous and three intervening endogenous variables are the independent variables and support for event-based tourism is the dependent variable indicates that economic gain has an insignificant effect on support for tourism ($b=.02$).

However, the total effect of this variable on the support variable is, in fact, moderate ($r=.09$). The path model provides an explanation for the difference. The total association (effect) is computed as the sum of the direct and indirect effects. The indirect effects of the association between economic gain and support for event-based tourism are measured as the sum of the compound paths which lead from it through intervening impact variables to the support variable. The product of the paths is the portion of the total association of economic gain and the support variable that is caused by the interaction of economic gain with the impact variable.

In this case, only 21.5% of the total association between economic gain and support for tourism is attributable to the direct effect of the potential for economic gain on the support variable ($.02/.09$). Another 13% of the association is derived from the interaction

between economic gain and economic impact. The largest portion of the effect of this variable on the support variable can be credited to the compound path ($p_{13}p_{35} = .07$) where economic gain passes through the social impact variable.

The interplay of the elements is further demonstrated by the diminishing power of the compound path ($p_{12}p_{25} = -.0035$) where potential for economic gain passes through the perception of environmental impacts. The product of the two paths is the portion of the total effect of economic gain on the support variable that is caused by the interaction of economic gain and the perception of the environmental impact. Table 4.14 displays the percent of the total effect which is attributable to the direct and each of the indirect effects.

Use of the Tourism Resource

The proportion of the total effects of the use of the resource variable on the support variable that is accounted for by the direct effect is significantly greater ($p_{16} = .07$) than the direct effect of the economic gain variable. It represents 67% of the total association ($r = .10$). Another large portion (34%) of the total association can be explained by the indirect effect of this variable as it passes through perceived social impacts ($p_{26}p_{13} = .07$). Here,

Table 4.14

Percent of Total Effect of Exogenous Variables on Support for Event-Based Tourism
Which is Attributable to Its Direct and Each Indirect Effect

Exogenous Variable Effect	Economic Gain		Use of the Resource		Ecocentric Attitude		Community Attachment	
	coeff.	%	coeff.	%	coeff.	%	coeff.	%
Total Effect on Event- Based Tourism	.0863	100.0	.0863	100.0	.0545	100.0	.1608	100.0
Direct Effect	.0083	9.6	.0374	65.6	.0991	181.8	.1027	63.9
Indirect effect through Economic Impact	.0135	15.6	.0060	10.6	-.0135	-24.7	.0093	5.8
Indirect effect through Social Impact	.0687	79.6	.0194	34.5	-.0545	-100.0	.0433	26.9
Indirect effect through Environmental Impact	-.0042	-4.9	-.0066	-11.7	-.0234	42.9	-.0055	3.42
Percent change in Direct Effect when interaction with intervening variables is considered		140%		52%		-34%		37%

as in the economic gain variable, the perceptions of the environmental impact act as a suppressor variable in reducing the total effects of economic gain on support for tourism ($p_{36}p_{13}=-.0052$) by 12%. Table 4.14 shows how the percentage of total association can be attributable to each of the indirect and the direct effect.

Ecocentric Attitudes

The suppressor effect of ecocentric attitudes is even more evident in the analysis of the total effects of ecocentric attitudes on support for event-based tourism. The total effect of environmental attitudes is positive and moderate ($r=.10$) but the total effect of the variable would be much stronger were it not for the strong counterbalancing multivariate effects which would go unrecognized in the absence of the present decomposition. The comparison of the effect of ecocentric attitude with that of economic gain provides information concerning the interplay of elements affecting the support variable. If one were to compare the direct effect of ecocentric attitude on the support variable to that of economic gain, one would conclude that ecocentric attitudes have a stronger effect on support for event-based tourism ($p_{17}=.10$) than does the potential for economic gain ($p_{15}=.02$). However, the indirect negative effects of ecocentric attitude as this variable passes through the

impact variables reduces the total association to .06 while the indirect positive effects of potential for economic gain on the impact variable increase its total association to .10. This decomposition and analysis of the total effects demonstrates how the exogenous variables interact with the impact variables to formulate the relationship. Table 4.14 shows how 100% of the positive association of ecocentric attitudes with event-based tourism is negated by its interaction with the social impact variable and another 25% by its interaction with the economic impact variable.

Community Attachment

The total association between support for event-based tourism and community attachment is .16. While a large part (64%) of this association can be attributable to its direct effect on the support variable (.10), the actual strength of the total association would go unnoticed but for the decomposition of the correlation. The increase can be accounted for by the positive effect of community attachment on the economic and social impact variables as shown in Table 4.14.

The Interaction of the Exogenous Variables in the Formation of Perceptions of the Impacts

The principles of multiple regression demonstrate the interplay of elements that determine the influence of the

four exogenous variables on the impact variables. To determine the relative strength of the effect of each exogenous variable on the impact variable, each impact variable is regressed against the four exogenous variables. The standardized beta coefficients from the structural equation are used to analyze the contributory power of each variable in explaining the dependent variable. Those variables with higher beta coefficients contribute more toward explaining the dependent variable than those variables with lower betas. The beta coefficients are used as path coefficients in the model. The effect of the exogenous variables on the impact variables remains the same in all five models.

Perception of the Economic Impact

Economic gain has a positive effect on the perception of economic impacts ($b=.15$) while ecocentric attitude has an equally negative effect ($b=-.15$) on the variable. Both community attachment ($b=.10$) and use of the resource ($b=.10$) contribute significantly and positively toward perception of the economic impact. When the beta coefficients are multiplied by the score on each variable and aggregated, predictions can be made concerning their combined effect on the impact variable. The effects of all the exogenous

variables ($X_{5,8}$) on the economic impact variable (X_3) are significant at the .05 or better probability level.

Perception of the Social Impact

The perception of social impact is influenced positively by economic gain ($b=.16$), use of the resource ($b=.08$) and community attachment ($b=.10$) and negatively by ecocentric attitude ($b=-.13$). The only insignificant effect at the .05 probability level is the effect of use of the resource on the social impact variable. The counterbalancing effect of economic gain and ecocentric attitude can be witnessed in the regression equation. The effect of community attachment on the social impact variable is similar to its affect on the economic impact variable.

Perception of the Environmental Impact

The results of the regression equation where the four exogenous variables are regressed against the environmental impact variable indicates that the perception of the environmental impact is influenced negatively by both ecocentric attitudes ($b=-.28$) and community attachment ($b=-.06$) but positively by economic gain ($b=.05$) and use of the tourism resource ($b=.08$). All beta weights are significant except for that of economic gain. The perception of the environmental impact is most heavily influenced by an ecocentric attitude.

Summary of the Analysis of Hypothesis 7

H₇: Use of the tourism resource, potential for economic gain, ecological attitudes and community attachment interact in the formation of the perception of the impact of tourism and both directly and indirectly affect expressed support for tourism.

In summary, the valued elements are interacting to form the perception of the impact of tourism as well as support for tourism. Analysis of the differences between the direct and total effects of an exogenous variable on the ultimate dependent variables provides support for the hypothesis that use of the recreation area, potential for economic gain, ecocentric attitude and community attachment interact in the formation of the perception of impact of tourism and that expressed support for tourism is a function of both the direct and the indirect effect of the exogenous variables. The interactive effect is demonstrated by the difference between the direct and total effects of an exogenous variable on the support variable when the effect of the intervening impact variables is considered. This difference is attributed to the interactive effect of the exogenous and impact variables.

4.4 ANALYSIS OF THE IMPLICIT HYPOTHESES IN THE MODEL

A major goal of this research is to test the theoretical model described in Chapter III and pictured in this chapter as Figure 4.1. Each arrow represents an

implicit hypothesis concerning a relationship between the variables connected by the arrow in the direction of the arrow. For example, the arrow from economic gain to perceived economic impact implies a null hypothesis that economic gain has no effect on support for tourism. In actuality, five separate models are proposed which vary only in the measure of the ultimate dependent variable. The first model tests the relationship of the other seven variables with nature-based tourism, the second with attraction-based tourism, the third with culture-based tourism, the fourth with event-based tourism and the fifth with prohibiting all new development. The influence of the valued element variables on the impact variables remains the same for all models. The following is a discussion of each of the models. The analysis results in the proposal of a modified model in each case.

4.4A ANALYSIS OF THE EFFECT OF EXOGENOUS VARIABLES ON THE IMPACT VARIABLES

A detailed analysis of the interaction of the exogenous variables and the impact variables was presented in the previous section. The effects of the exogenous variables on the impact variables remain constant for all five models. Economic gain ($p_{35}=.16$) and community attachment ($p_{38}=.10$) positively affect the perception of the social impacts and

the perception of economic impacts ($p_{25}=.15$; $p_{28}=.11$). Ecocentric attitude negatively and moderately affects the perception of all three types of impacts³ ($p_{37}=-.15$; $p_{47}=-.13$; $p_{57}=-.28$).

The null hypotheses concerning the relationships between the exogenous variables and the impact variables is rejected in all but two cases. The impact of economic gain on the environment impact variable and the effect of use of the resource on the social impact variable are insignificant at the .05 probability level. The paths from economic gain to environmental impact and from environmental impact to the support variable are insignificant at the .05 probability level. These two paths will be removed when the models are revised to demonstrate only the significant paths.

The perceived economic impact variable is positively effected by economic gain and community attachment and negatively impacted by ecocentric attitude. The perceived

³The path from ecocentric attitude to perceived social impact was not originally hypothesized to exist since there appeared to be no theoretical basis to suggest that ecocentric attitudes might influence the perception of social impact. However, exploratory analysis led to the recognition of a significant correlation between ecocentric attitudes and social impact. Consequently, the relationship was included in the model that was being tested.

social impact variable is positively affected by economic gain and community attachment while negatively influenced by ecocentric attitude. The perceived environmental impact variable is positively affected by resource use and community attachment while being negatively affected by ecocentric attitude. The null hypothesis is rejected for all of these paths which will be retained in all five revised models.

The significant positive relationship which exists between economic gain and perceived economic, social and environmental impact indicates that as potential for economic gain increases so does the positive perception of the economic and social impacts. Similarly, use of the resource affects the perception of the social impact positively. On the other hand, a significant negative relationship exists between ecocentric attitudes and the three impact variables indicating that as the strength of ecocentricity increases the impacts of tourism are viewed less positively. The ecocentric attitude variable appears to be counterbalancing the economic gain and resource use variables resulting in a failure of the impact variables to affect the ultimate dependent variable. The mitigating effect of the exogenous variables can be seen in the effects these variables have on perceived environmental impact. A

moderately strong negative effect of ecocentric attitude is counterbalanced by the positive influence of economic gain and resource use. The same is true for the economic impact variable. The following sections will include discussion of the effect of the seven variables only on the support variable.

4.4B ANALYSIS OF THE MODEL WITH SUPPORT FOR NATURE-BASED TOURISM AS THE DEPENDENT VARIABLE

The results of testing the hypothesized model with support for nature-based tourism as the dependent variable is illustrated in Figure 4.2. Economic gain ($p_{15}=.09$), community attachment ($p_{18}=.07$), perceived economic impact ($p_{12}=.17$), and perceived social ($p_{13}=.16$) impact have a positive, moderate and significant direct affect on support for nature-based tourism. Thus, support was found for rejecting the null hypothesis for these relationships. All other relationships implied by the arrows in the path model were found to be insignificant at the .05 probability level leading to the acceptance of the null hypothesis for the remaining paths. A revised model is depicted in figure 4.3. The figure illustrates the effect of removing all paths for which the null hypothesis was not rejected.

In sum, the support for nature-based tourism variable is influenced by the perceived economic and social impact

*Indicates significant at the .05 or better probability level

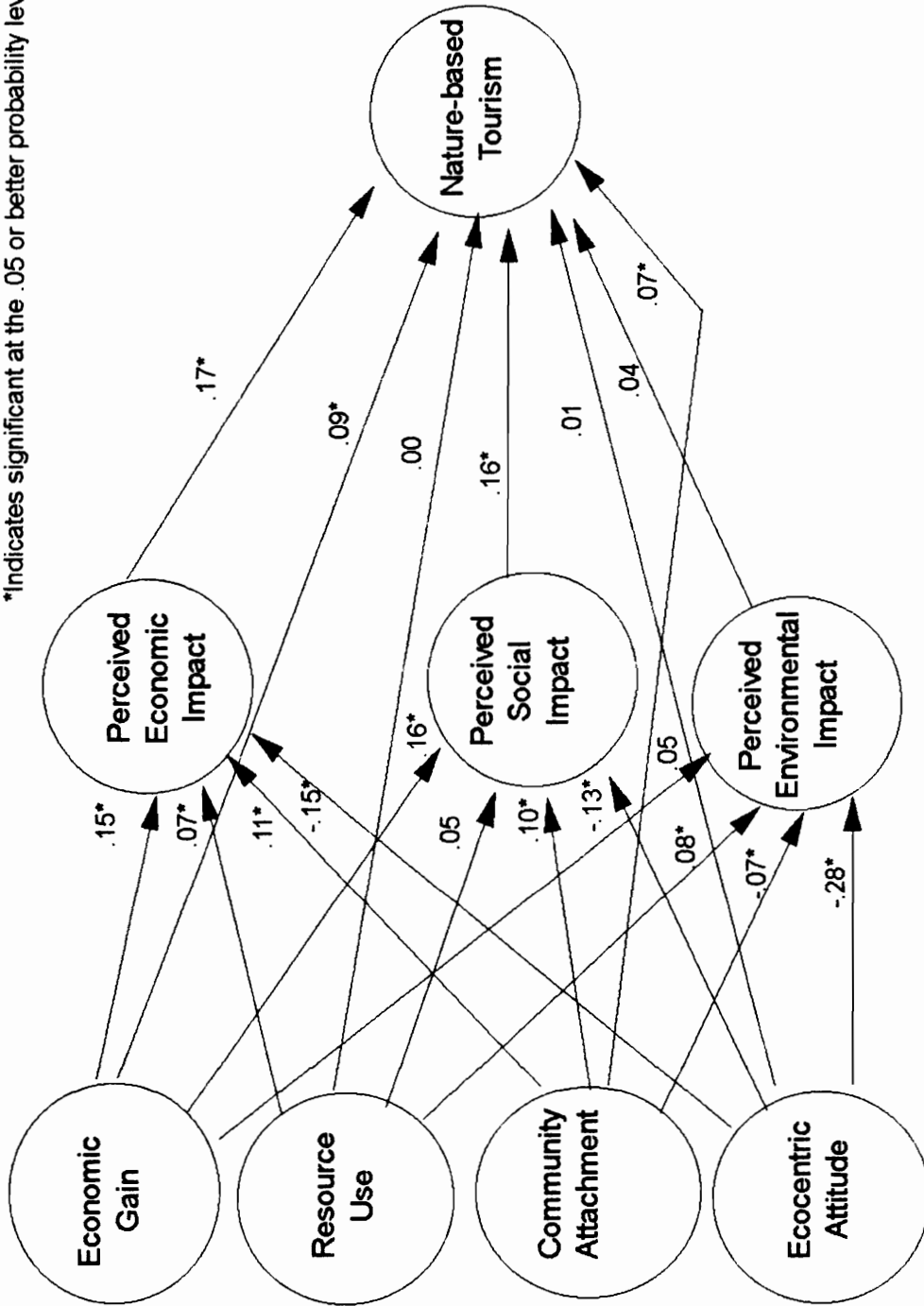


Figure 4.2 Path Model of Resident Support for Nature-Based Tourism

*Indicates significant at the .05 or better probability level

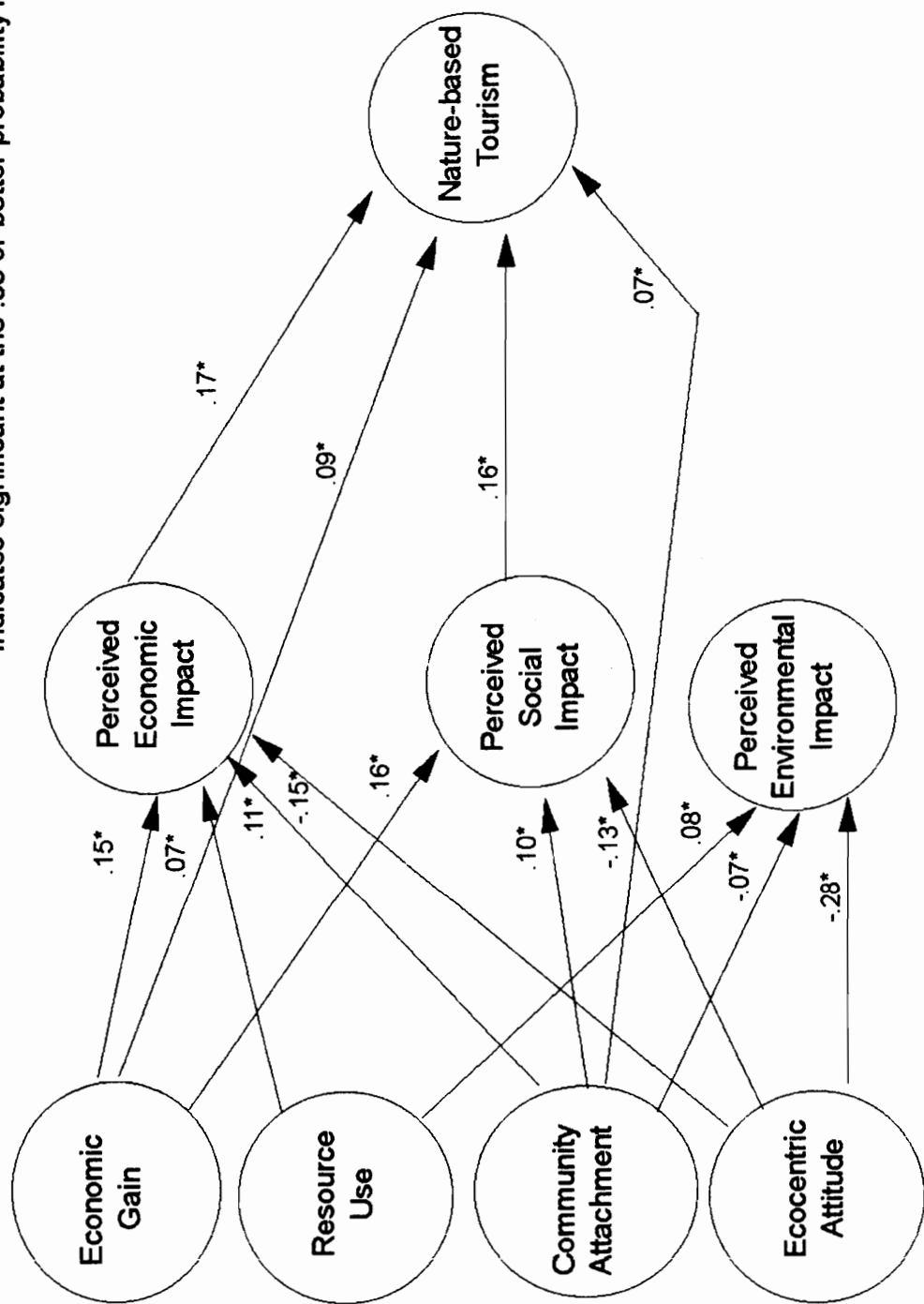


Figure 4.3 Revised Path Model of Resident Support for Nature-Based Tourism

variables, the economic gain and the community attachment variables. The total effects of ecocentric attitudes and use of the resource are negligible except as influencers of the impact variables.

4.4C ANALYSIS OF THE MODEL WITH SUPPORT FOR ATTRACTION-BASED TOURISM AS THE DEPENDENT VARIABLE

The results of the testing of the hypothesized model with attraction-based tourism as the support variable is portrayed in Figure 4.4. Support for attraction-based tourism is moderately and positively affected by all three impact variables ($p_{12}=.18$; $p_{13}=.13$; $p_{14}=.20$). Significant moderate negative effects on the support variable from resource use ($p_{16}=-.13$) and ecocentric attitudes ($p_{18}=-.10$) appear to counterbalance the positive effects of the impact variables.

One interesting finding is the conflicting impacts of resource use. While this variable appears to positively affect the perception of the social impact, it has a stronger negative effect on support for attraction-based tourism resulting in negative total effects of $-.10$. One possible explanation is that while users may see increased opportunities for recreation with an increase in tourism, they may not see these opportunities developing if attraction-based tourism is implemented.

