

USING THE LEISURE CONSTRAINTS NEGOTIATION PROCESS TO UNDERSTAND
PARTICIPANTS' LEISURE INVOLVEMENT AND BENEFIT REALIZATION

By

Seong Ok Lyu

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Community, Agriculture, Recreation and Resource Studies

2012

ABSTRACT

USING THE LEISURE CONSTRAINTS NEGOTIATION PROCESS TO UNDERSTAND PARTICIPANTS' LEISURE INVOLVEMENT AND BENEFIT REALIZATION

By

Seong Ok Lyu

Leisure constraints are known to have negative effects on individuals' participation in their desired activities. Despite the presence of various constraints, many individuals continuously engage in those activities by using several negotiation strategies. Prior studies that examined the leisure constraints negotiation process have focused on whether individuals participate in the activities or not as study outcomes and thus paid scant attention to whether they fulfill desired leisure benefits through leisure involvement. Unlike prospective participants who want to initiate participation, current participants are likely eager to pursue diverse leisure benefits from their habitual engagement while negotiating a series of constraints. The purpose of this dissertation is to provide a comprehensive understanding of how participants with desire for more frequent participation determine their continual leisure engagement and consequently acquire beneficial outcomes from their leisure involvement. In order to achieve the research purpose, this dissertation will make use of several concepts associated with participants' stronger leisure enjoyment.

This dissertation provides empirical evidence that negotiation efforts play an important role in mediating the relationships between leisure constraints and different concepts such as future behavioral intentions and recreation demand for more frequent participation which predict participants' leisure benefit realization. Results indicate that participants made use of diverse cognitive and behavioral negotiation strategies to mitigate the impacts of leisure constraints and diminish their unfulfilled desire for continual engagement in favorite activities. Also, results

show that participants made a strong effort to realize various leisure benefits from their leisure involvement by constantly challenging and overcoming constraints. With the three independent research essays, this dissertation suggests a conceptual framework that can help better understand recreationists' mechanisms of constraints negotiation and benefit realization. The dissertation presents several management implications based on study findings and recommendations for future research are discussed.

To my beloved wife,

Meyoon Lee

ACKNOWLEDGEMENT

In order to complete this dissertation, my family had to overcome various difficulties and obstacles. First and foremost, this dissertation is indebted to my wife, Meyoon Lee, who has encouraged my new life and provided all sorts of tangible and intangible support. My highest gratitude goes to her. I would like to thank my beloved sons, Karam and Tay, for their patience and encouragement. I could not have completed my doctoral program without their assistance and support.

Many people around me have offered useful suggestions for my dissertation. Firstly, I would like to express my more than grateful recognition to my academic advisor, Dr. Chi-Ok Oh, who provided me with valuable opportunities to broaden my perspectives as a social scientist. I am sure that we can continue work together as a good colleague. I am also sincerely grateful to the members of my guidance committee: Drs. Christine Vogt, Mark Wilson, and Richard Paulsen. They have assisted me in diverse ways to improve my academic careers. This dissertation was supported by the Wisconsin Department of Natural Resources. I owe special thanks for the help from the organization.

I send gratitude separately to the members of Korean Graduate Student Organization at CARRS department. While all of their names are not recorded here, our friendship and collegueship in the Spartan community will be unforgettable forever. Finally, this dissertation is also dedicated to my father, Keun Tae Lyu, who passed away three years ago. I heard that my father did not allow me to recognize his death because he worried about my long trip to Korea during academic semester. I pray for the repose of his soul.

TABLE OF CONTENTS

LIST OF TABLES.....	viii
LIST OF FIGURES	ix
CHAPTER I: INTRODUCTION	1
PROBLEM STATEMENT	3
LITERATURE REVIEW.....	4
Leisure Constraints	4
Constraints Negotiation	10
Constraints Negotiation Process	11
RESEARCH FRAMEWORK.....	14
PURPOSE AND ORGANIZATION OF THE DISSERTATION	17
DELIMITATIONS	19
DEFINITION OF TERMS.....	19
CHAPTER II: THE ROLES OF THE CONSTRAINTS NEGOTIATION PROCESS IN PREDICTING INTENTIONS TO PARTICIPATE MORE FREQUENTLY	21
INTRODUCTION	21
LITERATURE REVIEW.....	23
Leisure Constraints	23
Negotiation Strategies	25
Commitment	27
Proposed Research Model.....	28
METHOD	32
Data Collection	32
Measures	33
RESULTS	35
Descriptive Statistics.....	35
Measurement Model	37
Structural Model	39
DISCUSSION AND CONCLUSION	43
CHAPTER III: THE INFLUENCES OF DIVERSE COMPONENTS IN THE CONSTRAINTS NEGOTIATION PROCESS ON LATENT DEMAND.....	49
INTRODUCTION	49
LITERATURE REVIEW.....	51
Recreation Demand.....	51
Participants' Latent Demand & Constraints Negotiation Process	55
METHOD	57
Data Collection	57
Instrumentation	58
RESULTS	63
Descriptive Statistics.....	63

Models.....	64
CONCLUSION AND DISCUSSION	68
CHAPTER IV: THE THEORETICAL CONNECTIONS BETWEEN THE MECHANISMS OF CONSTRAINTS NEGOTIATION AND SERIOUS LEISURE	72
INTRODUCTION	72
LITERATURE REVIEW.....	74
Constraints Negotiation Process	74
Serious Leisure Mechanism.....	75
Constraints Negotiation Process vs. Serious Leisure Mechanism	76
METHOD	82
Data Collection	82
Measures	83
RESULTS	85
Descriptive Statistics.....	85
Second- vs. First-Order Factor Models.....	87
First-Order CFA for Constraints and Negotiation	90
Measurement Model	92
Structural Model	92
DISCUSSION AND CONCLUSION	95
CHAPTER V: SUMMARY AND CONCLUSION.....	101
LIMITATIONS OF PAST STUDIES	101
SUMMARIES OF THREE INDEPENDENT ESSAYS.....	104
Essay 1: The Roles of the Constraints Negotiation Process in Predicting Intentions to Participate More Frequently	104
Essay 2: The Influences of Diverse Components in the Constraints Negotiation Process on Latent Demand.....	105
Essay 3: The Theoretical Connections between the Mechanisms of Constraints Negotiation and Serious Leisure.....	107
CONCEPTUAL FRAMEWORK OF PARTICIPANTS' CONSTRAINTS NEGOTIATION PROCESS	108
RECOMMENDATIONS FOR FUTURE RESEARCH	110
MANAGEMENT IMPLICATIONS.....	112
APPENDICES	116
APPENDIX A: NON-RESPONSE CHECK.....	117
APPENDIX B: QUESTIONNAIRE	118
REFERENCES	124

LIST OF TABLES

Table II - 1. Descriptive statistics for constructs and indicators.....	36
Table II - 2. Results of measurement model	38
Table II - 3. Correlation estimates between latent variables and error variances	39
Table II - 4. Fit indices of three different models	40
Table III - 1. Characteristics of each variable.....	59
Table III - 2. Results of exploratory factor analyses.....	61
Table III - 3. Descriptive statistics for each variable	63
Table III - 4. Results of zero-truncated negative binomial model estimations	66
Table IV - 1. Descriptive statistics for diverse constructs and measurement items	86
Table IV - 2. Comparisons of several second- and first-order factor models.....	90
Table IV - 3. Results of first-order CFA for constraints and negotiation	91
Table IV - 4. Results of measurement model estimation.....	93
Table IV - 5. Correlation estimates between latent variables and error variances	94

LIST OF FIGURES

Figure I - 1. Hierarchical model of leisure constraints	7
Figure I - 2. Integrated model of constraints and benefits	9
Figure I - 3. Constraint-effects-mitigation model	13
Figure I - 4. Research framework	16
Figure II - 1. Proposed conceptual model for Essay I.....	32
Figure II - 2. Path coefficients of the final structural model.....	42
Figure III - 1. Types of demand associated with participation and non-participation.....	53
Figure IV - 1. Proposed conceptual model for Essay III	82
Figure IV - 2. Comparison between second- and first-order factor models	89
Figure IV - 3. Path coefficients and squared multiple correlations of the structural model	96

CHAPTER I: INTRODUCTION

Leisure is an important component of individuals' lifestyle and plays a critical role on determining their quality of life (Kelly, 1996; Mannell & Kleiber, 1997; Stebbins, 1992). Individuals' leisure behavior and experience will be better understood by examining negative factors (e.g., constraints, conflicts among recreationists), as well as positive factors including motivations and satisfaction, in their leisure facets (Manning, 1999). Leisure constraints are the most typical negative factors that limit the formation of leisure preferences and inhibit participation in desired activities (Jackson, 1997). Facing various leisure constraints, some people with interest in an activity often reduce their frequency of participation or completely quit their engagement (Fedler & Ditton, 2001; Jackson & Searle, 1985); others continuously participate in the activity despite the presence of constraints (Jackson, Crawford, & Godbey, 1993).

Prior to the early 1990s, a sizable number of past studies on leisure constraints focused on the following questions: why do some people not participate in leisure activities despite their obvious desires? Accordingly, most studies paid much attention to identifying prominent constraints which suppress the relationships between leisure preferences and participation (Jackson & Scott, 1999). These studies generally assumed that non-participants are constrained, resulting in no leisure and recreation participation but participants are not or less constrained (Jackson, 2005a). In this sense, a set of structural constraints, known to intervene between preferences and participation, were considered as the most important types of constraints (Godbey, Crawford, & Shen, 2010; Jackson, 2005a).

Research on leisure constraints has significantly progressed with the conceptual development of constraints negotiation. This concept of negotiation challenged the early beliefs about constraints, namely that constraints are inflexible obstacles to participation; and thus they typically block or limit individuals' engagement in favorite activities (Jackson & Rucks, 1995). Put another way, the notion of constraints negotiation suggested a new insight that constraints do not necessarily restrict or preclude participation (Jackson et al., 1993). Moreover, several studies provided empirical evidence that constraints can be sufficiently overcome and negotiated by way of individuals' efforts (Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991). This awareness was based on findings that a number of people continuously participate in their preferred activities as they actively search for a variety of ways to alleviate the impacts of constraints.

The concept of negotiation also led to the theoretical development of the constraints negotiation process, which postulates the role of negotiation strategies to alleviate or overcome the effects of constraints on leisure pursuits. In order to address the systematic process of constraints negotiation, Jackson et al. proposed "balance effect", which indicates that the operation of negotiation strategies is triggered by mutual interactions between constraints and motivations to determine participation in favorite activities. Based on this balance effect, Hubbard and Mannell (2001) empirically tested various constraints negotiation models with interconnected causal flows among a set of components in individuals' leisure decisions (i.e., constraints, motivations, negotiation, and participation). They also showed that individuals' negotiation strategies mitigate the negative relationship between constraints and participation, and strengthen the positive association between motivations and participation.

Since Hubbard and Mannell's work, a growing body of literature has contributed to an extensive understanding of the constraints negotiation process (e.g., Jun & Kyle, 2011; Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007; White, 2008). In other words, these studies have shed new light on how different psychological concepts (e.g., self-efficacy, identity, involvement) as independent variables operate in the constraints negotiation process to attenuate the impacts of leisure constraints.

Problem Statement

Despite these significant contributions, prior studies that examined recreationists' constraints negotiation process have paid scant attention to individuals' ultimate leisure goals. Previous literature has mostly focused on individuals' leisure behaviors (i.e., level of present participation), as direct outcomes of recreationists' constraint-negotiation process (Jackson et al., 1993). Put otherwise, levels of leisure participation (i.e., frequency) have served as the only dependent variable in the dynamic mechanism of constraints negotiation. It is reasoned that leisure engagement in preferred activities has been traditionally considered beneficial for all participants, whereas non-participation has been simply viewed as an undesirable result (Mannell & Loucks-Atkinson, 2005). Accordingly, most research efforts have been made to facilitate individuals' leisure participation.

The use of leisure participation as an ultimate goal in the constraints negotiation process may have provided a limited understanding of individuals' heterogeneous patterns of leisure pursuits. Unlike prospective participants who want to initiate participation, a large percentage of current participants are likely to have interest in more frequent participation and stronger leisure involvement (Gilbert & Hudson, 2000). In doing so, current participants are likely eager to pursue diverse leisure benefits from their habitual leisure engagement while negotiating a series of constraints (Crompton, Jackson, & Witt, 2005; Driver & Bruns, 1999). Nevertheless,

various kinds of beneficial outcomes participants commonly pursue have not been successfully incorporated in prior studies on the process of constraints negotiation.

Frequent participation is a basic means to reaching a higher level of leisure involvement (McIntyre & Pigram, 1992; Scott & Shafer, 2001). In this sense, the use of various leisure goals associated with participants' desired behavioral consequences is likely to contribute to broadening our knowledge of the constraints negotiation process. That is, taking into account several variables representing participants' future intentions and recreation demand for more frequent participation may be beneficial to more accurately understand their constraints negotiation mechanisms. Moreover, researchers are likely to gain new insights into participants' constraints negotiation process by using several desired psychological outcomes including enduring benefits and self-identity as their ultimate goals of leisure involvement. It is reasoned that participants tend to pursue diverse leisure benefits through challenging diverse leisure constraints.