*Indicates significant at the .05 or better probability level

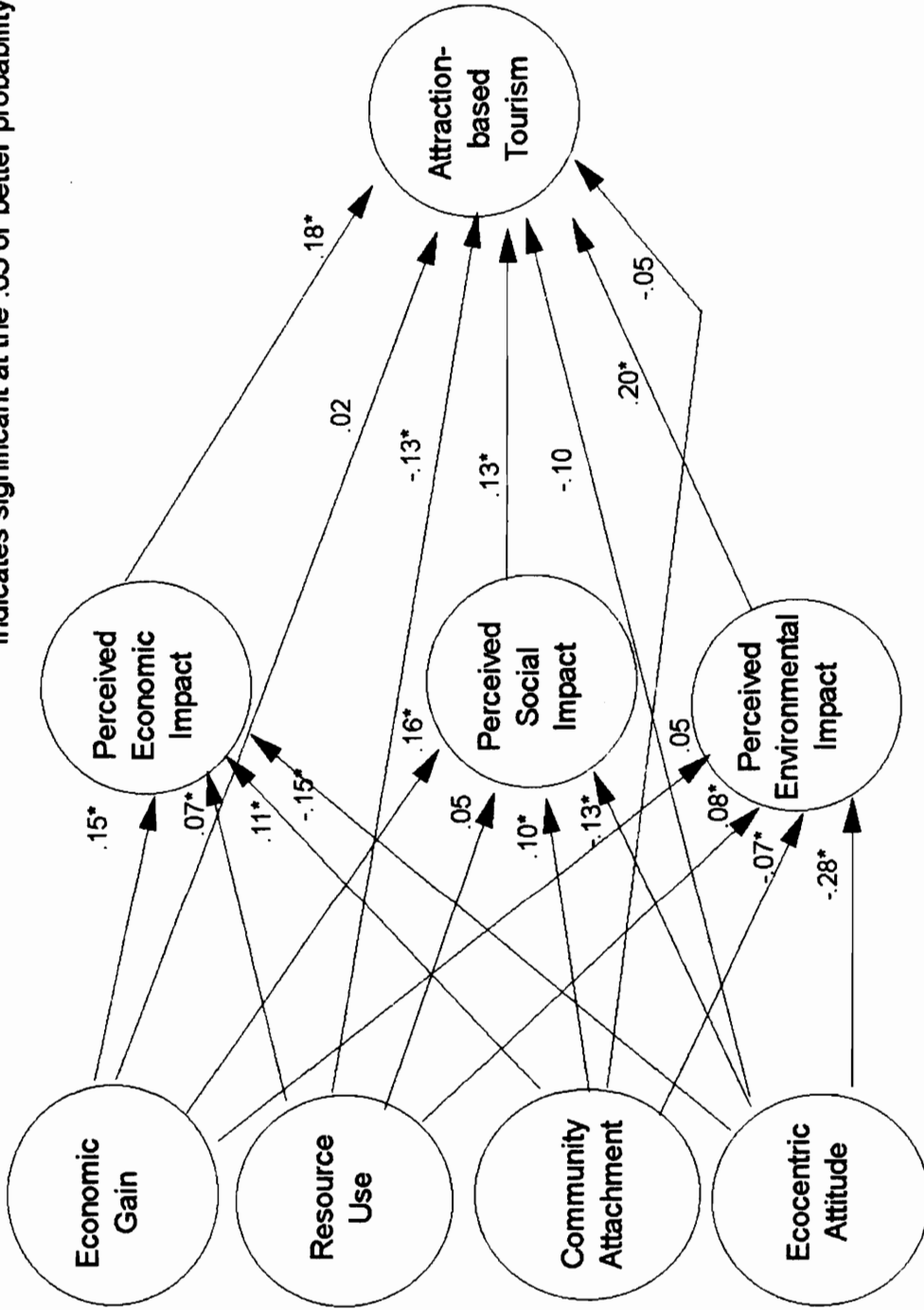


Figure 4.4 Path Model of Resident Support for Attraction-Based Tourism

A similar conflict is found in the analysis of the community attachment variable. Community attachment has a positive effect on perceived social and economic impacts but a negative effect on perceived environmental impacts and on attraction-based tourism. The net result of this conflict suggests a negative total association of community attachment and support for attraction-based tourism.

The majority of the hypothesized relationships appear to exist leading to the rejection of the null hypothesis for all but a two of the paths from antecedent variables to the support variable. The null hypothesis was accepted for the direct effect of economic gain and community attachment on the support variable. These paths were removed from the revised model depicted in Figure 4.5. For all other implied relationships with the support variable, the null hypotheses were rejected. Analysis of the total effects of the seven variables on support for attraction-based tourism reveals that opposition will come from users and those with strong ecocentric attitudes while support will come from the perception of positive impacts and those with the potential for economic gain.

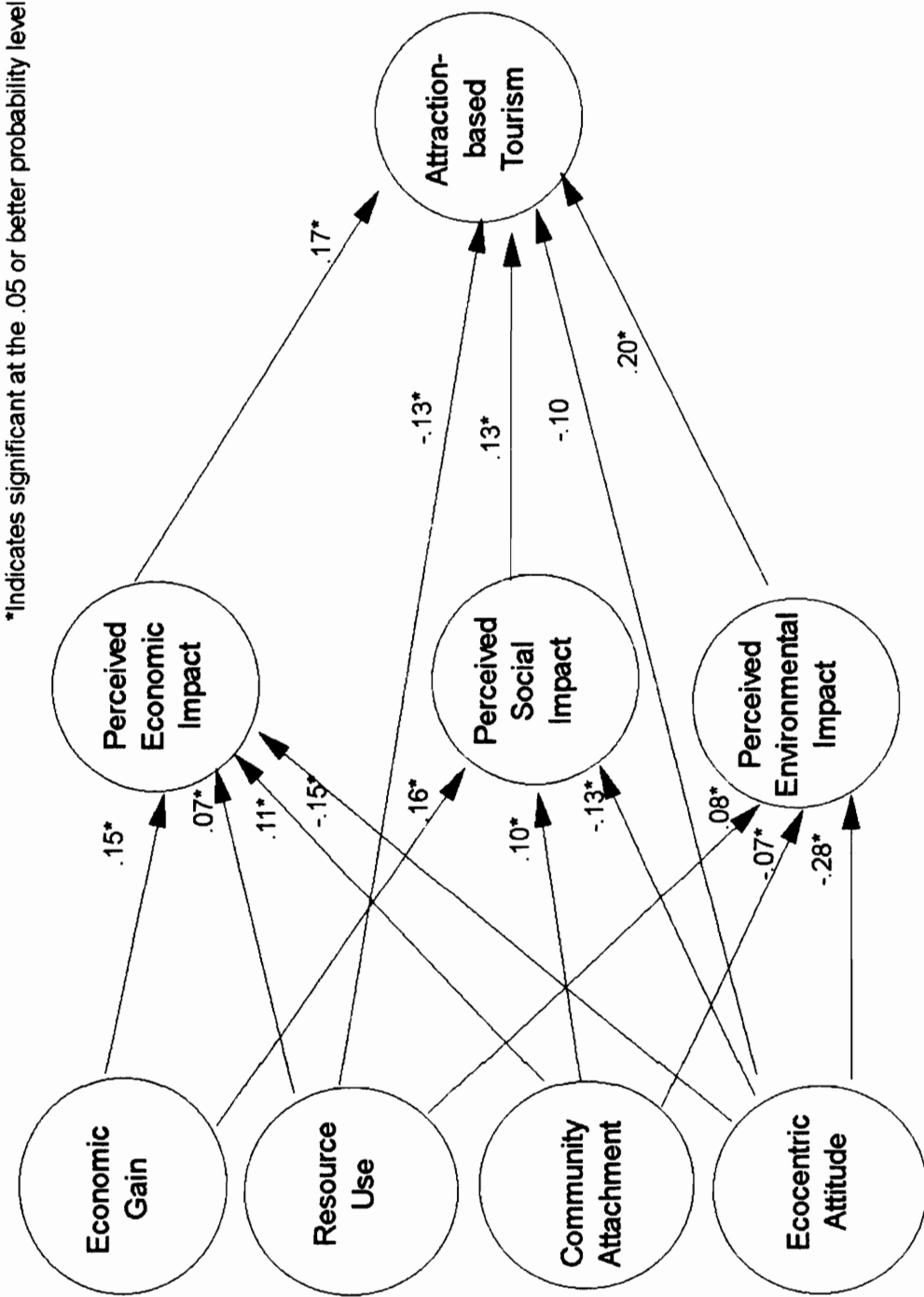


Figure 4.5 Revised Path Model of Resident Support for Attraction-Based Tourism

4.4D ANALYSIS OF THE MODEL WITH SUPPORT FOR CULTURE-BASED TOURISM AS THE DEPENDENT VARIABLE

Figure 4.6 displays the results of the testing of the hypothesized model with culture-based tourism as the ultimate dependent variable. Like in the attraction-based model, the direct effect of economic gain is insignificant at the .05 probability level. The effects of this variable are seen only in the way it affects the perception of economic and social impacts. Also insignificant are the effect of the other exogenous variables and the path from environmental impact to the support variable. The effect of the perception of the social impact on culture-based tourism is strong ($p_{13}=.32$) while that of the perception of economic benefits is moderate ($p_{12}=.09$).

Since there is no significant direct effect from the valued elements variables on the support variable, their influence is seen only as indirect effects. That is, their effect is noticeable in the way they mitigate the impact variables. Ecocentric attitude has a significant negative affect on all three variables. Economic gain and resource use have a significant positive affect on both the economic and social impact variables. Community attachment has a significant positive affect on economic impact but a negative effect on environmental impact.

*Indicates significant at the .05 or better probability level

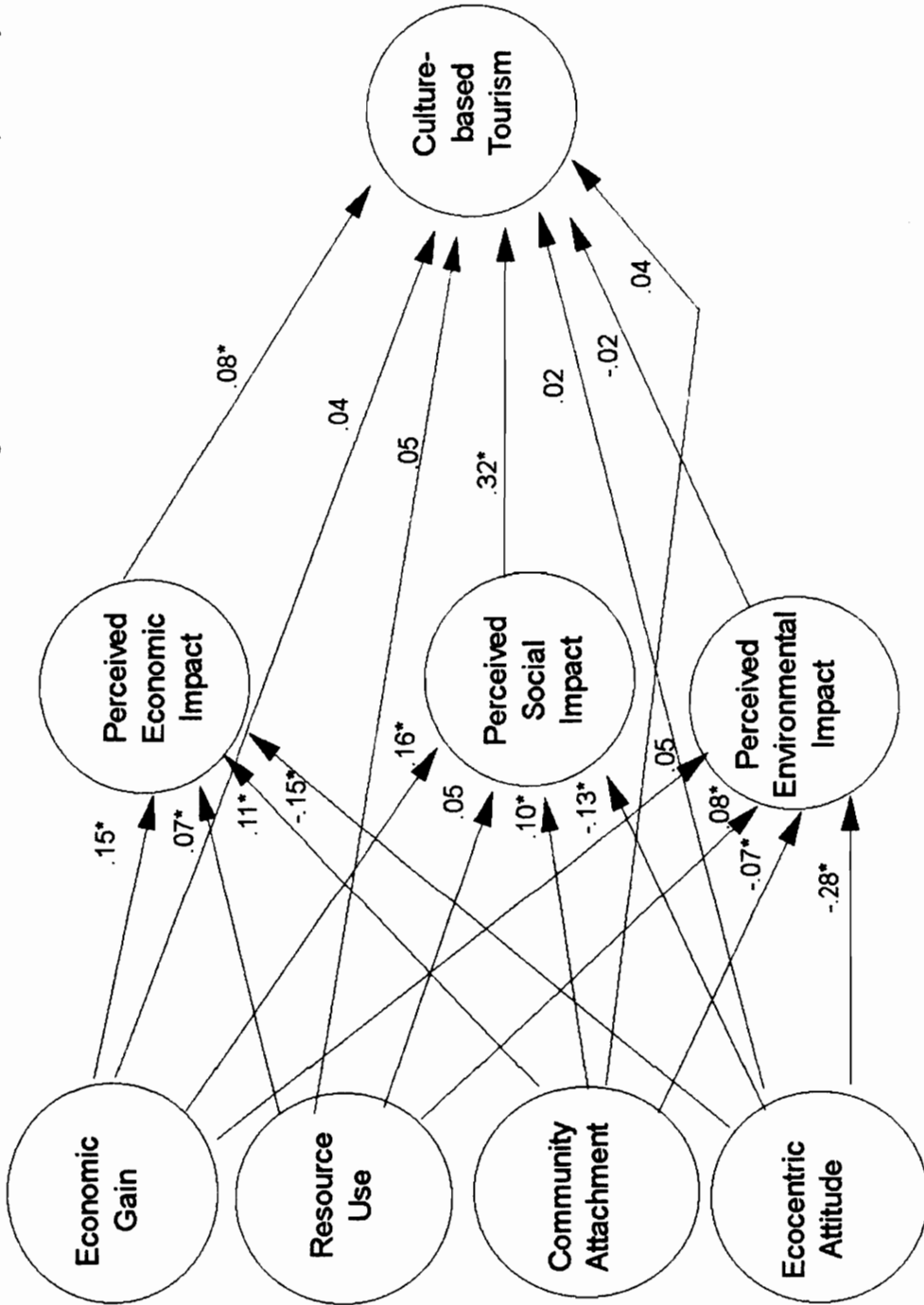


Figure 4.6 Path Model of Resident Support for Culture-Based Tourism

Several paths were found to be insignificant and removed in the revised model depicted in Figure 4.7. These include all direct relationships between the valued items and the support variable and the path from perceived environmental impact to culture-based tourism. The total effects of all the variables on support for culture-based tourism can be broken down thus: economic gain =.11; resource use=.09; environmental attitude=-.03; community attachment=-.01; economic impact=.09; social impact=.32 and environmental impact=.03. Support for culture-based tourism will come from those who see a potential for economic gain, use the resource and form a positive perception of the social and economic impacts. Those with strong ecocentric attitudes will lead the opposition to this type of tourism.

4.4E ANALYSIS OF THE MODEL WITH SUPPORT FOR EVENT-BASED TOURISM AS THE DEPENDENT VARIABLE

The analysis of the model with event-based tourism as the support variable is depicted in Figure 4.8. As in the culture-based model, perceived social impact has a strong, positive relationship with support for event-based tourism ($p_{13}=.42$). Perceived economic impact and environmental impact both demonstrate a moderate positive relationship with the support variable ($p_{12}=.09$; $p_{14}=.10$).

*Indicates significant at the .05 or better probability level

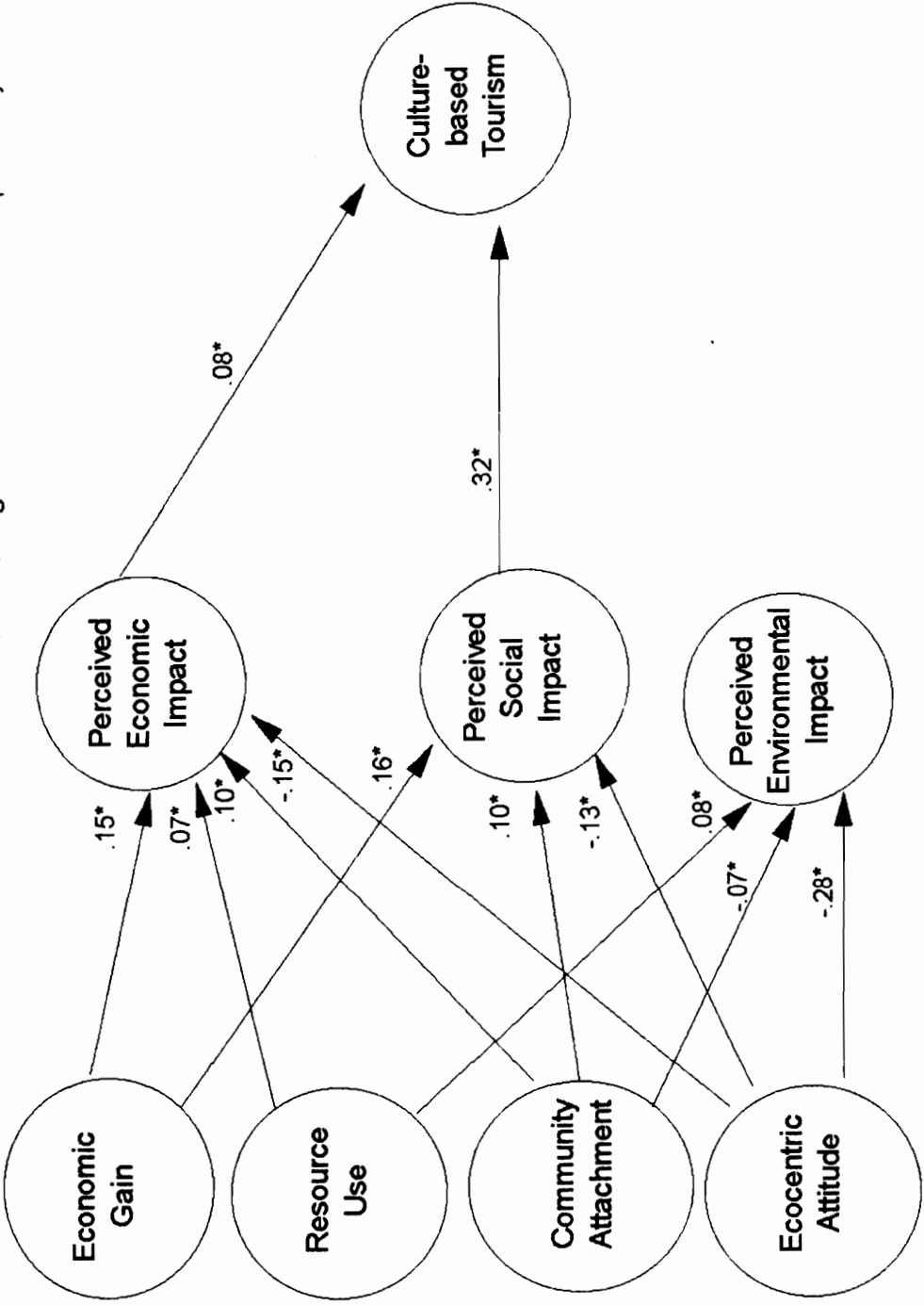


Figure 4.7 Revised Path Model of Resident Support for Culture-Based Tourism

*Indicates significant at the .05 or better probability level

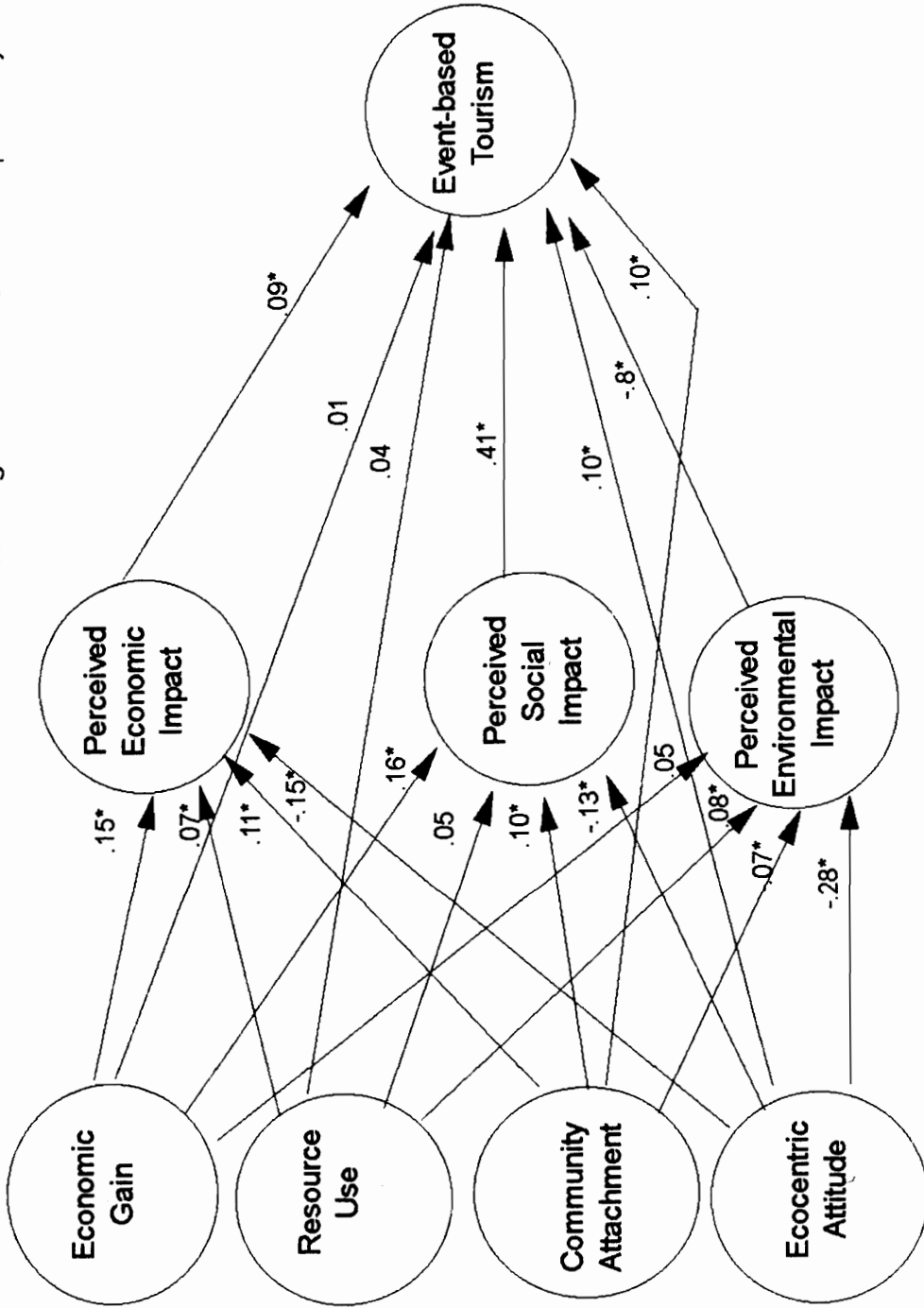


Figure 4.8 Path Model of Resident Support for Event-Based Tourism

In this model, ecocentric attitude ($p_{18}=.10$) and community attachment ($p_{18}=.10$) also have a moderate positive effect on support for event-based tourism. The direct relationship between economic gain and the support variable is positive but insignificant ($p_{15}=.02$) at the .05 probability level as depicted in the revised model in Figure 4.9.

Analysis of the total effects of all seven variables reveal that economic gain, use of the resource and economic attitudes have a nearly equal positive total effect on the support variable. The total effect of ecocentric attitudes is nearly as great but is negative. The strong effect of the social impact variable reinforces the positive influence of the other positive affects.

4.4F ANALYSIS OF THE MODEL WITH PROHIBIT ALL NEW DEVELOPMENT AS THE DEPENDENT VARIABLE

The results of the analysis of the proposed model with prohibiting all new development as the ultimate dependent variable are presented in Figure 4.10. The only significant path from the three impact variables to the ultimate dependent variable is the path from the perceived social impact variable ($p_{13}=-.16$). The negative correlation implies that an increase in perceived social benefits will result in a decrease in support for prohibiting new development.

*Indicates significant at the .05 or better probability level

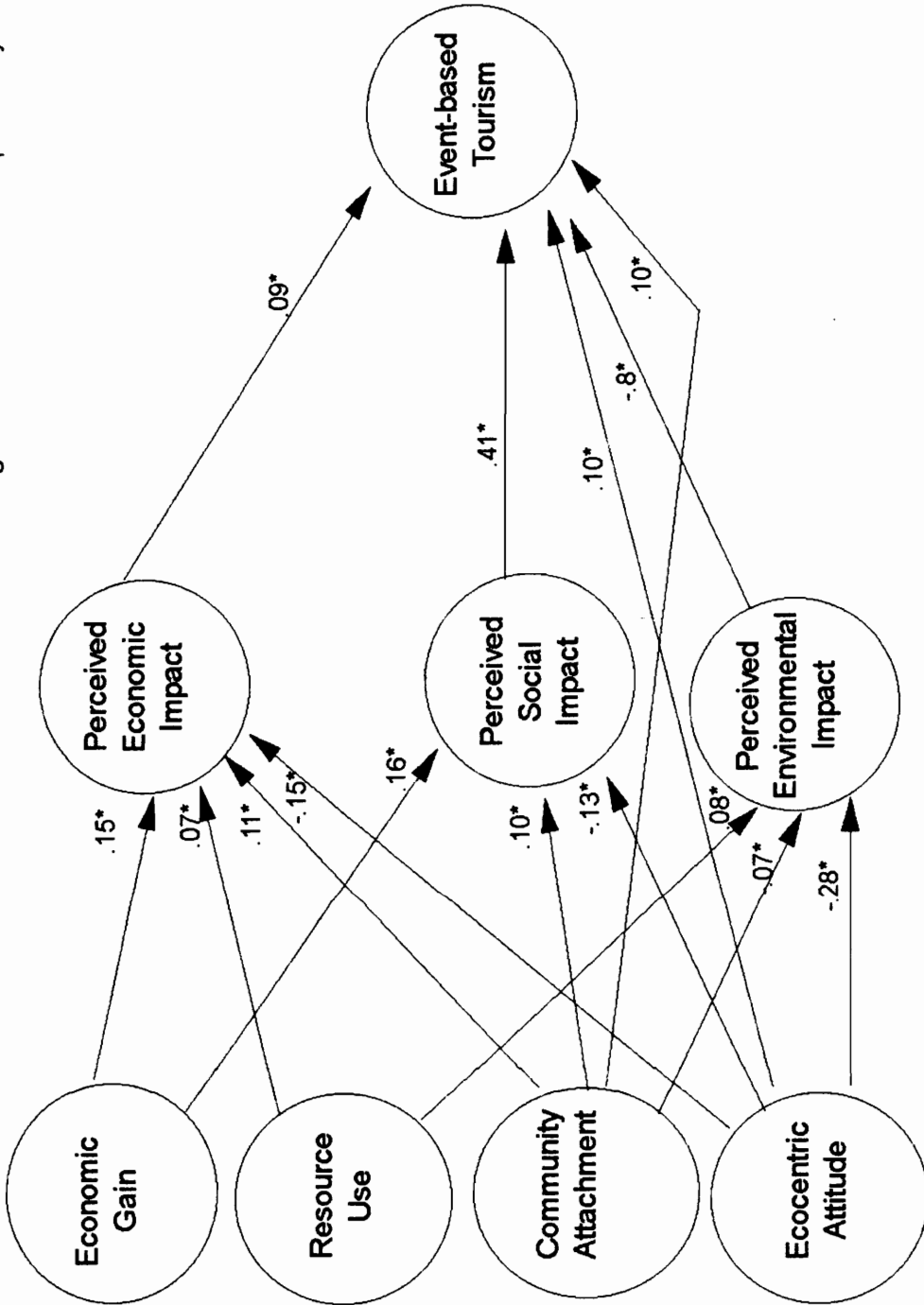


Figure 4.9 Revised Path Model of Resident Support for Event-Based Tourism

*Indicates significant at the .05 or better probability level

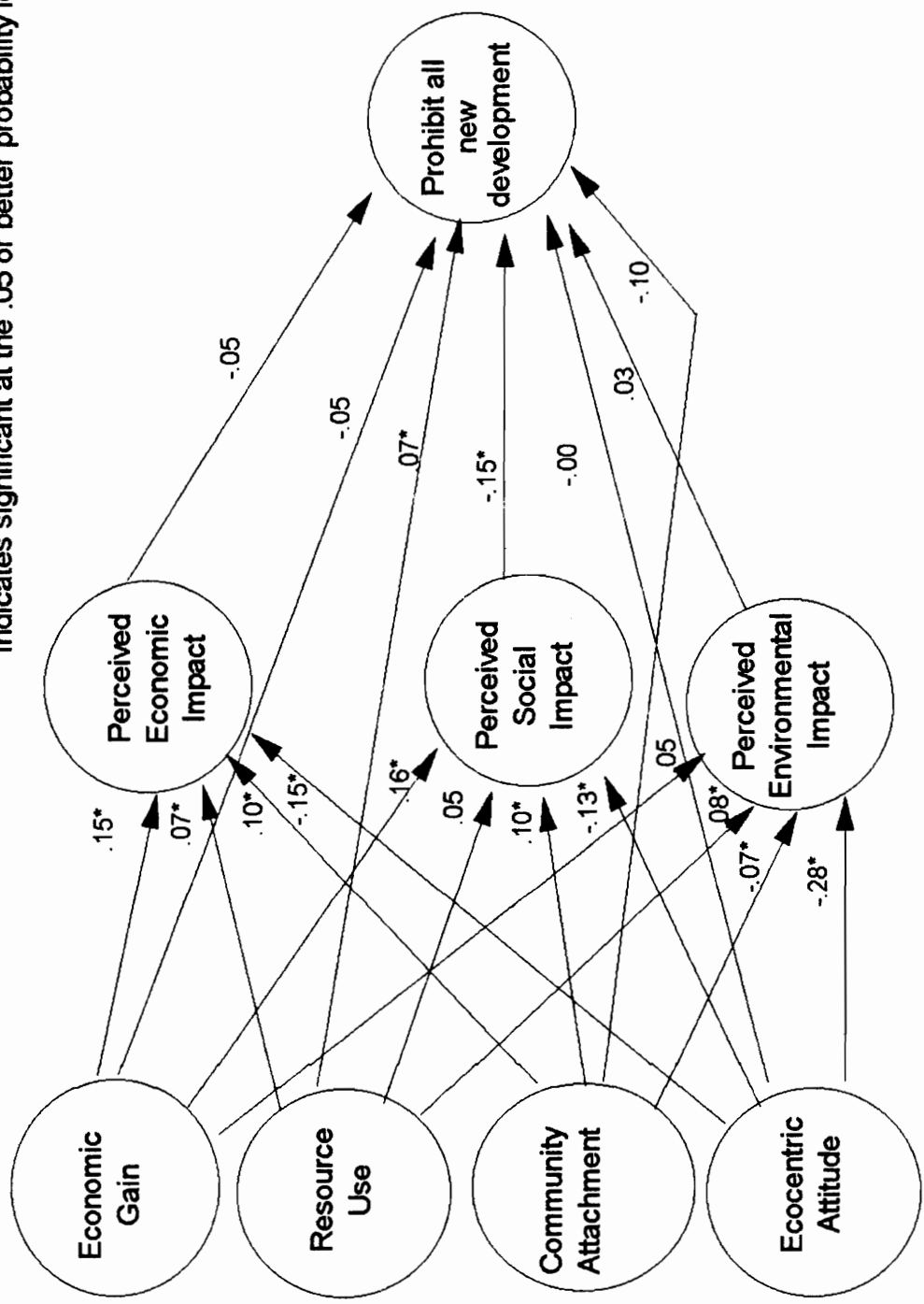


Figure 4.10 Path Model Prohibiting All New Development

Other variables in the model that have a significant effect on prohibiting new development include the positive effect of use of the resource ($p_{16}=.07$) and the negative effect of community attachment ($p_{18}=-.10$). The positive relationship between resource use and support for prohibiting new development suggests that those who use the resource base may more likely favor prohibiting new development. On the other hand, those most strongly attached to the community will oppose prohibiting new development.

The influence of other variables on support for prohibiting all new development can be seen only in the way they affect perceived social impact. Figure 4.11 represents a revised model with all insignificant paths deleted. In this case only the social impact, use of the resource and community attachment directly affect support for prohibiting all new development. Economic gain, and ecocentric attitude are maintained as influencers of the economic impact variable and the social impact variable.

Analysis of the total effects of the seven variables on support for prohibiting all new development reveals that economic gain, community attachment and perceived social impact have a negative moderate effect on prohibiting all new development. This suggests that those attached to their community, those who might gain economically from

*Indicates significant at the .05 or better probability level

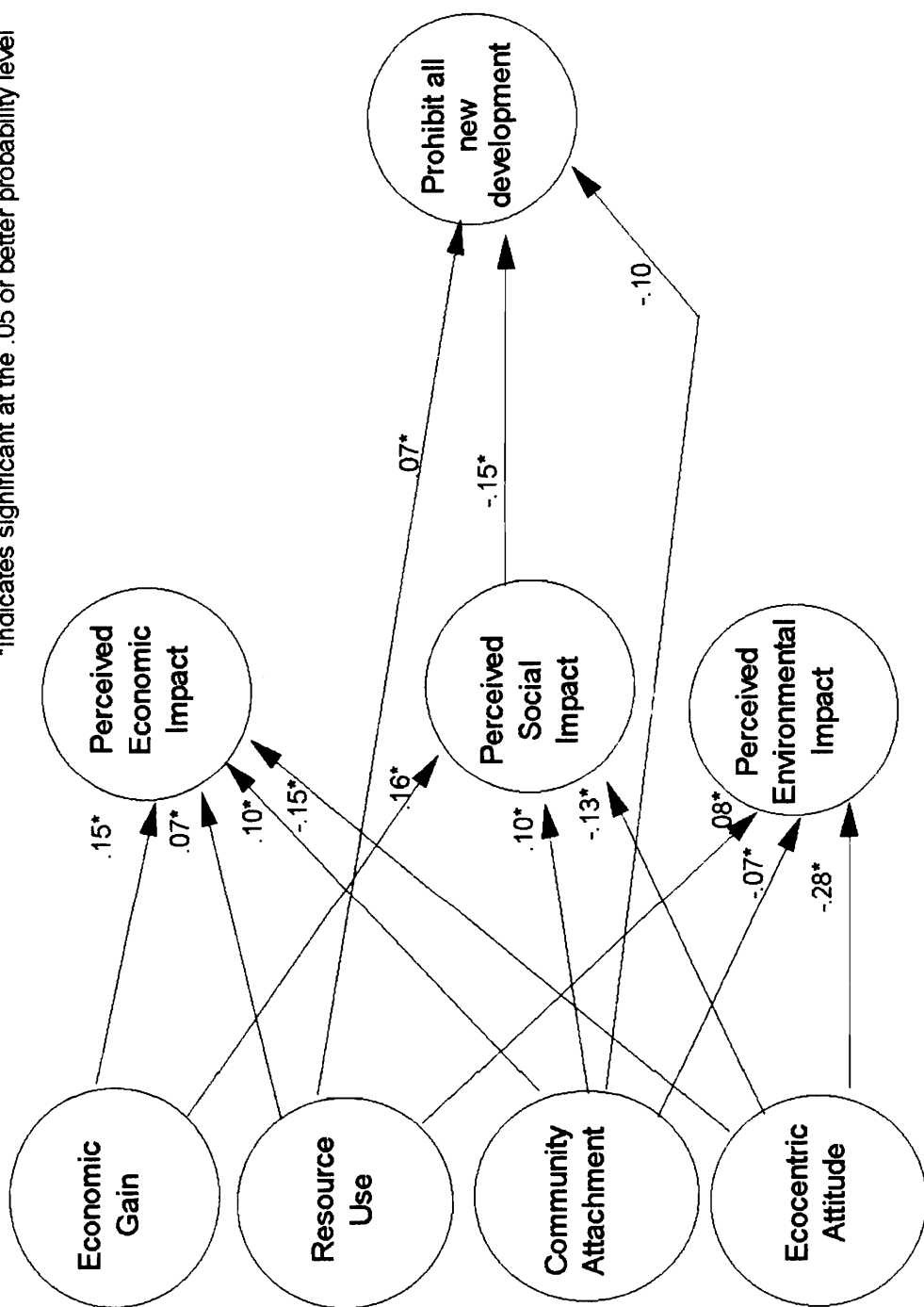


Figure 4.11 Revised Path Model Prohibiting All New Development

development and those who perceive social benefits from tourism would oppose prohibiting new development. On the other hand, those who use the resource might favor prohibiting new development.

4.5 ANALYSIS OF HYPOTHESIS 8

H_8 : The interplay of elements affecting the perception of the impact and support for tourism will vary with the type of tourism proposed.

Respondents were asked to express their support or opposition for four types of tourism - nature, attraction, culture and event. The research hypothesis is support when the total effect of the four elements of value and the three impact variables vary in strength and/or direction from one type of tourism to another. Support for the hypothesis is found in the difference in the effects of antecedent variables on the support variable for varying types of tourism illustrated in Table 4.15. The section that follows explains the differences in the effect of the three impact variables on four types of tourism is described. This is followed by an explanation of the differences in the effect of the exogenous variables on the four different support variables.

Table 4.15
Summary of the Total Effects of Antecedent Variables
on Support for the Four Types of Tourism
and Prohibiting Tourism

Type of Tourism	Nature		Attraction		Culture		Event		Prohibit	
	Effect	Dir	Effect	Dir	Effect	Dir	Effect	Dir	Effect	Dir
Economic Impact	moderate	+	moderate	+	moderate	+	moderate	+	weak	-
Social Impact	moderate	+	moderate	+	strong	+	strong	+	moderate	-
Environmental Impact	weak	+	moderate	+	weak	+	weak	-	weak	+
Economic Gain	weak	+	moderate	-	moderate	+	moderate	+	moderate	+
Use of the Resource	weak	+	moderate	-	moderate	+	moderate	+	moderate	+
Ecocentric Attitude	weak	-	moderate	-	weak	-	moderate	+	weak	+
Community Attachment	weak	-	weak	-	moderate	+	moderate	+	moderate	-

Notes:

Dir= Direction

Path coefficients are evaluated according to the following criteria:

weak=.00 to .05;

moderate=.051 to .30

strong .30 to 1.00.

+ = positive relationship

- = negative relationship

Effect of the Impact Variables on Various Types of Tourism

The direction of the social and economic impact variables remains consistent for all four types of tourism. However, the effect of the perception of social impact on both culture and event-based tourism is stronger than it is for nature and attraction-based tourism.

The environmental impact variable is less stable. The effect of this variable on event- and culture-based tourism is negative suggesting that a positive evaluation of the environmental benefits over costs of tourism development could lead to lack of support for these types of tourism. The moderate positive effect of the environmental impact variable on support for attraction-based tourism suggests that as respondents view the effects of increased tourism on the environment more positively, their support for attraction-based tourism increases. A weak positive view of the impact of tourism on the environment results in more support for event-based tourism.

Economic Gain

The potential for economic gain is moderately and positively related to all four types of tourism. The effect of potential for economic gain is stronger on nature and attraction-based tourism than it is on culture and event-based tourism.

Use of the Resource

Use of the resource induces an increase in support for culture and event tourism but a decrease in support for attraction-based tourism. Its affect on support for nature-based tourism is negligible.

Ecocentric Attitude

A strong ecocentric attitude reduces support for nature, attraction and culture-based tourism but has a positive albeit weak effect on support for event-based tourism. Those with stronger ecocentric attitudes will be more opposed to attraction-based development than the other two types. Event-based tourism is less likely to be perceived as permanently altering the environment as might other types of tourism.

Community Attachment

The effect of community attachment on nature and attraction-based tourism results in a reduction of support. However, an increase in community attachment leads to increased support for both culture and event-based tourism.

Summary of the Analysis of Hypothesis 9

H_0 : The interplay of elements affecting the perception of the impact and support for tourism will vary with the type of tourism proposed.

The research provides support for the variation in the interplay of elements with regard to the four types of

tourism examined. Variation in both the direction and the strength of the effect of the antecedent variables is evidence.

4.6 SUMMARY OF CHAPTER IV

The chapter evaluated each of the eight research hypotheses proposed in Chapter I as well as the implicit hypotheses proposed in the path model. The first hypothesis was confirmatory of earlier research which had determined that support for tourism was a function of perceived impacts of tourism and that the more positively the impacts were perceived the more strongly residents would support tourism. The analysis of the data shows that a positive perception of the economic and social impact of tourism does indeed result in more support for tourism. However, a positive assessment of environmental impacts does not lead to support for all types of tourism. In fact, the relationship between environmental impact and culture- and event-based tourism is negative suggesting that the hypothesis is true for only certain types of impacts for some types of tourism.

The second hypothesis was fully supported. In every case, the total effects of the exogenous variable were positively increased when the relationship between the exogenous variable and the impact variable was positive and

negatively affected when the relationship between the two was negative.

The direction of the relationship between each exogenous variable and the impact and support variables was the focus of four hypotheses. Conclusive evidence was found to support the positive relationship between economic gain and the endogenous variables and the negative relationship between ecocentric attitude and the endogenous variables.

The hypothesized positive relationship between use of the resource and the endogenous variables could not be fully supported. Support was found for the positive relationship between use of the resource and all three impact variables. Likewise, the direction was positive for nature-, culture- and event-based tourism but not for attraction-based tourism. A positive relationship was found between use of the resource and prohibiting all new development which indicates that the relationship between support and use of the resource is negative.

In parallel fashion, the hypothesized negative relationship of community attachment and the endogenous variables could not be fully supported because of mixed results. The relationship between community attachment and economic and social impact variables was positive while that with the environmental impact variable was negative.

Similar contradictions appear in the examination of its influence on support for the different types of tourism. Strong attachment leads to weaker support for nature and attraction-based tourism but stronger support for culture and event-based tourism. The effect of this variable on prohibiting all new development was negative suggesting that those who are most strongly attached will oppose preventing new development.