Literature Review

Leisure Constraints

During the past three decades, the concept of leisure constraints has been devoted to a better understanding of individuals' leisure pursuits by examining the influences on leisure attitudes, preferences, and subsequent participation (Godbey, Crawford, & Shen, 2010; Jackson & Scott, 1999). According to Jackson (1997), leisure constraints are commonly referred to as subsets perceived or experienced by individuals that limit the formation of leisure preferences and inhibit participation in their desired activities. Crawford and Godbey (1987) classified leisure constraints into three different categories – intrapersonal, interpersonal, and structural – which have been generally applied in empirical studies to explain relationships with preferences and participation.

Intrapersonal constraints are defined as “individual psychological states and attributes which interact with leisure preferences rather than intervening between preferences and participation” (Crawford & Godbey, 1987, p. 122). Some of the examples in this category include stress, depression, anxiety, and subjective assessment of the suitability and availability of leisure activities. Interpersonal constraints result from an individual’s interactions with others. For example, individuals often encounter interpersonal constraints when they are not able to find another person whom they participate with in a specific activity. Different from intrapersonal constraints which interact with leisure preferences, interpersonal constraints are known to influence both preferences and participation (Crawford & Godbey, 1987). Structural constraints resulting from lack of facilities, transportation, and information and financial deficiency tend to emerge after leisure preferences are developed (Walker & Virden, 2005).

Research on leisure constraints has been refined with the development of several conceptual models (Godbey, Crawford, & Shen, 2010; Jackson, 2005a). Among these, the hierarchical model of leisure constraints, introduced by Crawford, Jackson, and Godbey (1991), is worth noting (see Figure I-1). According to the first phase of this model, the three different types of constraints sequentially enter into individuals’ leisure decision-making process for participation (i.e., intrapersonal → interpersonal → structural). In other words, the sequential ordering of constraints is arranged from most “proximal” (i.e., intrapersonal) to most “distal” (i.e., structural). Crawford et al. also suggested that the proximal factors are most powerful because individuals with intrapersonal constraints cannot develop their preferences for an activity and thus are less likely to reach higher order constraints (i.e., interpersonal and structural).

The second phase of the hierarchical model demonstrates how current participants with desire for a higher level of specialization develop stronger leisure involvement. Based on the model, participants previously negotiated a set of constraints in their decision-making process for initial leisure participation (i.e., the first phase in the model). Even after their initial engagement, nevertheless, participants are continually affected by a set of constraints. Different from the first phase focusing on initiating leisure participation, the second phase of the model shows that participants are still constrained and need to constantly negotiate those constraints to progress toward a higher specialization level.

According to the theory of recreation specialization as a useful tool for understanding recreationists' diversity, recreationists progress through a series of steps of increasing activity involvement (Ditton, Loomis, & Choi, 1992; Oh, Lyu, & Hammitt, 2012). Among the three different dimensions (i.e., behavioral, cognitive, and psychological) that are popularly used to measure the degree of recreation specialization, the behavioral element is believed to be an important antecedent of progression (Scott & Shafer, 2001). While recreationists' progression as a developmental process is known to occur through cyclical reinforcement of the three dimensions, frequent participation (i.e., behavioral aspect) normally entails the operations of two other elements of specialization and subsequently leads progression (Bryan, 1977, 2000; McIntyre & Pigram, 1992). Accordingly, participants with desire for progression toward a higher level of specialization are most likely to be constrained to more frequent participation.

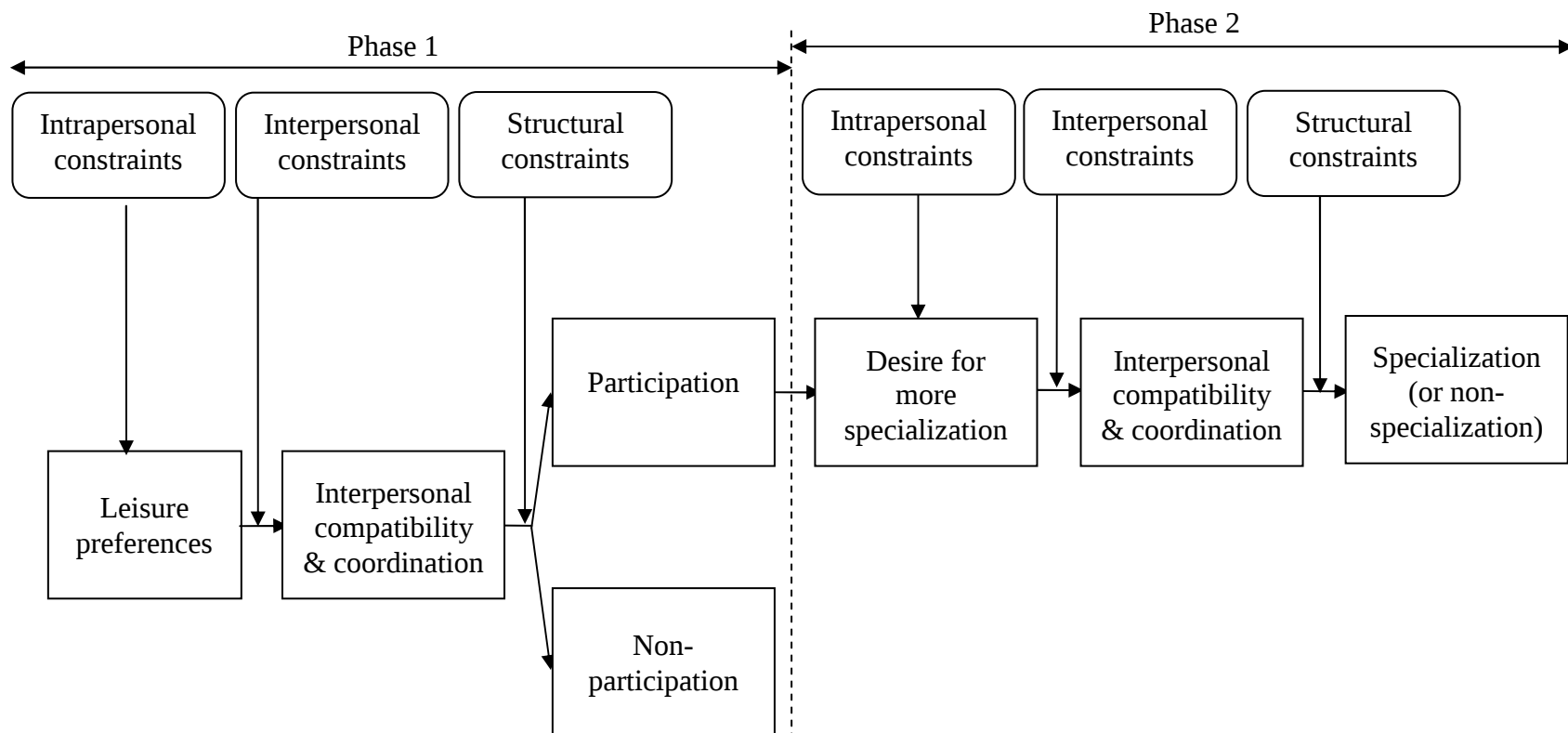


Figure I - 1. Hierarchical model of leisure constraints (Crawford et al., 1991, p. 316)

A sizable number of previous studies have provided empirical evidence that individuals' willingness to negotiate leisure constraints is closely associated with various psychological factors (e.g., motivations, satisfaction, leisure benefits) as well as diverse socio-demographic variables (e.g., gender, age, income). Among these, leisure benefits are noteworthy because the beneficial outcomes serve as important motives for negotiating constraints (Crompton, Jackson, & Witt, 2005). To put it another way, only when individuals expect to acquire desired outcomes from leisure engagement, they are willing to make efforts to overcome a variety of constraints (Kay & Jackson, 1991). In this sense, several studies (e.g., Freudenberg, & Arlinghaus, 2010; Jackson & Searle, 1985; Tian, Crompton, & Witt, 1996) attempted to identify the theoretical connections between the concepts of leisure constraints and leisure benefits.

According to the integrated model of leisure constraints and benefits (see Figure I-2), proposed by Crompton et al. (2005), individuals who want to realize desired leisure benefits formulate their interest and preferences, and participate in favorite activities as they proactively negotiate constraints at each stage. This integrated approach indicates that individuals' leisure behaviors (i.e., participation) are not a final goal; rather, benefit realization is a more significant end of leisure involvement (Driver & Bruns, 1999). This model also suggests that the presences of constraints and various efforts to overcome the impacts of constraints have important implications associated with social and environmental benefits. Therefore, a more holistic picture of leisure involvement can be drawn from an integrated viewpoint combined leisure constraints with benefits.

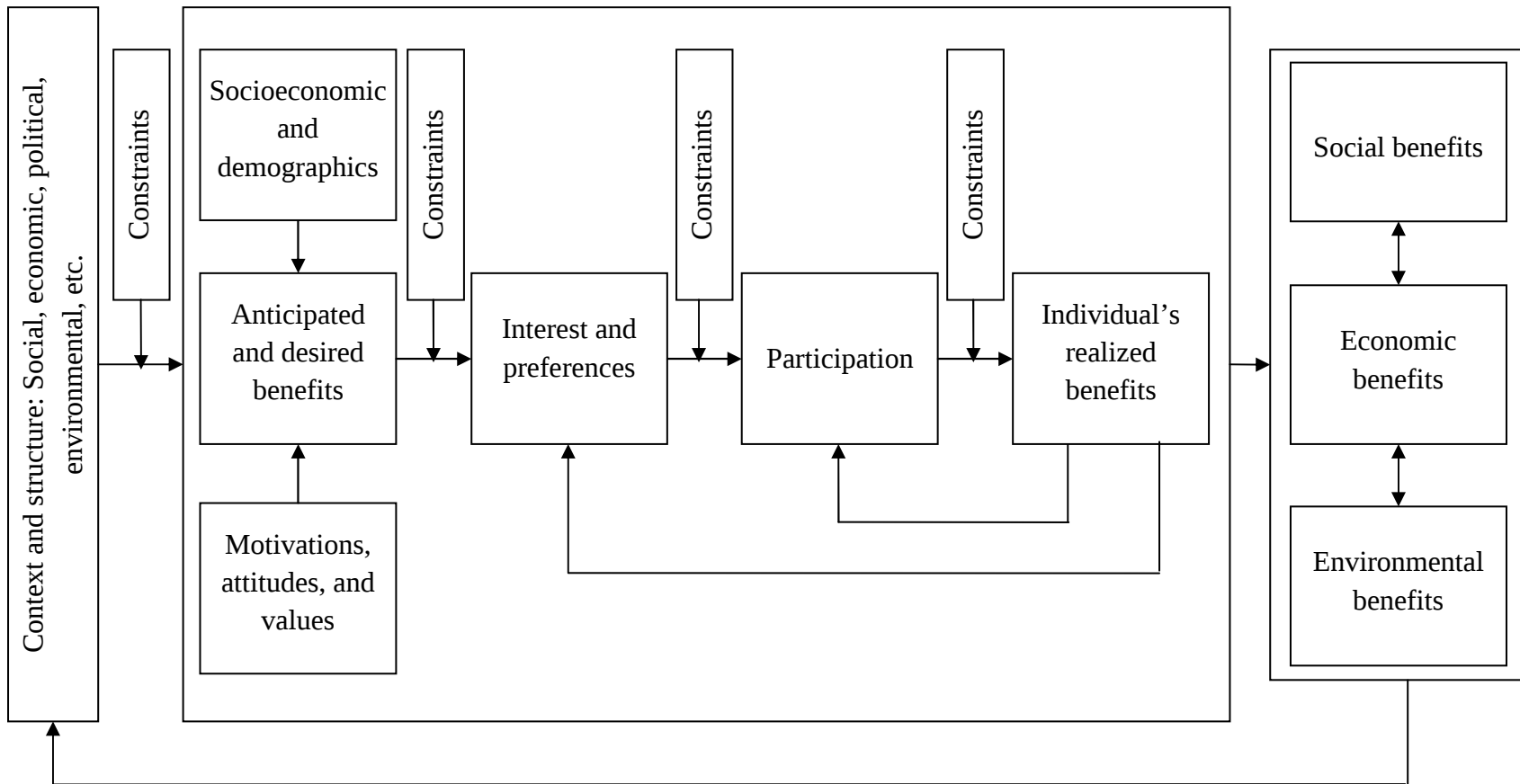


Figure I - 2. Integrated model of constraints and benefits (Crompton et al., 2005, p. 251)

Constraints Negotiation

Prior to the early 1990s, most researchers believed a stronger desire to participate in an activity as the only way to overcome the influences of constraints (Jackson & Scott, 1999). However, several studies (e.g., Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991) suggested that constraints do not necessarily restrict or preclude leisure participation. According to these studies, the association between constraints and participation is found to be abstruse because many people still participate in leisure activities while continuously searching for innovative strategies to alleviate and overcome the effects of constraints. In other words, individuals tend to react to constraints in an active manner, by diligently using diverse negotiation strategies rather than simply choosing non-participation (Jackson, Crawford, & Godbey, 1993). Taken together, the notion of negotiation can be conceptualized as a variety of tactics and resources to attenuate the overwhelming influences of constraints.