Strong support was found to demonstrate that the valued elements were interacting to form the perception of the impact of tourism as well as support for tourism. Analysis of the differences between the direct and total effects of an exogenous variable on the ultimate dependent variables provided support for the hypothesis that use of the recreation area, potential for economic gain, ecocentric attitude and community attachment interact in the formation of the perception of impact of tourism. Furthermore, support was found for the contention that expressed support for tourism is a function of both the direct and the indirect effect of the exogenous variables.

The next section of the chapter revised each path model proposed as a set of implicit hypotheses. Insignificant paths were found in each of the five models and a revised model was created and illustrated.

The final hypothesis suggested that the interplay of elements described in earlier hypotheses would vary with the type of tourism proposed. The results provided support for this hypothesis. Variation in both the direction and the strength of the effect of the antecedent variables was evidenced. Exhibit 4.1 summarizes the relationships found to be significant.

Exhibit 4.1**Summary of Significant Relationships****Significant Relationships with Perceived Economic Gain**

1. Potential for economic gain, use of the resource and community attachment positively affect the perception of the favorable distribution of economic benefits over costs.
2. Ecocentric attitudes negatively affect the perception of the favorable distribution of economic benefits over costs.
3. Community attachment positively affects the perception of the favorable distribution of economic benefits over costs.

Significant Relationships with Perceived Social Impact

1. Potential for economic gain and community attachment positively affect the perception of a favorable distribution of social benefits over costs.
2. Ecocentric attitudes negatively affect the perception of a favorable distribution of social benefits over costs.

Significant Relationships with Perceived Environmental Impact

1. Use of the resource positively affects the perception of a favorable distribution of environmental benefits over costs.
2. Community attachment and ecocentric attitude negatively effect the perception of a favorable distribution of environmental benefits overs costs.

Significant Relationships with Support for Types of Tourism**Nature-Based**

1. The perception of economic and social benefits positively affect support for nature-based tourism.
2. Potential for economic gain and community attachment positively affect support for nature-based tourism.

Attraction-Based

1. Perception of economic, social and environmental benefits positively affect support for attraction-based tourism.
2. Use of the resource and ecocentric attitude negatively affect support for attraction-based tourism.

Culture-Based

1. Perception of economic and social benefits positively affect support for culture-based tourism.

Event-Based

1. Perception of economic and social benefits positively affect support for event-based tourism.
2. Perception of environmental benefits negatively affects support for event-based tourism.

Prohibiting All New Development

1. Perceptions of social benefits and community attachment affect prohibiting new development negatively.
2. Use of the resource has a positive effect on support for prohibiting new development.

CHAPTER V

Discussion, Implications, and Conclusion

Chapter V discusses the results and submits conclusions drawn from the analysis of the data. The effect on support for tourism of perceptions of its impacts, elements valued by the community and the interplay of these items is appraised. Further, the ability of path analysis to reveal otherwise hidden information is presented. Implications for planning and development as well as relationships between tourist business and services with the host community are advanced. Also proposed are research questions which emerged from the study. Finally, the contributions of the study are considered.

5.1 INTRODUCTION

The results of this research explain the interplay of elements that affect host community resident attitudes toward tourism. Resident perception of the economic, social and environmental impact of tourism was found to directly affect support for tourism. Four valued items - potential for economic gain, use of the tourism resource, ecocentric attitude and attachment to community - were found to influence perceptions of the impact of tourism. The same factors both directly and indirectly modify support for tourism. Additionally, the research demonstrated that the effect of the perceptions of the impact and resulting support varied with the type of tourism proposed.

This study built on previous research which has demonstrated the link between perceptions and support for tourism. The results establish the interactive effect of valued elements on the perceptions of the impact of tourism and, subsequently, on expressed support for tourism; the interactive effect of the perceptions of economic, social and environmental impacts of tourism on support for tourism; and the effect of this interaction on support for various types of tourism.

Support for tourism is viewed as the willingness to enter into a tourism exchange. The exchange process of

tourism requires community members to evaluate the benefits and costs of the exchange. This evaluation is dependent upon valued objects and sentiments community members bring to the exchange. Consequently, willingness to enter the exchange is dependent upon how valued elements are affected by the exchange. Theoretically, if host community residents perceive the distribution of benefits over costs as positive, they will seek to maintain the exchange relationship. On the other hand, if they perceive a negative distribution, they will seek to discontinue the relationship or in this case oppose tourism development.

The research clarified the elements of value which the community residents bring to the tourism exchange. Further, the study evaluated how these exchange elements interact in order to determine resident support for tourism which is viewed as a desire to enter into or maintain a tourism exchange relationship.

Earlier research found a linear relationship between the perception of the impact of tourism and support for tourism (Milman and Pizam, 1987; Perdue, Long, and Allen, 1990). However, the explanation of why residents respond to the impact of tourism the way they do and why there are various levels of support within the same community remained unclear. This research demonstrated how the perception of

the impact of tourism is a result of an assessment of benefits and costs that are perceived as resulting from the exchange. The way residents perceive the impact of tourism is affected by the exchange they believe they are making. Consequently, individuals who evaluate the exchange as beneficial will perceive the same impact differently than someone who evaluates the exchange as harmful.

This study demonstrated that the willingness to enter into a tourism exchange is dependent upon the perception of the impacts of tourism, the type of tourism proposed and four valued elements - potential for economic gain, use of the resource, ecocentric attitude and community attachment. Further, the perception of the impacts of tourism was found to be affected by the four valued elements.

5.2 THE PERCEPTION OF THE IMPACT OF TOURISM AFFECTS SUPPORT FOR TOURISM

The conclusion that the perception of the impact of tourism affects support for tourism is largely confirmatory of earlier research. The confirmation of this relationship is the foundation for the remaining findings. This study examined economic, social and environmental impacts separately in an effort to relate the findings to previous research on the impacts of tourism. This categorization of impacts permits comparison of the role three types of

impacts described in the literature play in determining support for tourism. The discussion first appraises the effect of the perception of each impact on support for tourism. A summary of the role all three impacts play in determining support for tourism follows.

Perception of the Economic Impact

The economic impacts examined in this research include employment opportunities, revenues for local governments, the cost of land and housing and the price of goods and services. The more positively residents view these economic impacts the more likely they will be to support tourism. Consequently, residents who perceive that economic conditions will improve as a result of an increased number of visitors to the Mount Rogers National Recreation Area will more strongly support all types of tourism and be opposed to prohibiting new development.

Perception of the Social Impact

Similarly, those who perceive the social impact of tourism positively will support tourism development. Social impacts examined in this analysis include opportunities for shopping and recreation, traffic congestion, the crime rate, local services, preservation of the local culture and the relationship between residents and tourists. Residents who perceive an increase in tourism will result in a favorable

distribution of benefits over costs in these aspects of their lives will be those who more strongly support tourism. Those who view the distribution as unfavorable are more likely to oppose tourism.

Perception of the Environmental Impact

Tourism can be a catalyst for the improvement or the degradation of the quality of the natural environment. Residents who view an increase in the number of tourists using the tourism resource as a factor in the degradation of the environment will be more likely to oppose tourism development. Those who see it as a force which will lead to the improvement of the natural environment are more likely to support tourism.

Comparison of the Effect of the Three Impacts

Of the impacts examined in this research, the positive evaluation of the benefits over costs of the social impacts appears to have the greatest effect on support for tourism of all types. A positive evaluation of the economic benefits also influences support for all types of tourism. However, the positive evaluation of the environmental impact of an increase in the number of tourists in the area influences only support for attraction based tourism. For all other types of tourism, a positive evaluation of the environmental benefits does not appear to have a significant

effect on support for tourism.

Knowledge concerning the relationship between perceptions of the impact and support for tourism is useful for explaining why a community might support or oppose tourism. However, it fails to explain why in the same community there are divergent views toward tourism if the impact of tourism is the same. The question of what contributes to the perceptions remains unanswered.

Furthermore, as pointed out by Matheison and Wall (1982), more knowledge is needed for sound planning decisions which require trade-offs and compromises. The assessment of alternate plans is dependent upon understanding factors that influence the perception. The results of this research offer insight into how specific valued elements affect the way residents perceive the impacts of tourism.

5.3 EACH IMPACT IS AFFECTED BY VALUED ELEMENTS

Four elements were identified in this study as determinants of the way residents perceive the impacts of tourism - potential for economic gain, use of the recreation resource, ecocentric attitude and community attachment. The influence of these elements on the perception of each type of impact provides information concerning the formation of the perception.

Economic Impact

The counterbalancing effect of the valued elements provides an explanation of why some community members might perceive the economic impact as positive while others perceive it less so. The potential for economic gain has a positive effect on the perception of the economic benefits while an ecocentric attitude results in an equally negative view of the benefits. Other effects on this perception include the positive effect of use of the resource and community attachment.

A community member with strong ecocentric attitudes and little to gain economically is more likely to evaluate the exchange of economic factors as unfavorable. Those with more to gain economically are likely to evaluate the exchange in a more positive light. Likewise, residents who use the tourism resource and those attached to their community are likely to evaluate the exchange positively.

Social Impact

Little difference was found in the way the four elements interact to formulate the perception of the social impact of tourism from that of the economic impact. The perception of social benefits appeared to have a stronger influence on support for tourism than did the perception of economic benefits. The same neutralizing effect of potential

for economic gain and ecocentric attitudes was evident, though for social impacts, potential for economic gain was somewhat stronger than ecocentric attitudes. The relationship between use of the resource and community attachment and the perception of the impact of tourism was somewhat weaker but in the same direction for social as for economic impacts. Residents with more to gain economically, those who use the resource and those attached to the community will perceive the distribution of social benefits over costs more positively than those with ecocentric attitudes.

Environmental Impact

The negative effect of ecocentric attitude on the perception of the environmental impact of tourism is considerably stronger than the positive effect of potential for economic gain and use of the resource indicating that ecocentric attitudes may play the major role in the formulation of attitudes toward the environmental impact.

Another interesting finding shows that community attachment has a negative effect on the evaluation of environmental benefits over costs while this same element led to a positive evaluation for economic and social benefits over costs. Residents with ecocentric attitudes who are attached to their community are likely to perceive

the environmental impact negatively.

Summary of the Effect of the Valued Elements on the Perception of the Impacts

Potential for economic gain and use of the resource consistently induced a positive evaluation of the benefits over costs while ecocentric attitudes invariably resulted in a negative assessment. On the other hand, community attachment affected the perception of the impacts of tourism in a somewhat conflicting manner. Those most strongly attached to the community evaluated the exchange of social and economic factors positively but environmental exchanges negatively. A discussion of each of the elements found to affect the perception of the impact follows.

5.4 EACH VALUED ELEMENT AFFECTS THE PERCEPTION OF THE IMPACTS

Potential for Economic Gain

The finding concerning potential for economic gain is confirmatory of other studies which have shown that those employed in the industry and/or those who have entrepreneurial contact with tourists are more likely to perceive the impacts positively (Perdue et al., 1990; Milman and Pizam, 1987; Ap, 1992a).

Use of the Resource

The study helps to resolve the question concerning whether use of the resource fosters a positive or negative

evaluation of the impacts of tourism. The cost of an increase in tourism to the user is in crowding and competition for resource use. The benefit is in increased recreational facilities and opportunities. The results of this study imply that users evaluate the distribution of economic, social and environmental benefits over costs favorably but that this does not always translate to support for tourism. This may explain why researchers who studied resident attitudes toward the impact of tourism found that residents felt tourism improved recreational opportunities (Murphy, 1981, Liu et al, 1987). Further, it offers an explanation as to why Keogh (1990) and Perdue et al. (1990) were unable to find any difference between the attitude toward tourism of users and non-users.

Ecocentric Attitude

The results clearly establish the important role an ecocentric attitude plays in the evaluation of the exchange. Research has demonstrated that the nature and extent of the interactions between tourist and host community residents affect the level of environmental costs perceived by the host community (Martin and Uysal, 1990; May 1991; Valentine, 1990). This level has been shown to be dependent upon the attitudes toward the natural environment of both the local residents and the tourists (Wheeller, 1991; Gaylord, 1990).

Consequently, the environmental costs a host community accrues may be contingent upon matching the environmental attitudes of the host community with those of the visitors. The type of tourist and tourist activities a host community attracts may play a key role in how the impacts of tourism are viewed by the residents.

Community Attachment

The findings of this research imply that residents who are attached to their community perceive a potential for economic and social benefits and a potential for environmental costs as a result of an increase in tourism. These results differ from other studies on the role attachment plays in the perception of the impacts of tourism. Um and Crompton (1987) found that the more attached residents were to the community the less positively they perceived tourism impacts. The results of a study by McCool and Martin (1994) were unable to find a clear connection between attachment and the evaluation of benefits over costs. Their study found that strongly attached respondents rated the positive dimensions of tourism higher than the unattached respondents. However, the same group also viewed the costs with more concern.

One potential explanation for the conflicting findings in other studies may be the way attachment is defined and

measured. In the Um and Crompton study (1987), length of residence, birthplace and heritage were used to measure attachment. McCool and Martin (1994) used a combination of length of residence and an affective measure of attachment. These researchers suggested that length of residence may not be an appropriate measure of attachment in tourist communities because people who have recently settled into any area in which they had spent vacation or leisure time may quickly develop an emotional attachment. Long time residents who have grown used to the attributes of an area may have feelings of attachment different from the newcomers.

The ability of the present study to draw conclusions on the effect of community attachment different from those made by Um and Crompton and more discerning than those of McCool and Martin may lay in the measurement of attachment. The scale used in this study measured only affective components of attachment while the Um and Crompton study measured objective aspects and the McCool and Martin study measured both objective and affective elements of attachment. In the present study the newly developed affective measure of attachment was found to be unrelated to length of residence. An important finding of this research may be that future studies on the relationship between attachment and resident

perception of the benefits need to examine objective and affective measures of attachment as two separate variables.

Another potential explanation for the unclear findings in the McCool and Martin (1994) study is the fact that community attachment positively affects the way residents view certain impacts but negatively affects the way they view others. More research is needed to determine the specific impacts for which attached residents have the most concern.

Summary of the Effect of the Valued Elements on the Perception of the Impacts

The research has confirmed the positive relationship between the potential for economic impact and support for tourism. The findings show that use of the resource positively affects the perception of the benefits of tourism and that ecocentric attitudes negatively affect the same perception. Further, the results help to clarify the relationship between affective community attachment and perception of the impacts of tourism. The next section discusses how these same four elements differ in the way they affect support for different types of tourism.

5.5 THE VALUED ELEMENTS AFFECT SUPPORT FOR TOURISM

The decomposition of the association of each of the valued elements with support for the various types of

tourism demonstrates the complex nature of resident support for tourism. The interactive effect of the elements with the impact variable is considered in this discussion along with any direct impact an element may have on support for tourism.

Potential for Economic Gain

Analysis of the total effects of the potential for economic gain implies that this element positively affects support for nature-, culture- and event-based tourism but has a negative effect on attraction-based tourism. The explanation for the reversal in attraction-based tourism lies in the scope of this type of tourism. Attraction based tourism such as theme parks and large resort complexes require a large amount of capital which is not available from within the region. The human and financial resources of the residents may be viewed by them as suited for low impact tourism such as forest cabins and art and craft festivals. Residents most likely do not see potential for economic gain from tourism developed on funds from outside the region.

Almost all of the effect of potential for economic gain is determined in the way it influences the impacts of tourism. The only significant direct effect of this element was its positive effect on nature-based development. The

direct effect of this variable on support for tourism is less than would be expected based on earlier research. The weakness in this variable to demonstrate a direct effect on the support variable can be attributed to the small amount of tourism currently in the study area. Most resident attitude studies are conducted in areas where tourism is already well developed. In this instance, the region offers little on which the tourist can spend money and consequently, little financial reward is coming into the community from tourism trade. Less than 20% of the respondents believed that their income would increase if the number of tourists coming into the area increase. Only about 12% felt that any of their current household was currently coming from tourism. Even though the direct effect of this variable is weak, the direction of the relationship confirms that potential for economic gain has a positive influence on support for tourism.

Use of the Resource

Even though use of the resource had a positive effect on the perception of the impacts, the relationship between this element and support for tourism is less clear. The total effects of use of the resource on support for tourism are generally positive. However, there is clearly a negative effect of use of the resource on attraction-based

development and a positive relationship with prohibiting all new development. The explanation for this apparent conflict lies in the examination of the direct effects of this element on the support variables.

The direct effects imply that those who find the use of the resource important look favorably upon event- and culture-based tourism but negatively on attraction- and nature-based tourism. The explanation for this lies in the fact that attraction- and culture-based tourism are likely to lead to crowding and/or competition for use of the resource while event-based tourism is more likely to provide additional activities for the user.

The resource user is certainly challenged in assessing the benefits and costs of development. On one hand, s/he would like recreational opportunities improved but on the other hand does not want to be crowded out of his/her recreational environment. The study demonstrates the need for research on the trade-offs the user is willing to make.

Ecocentric Attitudes

The strongest opposition to tourism development will come from residents with ecocentric attitudes. The total effect of ecocentric attitudes on support for all types of tourism except event-based tourism is negative. Ecocentric individuals will be especially opposed to attraction-based

development. The relationship is predictable since this type of development generally has the greatest impact on the natural environment. However, an ecocentric attitude does not necessarily lead to total opposition to tourism. Ecocentricity appears to encourage support for event-based tourism which is more likely to be temporary and have minimal impact on the environment.

The analysis of the direct effects of this element suggests that the effect of ecocentric attitudes on tourism development which would add visitor centers, museums, cabins in the forest or cross-country ski trails would be negligible. However, ecocentric attitudes would result in opposition for development of large resort complexes or theme parks. On the other hand, arts and craft festivals, concerts, and dance activities would find support from those with ecocentric attitudes.

Community Attachment

The total effects of community attachment on support for attraction-based tourism appears to be negative. However, support for culture-, nature-, and event-based tourism is positive. This apparent contradiction may be explained. Those with strong affective ties to the area are more likely to support development activities which is low impact. Theme parks and large resort complexes (high impact

tourism) are more likely to change the nature of the community. On the other hand, culture-, nature- and event-based tourism validate, develop and express the nature, history and culture of the place. Those who feel affection for the present community would logically oppose development which would change its nature and support development which provides a means for self-expression. The negative relationship with prohibiting new development indicates that those who are attached to the community generally support development.

When community attachment is measured directly against support for tourism, the relationship remains constant. Overall, residents who feel positively about the community and region in which they live would like to see it develop economically through tourism. However, this same group would oppose high-impact tourism.

5.6 THE INTERPLAY AFFECTS SUPPORT FOR VARIOUS TYPES OF TOURISM

Nature-Based Tourism

Support for nature-based tourism will come from residents who have the greatest potential to gain economically from the development of tourism. The positive influence of this variable on the perception of economic and

social impacts increases its importance in determining support for this type of tourism.

At the same time, community support for nature-based tourism is diminished by those with ecocentric attitudes who tend to view the impacts more negatively. However, the effect of this element is relatively weak.

A weak negative association between community attachment and support for nature-based tourism implies that those strongly attached to the community may oppose nature-based tourism. However, the positive influence of community attachment on the perception of the impacts of tourism implies that those attached to their community might be easily persuaded to support tourism unless they perceived the proposed nature-based tourism as detrimental to the natural environment.

Support for this type of tourism will also come from users who do not have strong ecocentric attitudes. Part of the positive attitude of users toward nature-based tourism is in the effect of this element on the perception of economic and social impacts. This finding supports those of other researchers who have generally concluded that tourism improves entertainment and recreational opportunities for the residents (Pizam, 1978; Rothman, 1978; Murphy, 1981; Liu et al., 1987; Davis et al., 1989).

Attraction-Based Tourism

Attraction-based tourism will meet with considerable resistance from those with ecocentric attitudes. The interplay of these elements with the perception of the impacts of tourism intensifies the opposition. The conclusions are consistent with the nature of the element. Ecocentrics disagree with statements that suggest humans have the right to modify the natural environment to suit their needs (Dunlap et al., 1993) and would, therefore, logically disapprove of large resort complexes and theme parks.

Opposition can also be expected from users and those attached to their community because attraction-based development is likely to change both the nature of the community and the nature of recreational opportunities. Those who appreciate the current environment and would like to see it enhanced would not benefit from this type of tourism development.

Those with the potential for economic gain support attraction-based development. However, the impact of this element can only be seen as it affects the perception of the economic and social impact. The residents of this area do not directly equate potential for economic gain with attraction-based tourism for reasons explained earlier.

Culture/Historic-Based Tourism

Examples of culture-based tourism include museums and visitor centers. A large portion of the positive attitude toward this type of tourism comes from the perceptions of its impact. In fact, none of the four elements directly affected support for culture-based tourism. However, the positive influence of potential for economic gain, use of the resource and community attachment on the perception of the economic and social impacts suggests that little opposition will be found for this type of tourism. Minor opposition can be expected from ecocentrics.