At the same time, several researchers have attempted to identify a series of strategies to mitigate the impacts of leisure constraints. Scott (1991) found three main strategies to negotiate diverse constraints which contact bridge participants perceived: 1) acquisition of information about limited opportunities; 2) altered scheduling of games to adjust to reduced group membership and individuals' time commitments; and 3) skill development to permit greater participation in play. Kay and Jackson (1991) identified various negotiation strategies to adjust to time and financial constraints including reducing participation frequency, saving money to participate, searching for the cheapest opportunities, and reducing work time. According to Henderson and Bialeschki (1993), women make use of several kinds of cognitive negotiation strategies to participate in favorite activities: minimizing concern for gender role expectations,

balancing the benefits with costs of participation, and modifying preferences for desired activities.

While reporting a variety of tactics to attenuate the influences of constraints, Jackson and Rucks (1995) classified negotiation strategies into two different types: cognitive and behavioral. Cognitive strategies involve individuals' psychological and behavioral changes to minimize the disparities between their behaviors and attitudes (Lee & Scott, 2009). When encountering specific constraints, people adopt these strategies through ignoring those constraints and pushing themselves harder. Support for these strategies has been documented in several studies (Frederick & Shaw, 1995; Henderson, Bedini, Hecht, & Schuler, 1995; Samdahl & Jekubovich, 1997). Behavioral strategies encompass various adjustments for individuals' leisure needs by means of modifications to the leisure or non-leisure aspect of life. Rearrangement of work schedule and reduction of participation frequency are included in these strategies. Jackson and Rucks (1995) also noted that the choice of negotiation strategies is largely dependent upon the types of constraints individuals perceive.

Constraints Negotiation Process

In addressing the nature and function of constraints negotiation, Jackson, Crawford, and Godbey (1993) introduced six different propositions. Among these tenets, the last proposition – “both the initiation and outcome of the negotiation process are dependent upon the relative strength of, and interactions between, constraints on participating in an activity and motivations for such participation” (p. 9) – is worth noting because it initially aroused much attention to the influences of motivations on the concept of constraints negotiation (Jackson, 2005a). Although the concept of motivations has been popularly applied to explain individuals' leisure behavior, prior studies on leisure constraints had paid little attention to the role of the psychological

element (Hubbard & Mannell, 2001). Based on this “balance proposition” in addition to the hierarchical model of Crawford et al. (1991), Jackson and his colleagues (1993) proposed a theoretical framework which demonstrates the “balance effect” between constraints and motivations on participation.

The introduction of motivations provided a new insight into the systematic framework of constraints negotiation, which exhibits the role of negotiation in individuals’ engagement in leisure activities. Although the concept of negotiation was not included in the process, an empirical test conducted by Carroll and Alexandris (1997) disclosed that participation is negatively related to constraints, but positively associated with motivations. The dynamic process of constraints negotiation has been extensively understood with the advancement of multivariate techniques including structural equation modeling. In particular, the work of Hubbard and Mannell (2001) significantly contributed to a better understanding of the intricate interrelationships in the process by using the multivariate methods.

While comparing four different sorts of competing models (i.e., independence model, negotiation-buffer model, constraint-effects-mitigation model, and perceived-constraint-reduction model), Hubbard and Mannell revealed that the constraint-effects-mitigation model is most appropriate to address the complicated associations among several components in the constraints negotiation process (i.e., constraints, motivations, negotiation, and participation). According to the model, negotiation is placed at the center of the process because the concept plays an important role in mediating between constraints and motivations to determine level of participation. Specifically, negotiation delicately balances the two exogenous variables (i.e., constraints and motivations) while attenuating the negative relationship between constraints and

participation, and intensifying the positive association between motivations and participation.

Figure I-3 demonstrates the constraint-effects-mitigation model.

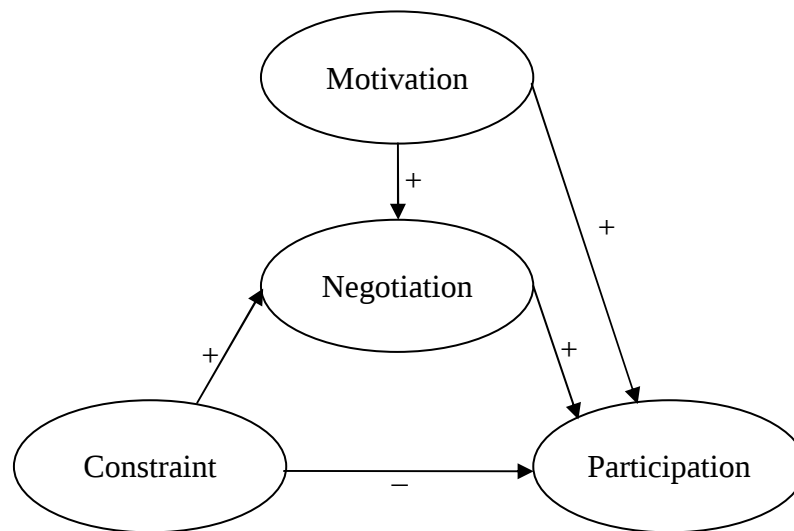


Figure I - 3. Constraint-effects-mitigation model (Hubbard and Mannell, 2001, p. 148)

Since then, a sizable body of literature (e.g., Jun & Kyle, 2011; Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007; Son, Mowen, & Kerstetter, 2008; White, 2008) has attempted to modify the constraint-effects-mitigation model to better understand the framework of constraints negotiation. Diverse psychological variables (e.g., self-efficacy, involvement, identity) and socio-demographic factors (e.g., gender, race) have also been inserted into the model to examine their unique effects. One of the most popularly used variables is the concept of self-efficacy, defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, p. 71). Loucks-Atkinson and Mannell (2007) and White (2008) tested the effects of negotiation-efficacy, adapted from self-efficacy, on the constraints negotiation process and found strong positive

relationships between negotiation-efficacy and negotiation strategies. In addition to self-efficacy, the influences of celebrity involvement and identity conflict/facilitation on the process were also empirically examined by several researchers (e.g., Jun & Kyle, 2011; Lee & Scott, 2009).

Research Framework

Despite the popularity of leisure constraints research, minimal attention has been paid to the factors which constrain current participants from continually participating in their preferred activities (Aas, 1995). There is also limited information that helps understand their process for negotiating various constraints. In parallel with non-participants, participants constantly deal with various leisure constraints (Wright & Goodale, 1991). In other words, participants are also constrained, not from participating *per se*, but from engaging as often as they aspire. Consequently, participants are likely to continually negotiate multiple constraints to attain their leisure goals and acquire various benefits from leisure involvement.

The hierarchical model of leisure constraints, proposed by Crawford et al. (1991), demonstrates that participants currently engaging in their favorite activities already negotiated a series of constraints when initiating participation in the first phase of Figure I-1. Nevertheless, they are continuously affected by a set of factors which limit more frequent participation and progression toward a high specialization level in the second phase. As can be seen at Figure I-2, various constraints restrain participants' realization of beneficial outcomes and attainment of final leisure goals. Thus, further negotiation efforts are needed for participants to continually engage in favorite activities. Put otherwise, participants constantly attempt to apply negotiation strategies to accomplish their desired outcomes and reach the ultimate leisure enjoyment. According to the constraint-effects-mitigation model (see Figure I-3), participants' efforts to negotiate constraints are likely to adjust the effects of constraining and motivating factors to

continually participate in preferred activities. Based on these underlying premises in terms of participants' leisure involvement, this dissertation constructs a theoretical framework as shown in the shaded area of Figure I-4.

In order to better understand participants' mechanism for negotiating various constraints, it is appropriate to utilize more comprehensive concepts than levels of actual participation. Thus, this study includes several additional concepts such as future behavioral intentions and recreation demand for more habitual engagement as important elements to address participants' leisure involvement. According to the research framework, participants' future intentions for more frequent participation are primarily dependent upon their negotiation efforts to overcome constraints. Furthermore, negotiation efforts are also important to explain the disparities between desired and actual levels of participation (i.e., unfulfilled recreation demand) in the process of constraints negotiation. The inclusion of these two variables (i.e., behavioral intentions and latent demand for frequent participation) likely enables leisure researchers to better scrutinize the outcomes of participants' constraints negotiation process. It is reasoned that individuals' behavioral orientation toward frequent participation is known to be accurately predicted by way of their future intentions and recreation demand (Clawson & Knetsch, 1966; Mannell & Loucks-Atkinson, 2005).

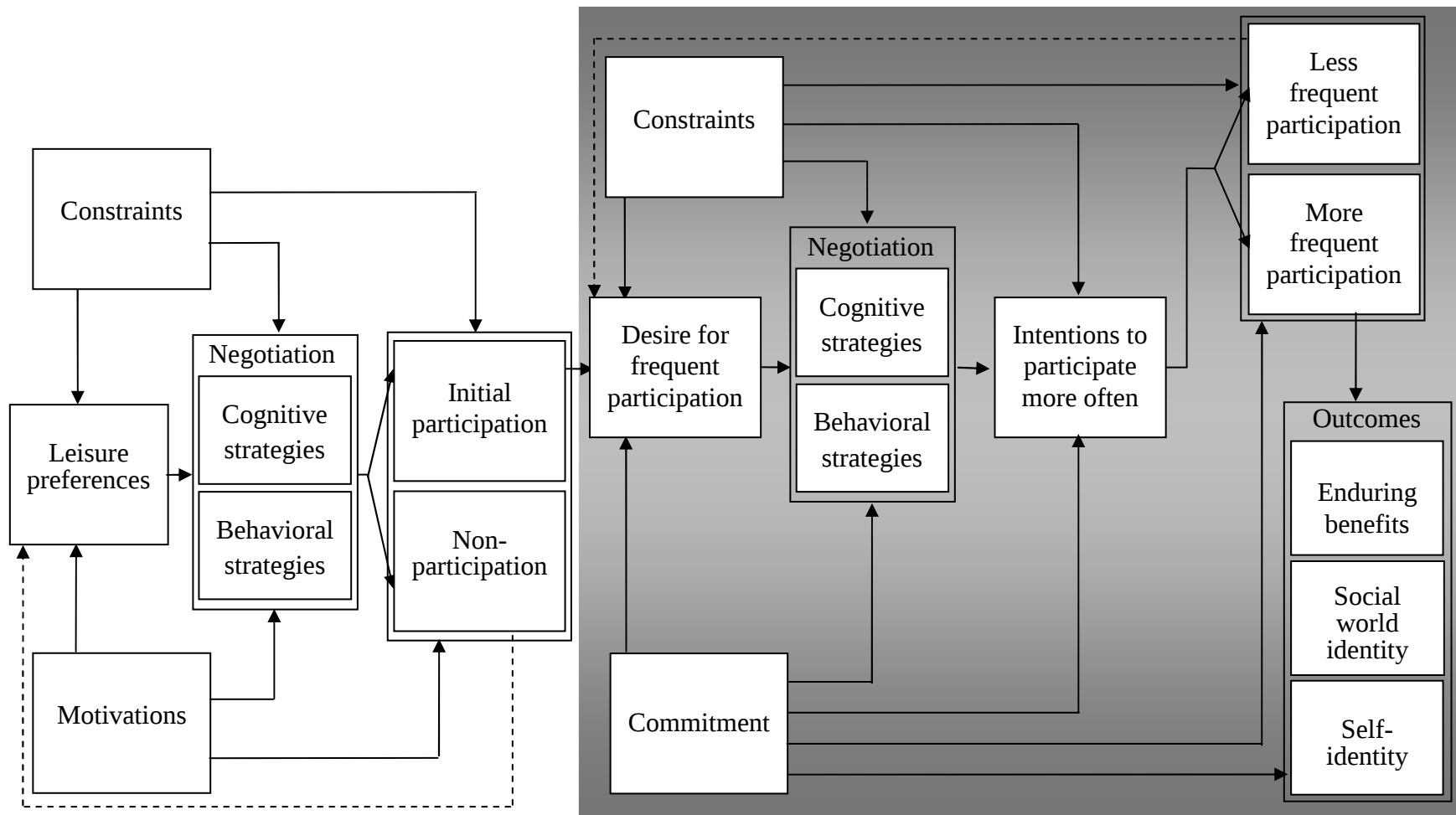


Figure I - 4. Research framework for this dissertation

The research framework also embraces an inter-theoretical approach which examines conceptual connections between the constraints negotiation process and the serious leisure mechanism. Several researchers (e.g., Jackson, 2005b; McQuarrie & Jackson, 1996, 2002) noted that individuals' negotiation efforts to relieve the effects of constraints are placed at the center of the serious leisure mechanism. Put otherwise, the most important foundations of serious leisure involve the existence of constraints which restrain participants from attaining ultimate leisure goals and the need for negotiation efforts to overcome the influences of constraints in leisure careers (Stebbins, 1993). As a result, research that connects these two leisure theories is beneficial to better understand participants' procedure of leisure benefit realization. The use of several psychological benefits (i.e., enduring benefits, social world identity, and self-identity) as the ultimate goals for leisure involvement also allows researchers to broaden awareness of the dynamic process of constraints negotiation.