Event-Based Tourism

All four elements manifested a positive effect on support for development based on cultural and folk events such as concerts, art and crafts, dance and festivals. Ecocentrics are especially supportive of this type of tourism even though they generally view the impacts of tourism negatively. In this case, ecocentric attitude had a positive direct effect on support for tourism. In all other cases, the direct effect was not significant.

The strongest effect on support for event-based tourism came from those most highly attached to their community. Additionally, users and those with the potential for economic gain felt positively about this type of

tourism. The general agreement about this type of tourism is reflected in the relatively high mean score (mean = 4.0 on a 5.0 scale).

A slightly lower mean score for culture-based tourism (mean = 3.9) reflects the minor negative effect of ecocentric attitudes. The negative impact of community attachment and ecocentric attitudes is reflected in an even lower but still supportive score for nature-based tourism (mean=3.5). The opposition of ecocentrics, those attached to their community and users is even more strongly reflected in the mean score of 2.9 which suggest that this community in fact opposes attraction-based tourism.

5.7 PATH ANALYSIS REVEALED OTHERWISE HIDDEN INFORMATION

The ability to ascribe support or opposition for the various types of tourism to the antecedent variables can be credited to the decomposition of the correlation from the path analysis. This analytical technique is superior to multiple regression because the latter technique fails to demonstrate the effect of the exogenous variables on the impact variables. Table 5.1 provides details concerning the comparison of the results of multiple regression and those of path analysis. The first section delineates the effect attributed to each variable from the regression equation based on significance of the beta coefficient at the .05 or

better probability level. The second section lists total associations considered as moderate (i.e., greater than .051). The table demonstrates the increased amount of information provided by the utilization of path analytic techniques.

In the case of attraction-based tourism, potential for economic gain and ecocentric attitudes were found to have no significant affect on support for this type of development when regressed against the support variable. Yet, when the effects of these variables are considered on the perception of the impact, potential for economic gain had a moderate positive effect and ecocentric attitude had a moderate negative effect. Similarly, community attachment, use of the resource and potential for economic gain were found to be insignificant when regressed against culture-based tourism. In actuality, these three elements had a positive effect on the support variable. Potential for economic gain and use of the resource showed no significant effect on support for event-based tourism until their effects on the impact variables were considered.

The understanding gleaned from this research advances several implications for future research and practical application. These implications will be discussed in the following sections.

Table 5.1

Comparison of Direct and Total Effects of the Exogenous Variables
Support for Tourism

Significant* Direct Effect¹

Variable	Econ Gain	Use Resrc	Eco Attd	Comm Attch	Econ Impct	Soc Impct	Env Impct
Type of Tourism							
Nature	.09			.07	.17	.16	
Attraction		-.13		-.10	.17	.13	.20
Culture					.08	.32	
Event			.10	.10	.09	.42	-.08
Prohibit		.07		-.10	-.12	-.15	

*Significance level set at .05

¹ The direct effect is equal to the beta weight resulting from the regression of the seven variables against support for the type of tourism.

Total Effects² Greater than .051

Variable	Econ Gain	Use Resrc	Eco Attd	Comm Attch	Econ Impct	Soc Impct	Env Impct
Type of Tourism							
Nature	.14		-.05		.17	.16	
Attraction	.09	-.09	-.19		.17	.13	.20
Culture	.10	.07		.08		.08	.32
Event	.09	.09	.05	.16	.09	.42	-.08
Prohibit	-.08	.06	.02	-.12	-.05	-.15	.03

² The total effect is the sum of the path coefficients of the direct and indirect effects of each variable on support for the type of tourism.

5.8 IMPLICATIONS FOR PLANNING AND DEVELOPMENT

Implications for Tourism Planning in the Early Stages

As illustrated by Matheison and Wall (1982), the nature of planning tourism destinations is complex. Planners of tourism often confront paradoxical effects when assessing alternative policies. Questions arise concerning how to maximize the benefits and at the same time minimize the costs for the tourist destination community. This research provides planners with useful information concerning the counterbalancing effects of specific elements associated with community perception of the impact of tourism and their support for tourism.

A community planning tourism will need to consider the strength of ecocentric attitudes in the community in relation to the potential for economic gain. Concerns of users of the current resource will need to be addressed. Subsequently, the level of attachment residents feel toward their community should be assessed. These elements appear to have different weights for different types of tourism. The evaluation of the results of this study suggest that the communities surrounding Mount Rogers NRA may be willing to accept nature-based tourism if the balance between potential for economic gain and ecological preservation is met. However, this community will not be willing to enter the

exchange process for attraction-based tourism unless the potential for economic gain is considerable, measures are taken to protect the natural environment and efforts are made to safeguard recreational opportunities of the users of the resource. The balance is not nearly as delicate for event-based tourism. While the same conclusions may not be appropriate for all rural communities considering tourism development, the tool developed for this research may be useful in other communities. Though application of the principles determined by this research, the strength of each factor in determining support for alternative plans could be ascertained in a variety of settings.

Implications for Destinations in Other Stages of Development

Destinations seeking to gather support from the community for an already established tourism industry may find the information provided by this research useful. The research demonstrated that perception of social benefits was an important determinant of support for tourism. This suggests that internal marketing techniques designed to inform residents of the social benefits they receive from tourism may be helpful in gaining the endorsement of the indigenous population essential for the development, successful operation and sustainability of tourism. Promotion of the positive social and economic benefits of

tourism may serve to sway the opinion of residents who perceive that they have little to gain economically from the tourism industry. Further, the dissemination of information concerning secondary and tertiary economic benefits received by community members whose household income is not directly tied to the tourism industry may lead to support from otherwise neutral residents.

The results of this research show that community opposition will come from those with the most ecocentric attitudes. Tourism services and businesses should be sensitive to their concerns. The application of conservation and preservation programs may serve to ease the concerns of the more ecocentric residents. To be most effective, businesses will need to promote their ecological efforts not only to their customers but also to the community residents.

5.9 IMPLICATIONS FOR FUTURE RESEARCH

Examination of Factors that Affect Perceptions of the Impact

Past resident attitudes studies have correlated resident support for tourism activities with the economic benefits and resident opposition to tourism with negative social and environmental impacts (Pizam, 1978; Brougham and Butler, 1981; Sheldon and Var, 1984; Witter, 1985; Milman and Pizam, 1988; Keogh 1990). Other research determined

that, even though the anticipation of personal benefits was the best predictor of a positive attitudes toward tourism, removing the effect of this predictor did not affect the significance of the relationship between the perception of impacts and support for tourism development (Perdue et al., 1990). This study provides an explanation of why controlling for personal benefits did not affect the significance of the relationship by demonstrating that the perception of the impacts is a function of the anticipation of personal benefits and/or costs.

Future research can better explain why residents react to tourism the way they do by examining elements that affect the perception of tourism. Furthermore, this type of analysis can resolve the question of why there are varying levels of support within the same community demonstrated by Dogan (1989) and Ap and Crompton (1993).

The conclusions of this research are somewhat similar to those of Ritchie (1988) in that support for resorts and theme parks differed from that for festivals and events. In Ritchie's (1988) study, the residents supported both types of tourism but the support for resorts and theme parks was moderate compared to support for festivals and events. The Mount Rogers area communities appeared to oppose resorts and theme parks and strongly favor festivals and events. Future

research is needed to determine why in some communities certain types of tourism are unacceptable while in others they are more acceptable. Further examination will help identify communities which would be accepting of high impact tourism, such as a theme park, and those that would not.

Additionally, the analysis of the Mount Rogers data suggests that the ecocentric attitude of the residents, their attachment to their community and the type of resource may be determinants of support for various types of tourism. Further study is needed to determine if these same factors play a similar role in determining perceptions of the impacts and attitudes toward support for tourism in communities where tourism is more fully developed. This study was conducted in an area which currently has few services and a light visitor count. The question of how the variables studied here would change if the community were in a different stage of development remains unanswered.

While this study uncovered the interplay of elements affecting both the perception and support for tourism, the balance of benefits and disbenefits a community is willing to accept needs to be better defined. Furthermore, only four elements of exchange were studied here. Qualitative work is needed to unveil other elements that residents feel they might be exchanging in return for the benefits of

tourism development.

Another question raised by the study is that of what influences whether a resident views a specific impact as a benefit or a cost and how this varies with the type of tourism. In this work, the impacts were grouped into economic, social and environmental segments. While this provided useful information, we need more information about specific impacts and how the evaluation of each impact affects the support for tourism. Once all elements of exchange are defined, research is needed to analyze the trade-offs residents are willing to make. This is important for planning when limited resources have to be allocated to specific projects.

5.10 EVALUATION OF THE ATTACHMENT VARIABLE

Length of residence has been utilized in community attachment and resident attitude studies as a measure of the concept of community attachment. Conclusions from this study imply that length of residence may not be an appropriate measure in tourist destination communities. A correlation was found between support for tourism and community attachment measured as sentiment toward the community but length of residence did not appear to be associated with the sentiment. Analysis failed to find any differences in affective attachment scores between

newcomers, established residents and old-timers. Yet, the in McCool and Martin (1994) study, length of residence was found to be a factor in affective attachment. In the later study, correlation between support for tourism and community attachment remained unclear. More research is needed to determine if length of residence is an appropriate measure for community attachment in tourist destinations. Further testing of the attachment scale developed for this research may help clarify elements of the community attachment concept as it relates to tourism.

5.11 CONTRIBUTIONS OF THE STUDY

The contributions of this study can be found both in theoretical and practical perspectives.

Theoretical Advancement in Tourism Analysis

The significant contribution of this study was the discovery of the important role determinants of the perception of the impacts of tourism play in influencing community support for tourism. The recognition that the perception of the impact of tourism is affected by an interplay of elements heretofore considered individually as directly affecting support for tourism adds meaningful knowledge. Perhaps, most importantly, the findings demonstrated that factors that influence support for tourism are multi-dimensional and dynamic. The study demonstrated

how ecocentric attitudes can counterbalance the effects of potential for economic gain; and that community attachment affects support positively through its interaction with perceptions of the impact but may also affect support negatively, depending on the type of tourism. The examination of the interplay of several elements provides information which is important for the explanation of why residents of tourist destinations react to tourism the way they do and why there are varying levels of support within the same community. The study was able to explain why use of the tourism resource and community attachment may be either a contributor to or a deterrent to support for tourism. It provides an explanation of why in previous research the relationship of these two variables to support for tourism has remained unclear (McCool and Martin, 1994; and Perdue et al., 1990). Furthermore, while conclusive evidence has demonstrated the strong positive relationship between economic benefits from tourism and both the perception of the impacts and attitude toward tourism (Pizam 1978; Perdue et al., 1990; Ap 1992a), this study revealed how the interplay of other elements affects the position of the economic benefit factor in the formulation of perceptions of the impact and attitude toward tourism.

The discovery of the interactive effect of the three types of impacts on support for tourism provides new information concerning the power of each type of impact to influence support for tourism. The research lays a foundation for comparing the interaction of specific impact factors. For example, Var et al. (1985) found that residents were willing to exchange some inconveniences for the tourist money. The groundwork has been laid for the examination of how the "inconveniences" interact with benefits to formulate an overall attitude toward tourism.

This study contributes to the theoretical advancement in the field of tourism by confirming the usefulness of exchange theory principles in explaining host community resident attitudes towards tourism. Elements important to host community residents were identified as determinants of the perceptions of the impact of tourism and support for tourism. The findings demonstrated that factors heretofore thought to influence support for tourism also influence perceptions of tourism and in doing so have a greater effect on support for tourism than previously thought.

The path model developed and tested in this research provides a theoretical basis for the study of support for tourism in a variety of settings. The model can be utilized to compare communities with different social structures or

at different stages of tourism development to determine changes in the interplay of the elements. New elements can be added to the model which may further explain resident attitudes toward tourism.

The proposed tourism exchange model contributes a theoretical foundation for the examination of the relationships between tourists, community residents, and tourist business and services. The theoretical model may be helpful in directing future research in determining, first, the elements being exchanged by the various components in the model. Once these are identified and evaluated, research may focus on the dyadic components and/or the influence and role of social structure in the exchange.

Practical Application for Tourism Planning

From the practical aspect, the findings of this study will aid in the planning of strategic development programs for tourist destinations. The path model can be applied in communities in various stages of tourism development to identify factors that need to be addressed in economic development programs which focus on increasing tourism. In order to assess the value of alternative plans, resource managers need a better understanding of what is important to the individuals within a community.

Further, tourism businesses and destination marketing organizations may wish to apply the principles of internal marketing to solicit support from the community for their endeavors. The information provided may assist in the design of more effective communication messages once knowledge concerning the values of the audience are revealed.

5.12 CONCLUSION

The results of this study provided some explanation for why residents of tourist destinations react to tourism the way they do and why there may be a continuum of responses to tourism within the same community. Building on previous research which had demonstrated that support for tourism was dependent upon the way its impact was perceived, the analysis uncovered elements that affect the perception of the impacts of tourism, and examined the interplay of these items with support for several types of tourism.

A theoretical basis for investigating resident reactions to tourism was established by demonstrating the interaction of exchange components in the formulation of attitudes toward tourism. The findings clarified elements of value which host community residents bring to the exchange. Further, they confirmed the interactive nature of four valued elements, three types of perceptions and four

types of tourism. Suggestions for moving the theory forward were proposed.

Among the important implications of this exploratory work, are the deduction of the importance of examining factors that influence the perception of the impacts of tourism as well as those that affect support for varying types of tourism, the recognition of the role ecocentric attitudes and community attachment play in the formulation of attitudes toward tourism; the discernment of the need for internal marketing to the community; and the establishment of a theoretical foundation for the examination resident attitudes toward tourism.

BIBLIOGRAPHY

- Alwin, D. F. & Hauser, R. M. 1975. The decomposition of effects in path analysis. American Sociological Review, 40,37-47.
- Andereck, K. L. (1989). Perceived Crowding Among Visitors in A Built Recreation Environment. Unpublished doctoral dissertation, Clemson University, Clemson SC.
- Allen, L. R., Long, P.T., Perdue, R.R. & Kieselbach, S. (1988). The Impact of Tourism Development on Residents' Perceptions of Community Life. Journal of Travel Research, 27 (1), 16-21.
- Allen, L. R., Hafer, H. R, Long, P.T. & Perdue, R. R. (1993). Rural Residents' Attitudes Toward Recreation and Tourism Development. Journal of Travel Research, 31(4), 27-33.
- Ahmed, S. A. (1986) Understanding Residents' Reaction to Tourism Marketing Strategies. Journal of Travel Research. 25:13-18
- Ap, J. (1990). Residents' Perceptions Research on the Social Impacts of Tourism. Annals of Tourism Research, 17(4), 610-616.
- Ap, J. (1992a). Understanding Host Residents' Perceptions of the Impacts of Tourism Through Social Exchange Theory. Dissertation Abstracts International. Ann Arbor, MI: UMI Dissertation Services.
- Ap, J. (1992b). Residents' Perceptions on Tourism Impacts. Annals of Tourism Research, 19, 665-690.
- Ap, J. & Crompton, J. L. (1993). Residents' Strategies for Responding to Tourism Impacts. Journal of Travel Research, 32(1), 47-50.
- Archer, B. (1973). The Impact of Domestic Tourism. University of Wales Press.
- Arcury, A. T. (1990). Environmental Attitude and Environmental Knowledge. Human Organization, 49:300-304.
- Asher, H. B. (1976). Causal Modeling. Beverly Hills: Sage.

- Blau, Peter M. (1964). Exchange and Power in Social Life. New York: John Wiley & Sons.
- Belisle, F. J. & Hoy, D. R. (1980). The Perceived Impact of Tourism by Residents, A Case Study in Santa Marta, Columbia. Annals of Tourism Research, 7, 83-101.
- Boissevan, J. (1979) The Impact of Tourism on a Dependent Island. Journal of Travel Research, 6, 76-90.
- Bottlein, M., McGowan, M. L. & DiGrion, B. N. (1991). A Sustainable Development in Rural Communities. Travel and Tourism Research Association Conference Proceedings, 409-415.
- Brayley, R., Var, T. & Sheldon, P. (1989). Perceived Influence of Tourism on Social Issues. Annals of Tourism Research, 17, 285-7.
- Brody, J. J. (1976). The creative consumer: survival, revival and invention in Southwest Indian arts. In Ethnic and Tourist Arts: Cultural Expressions from the Fourth World. (pp. 70-84). Berkeley: University of California.
- Brougham, J. E. & Butler, R. W. 1981. A Segmentation Analysis of Resident Attitudes to the Social Impact of Tourism. Annals of Tourism Research, 8, 569-590.
- Brownrigg, M. & Greig, M. S. (1974). Economic Impact of Tourism in Skye, Highlands and Islands (Special Report 13). Development Board.
- Bryant, B.E. & Morrison, A. J. (1980). Travel Market Segmentation and the Implementation of Market Strategies. Journal of Travel Research, 19(3), 2-8.
- Bryant, E. G. & Napier, T. L. (1981). The Application of Social Exchange Theory to the Study of Satisfaction with Outdoor Recreation Facilities. In T. L. Napier (ed.), Outdoor Recreation Planning, Perspectives, and Research (pp.83-98). Dubuque IA: Kendall P. Hunt Publishing Company.
- Bryden, J. (1973). Tourism and Development. New York/London: Cambridge University Press.

- Burton, T. L. (1981). You can't get there from here: a personal perspective on recreation forecasting in Canada. Recreation Resource Review, 9:38-43.
- Butler, R. W. (1975). Tourism as an agent of social change. In F. Helleiner (Ed.), Tourism as a Factor in National and Regional Development (pp.85-90). (Occasional Paper No.4). Peterborough, Ontario: Department of Geography, Trent University.
- Buttel, F. H. (1979). Age and Environmental Concern: A Multivariate Analysis. Youth and Society, 10 (3), 237-256.
- Buttel & and W. L. Flinn. (1978). The Politics of Environmental Concern: The Impacts of Party Identification of Political Ideology on Environmental Attitudes. Environment and Behavior. 10(1):17-36.
- Cheng, Jacqueline R. (1980). Tourism: How Much is Too Much? Lessons for Canmore from Banff. Canadian Geographer, 23(1), 72-80.
- Cohen, J. & Cohen, P. (1983) . Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cooke, K. (1982). Guidelines for socially appropriate tourism development in British Columbia. Journal of Travel Research, 21(1), 22-28.
- Coppock, J. T. (1977). Second Homes: Curse or Blessing. New York: Pergamon.
- Crompton, J. L. & Hensarling, D. M. (1978). Some suggested implications of the product life cycle for recreation and park agency managers. Journal of Park and Recreation Administration.
- d'Amore, L. J. (1983). Guidelines to planning in harmony with the host community. In P.E. Murphy (Ed.), Tourism in Canada: Selected Issues and Options (Western Geographical Series, 21). Victoria: University of Victoria.

- Davis, D., Allen, J. & Cosenza, R. M. (1988). Segmenting Local Residents by Their Attitudes, Interests, and Opinions Toward Tourism, Journal of Travel Research, 27(3), 2-8.
- de Kadt, E. (1979) Tourism Passport to Development? : Perspectives on the Social and Cultural Effects of Tourism in Developing Countries. New York/London: Oxford University Press.
- Deitch, L. I. (1977). The impact of tourism upon the arts and crafts of the Indians of the Southwestern United States. In V. Smith (Ed.), Hosts and Guests: An Anthropology of Tourism (pp. 173-184). Philadelphia: University of Pennsylvania Press.
- Dillman, D. A. (1978). Mail and telephone surveys: The total design method. Pullman, WA: John Wiley & Sons.
- Dogan, H. Z. (1989). Forms of Adjustment. Annals of Tourism Research, 16, 216-236.
- Doxey, G. V. (1975). A Causation Theory of Visitor-Resident Irritants; Methodology and Research Inferences. Travel and Tourism Research Association Sixth Annual conference Proceedings (pp.195-198). San Diego, California.
- Dunlap, R.E. & Catton, W. T. (1980). Environmental Concern: A Review of Hypotheses, Explanations and Empirical Evidence. Public Opinion Quarterly, 44, 181-197.
- Dunlap, R. E., Van Liere, K. D. Mertig, A.G., Catton, Jr., W. r. & Howell, R.E. (1992) Measuring Endorsement of an Ecological Worldview: A Revised NEP Scale. Presented at the Annual Meeting of the Rural Sociological Society.
- Durkheim, E. (1933). The Division of Labor in Society (G. Simpson, Trans.). New York : Macmillan (original work published in 1893).
- Emerson, R. (1969). Operant Psychology and Exchange Theory. In R. Burgess & D. Bushell (Eds.) Behavioral Sociology. New York: Columbia University Press.
- Emerson, R. (1976). Social Exchange Theory. in A. Inkeless & N. Smelser (Eds.). Annual Review of Sociology, Vol. 2 (pp.335-362).