Purpose and Organization of the Dissertation

The purpose of this dissertation is to provide a comprehensive understanding of how participants with desires for more frequent participation make use of diverse negotiation strategies to mitigate the influences of various constraints, determine their continual engagement in favorite activities, and realize beneficial outcomes from their leisure involvement. Specifically, this dissertation aims to 1) scrutinize how participants perceive various leisure constraints to continuous engagement in their favorite activities and consequently negotiate the impacts of constraints; 2) examine how participants indicate their future intentions to participate more frequently through negotiating several constraints; 3) explore how participants reveal their unfulfilled desires for continual participation (i.e., latent recreation demand) by using several elements of the constraints negotiation process; and 4) investigate how participants who actively make use of negotiation efforts acquire a variety of psychological benefits ensuing from

leisure involvement. A better understanding of participants' constraints negotiation process is important for leisure service practitioners to more effectively implement a variety of policies which help accomplish their clientele's satisfaction.

In order to accomplish the study purposes, three different research essays (Chapter II – IV) are presented within the context of recreational fishing. These stand-alone papers consistently deal with a selected main theme: participants' leisure constraints negotiation process. Chapter I includes an introduction which entails a review of previous literature, a theoretical framework, and study purposes for this dissertation. Chapter II is titled “*The Roles of the Constraints Negotiation Process in Predicting Intentions to Participate More Frequently.*” This chapter aims to provide information on how two different types of negotiation strategies (i.e., behavioral and cognitive) are interconnected with the individual dimensions of constraints and intentions to participate more often. Different from previous constraints negotiation research, this study makes use of the construct of behavioral intentions as its dependent variable, rather than levels of participation.

Chapter III is titled “*The Influences of Diverse Components in the Constraints Negotiation Process on Latent Demand.*” This section intends to explore how several components originated from participants' constraints negotiation process are related to the economic concept of recreation demand. This study can be important because it is expected to contribute to broadening our insights into participants' recreation demand and their unfulfilled interest. Chapter IV is titled “*The Theoretical Connections between the Mechanisms of Constraints Negotiation and Serious Leisure.*” This study aims to provide valuable opportunities to examine participants' mechanisms of benefit realization through investigating several conceptual connections between the two mechanisms of leisure constraints negotiation and serious leisure.

Because the connections between the two frameworks have not been empirically explored, this section is expected to enhance our understanding of those subfields of leisure studies by identifying the important conceptual similarities and potential linkages. Chapter V integrates study findings from the three research essays. Recommendations for future studies and several management implications are also presented in this section.

Delimitations

This dissertation is delimited because 1) study population involved approximately 1.4 million Wisconsin fishing license holders in the 2011 fiscal year (July 1, 2010 – June 30, 2011); and 2) respondents were selected from 180,000 anglers who reported their email addresses.

Definition of Terms

Several terms are defined to clarify their uses in this dissertation as below:

- Constraints: Various factors which affect individuals' formation of leisure preferences for particular activities and limit their ability to participate in the activities (Jackson, 2005a; Jackson & Scott, 1999).
- Negotiation strategies: A series of means which individuals apply to avoid and reduce the impacts of constraints to leisure participation (Jackson, 2005a; Mannell & Kleiber, 1997).
- Commitment: A motivational state to continue an activity regardless of the balance of external costs and immediate gratifying properties (Shamir, 1988).
- Constraints negotiation process: the systematic decision-making procedure which exhibits the role of negotiation in individuals' leisure engagement (Hubbard & Mannell, 2001; White, 2008).
- Behavioral intentions: An individual's anticipated or planned future behavior (Ajzen & Fishbein, 1980).

- Latent demand: Extent to which people with interest do not purchase due to several reasons (Kotler, 1973; Wall, 1981).
- Serious leisure mechanism: the systematic pursuit of an activity that is sufficiently substantial for the participant to find a career in the acquisition of skills and knowledge (Stebbins, 1992).

CHAPTER II: THE ROLES OF THE CONSTRAINTS NEGOTIATION PROCESS IN PREDICTING INTENTIONS TO PARTICIPATE MORE FREQUENTLY

Introduction

Recreationists' perception of leisure constraints is known to play an important role in decision to quit or reduce participation in diverse activities (Crawford & Godbey, 1987; Jackson, 2005a). It is also recognized that leisure constraints considerably affect the formation of recreationists' preferences and satisfaction, and subsequently the realization of leisure benefits accruing from participation (Crompton, Jackson, & Witt, 2005; Manning, 1999; Walker & Virden, 2005). Despite such overwhelming effects of constraints, recreationists actively participate in particular desired activities by using diverse negotiation strategies (Jackson, Crawford, & Godbey, 1993).

The concept of negotiation has significantly contributed to understanding the nature of leisure constraints, which were previously known as absolute barriers to participation (Mannell & Kleiber, 1997; Godbey, Crawford, & Shen, 2010). According to different studies in this subject (e.g., Hubbard & Mannell, 2001; Jackson & Ruck, 1995; Loucks-Atkinson & Mannell, 2007; White, 2008), constraints can be overcome or negotiated through the applications of various strategies. The implementation of different negotiation strategies is also understood as a key element to develop behavioral intentions to participate continuously in a preferred activity (Jackson et al., 1993; Lee & Scott, 2009). In other words, future intentions to engage in an activity will be more accurately viewed by understanding the underlying mechanism of how individuals implement negotiation strategies to overcome or minimize the impacts of leisure constraints (Mannell & Loucks-Atkinson, 2005; Walker & Virden, 2005).

In order to examine recreationists' ability and willingness to participate in their favorite activities, behavioral strategies among different kinds of negotiation strategies have received much attention from prior studies (Jackson & Rucks, 1995). Behavioral strategies typically include seeking alternative actions related to leisure itself (e.g., learning advanced skills) and changing other aspects of lifestyle (e.g., altering work schedule). Cognitive strategies as another important category of negotiation strategies have been generally slighted by leisure researchers because behavioral strategies are believed as a more efficient means to assuage the effects of leisure constraints (Henderson & Bialeschki, 1993; Jun & Kyle, 2011). Nevertheless, many people tend to employ cognitive strategies to minimize their psychological discomfort when they experience attitude-behavior dissonance resulting from the perception of constraints (Jackson et al., 1993). Indeed, Jackson and Rucks provided empirical evidence that these two types of strategies are often applied together to negotiate various constraints in a mutually supportive manner.

According to the "balance proposition" proposed by Jackson et al., negotiation strategies play a significant role in adjusting the counter influences of constraints and motivations on participation. While motivations are generally applied to represent emotional arousals to initially participate in a particular activity (Iso-Ahola, 1999), the concept of commitment is normally defined as a psychological state to continually participate (Shamir, 1988). Unlike prospective participants with desire to initiate participation, a large percentage of current participants are likely eager to continue their leisure engagement and reach a higher level of leisure involvement (Wright & Goodale, 1991). Therefore, commitment which characterizes individuals' consistent behavioral patterns seems to be more appropriate to current participants than motivations (Tinsley & Tinsley, 1986).

It is important to recognize how diverse components of recreationists' constraints negotiation process are conceptually connected to each other in order to better understand their behavioral intentions for a higher level of leisure involvement. Accordingly, the purpose of this paper is to provide a theoretical framework that demonstrates how the two different types of negotiation strategies (i.e., behavioral and cognitive) are associated with leisure constraints and commitment as well as behavioral intentions for more frequent participation. This study makes use of recreational anglers as study population. It is known that anglers are likely to be more constrained than other recreationists because they need a variety of fishing equipment and supplies (Fedler & Ditton, 2001; Ritter, Ditton, & Riechers, 1992; Sutton, 2007). This study also applies the tripartite approach to leisure constraints (i.e., intrapersonal, interpersonal, and structural) to examine individual effects sequentially on the two different dimensions of negotiation strategies and behavioral intentions.

Literature Review

Leisure Constraints

Leisure constraints are commonly defined as factors which affect individuals' formation of leisure preferences for particular activities and limit their ability to participate in the activities (Jackson, 2005a; Jackson & Scott, 1999). Different categories of leisure constraints have been used depending on the context of leisure activity. However, the following three types of constraints, intrapersonal, interpersonal, and structural, firstly classified by Crawford and Godbey (1987), have been most popularly applied to address relationships with preferences and participation. According to Godbey, Crawford, and Shen (2010), intrapersonal constraints are believed as individuals' psychological qualities which restrict preferences toward recreation activities (e.g., perceptions of skill deficiency and anxiety). Interpersonal constraints are attributable to interactions with other people (e.g., lack of friends with interest in a specific

activity), which are known to influence both preferences and participation (Walker & Virden, 2005). Several factors such as inappropriateness of facilities and transportation and financial deficiency are included in the category of structural constraints, which serve as important factors that conceptually connect between preferences and participation (Lee & Scott, 2009).

There has been general agreement that leisure constraints are important determinants in decision to cease participation or reduce frequency of engagement in leisure activities (Backman, 1991; Raymore, Godbey, Crawford, & von Eye, 1993). Unless recreationists are able to overcome and negotiate constraints, they may reduce or discontinue participation in an activity or search for alternative activities (Fedler & Ditton, 2001). Several researchers (e.g., Mannell & Loucks-Atkinson, 2005; Walker & Virden, 2005) noted that individuals' behavioral intentions for future participation are likely to be determined through negotiating the influences of various constraints. These claims were based on the theories of planned behavior and reasoned action (Ajzen, 1991; Ajzen & Fishbein, 1980). According to these two theories, behavioral intentions serve as the most important factors that directly explain individuals' actual behaviors (Fishbein & Ajzen, 1975; Lam & Hsu, 2006).

Constraints are also known to intrude into individuals' leisure pursuits at a variety of points and in a number of ways (Gilbert & Hudson, 2000; Jun, Kyle, & Mowen, 2009). The hierarchical model of constraints (see Figure I-1), proposed by Crawford, Jackson, and Godbey (1991), indicates that the three types of constraints sequentially operate in the process of specialization (i.e., intrapersonal → interpersonal → structural) during the course of individuals' leisure pursuits even after they initially participate in their preferred activities. Despite the significant contribution of the model to better understand the systematic decision-making process for individuals' leisure behavior, this absolute sequential ordering of constraints has been a major

source of criticism. For instance, Samdahl and Jekubovich (1997) called the mechanical application of hierarchical order into question because constraints tend to be intricately and simultaneously involved in people's leisure engagement rather than in this sequential manner.

Negotiation Strategies

Prior to the early 1990s, a substantial body of research discussed the negative association between constraints and participation (Jackson & Scott, 1999). Nevertheless, individuals continually participate in their desired activities despite the presence of constraints. Thus, several studies (e.g., Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991) brought much attention to the problem as to the ambiguous relationships between constraints and participation. With several propositions on the subject of negotiation, Jackson et al. (1993) suggested that constraints may not be always overwhelming barriers to restrain from participating in an activity. They also indicated that many individuals attempt to alleviate the influences of constraints to continually participate by using a variety of negotiation strategies.

Negotiation strategies are largely referred to as a series of means which individuals apply to avoid and reduce the impacts of constraints to leisure participation (Jackson, 2005a; Mannell & Kleiber, 1997). The fundamental assumption of negotiation is based on social cognitive theory. According to this theory, individuals are likely to actively choose or alter situational and environmental conditions which are known to influence their behaviors rather than passively accepting unfavorable states (Maddux, 1993). In other words, the basic underlying assumptions of negotiation are originated from "compatible rather than competing" perspectives, which consider people "active shapers" instead of "passive reactors" (Mannell & Loucks-Atkinson, 2005).

In response to the development of negotiation concept, several researchers have attempted to identify diverse strategies to negotiate a variety of constraints. Kay and Jackson (1991) presented a set of strategies to adjust time and financial constraints: reducing participation frequency, saving money to participate, searching for the cheapest opportunities, and reducing work time. Scott (1991) showed that contract bridge participants adopted three different major strategies including information acquisition for limited opportunities, schedule changes to adjust to reduced group membership and individuals' time scarcity, and skill development to permit greater participation. Furthermore, Henderson and Bialeschki (1993) indicated that women successfully continue to participate by using several cognitive strategies such as reducing concern for gender roles, adjusting between benefits and costs of participation, and changing preferences for specific activities.

Negotiation strategies are generally categorized into two different types: cognitive and behavioral (Jackson et al., 1993; Lee & Scott, 2009). Cognitive negotiation strategies intend to minimize individuals' cognitive dissonance or unsettling cognitive state by changing their cognitions or behaviors (Festinger, 1957). These strategies would be implemented, for example, when individuals continue to participate in fishing every weekend by ignoring several constraints such as family commitment and pushing themselves harder for their engagement. On the other hand, behavioral negotiation strategies are divided into two aspects: leisure and non-leisure (Jackson & Rucks, 1995). Some individuals adjust their leisure needs through modifying non-leisure aspects of life. Rearrangement of work schedule and reduction of other expenses are examples of non-leisure behavioral negotiation strategies. Behavioral strategies associated with leisure aspects involve the direct changes of individuals' leisure patterns including reduction of

participation frequency, choice of alternative cheap sites, and alterations in the timing of participation.

Commitment

In introducing six different negotiation propositions, Jackson et al. (1993) unveiled the function of motivations, generally defined as psychological factors that stimulate individuals' behaviors (Iso-Ahola, 1999), in the process of constraints negotiation. According to their last proposition, the operation of negotiation is dependent upon the comparative intensity of, and mutual interactions between, constraints and motivations. This tenet, so-called the "balance proposition", indicated an important clue to better understand individuals' systematic mechanism for attenuating the impacts of various constraints, which stresses the role of negotiation strategies (Jackson, 2005a). Put another way, the insertion of motivations into the constraints negotiation process enabled researchers to examine why people participate despite the presence of constraints and the need of efforts to challenge constraints (Jackson & Scott, 1999).

A sizable body of past studies (e.g., Carroll & Alexandris, 1997; Hubbard & Mannell, 2001; White, 2008) disclosed the conceptual connections between motivations and other elements in the process of constraints negotiation. With the advancement of multivariate techniques, those studies provided empirical evidence that the concept of motivations serves as an important exogenous variable that facilitates individuals' efforts to negotiate various constraints and encourages their participation in an activity. From the perspective of participants with desire for continuous participation and long-term leisure pursuits, behavioral perseverance and emotional dedication are believed to be more pertinent psychological elements than impulsive interests (Shamir, 1988; Tinsley & Tinsley, 1986). In this sense, the concept of commitment is largely applied to explain participants' consistent behavioral patterns and

represents a willingness to make psychological and physical efforts in order to continuously participate in an activity (Kim, Scott, & Crompton, 1997).

Commitment is generally defined as “a motivational state or a motivational disposition to continue a line of activity, a role performance, or a relationship and to invest in them regardless of the balance of external costs and their immediate gratifying properties” (Shamir, 1988, p. 244). According to Buchanan (1985), there are three different elements of commitment to a preferred activity: behavioral consistency, affective attachment, and side bets. Behavioral consistency encompasses rejections of alternative activities over time and affects the formation of social or sub-social membership (Goff, Fick, & Oppliger, 1997). Affective attachment represents individuals’ acceptances of norms and values which are associated with their core interest, whereas side bets are characterized by financial and time investments which maintain their behavioral consistency (Becker, 1960). These three features indicate that commitment is likely to be an important explanatory element besides motivations when addressing participants’ leisure involvement.

Proposed Research Model

Most previous studies (e.g., Hubbard & Mannell, 2001; Jun & Kyle, 2011; Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007; White, 2008) indicated the negative associations between participation and constraints. In this sense, constraints are likely to wield negative influences on behavioral intentions (Hung & Petrick, 2012; Lee, Agarwal, & Kim, 2011). Several different types of constraints fall within the boundary of attitudes toward a specific activity and its relevant settings (Walker & Virden, 2005). For example, intrapersonal (e.g., I don’t like to kill fish) and structural constraints (e.g., hunting is somewhat dangerous) possibly affect recreationists’ future intentions for continual participation in particular consumptive

activities. Furthermore, interpersonal constraints (e.g., my friends don't like to go camping) likely serve as an important factor that determines recreationists' behavioral intentions in that individuals' standards of judgment are commonly influenced by others' and referents' values (Ajzen & Fishbein, 1980). Accordingly, a series of research hypotheses are presented:

H1-1: Intrapersonal constraints negatively affect intentions to participate more often;

H1-2: Interpersonal constraints negatively affect intentions to participate more often;

H1-3: Structural constraints negatively affect intentions to participate more often.

It is widely acknowledged that constraints do not necessarily block participation in individuals' favorite activities (Jackson et al., 1993). Rather, people tend to actively respond to constraints and innovatively negotiate different constraints to continue participation. A vast number of previous empirical studies on the constraints negotiation process (e.g., Hubbard & Mannell, 2001; Lee & Scott, 2009) pointed out that individuals' perception of constraints triggers the operation of negotiation strategies. Individuals also make use of various negotiation strategies in cognitive and/or behavioral ways while the choice of negotiation strategies is largely dependent upon the types of constraints they perceive (Jackson & Rucks, 1995). For example, individuals with interpersonal barriers are likely to use either behavioral negotiation strategies (e.g., searching friends who are interested in a given activity) or cognitive negotiation strategies (e.g., ignoring the impacts of the constraints), or apply both approaches. Jun and Kyle (2011) provided empirical evidence that recreational golfers simultaneously utilized these two types of negotiation strategies to attenuate unique effects of diverse constraints. In other words, behavioral negotiation strategies are used to alleviate various constraints at

interpersonal and structural levels whereas cognitive strategies are employed to relieve a set of intrapersonal constraints. Jackson and Rucks also indicated that people tend to use behavioral strategies as their first option, but the impacts of interpersonal constraints are generally appeased through both cognitive and behavioral negotiation strategies. This study hypothesizes:

H2-1: Intrapersonal constraints positively affect cognitive negotiation strategies;

H2-2: Interpersonal constraints positively affect cognitive negotiation strategies;

H2-3: Structural constraints positively affect cognitive negotiation strategies;

H3-1: Intrapersonal constraints positively affect behavioral negotiation strategies;

H3-2: Interpersonal constraints positively affect behavioral negotiation strategies;

H3-3: Structural constraints positively affect behavioral negotiation strategies.

Most previous studies on the constraints negotiation process (e.g., Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; White, 2008) made use of motivations as an important exogenous variable in addition to constraints. Those studies also provided supportive evidence that the operation of motivations is successful at increasing individuals' levels of participation and their degrees of efforts to negotiate various constraints. In light of participants' behavioral mechanisms, the concept of commitment is believed more appropriate to address their leisure pursuits than motivations. It may be reasoned that commitment typically represents participants' behavioral continuance characterized by rejecting alternative activities and personal dedication to an activity revealed by their willingness to spend money, time, and energy (Shamir, 1988). Accordingly, this study hypothesizes:

H4-1: Commitment positively affects cognitive negotiation strategies;

H4-2: Commitment positively affects behavioral negotiation strategies;

H4-3: Commitment positively affects intentions to participate more often.

The first proposition of constraints negotiation, suggested by Jackson et al. (1993), states that “participation is dependent not on the absence of constraints...but on negotiation through them” (p. 4). Based on this proposition, the application of negotiation strategies is believed to serve as an important antecedent of participation. At the same time, negotiation strategies directly cause participation while playing a critical role in mitigating the negative effects of constraints on participation (Hubbard & Mannell, 2001). In this regard, the formation of intentions to participate in a given activity can be an outcome of negotiating diverse constraints (Huang, 2009; Hung & Petrick, 2012; Lee, Agarwal, & Kim, 2011). This background leads to the fourth and fifth hypotheses:

H5: Cognitive negotiation strategies positively affect intentions to participate more often;

H6: Behavioral negotiation strategies positively affect intentions to participate more often.

Based on these study hypotheses, a proposed research model is illustrated in Figure II-1. In general, the hypothesized paths are developed with a modification of the constraint-effects-mitigation model (see Figure I-3), proposed by Hubbard and Mannell (2001).

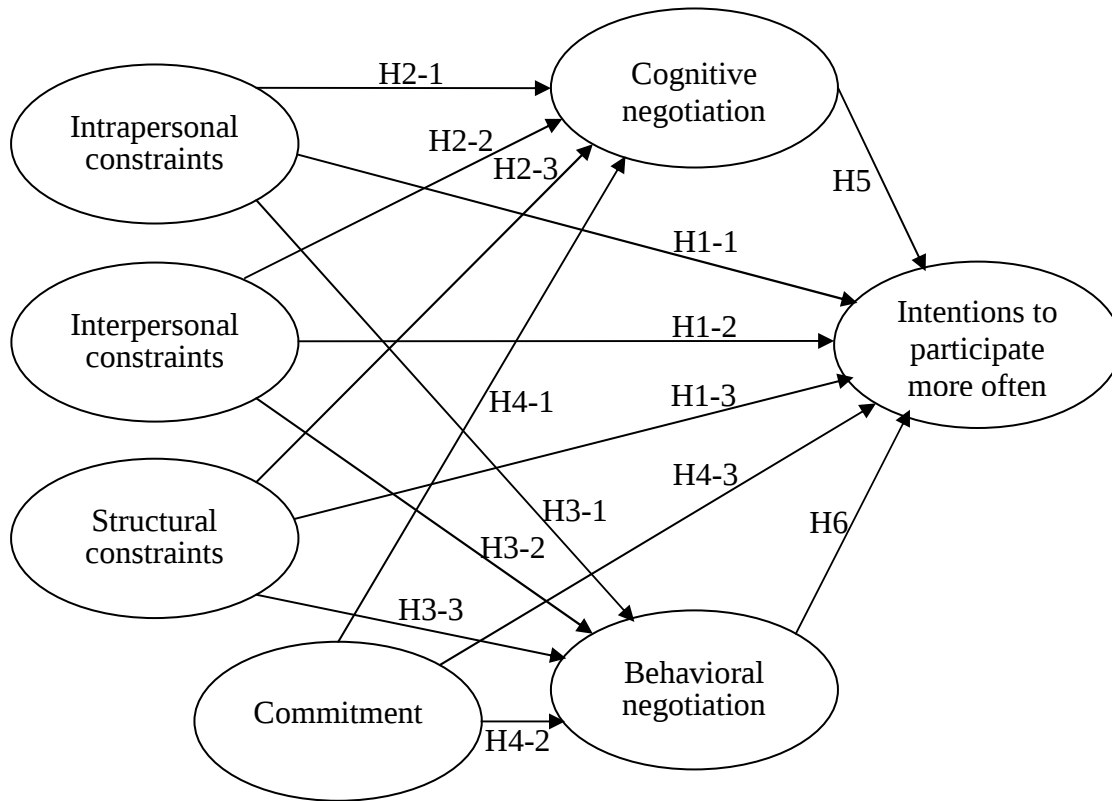


Figure II - 1. Proposed conceptual model for this study

Method

Data Collection

A sample of anglers (N = 10,000) was randomly selected using a computer-generated random sampling procedure from an email list of Wisconsin fishing license holders who purchased in the 2011 fiscal year (July 1, 2010 – June 30, 2011). As a cost-efficient data collection method, an online survey was conducted during the course of four weeks from February to March, 2012. Because low response rates of online surveys are known to cause several selection biases (Sexton, Miller, & Dietsch, 2011), this study carefully employed a total design survey method suggested by Dillman, Smyth, and Chritian (2009) to increase its response

rate. Specifically, an invitation and a set of reminders with a link to the questionnaire were sent in three different waves.

After 72 respondents were deleted as non-deliverables, this survey procedure yielded 1,637 responses, indicating an effective response rate of 16.5%. Further, 712 responses were dropped with incomplete information for at least one of the scales used in model estimation and 8 were additionally excluded as multivariate outliers during the data screening process. As a result, 917 responses were selected for our final data. Results of a non-response check (see Appendix A) indicated that there were no statistical differences between respondents and non-respondents in our population in terms of several socio-demographic variables.

Measures

In order to measure the concept of leisure constraints, this study made use of three dimensional approach comprising intrapersonal, interpersonal, and structural constraints, initially classified by Crawford and Godbey (1987). This tripartite approach has been most popularly applied in empirical studies to address intricate relations with leisure preferences and leisure engagement. Because the measures of leisure constraints vary across different recreation activities, this study identified various measurement items from past literature on fishing constraints (e.g., Fedler & Ditton, 2001; Ritter, Ditton, & Riechers, 1992; Sutton, 2007). The sub-dimension of intrapersonal constraints was composed of three items: I don't have enough time; I have too many family responsibilities; I don't have the necessary fishing skills. Three and four different items were also used to measure levels of interpersonal (e.g., I can't find other people who have interest in fishing) and structural constraints (e.g., Fishing facilities are poorly developed and maintained), respectively. The results of exploratory factor analysis (EFA)

supported the tripartite approach to the concept. A five-point Likert response format with values ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure these items.