- Fanon, F. (1966). The Wretched of the Earth. New York: Grove Press.
- Farrell, B. H. & McLelland, R. W. (1987). Tourism and Physical Environment Research. Annals of Tourism Research, 14, 1-16.
- Farrell, B. H. & Runyan, D. (1991). Ecology and Tourism. Annals of Tourism Research, 18, 26-40.
- Fishbein, M. (1967). Attitude and the Prediction of Behavior. In M. Fishbein (Ed.), Attitude Theory and Management (pp. 477-492). New York: John Wiley and Sons.
- Forster, J. (1964). The sociological consequences of tourism. International Journal of Comparative Sociology, 5, 217-227.
- Frazer, Sir James George. (1919). Folklore in the Old Testament. Vol 2. New York: Macmillan.
- Frechtling, D. C. (1978). The Costs of Travel and Tourism: An Introduction. The Travel Research Association Ninth Annual Conference Proceedings. 9, 39-50.
- Gaylord, C. G. (1990). International Cooperation in Environmental Education. In M. L. Miller & J. Auyong (Eds.), Environmental Conservation, Vol II (pp. 394-399), 17 (NCRI-T-91-010).
- Gee, C. Y., Mackens, J. C. & Choy, D. J. (1989) The Travel Industry. New York: Van Nostrand Reinhold.
- Grabrun, N. H. (Ed.) (1976). Ethnic and Tourist Arts: Cultural Expression from the Fourth World. Berkeley: University of California Press.
- Greenwood, D. (1977). Culture by the Pound: Anthropological Perspective on Tourism as Culture Commoditization. In V. L. Smith (Ed.). Hosts and Guests (pp. 129-138). Philadelphia: University of Pennsylvania Press.
- Goudy, Willis J. (1990). Community Attachment in a Rural Region. Rural Sociology, 55 (2), 178-198.
- Gunn, C. A. (1988) Tourism Planning. New York: Taylor and Francis.

- Hair J. F., Anderson, R. E., Tatham, R. L. & Black, W. C. (1987) Multivariate Data Analysis. New York: Macmillan.
- Hartwig, F. & Dearing, B. E. 1979. Exploratory Data Analysis. Beverly Hills: Sage Publications.
- Haywood, K. M. (1975). Criteria for Evaluating the Social Performance of Tourism Development Projects. In Tourism as a Factor in National and Regional Development (Occasional Paper 5, pp.94-97). Peterborough: Trent University, Department of Geography.
- Hiller, H. L. (1976). Some Basic Thoughts about the Effects on Tourism of Changing Values in Receiving Societies. The Travel Research Association Seventh Annual Conference Proceedings, 7, 199-201.
- Homans, G., (1958). (Social Behavior as Exchange. American Journal of Sociology, 18(6), 597-607.
- Homans, G. (1961). Social Behavior in Elementary Forms. New York: Harcourt Brace Jovanovich.
- Homans, G. (1967). The Nature of Social Science. New York: Harcourt Brace and World.
- Homans, G. (1974). Social Behavior: Its Elementary Forms. Revised Edition. New York: Harcourt Brace Jovanovich.
- Honnold, J.A. (1984). Age and Environmental Concern: Some Specification of Effects. Journal of Environmental Education, 16, 4-9.
- Howell, D. C. (1987). Statistical Methods for Psychology. Boston: PWS-Kent.
- Husbands, W. (1989). Social Status and Perception of Tourism in Zambia. Annals of Tourism Research, 16, 237-255.
- Jackson, L.E. (1986). Outdoor Recreation Participation and Attitudes to the Environment. Leisure Studies, 5, 1-23.
- Jackson, L. E. 1987. Outdoor Recreation Participation and Views on Resource Development and Preservation. Leisure Sciences, 9, 235-250.

- Jackson, L.E. & A.D. B. Dhanani. (1984). Resources and resource use conflict in Alberta. In B. M. Bar & P. J. Smith (Eds.), Environment and Economy: Essays on the Human Geography of Alberta (pp. 79-94). Edmonton: University of Alberta Press.
- Jurowski, C., Uysal, M. & Williams, D. R. Noe, F. P. (1993). A Study of Visitor Preferences in Relation to Environmental Attitudes. Twenty-four Annual Conference Proceedings (pp.242-251). Wheat Ridge, CO: Travel and Tourism Research Association.
- Kasarda, J. D., & Janowitz, M. (1974). Community attachment in mass society, American Sociological Review, 39, 328-339.
- Keith, T. Z. (1988). Path Analysis: An Introduction for School Psychologists. School Psychology Review, 17, 343-362.
- Keogh, Brian, (1990). Resident Recreationists' Perceptions and Attitudes with Respect to Tourism Development. Journal of Applied Recreation Research. 15 (2), 71-83.
- Kendall, K. W. & Var, T. (1984). The Perceived Impacts of Tourism: The State of the Art. Vancouver: Simon Fraser University.
- Kluckhohn, C. (1951). Values and value orientations in the theory of action: An exploration in definition and classification. In T. Parsons & E. Shils (Eds.) Towards a general theory of action (pp. 388-433). Cambridge: Harvard University Press.
- Knopp, T. B. (1980). Tourism, The Local Interest and the Function of Public Lands. In D. E. Hawkins, E. L. Shafer, & J. M. Rovelstad (Eds.) Tourism Planning and Development Issues (pp. 225-238). Washington, D.C.: George Washington University.
- Kousis, M. (1989). Tourism and the Family in a Rural Cretan Community. Annals of Tourism Research, 16, 318-333.
- Krippendorff, J. (1982). Towards New Tourism Policy, The Importance of Environmental and Sociocultural Factors. Tourism Management, 3, 135-148.

- Levi-Strauss, Claude (1969). The Elementary Structures of Kinship. Boston: Beacon Press.
- Lindsay, J. J. (1986). Carrying capacity for tourism development in national parks of the United States. Industry and Environment, 9(1), 17-20.
- Liu, J. & Var, T. (1986). Resident Attitudes Toward Tourism Impacts in Hawaii. Annals of Tourism Research, 13, 193-214.
- Liu, J., Sheldon, P. J. & Var, T. (1987). Resident Perception of the Environmental Impacts of Tourism. Annals of Tourism Research, 14, 17-37.
- Long, P. T., Perdue, R. R. & Allen, L. R. (1990). Rural Resident Community Life Satisfaction and Tourism Development Attitudes: A Comparison of Forest and Nonforest Community Residents. Contributions of Social Scientist to Multiple-Use Management (General Technical Report RM-196), United States Department of Agriculture, Forest Service.
- Lowe, G. D. & Pinhey, T. K. (1982). Rural-Urban Differences in Support for Environmental Protection. Rural Sociology, 47(1), 114-128.
- Lundberg, D. E. (1974). Caribbean Tourism. The Cornell Hotel and Restaurant Administration Quarterly, 14(4), 30-45.
- MacCannell, D. (1977). Tourist and the New Community. Annals of Tourism Research. 4(4), 208-215.
- Malinowski, B. (1922). Argonauts of the Western Pacific. London: Routledge & Kegan Paul.
- Mansfeld, Y. (1992). Group-Differentiated Perceptions of Social Impacts Related to Tourism Development. Professional Geographer. 44(4), 377-392.
- March, R. N & Henshall, B. D. (1987). Planning Better Tourism: The Strategic Importance of Tourist-Resident Expectations and Interaction. Tourism Recreation Research, 12(2), 47-54.

- Martin, B. & Uysal, M. (1990). An Examination of the Relationship Between Carrying Capacity and the Tourism Lifecycle: Management and Policy Implications. Journal of Environmental Management, 31, 327-332.
- Matheison, A. & Wall, G. (1982). Tourism: economic, physical and social impacts. New York: Longman.
- Mauss, M. (1954). The Gift (I. Cunnison, Trans.). New York: Free Press.
- May, U., (1991). Tourism, Environment and Development: Values, Sustainability and Stewardship. Tourism Management, 12(2), 112-118.
- McIntosh, R. W. & Goeldner, C. R. (1990). Tourism: Principles, Practices, Philosophies. New York: John Wiley & Sons, Inc.
- Meyer-Arendt, K. J. (1985). The grand isle, Louisiana resort cycle. Annals of Tourism Research, 12, 449-465.
- McCool, S. (1978). Recreation Use Limits: Issues For The Tourism Industry, Journal of Travel Research, 17 (2), 2-7.
- McCool, S. & Martin, S. R. (1994). Community Attachment and Attitudes Toward Tourism Development. Journal of Travel Research, 32 (3), 29-34.
- McKean, P. F. (1977). From purity to pollution? A symbolic form in transition: the Balinese Ketjak. In A. Becker & A. Yengoyen (Eds.), The World Impagination of Reality: Symbol System in Southeast Asia(pp. 293-302). Tucson: University of Arizona Press.
- McNicoll, I. H. (1976). The Shetland economy - An Empirical Study in Regional Input-Output Analysis (Research Monograph No.2). The Fraser of Allander Institute, University of Strathclyde.
- Meleghy, T., Preglau, M., & Tafershofer, A. (1985), Tourism Development and Value Change. Annals of Tourism Research, 12, 181- 199.
- Milman, A. & Pizam, A. (1987). Social Impacts of Tourism on Central Florida, Annals of Tourism Research, 15, 191-204.

- Mohai, P. & Twight, B. W. (1986). Rural Urban Differences in Environmentalism Revisited. Paper presented at the Annual Meeting of the Rural Sociological Society, Salt Lake City, Utah.
- Moseana, D. (1972). A Report on Recreational Land Development. Planning, 38, 297-300.
- Murphy, P. E. (1983). Community attitudes to tourism. Tourism Management, 2(3), 189-195.
- Murphy, P. E. (1985). Tourism: A Community Approach. New York: Methuen.
- Noe, F. P., Uysal, M. & Jurowski, C. (1993). Factors Influencing the Effectiveness of Environmental Messages. In K. Fox, (Ed.), Proceedings of the Seventh Canadian Congress on Leisure Research (pp. 258-261) Winnipeg, Manitoba, Canada: University of Manitoba.
- Noronha, R. (1977). Social and Cultural Dimensions of Tourism: A Review of the Literature in English (Staff working paper number 326). Washington, D. C.: World Bank.
- Nunez, T. A. (1977). Touristic studies in anthropological perspective. In V. Smith (Ed.), Hosts and Guests: An Anthropology of Tourism (pp. 206-216). Philadelphia: University of Pennsylvania Press.
- Nunnally, J. C. (1978). Psychometric Theory. New York: McGraw-Hill.
- O'Leary, Joseph T, (1976). Land Use Redefinition and the Rural Community: Disruption of Community Leisure Space. Journal of Leisure Research, 8, 263-274.
- O'Loughlin, C. (1970). Tourism in the Tropics: Lessons from the West Indies. Insight and Opinion, 5, 105-110.
- Parsons, T. (1951). The social System. New York: Free Press.
- Pearce, D., (1981). Tourist Development. New York, Longman House.
- Pearce, D., (1985). Tourism and Environmental Research: A Review, Journal of Environmental Studies, 25, 247-255.

- Pearce, J. A. II, 1980. Host Community Acceptance of Foreign Tourists, Journal of Travel Research, 7(2), 224-233.
- Peppelenbosch, P. & Templeman, G. (1989). The Pros and Cons of International Tourism to the Third World, In T. Singh, H. Vir, L. Theuns & F. M. Go (Eds.). Frankfurtam Main: PeterLang.
- Perdue, R. R., Long, P. T. & Allen, L. (1987). Rural Resident Tourism Perceptions and Attitudes. Annals of Tourism Research, 14, 420-429.
- Perdue, R. R., Long, P. T., Allen, L. (1990). Resident Support for Tourism Development. Annals of Tourism Research, 17, 586-599.
- Piperoglou, J. (1967). Identification and definition of regions in Greek tourist planning, Papers, Regional Scientific Association, 169-176.
- Pizam, A. (1978). Tourism's Impacts: The Social Costs to the Destination Community as Perceived by Its Residents, Journal of Travel Research, 16(4), 8-12.
- Plog, S. C. (1974). Tourism development: a model for growth. The Cornell H.R. A. Quarterly, 14(4), 67-74.
- Prentice, R., (1989). Environmental Analysis in Tourism. In S. Witt & L. Montinho (Eds.), Tourism Marketing and Management Handbook (pp.131-136). Prentice Hall International.
- Prentice, R.. (1993). Community-driven tourism planning and residents' preferences. Tourism Management, 14(2), 218-227.
- Ritchie, J. R. B., (1988). Consensus Policy Formulation in Tourism, Tourism Management, 9(3), 199-216.
- Rodenburg, E. E. (1980). The Effects of Scale in Economic Development. Annals of Tourism Research, 7, 177-196.
- Rosenberg, M. (1957). Occupations and values. Glencoe, Il: Free Press.
- Rosenthal, R., & Rosnow, R. L. (1984). Essentials of Behavioral Research : Methods and Data Analysis. New York: McGraw-Hill.

- Rothman, Robert A. (1978). Residents and Transients: Community Reaction to Seasonal Visitors. Journal of Travel Research, 16(3), 8-13.
- Samoui, Amed, (1979). Tourism and Employment in Tunisia. In E. de Kadt (Ed.), Tourism Passport to Development? : Perspectives on the Social and Cultural Effects of Tourism in Developing Countries. New York/London: Oxford University Press.
- Samdahl, D.M. & R. Robertson. 1990. Social Determinants of Environmental Concern: Specification and Test of the Model. Environment and Behavior. 21 (1), 57-81.
- Sampson, R. J., (1988). Local Friendship Ties and Community Attachment in Mass Society: A Multilevel Systemic Model. American Sociological Review, 53, 766-779.
- Saremba, J. & Gill, A. (1991). Value Conflicts in Mountain Park Setting. Annals of Tourism Research, 18, 455-474.
- Schadler, F. (1979). African arts and crafts in a world of changing values. In E. de Kadt, (Ed.), Tourism - Passport to Development?. New York: Oxford University Press, 146-156.
- Schreyer, R., Knopf, R. C. & Williams, D. R. (1985). Reconceptualizing the motive/environment link in recreation choice behavior. In Stankey, G. and McCool S.(Eds.). Proceedings - Symposium on Recreation Choice Behavior. USDA Forest Service General Technical Report. INT-184, 9-18.
- Sethna, R. J. & Richmond, B. O. (1978). U. S. Virgin Islanders' Perceptions of Tourism. Journal of Travel Research, 17, 30-37.
- Shamai, S. 1991. Sense of Place: An Empirical Measurement. Geoforum, 22(3), 347-358.
- Sheldon, P. J. & Var, T. (1984). Resident attitudes to Tourism in North Wales. Tourism Management, 5(1), 40-47.
- Skidmore, W., (1975). Theoretical thinking in sociology. New York/London: Cambridge University Press.

- Simmel, G. (1902). The number of members as determining the sociological form of groups: I, American Sociological Review, 53, 766-779.
- Soutar, G. N. & McLeod, P. B. (1993). Residents' Perceptions on Impact of the America's Cup. Annals of Tourism Research, 30, 571-582.
- Stokols, D. & Shumaker, S. A. (1981). People in places: A transactional view of settings. In J. Harvey (Ed.), Advances in experimental social Psychology. (pp.219-251). New York: Praeger.
- Summer, W. G. (1906) Folkways. Boston: Ginn.
- Thomason, P., Crompton, J. L. & Dan Kamp, B. (1979). A Study of the Attitudes of Impacted Groups within a Host Community Toward Prolonged Stay Tourist Visitors. Journal of Travel Research, 17 (4), 2-6.
- Thibaut, J. & Kelly, H. (1959). The Social Psychology of Groups. New York: Wiley.
- Toennies, F. (1887). Gemeinschaft und Gesellschaft. Leipzig: Fues's Verlag.
- Travis A. S., (1988). A Study of the Social, Cultural and Linguistic Impacts of Tourism in and upon Wales. A report to the Wales Tourism Board, ECTARC, Llangollen.
- Tremblay, K. R. & Dunlap, R. E. (1978). Rural-Urban Residence and Concern with Environmental Quality: A Replication and Extension. Rural Sociology, 43 (4), 474-491.
- Turner, J. H. (1986). The Structure of Sociological Theory. Chicago, Il : The Dorsey Press.
- Turner, L. & Ash, J. (1975). The Golden Hordes: International Tourism and the Pleasure Periphery. London: Constable.
- Tyrrell, T. J. & Spaulding, I. A. (1984). A Survey of Attitudes Toward Tourism Growth in Rhode Island. Hospitality Education and Research Journal, 8, 22-33.

- Um, S. & Crompton, J. L. (1987). Measuring Resident's Attachment Levels in a Host Community. Journal of Travel Research, 26 (2), 27-29.
- Uysal, M., Noe, F. P., Jurovski, C. & McDonald, C. D. (in press). Environmental Attitude by Trip and Visitor Characteristics: US Virgin Islands. Tourism Management.
- Uysal, M., Pomeroy, R. S. & Potts, T. D. (1992). County-level Tourism Impact Assessment: A Case Study in Beaufort County, South Carolina. Journal of Travel Research, 31(1), 57-65.
- Valentine, P. S. (1990). Nature-Based Tourism: A Review of Prospects and Problems, In M. L. Miller and J. Auyong (Eds.) Proceedings of the 1990 Congress on Coastal and Marine Tourism, Vol. II, (p. 85). NCRI-T-91-010.
- Van Liere, K. D. (1984), Commitment to the Dominant Social Paradigm and Concern for Environmental Quality. Social Science Quarterly. 65, 1013-1028.
- Van Liere, K.D. & Dunlap, R. E. (1981). Environmental Concern: Does It Make a Difference How Its Measured?, Environment and Behavior, 13, 651-676.
- Var, T., Kendal, K. W. & Tarakcoglu, E. (1985). Resident Attitudes Towards Tourists in a Turkish Resort Town. Annals of Tourism Research, 12, 652-658.
- Wall, G., & Wright, C. (1977). The Environmental Impacts of Outdoor Recreation (Publication Series No.11). Waterloo: Department of Geography, University of Waterloo.
- Wheeller, B. (1991). Tourism's troubled times: Responsible tourism is not the answer. Tourism Management, 12 (2), 91-94.
- Wilkinson, P. (1976). Public Participation in Environmental Management: A Case Study. Natural Resources Journal, 16, 117-135.
- Williams, D.R. & Roggenbuck, J.W. (1989). Measuring Place Attachment: Some Preliminary Results. Paper presented at the Symposium on Outdoor Recreation Planning and Management, NRPA Symposium on Leisure Research. San Antonio, Texas, October 22-27, 1989.

- Williams, D. R. Patterson, M. E., Roggenbuck, J. W. & Watson, A.E. (1992). Beyond the Commodity Metaphor: Examining Emotional and Symbolic Attachment to Place. Leisure Sciences, 14,29-46.
- Williams, R. M., Jr. (1979). Change and stability in values and value perspectives: A sociological perspective. In M. Rokeach (Ed.), Understanding Human Values: Individual and Societal. New York: Free Press.
- Wirth, Louis (1938). Urbanism as a way of life, American Journal of Sociology, 44, 1-24.
- Witt, C. (1990). Modern Tourism - Fostering or Destroying Culture. Tourism Management, 11 (2), 178.
- Witter, B. S., (1985). Attitude About a Resort Area: A Comparison of Tourists and Local Retailers. Journal of Travel Research, 24(1),14-19.
- Wright, S. (1934). The method of path coefficient. Annals of Math. Statistics,5,189-202.
- Wright, S. (1985). Path Coefficients and Path Regression: Alternative or Complementary Concepts. In H. M. Blalock, Jr. (Ed.), (p.39-54). Causal Models in the Social Sciences. New York: Adline.
- Wu, C. (1982). Issues of Tourism and Socioeconomic Development, Annals of Tourism Research, 9, 317-330.
- Young, G. (1973). Tourism Blessing or Blight?. Middlesex: Penguin Books Ltd.
- Zehnder, L. E. (1976). Tourism and Social Problems: Implications for Research and Marketing, The Travel Research Association Seventh Annual Conference Proceedings (pp.211-212), 7.

APPENDIX A

Sampling Design

The area in the five counties surrounding the Mount Rogers Recreation Area was divided into 12 segments described by political and postal districts in Table A.1. The population was not sampled equally from each segment in order to more heavily represent residents located closer to the National Recreation Area (NRA). For example, households in the Sugar Grove area, located immediately adjacent to or within the boundaries of the NRA were sampled four times more heavily than they would have been if each segment was sampled proportional to the number of households in five counties. The total number of questionnaires sent to each segment is displayed in Table A.2. The percentage of the total number of households of the five county area living in each section along with the number of questionnaires sent to each segment is also listed in Table A.2. Also displayed is the percentage of the sample of each segment along with the percentage of returned questionnaires from each sample.