Anglers' level of negotiation efforts was measured with eight items modified from previous studies on the concept (e.g., Alexandris, Kouthouris, & Girgolas, 2007; Jackson & Rucks, 1995; Jun & Kyle, 2011; White, 2008). While recreationists are likely to use diverse strategies to minimize the influences of leisure constraints, negotiation has been largely measured with a few behavioral issues including time management and financial adjustment (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007). Nevertheless, several studies have indicated the importance of different negotiation efforts in a cognitive way (Jackson & Rucks, 1995). In other words, many people may engage in the activity by exerting cognitive negotiation efforts to challenge a variety of constraints (Henderson & Bialeschki, 1993). Accordingly, this study employed four different items of cognitive negotiation strategies (e.g., I try to persist until I overcome some obstacles in fishing) along with a set of behavioral negotiation tactics (e.g., I try to budget my money). A five-point Likert scale was employed with values ranging from 1 (never) to 5 (always), and the results of EFA revealed the presence of the two sub-dimensions as expected.

The concept of commitment was measured using several items from previous studies after modifications (e.g., Kim, Scott, & Crompton, 1997; Lee & Scott, 2006; McIntyre, 1989; Siegenthaler & Lam, 1992). This scale included four different items (e.g., If I stopped fishing, I would lose touch with my friends) that were measured on a five-point Likert format with values ranging from 1 (strongly disagree) to 5 (strongly agree). The results of confirmatory factor analysis (CFA) suggested its unidimensionality and acceptable fit to the data ($\chi^2/df = 4.422$, $p < 0.001$; NFI = 0.990; GFI = .970; CFI = 0.992; RMSEA = 0.61).

The dependent variable of intentions to participate more often was measured with three items which were modified from previous studies (e.g., Alexandris, Funk, & Pritchard, 2011; Lee, Agarwal, & Kim, 2011). Each item also used a five-point Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree), and the results of EFA indicated that this concept has a single factor. Several descriptive statistics for observed variables and the internal consistency of each latent factor are shown in Table II-1.

Results

Descriptive Statistics

Most respondents were males (95.8%) with a mean age of 50.3 years. Almost half (46.7%) of anglers reported an annual household income of greater than \$80,000. The majority of respondents (87.2%) had college/university or graduate education and about two-third of anglers (63.5%) were employed on a full-time basis. More than half (53.2%) reported their primary residence of urban or suburban area. The average number of years respondents resided in their counties was also around 27.8. In terms of fishing experience in Wisconsin waters, our respondents fished 33.8 times on average during the last 12 months and inland lakes or flowages (19.6 times) were their most preferred fishing places, followed by rivers or streams (10.2 times) and Great Lakes (4.4 times).

Table II - 1. Descriptive statistics for constructs and indicators for this study

Second/first-order constructs and observed variables	Mean	S.D.	Cronbach's alpha
Constraints			
<i>Intrapersonal</i>			.66
I don't have enough time (V1)	3.43	1.00	
I have too many family responsibilities (V2)	3.18	.96	
I don't have the necessary fishing skills (V3)	2.16	.91	
<i>Interpersonal</i>			.86
I can't find other people who have interest in fishing (V4)	2.25	.83	
I can't find other people who have enough time to fish (V5)	2.55	.95	
I can't find other people who have the necessary fishing skills (V6)	2.16	.73	
<i>Structural</i>			.62
Fishing facilities are poorly developed and maintained (V7)	2.20	.91	
Fishing regulations are too restrictive (V8)	2.45	1.01	
I am not aware of fishing opportunities close to home (V9)	1.96	.83	
The cost of fishing equipment and supplies is too expensive (V10)	2.45	.91	
Commitment			.76
If I stopped fishing, I would lose touch with my friends (V11)	2.10	.89	
If I couldn't go fishing, I am not sure what I would do (V12)	2.38	1.11	
Because of fishing, I don't have time to spend participating in other leisure activities (V13)	2.10	.82	
I find that a lot of my life is organized around fishing (V14)	2.41	1.03	
Negotiation			
<i>Cognitive strategies</i>			.84
I try to ignore some problems resulting from my fishing (V15)	2.49	.81	
I try to push myself harder when I encounter some obstacles in fishing (V16)	2.92	.89	
I try to persist until I overcome some obstacles in fishing (V17)	3.02	.90	
I try to swallow my pride when I encounter some obstacles in fishing (V18)	2.73	.96	
<i>Behavioral strategies</i>			.68
I try to organize my schedule (V19)	3.65	.87	
I try to budget my money (V20)	3.56	1.03	
I try to find people with similar interests (V21)	3.26	.89	
I try to persuade my family or friends to go fishing (V22)	3.45	.89	
I try to practice to improve my fishing skills (V23)	3.30	1.03	
Intentions to participate more often			.82
If I have chances, I intend to go fishing more often over the next 12 months (V24)	3.99	.75	
I am determined to go fishing more often over the next 12 months (V25)	3.74	.83	
I will go fishing more often over the next 12 months if my family or friends want to do (V26)	3.72	.79	

Measurement Model

This study followed a two-step modeling procedure for structural equation modeling (SEM) based on the recommendations of Anderson and Gerbing (1988). In order to assess the degree of fit of the measurement and structural model, this study applied five different fit indices including the chi-square (χ^2)/degree of freedom ratio, Normed Fit Index (NFI), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Root Mean Square Error of Approximation (RMSEA). The indices of NFI, CFI, and NNFI are commonly recommended to be greater than 0.9 for an acceptable model fit (Hatcher, 1994). The RMSEA value of less than 0.08 also indicates an acceptable fit (Browne & Cudeck, 1993). While a non-significant value of chi-square /degree of freedom ratio suggests a good fit to the data, the statistics are known to be highly sensitive to sample size (Kline, 2005). Accordingly, this study presented the ratio of chi-square/degree of freedom for reference purposes.

This study tested the measurement model to examine underlying patterns of interrelationships among several latent constructs. Table II-2 demonstrates the results of the measurement model estimation. According to the measurement model, all fit indices (NFI = 0.913; CFI = 0.939; NNFI = 0.928; RMSEA = 0.048) indicated a satisfactory fit to the data except for the ratio of chi-square/degree of freedom ($3.095 = 854.311 (\chi^2)/276 (df)$, $p < 0.001$). The composite reliabilities for seven different latent variables also indicated acceptable levels with the coefficients in excess of 0.6 (Hatcher, 1994). Because the t -values of all indicator coefficients ranging from 8.906 to 28.565 were highly significant, convergent validity seemed to be satisfactorily supported (Anderson & Gerbing, 1988). This study examined discriminant validity with a comparison of the error variances of each latent factor and the squared correlation estimates between all constructs. According to Fornell and Larcker (1981), discriminant

validity is often considered acceptable when the statistics of error variance are greater than the squared correlation estimates. Table II-3 provides supportive evidence for discriminant validity.

Table II - 2. Results of measurement model

Constructs and indicators		Unstandardized regression weights	Factor loadings	t-value	Composite reliability
Intrapersonal constraints	V1	1.000	.788	—	.72
	V2	.963	.791	10.617*	
	V3	.408	.357	8.906*	
Interpersonal constraints	V4	1.377	.966	28.565*	.80
	V5	1.223	.770	25.657*	
	V6	1.000	.787	—	
Structural constraints	V7	1.000	.612	—	.67
	V8	1.096	.615	11.717*	
	V9	.899	.586	11.508*	
	V10	.777	.481	10.260*	
Commitment	V11	.807	.629	15.199*	.68
	V12	1.233	.769	16.848*	
	V13	.717	.609	14.827*	
	V14	1.000	.676	—	
Cognitive negotiation	V15	.647	.568	17.610*	.70
	V16	1.167	.898	26.070*	
	V17	1.180	.910	26.258*	
	V18	1.000	.722	—	
Behavioral negotiation	V19	1.000	.670	—	.63
	V20	1.007	.626	20.296*	
	V21	1.083	.738	18.501*	
	V22	1.183	.790	19.379*	
	V23	1.156	.710	17.962*	
Intentions to participate more often	V24	1.386	.907	19.486*	.89
	V25	1.474	.863	19.486*	
	V26	1.000	.610	—	

* indicates a statistical significance at the level of .05

Table II - 3. Correlation estimates between latent variables and error variances

	1	2	3	4	5	6	7
1. Intrapersonal constraints	<i>.51</i>						
2. Interpersonal constraints	.048	<i>.77</i>					
3. Structural constraints	.098	.282	<i>.49</i>				
4. Commitment	-.113	-.010	.065	<i>.54</i>			
5. Cognitive negotiation	-.107	-.057	.090	.258	<i>.64</i>		
6. Behavioral negotiation	-.044	.046	.178	.269	.573	<i>.47</i>	
7. Intentions	-.019	-.074	-.129	.221	.429	.394	<i>.74</i>

Italics indicate error variances extracted

Structural Model

Because the measurement model supported the reliability and validity of the latent factors and indicators, and revealed an acceptable fit to the data, the theoretical structural model was tested using a path analysis. According to Anderson and Gerbing (1988), nomological validity should be examined with chi-square difference tests to determine whether the theoretical structural model is effective to account for the interrelationships among the latent factors prior to performing a path analysis with latent variables. Given that there is no significant difference, the theoretical structural model is largely believed appropriate to explain the predictive associations between the latent variables (Hatcher, 1994; Kline, 2005). A chi-square difference test between the measurement model and the hypothetical structural model suggested highly significant ($\Delta\chi^2 = 219.396$, $\Delta df = 4$, $p < 0.001$), meaning that the structural model failed to successfully address the predictive relationships between the underlying constructs. Various fit indices of the theoretical structural model also indicated an unsatisfactory fit to the data while some of them exceeded the cut-off criteria (NFI = 0.891; CFI = 0.917; NNFI = 903; RMSEA = 0.056).

Lagrange multiplier tests were further conducted to identify additional paths in the initial theoretical structural model. The tests are known to help researchers specify a better model by

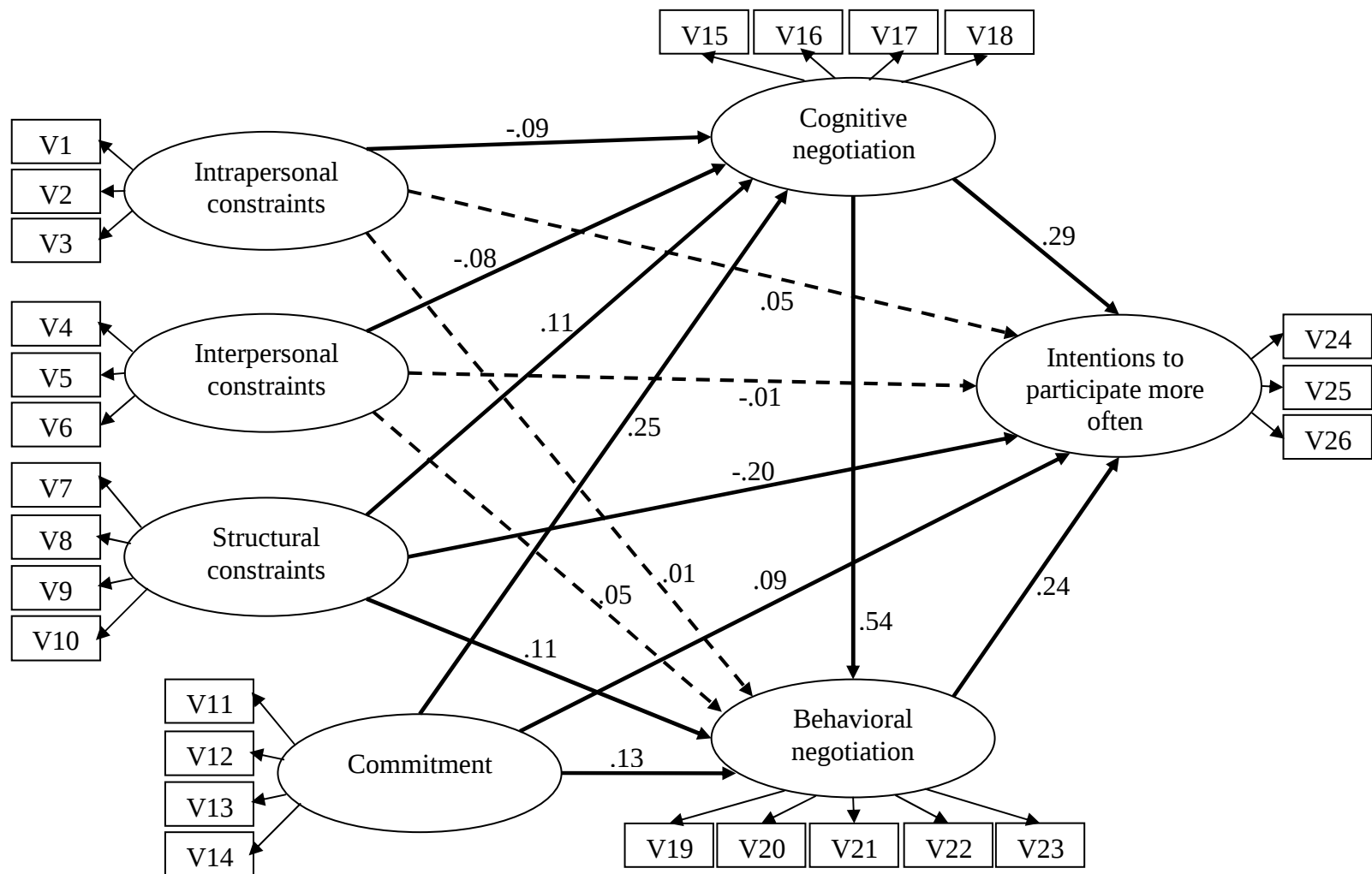
adding new paths to the initial structural model (Bentler, 1989). The results of Lagrange multiplier tests presented a significant decrease of chi-square values ($\Delta\chi^2 = 212.253$, $\Delta df = 1$, $p < 0.001$) when a predictive path was added between the constructs of cognitive negotiation and behavioral negotiation. In other words, the revised structural model with the new path was significantly improved in fitting to the data. Accordingly, this study inserted a path linking from cognitive negotiation to behavioral negotiation strategies. This addition can be supported by the theory of cognitive dissonance, exhibiting that individuals' cognitive changes lead to their belief systems or behaviors (Festinger, 1957). In order to check nomological validity, a chi-square difference test was performed with a comparison of the revised structural model and the measurement model. As a result, the comparison suggested an insignificant change ($\Delta\chi^2 = 861.454 - 854.311 = 7.143$, $\Delta df = 279 - 276 = 3$, $p = 0.068$), which represented nomological validity. Diverse fit indices (NFI = 0.912; CFI = 0.938; NNFI = 0.928; RMSEA = 0.048) also showed acceptable to account for the hypothesized interrelations. Table II-4 presents various fit indices of the three different models.

Table II - 4. Fit indices of three different models

	χ^2	df	NFI	CFI	NNFI	RMSEA
Measurement model	854.311	276	.913	.939	.928	.048
Initial structural model	1073.707	280	.891	.917	.903	.056
Revised structural model	861.454	279	.912	.938	.928	.048

Study results suggested that the construct of behavioral intentions to participate more often is indirectly predicted by the two dimensions of leisure constraints (i.e., intrapersonal and interpersonal constraints) while structural constraints and commitment revealed both direct and indirect associations with future intentions. In other words, cognitive and behavioral

negotiation strategies served as important mediators to explain the interrelationships from constraints and commitment to behavioral intentions for more frequent participation. Intrapersonal and interpersonal constraints revealed unexpected negative connections to cognitive negotiation strategies (H 2-1: $\beta = -0.09$, $t = -2.379$; H 2-2: $\beta = -0.08$, $t = -2.195$). Conversely, structural constraints disclosed significant associations with cognitive and behavioral negotiation efforts (H 2-3: $\beta = -0.11$, $t = 2.461$; H 3-3: $\beta = 0.11$, $t = 2.649$) as well as behavioral intentions (H 1-3: $\beta = -0.20$, $t = -4.624$). The construct of commitment positively affected angler's cognitive and behavioral negotiation strategies (H 4-1: $\beta = 0.25$, $t = 6.062$; H 4-2: $\beta = 0.13$, $t = 3.414$) in addition to future intentions (H 4-3: $\beta = 0.09$, $t = 2.461$). Likewise, cognitive and behavioral negotiation strategies showed significant positive linkages to behavioral intentions (H 5: $\beta = 0.29$, $t = 6.239$; H 6: $\beta = 0.24$, $t = 5.014$). During the analysis procedure to identify a better model, this study uncovered a strong positive connection from cognitive to behavioral negotiation strategies ($\beta = 0.54$, $t = 12.290$). The standardized regression coefficients of our final structural model are presented in Figure II-2.



Note: Solid lines indicate significant paths at the level of 0.05

Dotted lines indicate insignificant paths at the level of 0.05

Figure II - 2. Path coefficients of the final structural model

Discussion and Conclusion

This study aimed to construct a conceptual framework that explains how leisure constraints and commitment to an activity are theoretically connected with behavioral intentions for more frequent participation via negotiation strategies. In other words, we examined the importance of different negotiation strategies as mediators linking between the two exogenous elements of participants' constraints negotiation process and behavioral intentions. In order to investigate the typical influences of each element comprising leisure constraints on the two different types of negotiation efforts (i.e., cognitive and behavioral strategies) and future intentions, this paper made use of three dimensions of constraints, namely, intrapersonal, interpersonal, and structural constraints individually.

Overall, study results suggested that recreationists' behavioral intentions for more frequent participation are intimately associated with other concepts in the process of constraints negotiation. The two different negotiation strategies were closely related to their future intentions. The concept of commitment that was employed as a proxy variable for motivations in this study also played a critical role in explaining recreationists' efforts to attenuate the impacts of leisure constraints and thus in developing their behavioral intentions to participate more often. Of the three different types of leisure constraints, structural constraints indicated the most robust connections to future intentions in both direct and indirect manners. Unlike structural constraints, the other two leisure constraints (i.e., intrapersonal and interpersonal constraints) were only indirectly related to recreationists' intentions via various negotiation strategies. This study additionally identified that cognitive negotiation strategies were strongly connected with behavioral strategies.

There are several important discussion points emanated from our study findings. This study provided empirical evidence that the two dimensions of negotiation strategies serve as

important mediators that determine recreationists' intentions for more frequent leisure participation. This finding seems to be consistent with the "balance effect" of negotiation strategies, proposed by Jackson, Crawford, and Godbey (1993). According to the balance proposition, individuals' efforts to participate in a preferred leisure activity are highly dependent upon the comparative strength of, and mutual interactions between, constraints and motivations (Hubbard & Mannell, 2001). Because this study used the concept of commitment as a surrogate for motivations, our study finding indicates that negotiation strategies delicately arrange the counter influences of these two exogenous variables of constraints and commitment. Put otherwise, negotiation efforts, which are triggered by a change in the levels of commitment and constraints, are likely to adjust the extent to which recreationists indicate their willingness to participate more frequently.

Furthermore, this study shed new light on the function of commitment in recreationists' leisure decision-making process. The significant positive effects of commitment on the two dimensions of negotiation strategies and behavioral intentions provided strong evidence that the concept is likely to more accurately characterize participants' habitual leisure pursuits than motivations representing emotional arousal for participation. It is reasoned that participants' behavioral continuance over time and personal dedication to their favorite activity can be better viewed within the boundary of commitment (Buchanan, 1985; Shamir, 1988).

Study results also disclosed that the three elements of leisure constraints were differently associated with cognitive negotiation strategies. The positive coefficient signs between the construct of structural constraints and the two types of negotiation strategies corresponded with our research hypotheses. However, the signs of the two path coefficients linking intrapersonal and interpersonal constraints to cognitive negotiation strategies were opposite to prior

expectations. These unexpected negative signs imply that respondents are less likely to exert various cognitive negotiation efforts to participate more often as they encounter higher levels of intrapersonal and interpersonal constraints. The majority of previous studies (e.g., Hubbard & Mannell, 2001; Lee & Scott, 2009; White, 2008) reported that there was a positive relationship between constraints and negotiation strategies. Besides this study, Jun and Kyle (2011) recently revealed a negative linkage from recreational golfers' perception of constraints to negotiation efforts. They noted that the insertion of new exogenous variables (i.e., identity conflict and facilitation) in addition to the utilization of an alternative dimensional approach to constraints other than the tripartite approach contributed to the negative connection. However, their argument may not accurately address the unexpected relationship between the two variables.

The hierarchical model of leisure constraints (see Figure I-1), proposed by Crawford, Jackson, and Godbey (1991), provides a better explanation for this finding, which illustrates how individuals deal with diverse leisure constraints to initiate participation and develop stronger leisure involvement. Based on this model, individuals first face and negotiate leisure constraints for initial participation. Then, even after the initial engagement, they are continually influenced by a set of factors that impede more frequent participation. Dissimilar to the first phase of the model demonstrating how individuals begin their leisure engagement, the second phase indicates that current recreationists cope with leisure constraints in a different way. It is reasoned that prior experience of managing several constraints allows current recreationists to differently react from the first stage for initiating participation. In other words, our respondents who already negotiated constraints to initial fishing participation are less likely to use diverse cognitive negotiation efforts when they perceive greater impacts of intrapersonal and interpersonal constraints to more frequent participation and stronger leisure involvement.

However, they indicated different responses to structural constraints by actively exhibiting various cognitive and behavioral negotiation strategies. Put otherwise, current fishing participants presumably show stronger negotiation efforts to participate more often as they encounter a higher level of structural constraints.

There still remain multiple study limitations and future research directions. First, recreationists' levels of negotiation and leisure involvement are likely to change over time (Ditton, Loomis, & Choi, 1992; Jackson, 2005b). In particular, the phenomena of constraints negotiation are often viewed as individuals' transactional processes during the course of everyday life (Hubbard & Mannell, 2001), which are based on the continual comparisons between sacrifices (i.e., various efforts to attain a higher level of specialization) and compensations (i.e., realization of diverse benefits from a higher level of leisure involvement). While we made use of the concept of behavioral intentions for stronger leisure engagement as its dependent variable, this study failed to show complete pictures illustrating how recreationists' perception of leisure constraints and their level of specialization vary according to the specific time periods. These limitations may result from the use of a cross-sectional study design. However, several studies with a longitudinal approach (e.g., Jackson & Witt, 1994; Wright, Rodgers, & Backman, 2001) provided meaningful opportunities to understand the influences of leisure constraints within the context of individuals' life cycle. Accordingly, a longitudinal study design with panel data can be beneficial to investigate when and how several elements of the constraints negotiation process function in individuals' developmental systems of leisure behaviors, attitudes, and preferences.

Second, this study classified anglers' leisure constraints into three dimensions: intrapersonal, interpersonal, and structural. Despite the popularity of the tripartite approach, the

three-dimensional construct structure is often believed to be ambiguous due to the intertwining relationships among them (Godbey, Crawford, & Shen, 2010). In reality, several studies (e.g., Hubbard & Mannell, 2001; Raymore, Godbey, Crawford, & von Eye, 1993) reported fairly high correlations between and low internal consistency in the three dimensions. Our data also revealed relatively lower reliabilities in each sub-scale of constraints ranging from 0.62 to 0.86. This concern regarding reliability and validity is likely to be resolved with the flexible operationalization of the tripartite approach. Future research will be particularly beneficial to develop higher order factor models within the three-dimensional mechanism in order to evade those measurement concerns.

In conclusion, this study attempted to examine the predictive relationships from several elements of participants' constraints negotiation process to behavioral intentions for more frequent participation. There exists important management implications based on study findings. With respect to the negative linkages from intrapersonal and interpersonal constraints to cognitive negotiation strategies, the provision of diverse policies that intend to minimize the influences of these constraints is recommended to facilitate recreationists' higher levels of leisure involvement. Since the development of negotiation concept, a large percentage of leisure service practitioners may have misunderstood their responsibilities for relieving the impacts of leisure constraints (Scott, 2005). In other words, provided that many people continuously participate in preferred activities by willingly exerting various efforts to negotiate constraints, they may think that there exist few duties for leisure service organizations. However, results from this study lead leisure service practitioners to think differently about their roles in facilitating recreationists' efforts to negotiate various constraints. Put otherwise, diverse management strategies and policies are needed for their clientele to effectively mitigate the

overwhelming effects of intrapersonal and interpersonal constraints. We hope that this study will assist leisure service practitioners to broaden insights into their clientele's decision-making process for stronger leisure enjoyment.

CHAPTER III: THE INFLUENCES OF DIVERSE COMPONENTS IN THE CONSTRAINTS NEGOTIATION PROCESS ON LATENT DEMAND

Introduction

No one is entirely free from leisure constraints (Smith, 1987). Even current participants are constrained from participating as often as they desire (Wright & Goodale, 1991). The hierarchical model of leisure constraints (see Figure I-1), proposed by Crawford, Jackson, and Godbey (1991), suggests that there exist different types of participants' constraints. According to this model, participants who already negotiated a series of initial constraints are continually affected by diverse factors which restrain from participating more frequently and reaching a desired level of leisure involvement.

In addition to this heterogeneous perception of constraints, levels of interest and participation in leisure activities differentiate current participants from non-participants with no desires to initiate participation and prospective participants with desires to initiate participation. In other words, the economic term of demand is popularly used as a useful tool to address the disparities between participation and non-participation. It is reasoned that the definition of demand in economics embraces individuals' preferences which lead to actual behaviors. Using this economic concept, Jackson and Dunn (1988) classified non-participants as having two distinct types of recreation demand, latent and no demand. No demand is indicated by individuals who have no interest in an activity whereas latent demand is exhibited by people who would like to participate but do not participate due to various constraints.

In addressing participants' recreation demand, Wall (1981) stated that all participants can be understood within the scope of actual (or effective) demand, which simply reflects current level of participation. However, besides actual demand, several studies (e.g., Mannell &

Kleiber, 1997; Richardson & Crompton, 1988; Scott & Mowen, 2010; Wright & Goodale, 1991) highlighted that there can be different types of participants' demand: full and latent demand. Those studies also noted that the dynamic nature of participants' demand is attributed to the intricate interactions between their levels of desire for participation and actual engagement.