Table A.1

Geographical Description of the Twelve Sample Segments

Seg.	County /City ¹	Postal District	Seg.	County /City	Postal District
1	Galax		8	Smyth County	
2	Carroll County	Austinville			Atkins
		Alisonia			Chilhowie
		Cana	9	Smythe County	Marion
		Hillsville			Rich Valley
		Laurel Fork			Saltville
		Meadows of Dan			Groseclose
		Sylvatus	10	Smythe County	
		Woodlawn			Sugar Grove
3	Grayson County	Comer's Rock	11	Bristol County	
		Elk Creek	12	Washington	Abington
		Troutdale			Damascus
4	Grayson County	Fries			Glade Springs
		Providence			Konnarock
5	Grayson County	Independence			Meadowview
		Ivanhoe			Whitetop
6	Grayson County	Mouth of Wilson			
		Volney			
7	Wythe County	Austinville			
		Cripple Creek			
		Fort Chiswell			
		Max Meadows			
		Rural Retreat			
		Wytheville			

¹ In Virginia a political district is either a county or a city. Incorporated cities are not considered part of a county.

Table A.2
Porportional Distribution and Return Rate
of Survey Instrument by Segment

Seg.	Households		Surveys Sent		Surveys Returned	
	n	%	n	%	n	%
1	2,750	4.11	300	12.03	119	11.18
2	10,463	15.65	292	11.71	139	13.06
3	1,045	1.56	65	2.61	26	2.44
4	2,563	3.83	160	6.42	89	8.36
5	1,608	2.41	160	6.42	74	6.95
6	1,239	1.85	77	3.09	28	2.63
7	9,852	14.74	400	16.04	165	15.51
8	8,748	13.09	180	7.22	88	8.27
9	2,624	3.93	130	5.21	40	3.76
10	875	1.31	130	5.21	52	4.89
11	7,591	11.36	200	8.02	77	7.24
12	17,483	26.16	400	16.04	167	15.70
Totals	66,841	100.00	2,494	100.02	1,064	99.99

APPENDIX B
Survey Instrument

**THE FUTURE OF YOUR
COMMUNITY**

Your Opinions Do Count!

MOUNT ROGERS REGION

SURVEY OF COMMUNITY RESIDENTS

**Carroll, Grayson, Smyth,
Washington and Wythe Counties**



Department of Forestry
and
Department of Hotel, Restaurant
and Institutional Management



Virginia Polytechnic Institute
and State University
Blacksburg, Virginia

Concerns About Your Community

1. How would you rate the quality of life in your community?
Check one.

- Excellent
- Good
- Fair
- Poor
- No opinion

2a. How concerned are you about the following aspects of your community? Please circle one answer for each item.

	Not at All	Slightly	Somewhat	Very Much
1. The environment	1	2	3	4
2. Schools	1	2	3	4
3. Crime	1	2	3	4
4. Recreation/culture	1	2	3	4
5. Economic development	1	2	3	4
6. Roads/transportation	1	2	3	4
7. Other, please specify	1	2	3	4

2b. Which of the above are you concerned the most about? (Write the number here.) _____

3. People have been talking about proposed changes to Highway 58. Do you oppose or favor the proposed changes?

- Oppose any change
- Neutral
- Favor northern route through Vuiney, Troutdale, Mt. Rogers National Recreation Area
- Favor southern route into Tennessee through Damascus
- Favor some other route
- I don't know about any proposed changes

4. Some people think this area needs more economic development. Others feel that things should be left the way they are. What do you think? Check one.

- Things should be left the way they are
- Economic development is needed but some things should be protected
- Economic development should take priority over other concerns

5. The following are some opinions we have heard expressed by the people who live near you. Please tell us how much you agree or disagree with what other people are saying.

Strongly Disagree Neutral Agree Strongly Agree

	1	2	3	4	5
I am satisfied with this community as a place to live	1	2	3	4	5
The government should play a role in helping people create jobs in the Mt. Rogers area	1	2	3	4	5
There is no advantage for the communities in the Mt. Rogers area to work together to develop the economy of the region	1	2	3	4	5
I would be willing to pay higher taxes if it would bring more economic development to the area	1	2	3	4	5
Our community should not allow outsiders to invest money here	1	2	3	4	5
We need more jobs here so that our young people will not have to move away to find jobs	1	2	3	4	5
Our community is competing with the other communities in the Mt. Rogers area for the tourist dollar	1	2	3	4	5

6. Which of the following can do the most to improve the quality of life in your community? Check one.

- Federal government agencies
- State government agencies
- City and county government agencies
- Non-government community organizations
- The business community
- Individual residents

Your Feelings About Tourism Development

7. If the number of tourists coming to Mt. Rogers increases, do you believe the following will improve or worsen for you? Will improve or worsen for your community? Circle the number that best describes your feelings about each.

Will these improve or worsen?

	For You					For Your Community						
	Worsen	1	2	3	4	5	Worsen	1	2	3	4	5
Employment opportunities	1	2	3	4	5	1	2	3	4	5		
Opportunities for shopping	1	2	3	4	5	1	2	3	4	5		
Opportunities for recreation	1	2	3	4	5	1	2	3	4	5		
Revenues from tourists for local governments	1	2	3	4	5	1	2	3	4	5		
The price of goods and services	1	2	3	4	5	1	2	3	4	5		
The cost of land and housing	1	2	3	4	5	1	2	3	4	5		
Traffic congestion	1	2	3	4	5	1	2	3	4	5		
The crime rate	1	2	3	4	5	1	2	3	4	5		
Local services such as police and fire protection, utilities, roads	1	2	3	4	5	1	2	3	4	5		
The quality of the natural environment	1	2	3	4	5	1	2	3	4	5		
The preservation of the local culture	1	2	3	4	5	1	2	3	4	5		
The relationships between residents and tourists	1	2	3	4	5	1	2	3	4	5		

Is there anything else you think will change if more tourists come to Mt. Rogers?

8. Indicate how much you would oppose or support the following types of tourism development in the Mt. Rogers region. Circle one for each of the different types of development.

	Strongly Oppose	1	2	3	4	5	Neither Support Nor Oppose	Strongly Support
Nature-based development (for example, cabins in the forest, cross-country ski trails)		1	2	3	4	5		
Attractions designed for large numbers of tourists such as theme parks and large resort complexes		1	2	3	4	5		
Cultural or historic-based attractions, (such as visitor centers or museums)		1	2	3	4	5		
Visitor services (for example, hotels, restaurants)		1	2	3	4	5		
Small, independent businesses (for example, gift shops, guide services, campgrounds)		1	2	3	4	5		
Cultural and folk events (such as concerts, art and crafts, dance, festivals)		1	2	3	4	5		
Outdoor recreation programs (for example, organized hikes, bike rides, competitive events)		1	2	3	4	5		
Nature programs (such as guided nature walks)		1	2	3	4	5		
Promotion of the area as a tourist destination (such as television advertising or brochures)		1	2	3	4	5		
Improved transportation, facilities and roads		1	2	3	4	5		
Information for tourists (such as maps and guidebooks)		1	2	3	4	5		
Prohibiting all new development		1	2	3	4	5		

9. Is there anything else you might oppose or support?

Oppose Support

10. It would be best for me if the number of tourists visiting the Mt. Rogers Recreation Area (Check one):

- Decreased a great deal
- Decreased somewhat
- Did not change
- Increased somewhat
- Increased a great deal

11. It would be best for this community if the number of tourists visiting the Mt. Rogers Recreation Area (check one):

- Decreased a great deal
- Decreased somewhat
- Did not change
- Increased somewhat
- Increased a great deal

Your Feelings About Your Community

12. Name the place you consider to be your community.

13. How long have you lived there?
 _____ Month/years

14. Have you lived in other communities in the Mt. Rogers area?
 Yes. If yes, where? _____ how many years? _____
 No

15. How many generations of your family have lived in the Mt. Rogers area?
 How many generations in the same community as you? _____

16. Which local organizations are you a member of?

17. How much do you feel at home in this community. Circle one.

- Not at All A Little Some A Lot Very Much

18. What interest do you have in knowing what goes on in this community?
 Circle one.

- None A Little Some A Lot Very Much

19. Suppose that for some reason you had to move away from this community, how sorry or pleased would you be to leave?
 Circle one.

- Very Sorry Sorry No Difference Pleased Very Pleased

20. Please indicate by circling T or F whether the following statements are true or false for each of the places listed.

Town = your town
 Comm = your community (if different)
 Mt Rog = Mt. Rogers area
 SW VA = Southwestern Virginia
 S App = Southern Appalachian Region

Town	Comm	Mt Rog	SW VA	S App
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F
T F	T F	T F	T F	T F

- I have negative feelings for this place
- I have no particular feeling for this place
- I do not think of myself as being from this place
- What happens in this place is important to me
- I have an emotional attachment to this place -- it has meaning to me
- I am willing to invest my talent or time to make this an even better place
- I am willing to make financial sacrifices for the sake of this place

Your Use Of and Opinions About the Mt. Rogers Recreation Area

21. How many times have you participated in outdoor recreation activities in the Mt. Rogers National Recreation area in the past 12 months?
 _____ (If zero, go to Question 28.)

29. Are there any facilities, services or programs that the Forest Service is not currently offering that you think should be provided? Please list below what you would like to see provided.

30. What benefits do you and your community receive from being near the Mt. Rogers NRA?

Benefits to You		Benefits to the Community
_____	_____	_____
_____	_____	_____

31. Please indicate whether you agree or disagree with the following statements concerning the Forest Service Management of the Mt. Rogers NRA. Circle the number.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The Forest Service is currently providing the type of recreational facilities, services, and programs that are important to me	1	2	3	4	5
Everyone who uses the recreation area should pay fees	1	2	3	4	5
Before the Forest Service makes any changes residents in the area should be asked their opinion	1	2	3	4	5
The designation of Rt. 58 and 603 as a scenic byway has been beneficial to the local area	1	2	3	4	5
Property owners need to work with the Forest Service on projects to make Mt. Rogers more attractive to tourists	1	2	3	4	5
Some user groups are not paying their fair share of the costs of maintaining the areas designed for their use	1	2	3	4	5

If you agree, which groups?

22. List at least three recreational activities you participate in most often while at the Mt. Rogers NRA.

23. List at least three recreation sites you use most often while at the Mt. Rogers NRA.

24. Is there one site or place in the Mt. Rogers NRA that is particularly special to you?

___ Yes. (Go to Question #25)

___ No. (Go to Question #28)

25. Please name or describe the site that is especially important to you.

26. What, if any, improvements would you like to see made to this site?

27. If the Forest Service did not have enough money to keep a site you use open, which of the following actions would you prefer?

- ___ Adding a user fee of \$2 (or raising an existing fee by \$2)
- ___ Closing the site permanently
- ___ Leasing the area to a concessionaire who will charge user fees
- ___ Shortening the length of time the site is in operation (for example, closing the site earlier in the season).
- ___ Other, please describe: _____

28. How much do you know about recreational opportunities in the Mt. Rogers NRA? Circle one.

Nothing A Little Some A Lot A Great Deal

32. Please indicate the extent to which each statement below describes your general feelings about the Mt. Rogers NRA. Circle the number that best describes how you feel about each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
This is my favorite place to go during my free time	1	2	3	4	5
Because of my lifestyle, this place is important to me	1	2	3	4	5
No other place can compare to this area in terms of what I like to do	1	2	3	4	5
Coming here is one of the most satisfying things I do	1	2	3	4	5
I wouldn't substitute any other area for doing the type of things I do here	1	2	3	4	5
I use this place to help define and express who I am inside	1	2	3	4	5

33. Listed below are statements about the relationship between humans and the environment. For each one, please indicate the extent to which you agree or disagree with it.

	Strongly Disagree	Disagree	Uncsure	Agree	Strongly Agree
We are approaching the limit of the number of people the earth can support	1	2	3	4	5
Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
When humans interfere with nature it often produces disastrous consequences	1	2	3	4	5
Human ingenuity will insure that we do NOT make the earth uninhabitable	1	2	3	4	5
Humans are severely abusing the environment	1	2	3	4	5
The earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5

Strongly Disagree

Strongly Agree

	1	2	3	4	5
Plants and animals have as much right as humans to exist	1	2	3	4	5
The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
Despite our special abilities humans are still subject to the laws of nature	1	2	3	4	5
The so-called "ecological crisis" facing humankind has been greatly exaggerated	1	2	3	4	5
The earth is like a spaceship with very limited room and resources	1	2	3	4	5
Humans were meant to rule over the rest of nature	1	2	3	4	5
The balance of nature is very delicate and easily upset	1	2	3	4	5
Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

Your Feelings About LHe

34. People often have very different ideas about what has gone on before and what we can expect in life. Here are three ways of thinking about things. Which of these three statements do you agree with most? Please check one.

- ___ It is best to give most attention to what is happening now in the present
- ___ It is best to keep up the old way of doing things
- ___ It is best to focus on the future

35a. Please tell us how important each item is in influencing your daily life. Circle one for each value.

	Not at All Important	1	2	3	4	5	Extremely Important
1. Sense of belonging		1	2	3	4	5	
2. Sense of accomplishment		1	2	3	4	5	
3. Fun & enjoyment		1	2	3	4	5	
4. Warm relationships		1	2	3	4	5	
5. Self fulfillment		1	2	3	4	5	
6. Being well respected		1	2	3	4	5	
7. Excitement		1	2	3	4	5	
8. Security		1	2	3	4	5	
9. Self respect		1	2	3	4	5	

35b. Which of these values are most important to you? Write the number of your choice in the blank.

- ____ Most important
- ____ Second most important
- ____ Third most important

36a. Think of the person in the community you respect the most. Why do you feel this person has so much respect in this community?

36b. What rating would you give this person for:

	Low	1	2	3	4	5	High
Wealth & economic success		1	2	3	4	5	
Skill, knowledge, or talent		1	2	3	4	5	
Commitment to their community		1	2	3	4	5	
Individual popularity		1	2	3	4	5	
Commitment to hard work		1	2	3	4	5	
Moral standing		1	2	3	4	5	

37. Provided that financing were available and considering the problems that go along with owning your own business, please tell us if you would be interested in owning and operating, owning but not operating, managing and/or working in any of the following types of tourist business. You may check more than one box for each item. Check no boxes if none of these is interesting to you.

	Own but Not Operate	Own & Operate	Manage	Be Employed in
Retail store	_____	_____	_____	_____
Restaurant	_____	_____	_____	_____
Tourist cabins	_____	_____	_____	_____
Motel/hotel	_____	_____	_____	_____
Campground	_____	_____	_____	_____
Riding stables	_____	_____	_____	_____
Bike rental shop	_____	_____	_____	_____
Guide service	_____	_____	_____	_____
Other; please specify	_____	_____	_____	_____

About You

38. In what year were you born? _____
39. Gender: _____ Male _____ Female
40. Ethnic Group: _____ White _____ Hispanic
 _____ African-American _____ Asian
 _____ Other _____

41. Which of the following best describes your household? Check only one.

- _____ Single adult living alone or with other single adults
- _____ Single adult living with children or dependents
- _____ Married couple living without children or dependents at home
- _____ Married couple living with children or dependents at home

42. If you have children living in the household, what is the age of the youngest child in the household? Check one.

- _____ No children
- _____ 0-30 mos. _____ 2-5 yrs. _____ 6-11 yrs. _____ 12-17 hrs. _____ 18 or overs

43. What schools do, did, or will your children attend? (If no children, write the nearest school)

Elementary _____

Middle/Jr. High _____

High School _____

44. Including yourself, how many people make up your household?

45. What was the last year of school you completed? Circle one.

Grade School	High School	College	Graduate School
1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21+

46a. Which of the following best describes you and your spouse's present employment situation?

Student	Self	Spouse (If applicable)
Homemaker	_____	_____
Temporarily laid off	_____	_____
Unemployed	_____	_____
Retired	_____	_____
Professional/technical	_____	_____
Executive/administrator	_____	_____
Middle management	_____	_____
Sales/marketing	_____	_____
Clerical or service	_____	_____
Tradesman/machine operator	_____	_____
Self-employed/business owner	_____	_____
Government/military	_____	_____
Other (please specify)	_____	_____

46b. What kind of work do you do (or if retired or laid-off, did you do)?
(For example, plumber, homemaker, gift shop owner, toy store clerk, waitress)

46c. If employed outside the house, is your work (Circle one):

Full time Part time

47. How much of the income of the company you work for (or business you own) comes from the tourist trade? Circle one.

None A Little Some A Lot Almost All

48. What is your approximate household income before taxes?
Check one.

_____ \$10,000 or less	_____ \$30,001 - \$40,000
_____ \$10,001 - \$20,000	_____ \$40,001 - \$50,000
_____ \$20,001 - \$30,000	_____ \$50,000 or more

49. What part of your current household income comes from the money spent by the visitors to the Mt. Rogers NRA?
Approximately _____%

50. How likely is it that your current household income will increase if the number of visitors to the Mt. Rogers NRA increases?

Not at All Likely 1 2 3 4 5 6 7 Extremely Likely

We appreciate your willingness to respond to our questionnaire and welcome any comments you wish to make.

COMMENTS:

Thank you for your help in completing this survey. Please drop the survey in the mail as it is. It is NOT necessary to add postage or secure the open end with a staple or tape.

APPENDIX C

Exploratory Analysis

D.1 INTRODUCTION

Exploratory analysis reveals the nature of the data, uncovering any characteristics that might cause difficulties in later analysis. It is designed to test the assumptions of later analyses. First, the distributions of individual variables was explored. The mean, mode, median, standard deviation and the shape of the distribution were examined for each variable. The distribution of the variables used in this study are summarized in Chapter IV where the mean, median and standard deviation are for each variable are presented in Table 4.1. Other major characteristics examined were skewness, outliers, gaps and multiple peaks.

In this study outliers are a relatively minor problem as they have little overall effect on such measures because of the large sample size ($N=1064$). No multiple peaks were found in the data. However, skewness was found to be a problem in a few items that were designed as part of a scale used to measure a variable. One item was transformed to improve its symmetry and others were eliminated from the

scale. The refinement of these variables is discussed in the last section of this appendix.

The second major step in the exploratory data analysis was the examination of bivariate relationships between variables. The strength and direction of the bivariate relationship was assessed by Pearson Product Moment Correlations. The correlation matrix is presented in Table D.1

To determine the shape of the relationships, residual plots of linear regression were examined. The relationships were judged to be linear.

D.2 TESTING ASSUMPTIONS

In order to find the best linear unbiased estimate in path analysis test, several assumptions must be met. Ordinary least squares regression is robust and produces reliable and valid results even when assumption are slightly violated. Large violations, however, can impact reliability of results. The assumptions of path analysis are the same as those for regression. The data was analyzed for specification error, homoskedasticity and multi-colliniarity. Accuracy of measurement is assumed in this study as is the assumption that the independent variables are uncorrelated with the error term. The very large sample size for this study indicates that normality can be assumed

based on the central limit theorem which states that the distribution of the error term approaches normality as sample size increases regardless of the nature of distribution (Howell, 1987).

Specification error occurs when the relationship between the independent and dependent variables is non-linear or when relevant independent variables have been excluded or when irrelevant independent variables have been included. As mentioned earlier, the residual plots of linear regression were examined to verify linearity. The testing of the model will result in the exclusion of any irrelevant independent variables. However, it is likely that relevant independent variables have been excluded, a common problem in social science research where it is nearly impossible to identify all important variables. This error is dealt with by inclusion of relevant variables when they are discovered in the future.

Homoskedasticity or the assumption of equal variance of the population error is critical. If violated hypothesis tests may indicate a regression coefficient is nonsignificant when it is actually a significant predictor (Hair, Anderson, Tatham and Black, 1987).

Heteroskedasticity can be determined by examining the residual plots. If the problem exists, the residual fan out

from the regression line as the value of x increases. No evidence of heteroskedasticity was found in the examination of the residual plots.

Multicollinearity occurs when one or more independent variables are highly correlated with other independent variables. A correlation of 0.70 or higher is considered high and should be cause for concern that regression coefficients may be unstable. The correlation matrix in Table D.1 demonstrates that no correlations are above the critical limit.

D.3 REFINEMENT OF THE VARIABLES

Economic Gain

Significant positive skewness indicated that transformation of one item in the economic gain scale and the elimination of another may improve the reliability of this measure. Eighty-eight percent of the respondents indicated that 0% of their current income came from the tourist trade. This item was eliminated from the economic gain variable scale because it could not be transformed. The item concerning potential increase of income with an increase in tourism was positively skewed (8.738). The most effective method for transforming positively skewed distributions is to take the logarithms of the variable (Hair et al., 1987). The transformation was judged to have

had a noticeable effect because the ratio of the mean of the variable divided by its standard deviation was reduced to 1.45 , below 4.0 required for successful transformation (Hair, et al. 1987). Skewness was reduced to .299. As a result, the economic gain scale was comprised of the standardized scores of the logarithm of the item which asked how much their income would increase with an increase in tourism and how much of their employer's income comes from tourist trade.

Use of the Tourism Resource

The standardized scores of eight items were used to measure the importance residences place on the use of the tourism resource. Six items of the scale measure the attachment respondents feel to the resource base. Respondents were asked to indicate the extent to which they agreed with statements concerning their feelings about the Mr. Rogers NRA. The seventh item was an open ended question which asked how many times respondents had participated in outdoor recreation activities in the Mt. Rogers NRA. The final item asked respondents how much they knew about recreation opportunities in the Mt. Rogers NRA. Almost 60% (59.8%) of the respondents did not use the NRA.

The correlation between the number of times the resource base was used and the other variables was relatively weak

(.19 to .23). Consequently, one-way analysis of variance was performed to verify that differences did exist between non-users (0 times), moderate users (1-10 times) and frequent users(11 or more times). This test showed that significant differences did exist between groups 1 and 2 and groups 2 and 3 and between groups 1 and 3. Therefore, the item was maintained as part of the tourism resource use scale . Cronbach's alpha and item to total correlations of the eight items are reported in Table 4.6.

Community Attachment

The relatively low reliability coefficient (Cronbach's alpha=.6615) and low correlation between length of residence, number of generations living in the area and the variables from the Goudy (1990)study denoted the need for the refinement of the community attachment variable. McCool and Martin (1994) suggested that length of residence may be an inappropriate measure of attachment to a community. They questioned whether people who move into an area may do so because of its specific attributes and quickly become highly attached. This situation is particularly applicable to the Mount Rogers region. The results of a correlation analysis of the standardized attachment scale items indicated that the correlation between length of residence and the two affective measures indicated a weak correlation (.27). The

correlation was even weaker for the variable which measured interest in what goes on in the community (.12). To more completely test the association between the affective items and length of residence, a one-way analysis of variance was performed to test for differences in attachment scores between newcomers (five years or less), established (6 to 24 years) and oldtimers (residency of 25 years or more). This test showed no significant differences at the .05 alpha level. F-ratios ranged from .0256 to 1.030. Post-hoc Duncan multiple range tests found all ranges above the table ranges confirming the lack of difference in attachment between the three groups. Consequently, length of residence was excluded from the attachment scale.

The attachment variable in this study is designed to measure the importance or value residence place on their community that might affect resident's support for or perception of tourism. This variable may not be measuring value or importance of the community. Consequently, the inclusion of the variable which measured how much residents cared about knowing what goes on in the community was questioned. The weak correlation of this variable with the other attachment variables resulted in its omission from the scale. Two Likert scale items were used to measure how much residents felt at home in their community (1=not at all; 2=a

little; 3=some; 4= a lot; 5=very much) and how sorry they would feel if they had to move away (1=very pleased, 2=pleased, 3=no difference; 4=sorry; 5=very sorry). The coefficient alpha for the new two-item scale was (.7549). The item to total correlation for both items was .6032.

However, examination of the data reveal that the data on both items was highly skewed. The combination of failure of the scale items to provide reliable estimates, weak correlations between the items, the question over the inclusion of length of residence and the extreme skewness of the remaining variables led to the conclusion that the newly developed Guttman-type scale would be a better measure.

The next step was to test the reliability of the seven items of the newly developed attachment scale in their five categories. The scale was found to be highly reliable with a Cronbach's alpha of .9196. The summated score of the seven items in five categories was selected as a measure of attachment.

Table C.1
Correlation Matrix

<u>Exogenous Variables</u>					
	Econ Gain	Use Res	Ecoc Att	Comm Attch	
Economic Gain	1.0000	.0793*	-.0676*	.0741*	
Use of the Resource	.0793*	1.0000	.1207*	.2355*	
Ecocentric Attitude	-.0676*	.1207*	1.0000	.1623*	
Community Attachment	.0741*	.2355*	.1623*	1.0000	
Economic Impact	.1674*	.0819*	-.1280*	.1186*	
Social Impact	.1657*	.0674*	-.0938*	.1283*	
Environmental Impact	.0557	.0249	-.2727*	-.0760*	
Nature-based tourism	.1416*	.0550	-.0599	.0996*	
Attraction-based tourism	.0825*	-.1059*	-.2476*	-.0894*	
Culture-based tourism	.1188*	.1044*	-.0376	.0900*	
Event-based tourism	.0981*	.1181*	.0465	.1615*	
Prohibit new development	-.0853*	.0256	.0189	-.1116*	
<u>Intervening Variables</u>					
	Econ Impact	Social Impact	Environmental Impact		
Economic Gain	.1674*	.1657*	.0557		
Use of the Resource	.0819*	.0674*	.0249		
Ecocentric Attitude	-.1280*	-.0938*	-.2727		
Community Attachment	.1186*	.1283*	-.0760*		
Economic Impact	1.0000	.6925*	.4399*		
Social Impact	.6925*	1.0000	.6199*		
Environmental Impact	.4399*	.6169*	1.0000		
Nature-based tourism	.3214*	.3172*	.2254*		
Attraction-based tourism	.3285*	.3165*	.3796*		
Culture-based tourism	.2995*	.3529*	.2224*		
Event-based tourism	.3095*	.3760*	.1978*		
Prohibit new development	-.1302*	-.1450*	-.0728*		
<u>Ultimate Dependent Variables</u>					
	Nature	Attract	Culture	Event	Prohit
Economic Gain	.1416*	.0825*	.1188*	.0981*	-.0853*
Use of the Resource	.0550	-.1059*	.1044*	.1181*	.0256
Ecocentric Attitude	-.0599	-.2476*	-.0376	.0465	.0189
Community Attachment	.0996*	-.0894*	.0900*	.1615*	-.1116*
Economic Impact	.3214*	.3285*	.2995*	.3095*	-.1302*
Social Impact	.3172*	.3165*	.3529*	.3760*	-.1450*
Environmental Impact	.2254*	.3796*	.2224*	.1978*	-.0728*
Nature-based tourism	1.0000	.3777*	.5002*	.4637*	-.2389*
Attraction-based tourism	.3777*	1.0000	.3404*	.2631*	-.1231*
Culture-based tourism	.5002*	.3404*	1.0000	.5963*	-.2138*
Event-based tourism	.4637*	.2631*	.5963*	1.0000	-.2401*
Prohibit new development	-.2389*	-.1234*	-.2138*	-.2401*	1.0000

APPENDIX D
Respondent Profile Data

Table D.1
Age of Respondents

Mean = 48 n = 1025					
Age	< 25	26-34	35-54	55-74	>75
n	12	117	410	378	104
%	1.2	11.4	40.0	36.8	10.1

Table D.2
Length of Residence of Respondent

Mean = 32.4 years n = 1037			
Length of Residence	< 5 ys	5-25 yrs	> 25 yrs
n	127	316	594
%	12.2	30.5	57.3

Table D.3
Household Configuration of the Respondents

n=1040

Household Type	Single	Single w/ children	Married no children	Married w/ children
n	191	55	449	344
%	18.4	5.3	43.2	33.1

Table D.4
Income of the Respondents

n = 913

Income Category	n	%
10,000 or less	146	16.0
10,001-20,000	187	20.5
20,001-30,000	190	20.8
30,001-40,000	164	17.9
40,001-50,000	104	11.4
50,000 or more	120	13.2

Table D.5
Employment Status of Respondents

n = 986

Type of Employment	n	%
Professional/ Technician	143	13.6
Executive/ Administrator	28	2.9
Middle Mgmt	45	4.5
Sales/Mkting	19	2.0
Clerical/ Secretarial	58	5.9
Trade	131	13.1
Self-employed	92	9.3
Government worker	20	2.0
Other	43	4.3
Type of Non-employment		
Student	9	.9
Homemaker	72	7.3
Laid off	7	.7
Unemployed	29	3.0

APPENDIX F**Non-response Bias Analysis**

Tables F.1 and F.2 present the results of the analysis of the responses to selected questions from the survey of non-respondents compared to those of the respondents. The two groups appear to differ demographically only in the number of years of education. Non-respondents seem to be somewhat less educated. The analysis implies that respondents use the recreation area more often. Non-respondents did not feel as positively about an increase in the number of tourists visiting the Mount Rogers National Recreation Area.

The difference between respondents and non-respondents suggests that a group of less-educated individuals may not be represented in the sample. This, however, should not affect the relationships under study since education was not considered either as an exogenous or an endogenous variable. The relationship between implied support for tourism and use of the tourism resource remain consistent for respondents and non-respondents.

Table F.1
Results of t-tests of Responses to Selected Survey Items
by Respondents and Non-Respondents

Survey Item	Q#	Respondents Mean	n	Non-respond. Mean	n	F value	Sig.
Age	38	53.7	1028	53.8	40	0.06	.954
Years of education	45	12.4	996	10.9	39	-3.52	.001
Years of residence in the community	13	32.4	1037	29.7	41	-0.67	.507
How sorry to have to move	19	1.6	1046	2.0	41	1.74	.089
Better if number of tourists increased or decreased	11	4.1	1011	3.5	30	-2.90	.007
Number of times used NRA	21	3.6	896	1.8	40	-2.51	.013

Q# = the number of the question in the questionnaire (See Appendix B).

Table F.2
Chi-Square Test of Homogeneity of Proportions of Gender
of Respondents and Non-Respondents

Gender	Respondents n=1047	Non-Respondents n=41
Male	588	20
Female	45	921
Likelihood Ratio	.389	
Significance	.533	

CLAUDIA ANNE JUROWSKI
5580 Chestnut Ridge
Riner, VA 24139
(703) 382-0537

EDUCATION

- Ph.D. Hospitality and Tourism Management. April, 1994. Virginia Polytechnic Institute and State University, Blacksburg, VA. Major: Hospitality and Tourism Management. Minor: Recreation and Leisure. Thesis topic: The Interplay of Elements Impacting Resident Perceptions of Tourism: A Path Analytic Approach
- M.B.A. Master of Business Administration, High Honors, 1990, Oklahoma City University, Oklahoma City, OK
- M.A. Master of Arts in French, 1968, Miami University, Oxford, OH
- B.S.Ed. Bachelor of Science in French and Elementary Education, 1964, Bowling Green State University, Bowling Green, OH

ACADEMIC EXPERIENCE

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, Blacksburg, VA

1992 - 1994

Graduate Teaching Assistant, Hospitality and Tourism Management Department

* Course Instructor: HRIM 3444 Hospitality Marketing Management

Utilized an innovative computer game designed to develop management skills.

ACADEMIC EXPERIENCE (continued)

* Research Associate under the direction of Dr. Muzaffer Uysal

National Park Service, Southwest Region
Data analysis, technical report writing.

USDA Forest Service, Jefferson National Park
Mount Rogers National Recreation Area.
Research on Regional Tourism, Community Values and
Recreational Use of the Mount Rogers National
Recreation Area.

Developed skills in SPSS, LISREL and NCSS statistical
packages

VIRGINIA POLYTECHNIC INSTITUTE and STATE UNIVERSITY

* Co-Instructor: HRIM 1414 Introduction to Hotel,

Restaurant and Institutional Management

Assisted in the reorganization of the course which
has resulted in increased enrollment in the Hospitality
and Tourism Management Program

Developed creative travel project designed to
introduce tourism motivation theories and
marketing principles.

* Lecturer in HRIM 2454 Travel and Tourism Management

* Lecturer in HRIM 5614 Current Issues in Travel and
Tourism Management

* Lecturer in HTM 1414 Introduction to Hospitality and
Tourism Management

MARY WASHINGTON UNIVERSITY, Fredricksburg, VA Summer 1991

Lecturer

* Course Instructor:

Marketing 3442 Principles of Marketing
Marketing 4442 International Marketing

ACADEMIC EXPERIENCE (continued)

NORTHEASTERN STATE UNIVERSITY, Tahlequah, OK 1986 - 1989

Instructor

* Course instructor:

Tourism Management 1233 Introduction to Tourism
Tourism Management 2523 Principles of Destination
Development
Tourism Management 3523 Service Industry
Management
Tourism Management 4333 Applied Tourist Attraction
Development
Marketing 3641 Principles of Management
Management 3543 Organizational Behavior

- * Developed PROJECT:FORT GIBSON: an economic development and historic preservation program.
- * Directed four community tourism development studies.
- * Organized the Student Chapter of the Oklahoma Travel Industry Association.

ACADEMIC EXPERIENCE

PARMA COMMUNITY COLLEGE, Parma, Ohio 1976

Instructor

* Course Instructor - French I

MIAMI UNIVERSITY, Oxford, Ohio 1967 -1968

Graduate Assistant

* Conducted research for the French Department

INDUSTRY EXPERIENCE

SEA-JAY, INC, dba Flat Rock Resort, Chouteau, Oklahoma 1979-1991

Corporate President, Manager, Owner

- * Managed rentals, restaurant, retail sales and services; performed strategic planning, marketing, human resource and finance functions.
- * Doubled the net worth of Sea-Jay, Inc within four years

FORT GIBSON LAKE ASSOCIATION, Wagoner, Oklahoma 1981-1984

Executive Director

- * Developed and executed promotional and educational programs.
- * Work with state and federal agencies on tourism development and promotional programs.
- * Increased the revenue of the Fort Gibson Lake Association from zero to \$60,000 within three years.
- * Designed brochures and outdoor advertising.

SECONDARY EDUCATION

French Teacher, 1964 - 1979

Parkside Junior High School, Westlake, Ohio

Stanton High School, Stanton, Ohio

Midpark High School, Berea, Ohio

Valley Forge High School, Parma Ohio

Talawanda High School, Oxford, Ohio

North Baltimore Schools, North Baltimore, Ohio

PROFESSIONAL CONSULTATIONS

NATIONAL PARK SERVICE, Atlanta, Georgia 1993

Descriptive Analysis of Gulf Islands National Seashore
Evaluation of Visitor Use, Mississippi District,
Supplemental Report.

Descriptive Analysis of Gulf Islands National Seashore
Evaluation of Visitor Use, Florida District, Supplemental
Report.

FOUR SEASONS TRAVEL CLUB, Tulsa, Oklahoma 1985-1986

Reorganized marketing strategies for travel club.

LAKE EUFALA ECONOMIC DEVELOPMENT COMMISSION, Lake Eufala,
Oklahoma, 1988

Tourism Industry Training Seminar with Penny Dotson.

FORT SCOTT CHAMBER OF COMMERCE, Fort Scott, Kansas 1987.
Goal development workshop

VIRGINIA TECH, Blacksburg, Virginia 1994.

Research report on Riverboat Gambling

Market analysis of tour operators in Turkey

REFEREED JOURNAL PUBLICATIONS

Jurowski, Claudia, Muzaffer Uysal and Francis P. Noe. (1993) U.S.
Virgin Islands National Park: A Segmentation Study. Journal of
Travel and Tourism Marketing, Volume 1, No. 4, pp.3-31.

Noe, Francis P., Muzaffer Uysal, and Claudia Jurowski. (1993)
Effects of User and Trip Characteristics on Responses to
Communication Messages. Journal of Travel and Tourism Marketing.
Also appears in chapter format in Communication and Channel
Systems in Tourism Marketing, edited by M. Uysal and D.
Fesenmaier. The Haworth Press, Inc. 1993, pp. 149-171.

REFERRED JOURNAL PAPERS IN PRESS

Uysal, Muzaffer, Francis P. Noe, Claudia Jurowski and Cary. D. McDonald. Environmental Attitude by Trip and Visitor Characteristics : U.S. Virgin Island National Park. Tourism Management (In Press).

REFERRED JOURNAL PAPERS IN PRESS (continued)

Jurowski, Claudia, Muzaffer Uysal, Daniel R. Williams, Francis P. Noe. (1993). An examination of Preferences and Evaluations of Biscayne National Park Visitors Based on Environmental Attitudes. Journal of Sustainable Tourism, (In Review).

REFEREED CONFERENCE PROCEEDINGS PUBLICATIONS

Uysal, Muzaffer, Sheila Backman, Kenneth Backman and Claudia Jurowski. (1992) Motivations and Activities of Resort Travelers. 1992 CHRIE Conference Proceedings, Orlando, Florida, pp. 324-326.

Jurowski, Claudia and Michael D. Olsen. (1992). Trends in Tourist Attractions. 1992 STTE Conference Proceedings, Reno Nevada, pp. 31-45 .

Jurowski, Claudia, Muzaffer Uysal and Francis P. Noe. (1993) Factors Influencing the Effectiveness of Environmental Messages. The 7th Canadian Congress On Leisure Research Conference Proceedings. Winnipeg, Manitoba Canada, pp. 258-261.

Jurowski, Claudia, Muzaffer Uysal and Francis P. Noe. (1993) An Empirical Testing of the Push and Pull Factors of Tourist Motivations. 1993 Annual CHRIE Conference Proceedings, Chicago, IL, pp. 162-163.

Jurowski, Claudia, Francis P. Noe, Muzaffer Uysal and Daniel R. Williams. (1993) The Impact of Environmental Beliefs on Visitor Preferences. 24th TTRA Conference Proceedings, Whistler, BC Canada, pp. 242-251.

Noe, Francis P., Muzaffer Uysal and Claudia Jurowski. (1993). Perceptions of Satisfaction and Evaluation of an Outdoor Recreational Setting. ABSTRACTS FROM 1993 NRPA Symposium on Leisure Research, San Jose, California. Publication pending.

REFEREED PRESENTATIONS

"Perceptions of Satisfaction and Evaluation of an Outdoor Recreational Setting". (with M. Uysal and F. P. Noe). Paper presented at NRPA Symposium on Leisure Research, San Jose, California, October 20-24, 1993.

"An empirical Testing of the Push and Pull Factors of Tourism Motivations". (with M. Uysal). Paper presented at the 1993 Annual Conference of CHRIE, Chicago, IL, August 4-7, 1993.

"An Examination of Preferences and Evaluation of Biscayne National Park Visitors Based on Environmental Attitudes". (with M. Uysal, D. Williams and F. Noe). Paper presented at the 24th Annual TTRA Conference, Whistler, BC, June 13-16, 1993.

"Factors Influencing Environmental Messages". (with M. Uysal and F. Noe). Paper presented at the 7th Canadian Congress on Leisure Research, Winnipeg, Manitoba, May 13-15, 1993.

"Trends in Tourist Attractions". (with M. D. Olsen). Paper presented at the 1992 STTE Conference, Reno, Nevada, October 19-23, 1992.

"Motivations and Activities of Resort Travelers". (with M. Uysal, S. Backman and K. Backman). Paper presented at the 1992 Annual Conference of CHRIE Conference, Orlando, Florida, July 31-August 3, 1992

"Developing Tourism in Your Area". Green Country Tourism Conference. May 21, 1989.

"Service is Your Business". Oklahoma Marina Association Annual Conference. October 23, 1988

REPORTS

Jurowski, C. and M. Uysal. Gulf Islands National Seashore Evaluation of Visitor Use: Mississippi District - Supplementary Report, March 1993. National Park Service, Southeast Region. Hospitality and Tourism Department, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Jurowski, C. and M. Uysal. Gulf Islands National Seashore Evaluation of Visitor Use: Florida District - Supplementary Report, March 1993. National Park Service, Southeast Region. Hospitality and Tourism Department, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Evaluation of Visitor Use, Gulf Islands National Seashore, Florida District, National Park Service, Southwest District.

PROFESSIONAL MEMBERSHIP

Travel and Tourism Research Association
 CHRIE, Hospitality and Tourism Educators Association
 Graduate Hospitality and Tourism Association

UNIVERSITY SERVICE

Virginia Tech Graduate Hospitality and Tourism Association
 * Vice President
 1991 to 1993
 Travel and Tourism Research Association,
 Virginia Tech Chapter
 * Vice President
 1992 to present
 Graduate Honor System
 * Judicial Panel Member
 1992 to present.
 Wallace Dedication Committee
 * Graduate Student Representative
 1991

HONORS

Member of The National Honor Society of Phi Kappa Phi

COMMUNITY SERVICE

Oklahoma Clean Lakes Association

*Co-founder

*President

1988 to 1990

Frontier Heritage Foundation of Oklahoma

*Co-founder

* Vice President of the Board of Trustees

July 1990 to August 1991

Green Country

* Director

1984 to 1991

Fort Gibson Lake Association

* President

1985 to 1988

* Director

1988 to 1991

Oklahoma Travel Industry Association

* Director, founding member

1988 to 1991

Claudia A. Jurawski