Latent demand characterizing the extent to which people with interest do not participate seems to be evident because most participants often indicate their desires to increase the frequency of participation and reach their full demand, representing a state in which current level of participation is equal to desired level (Kotler, 1973). Leisure constraints are likely to serve as crucial explanatory variables for latent demand (Davies & Prentice, 1995; Jackson, Crawford, & Godbey, 1993). It is reasoned that various constraints often act as inhibitors that restrict people with interest to more frequent participation. Several studies (e.g., Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991) revealed that participation does not necessarily imply the absence of constraints. Rather, a substantial number of individuals participate despite the presence of constraints. In this regard, previous studies postulated that latent demand can be transformed into actual demand when diverse constraints are negotiated (Scott & Mowen, 2010; Williams & Basford, 1992).

With the proposition of "balance effect", Jackson, Crawford, and Godbey (1993) suggested that the initiation of negotiation efforts is dependent upon the relative strength of, and interactions between, constraints and motivations. In light of this proposition, recreationists' formation of latent demand is likely to be closely associated with motivations as well as constraints and negotiation. Participants' motivations for continuous engagement in their favorite activity can be better explained using the concept of commitment (Kim, Scott, &

Crompton, 1997; Mannell & Kleiber, 1997). Thus, commitment to a particular activity presumably plays an important role in predicting participants' latent demand.

In order to better understand participants' latent demand, it is important to accurately view their systematic mechanism of constraints negotiation. It may be reasoned that several explanatory elements in the constraints negotiation process are known to affect the formation of recreation demand. However, there is limited information on the conceptual associations between the two developmental frameworks. Accordingly, the purpose of this study is to examine how diverse components derived from participants' constraints negotiation process are interconnected with the formation of latent demand.

Literature Review

Recreation Demand

In the discipline of economics, demand is normally referred to as a desire supported by a willingness and ability to pay for a specific good and service (Tietenberg, 2006). The most fundamental principle of demand is also well known: as price increases, demand decreases. However, this premise may be incomplete in that demand encompasses observable consumers' behaviors as well as their preferences that are not converted to actual behaviors yet (Driver & Brown, 1975; Howard & Crompton, 1980). Accordingly, Wall (1981) redefined recreation demand as the sum of "the use of existing [resources or] facilities and the desire to use recreation [resources or] facilities now or in the future" (p. 239).

Among several types of demand that are classified on the bases of current and desired levels, four different categories – namely, actual, no, latent, and full demand – have been mainly used to explain leisure and recreation phenomena (Jackson & Dunn, 1988; Wright & Goodale, 1991). Full demand is considered as the most desirable situation in which leisure service providers are able to expect. The demand is commonly defined as "a state in which the current

level and timing of demand is equal to the desired level and timing of demand” (Kotler, 1973, p. 46). For leisure service providers, it may be unattainable to perpetuate the state in that dynamic competition and changeable tastes are apparent in the real market. Analogously, users’ full demand does not likely last long due to their limited personal resources and time constraints.

Unlike full demand, no demand represents a state in which users have no interest in consuming a particular recreation resource. Because levels of interest and desire play an important role in determining the types of demand operated, Jackson and Dunn (1988) classified non-participants with lack and/or loss of interest as having no demand. While prior studies (e.g., Gobster, 1998; Schroeder & Wiens, 1986) found lack and/or loss of interest and desire to be a common reason for non-participation, several researchers (e.g., Jackson, 1990; Jackson & Dunn, 1988; Wright & Goodale, 1991) excluded those factors from general typologies of constraints which result in latent demand. Further, Jackson (1990) provided a persuasive answer based on the intimate associations between constraints and demand; lack of interest represents a state in which no goal or desire exists (i.e., no demand) whereas the concept of constraints necessarily embraces the presence of such a goal (i.e., participation). Figure III-1 demonstrates several categories of recreation demand.

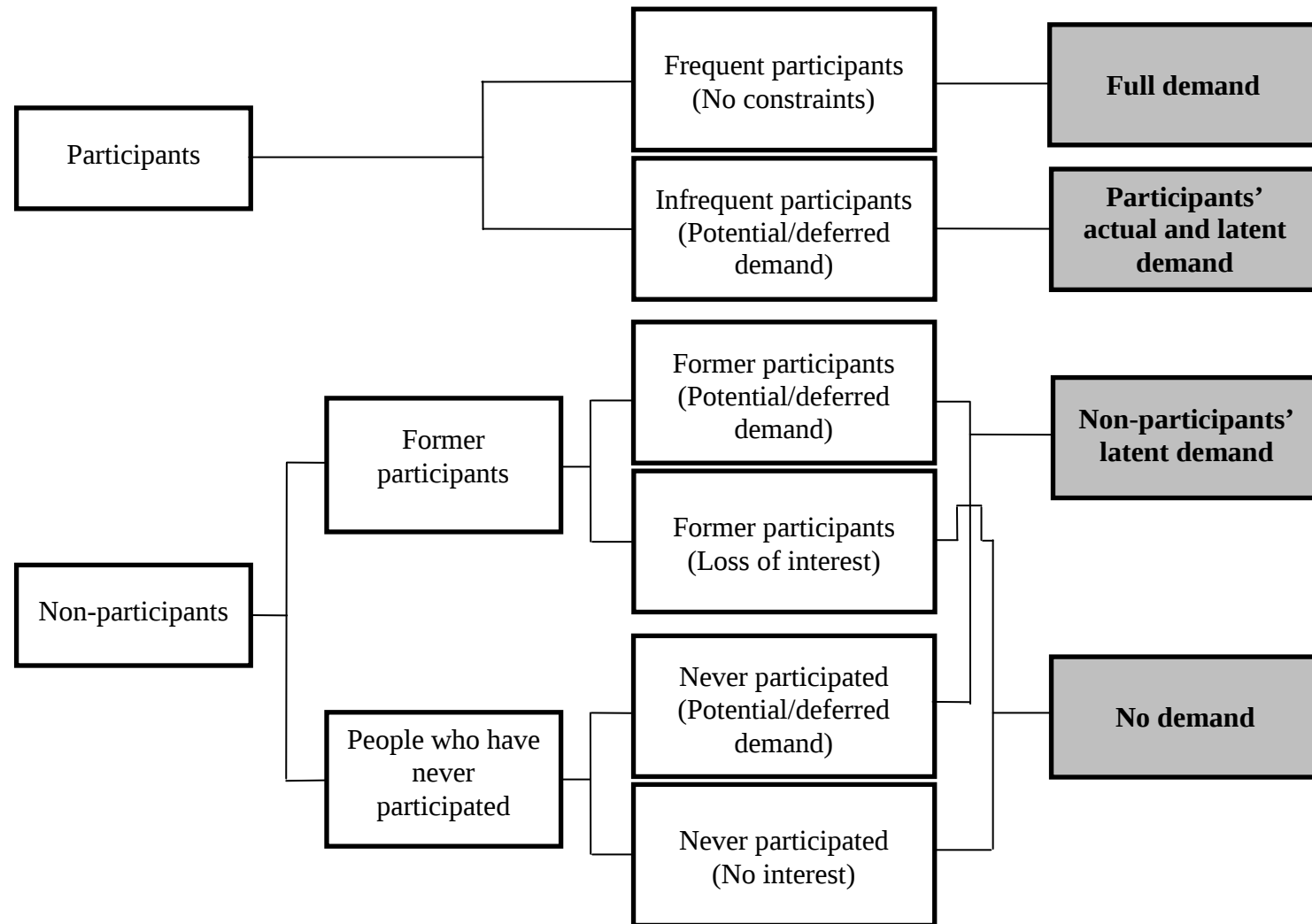


Figure III - 1. Types of demand associated with participation and non-participation (modified from Wright and Goodale, 1991)

Most social and economic phenomena including leisure and recreation activities may be better viewed by applying the notion of latent demand because the majority of people inevitably perceive the deficiency of adequate facilities and resources (Scott & Mowen, 2010). According to Kotler (1973), latent demand is commonly witnessed “when a substantial number of people share a strong need for something which does not exist in the form of an actual product” (p. 44). The demand can be most briefly referred to as “unfulfilled interest” (Howard & Crompton, 1980). From the perspectives of leisure service providers, latent demand might have viewed as an inconsequential issue because the state is often believed as an ordinary situation. However, the presence of latent demand implies that unfulfilled desires can be converted into actual demand to approach full demand by using adequate policies and strategies (Clawson & Knetsch, 1966). Put otherwise, it is important to recognize that recreationists’ efforts to transform their latent demand into observable participation are within leisure service providers’ control. In this sense, Kotler (1973) emphasized the importance of various developmental marketing strategies as efficient transformation tools.

Research on the concept of latent demand is still in its early stage because of its measurement difficulties (Wall, 1981). Conceptually, latent demand can be best measured using a comparison between pre-test and post-test. More specifically, recreationists are asked to report their current level of participation in the pre-test stage; next, they are exposed to stimuli or treatments, which likely affect respondents’ demand for participation; and, in the post-test stage, respondents’ desired level of participation are measured to examine the changes in their demand. In this experimental design, differences between pre-test and post-test, which represent latent demand, are commonly believed to be caused by the effects of stimuli or treatments (Babbie, 2001).

Indeed, Rodgers (1973) estimated latent demand by comparing participation rates before and after the establishment of a new local recreation facility. While conducting surveys to examine recreation demand of Ontario residents, Wall (1981) suggested a two-step comparison approach to measure latent demand, which first examined respondents' perception of diverse constraints and then asked their levels of desires for participation in an activity. Richardson and Crompton (1988) operationalized latent demand as differences between self-reported interest in, and likelihood of, traveling selected tourists' attractions. These prior studies reached general agreement that people with latent demand are constrained to fulfill their desires.

Participants' Latent Demand & Constraints Negotiation Process

Prior studies (e.g., Jackson & Dunn, 1988) normally assumed that the application of latent demand is more appropriate to non-participants than participants. It was reasoned that non-participants with interest (i.e., individuals who have never participated and former participants) tend to indicate unfulfilled demand for initial participation and reparticipation, whereas participants are uniformly believed as those who successfully accomplish their desires for participation. Consistent with such non-participants, however, participants likely reveal their latent demand, not for participation *per se*, but for more frequent participation. Put otherwise, almost all participants possibly show at least some levels of latent demand because the state of full demand is rarely achievable in the real world.

It is important to recognize that participants' latent demand can be more accurately predicted by using the constraints negotiation process (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; White, 2008). According to the process, individuals' efforts to negotiate various constraints are stimulated by an increase in their levels of constraints and motivations. The negotiation efforts play important roles in mitigating the negative association

between constraints and participation and also intensifying the positive relationship between motivations and participation. Among diverse components in the process, constraints which inhibit participants from reaching their full demand are considered the most important explanatory factors for latent demand. In other words, there is latent demand given that individuals with interest in more frequent participation do not engage in an activity as often as they desire due to the impacts of diverse constraints.

Based on several types of constraints, Wall (1981) divided non-participants' latent demand into two different forms: potential and deferred demand. Likewise, participants can be understood with the use of these two types of latent demand. Deferred demand is applied to those people who could more frequently participate but do not. This demand largely stems from either intrapersonal (e.g., lack of knowledge) or structural (e.g., absence of facilities) constraints, or both of these reasons. Potential demand exists for those who want to participate more frequently but are unable to do so at present. This type of latent demand can be possibly fulfilled through an improvement in economic and social circumstances. Accordingly, latent demand moves toward actual demand when various constraints are alleviated and overcome (Williams & Basford, 1992). Put another way, negotiation efforts which are known to relieve the impacts of constraints play critical roles as suppressing mediators between constraints and latent demand.

With a columnar model, Davies and Prentice (1995) suggested a diagrammatical framework to demonstrate the influences of negotiation and motivations on latent demand. According to their study, the nature of latent demand is determined by intricate interactions between motivations and "reaction to constraints". For example, occasional visitors' latent demand is attributed to an interaction between negative motivations toward, and active

negotiation with constraints for, visiting a specific heritage site. It is noteworthy that their latent demand model made use of “reaction to constraints”, modified from the concept of constraints negotiation. In this example, latent demand is likely to be dependent upon the outcomes of heritage visitors’ negotiation efforts to overcome the influences of constraints. The columnar model also suggests a negative relationship between motivations and latent demand. In other words, recreationists’ latent demand decreases as their motivations for visiting the sites increase.

The vast majority of prior research on the constraints negotiation process (e.g., Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; White, 2008) employed motivations as an important exogenous variable along with constraints. Nevertheless, behavioral continuance and emotional dedication, two different core dimensions of commitment, seem to be more adequate psychological elements for participants with desire for continuous participation (Shamir, 1988; Tinsley & Tinsley, 1986). Kim, Scott, and Crompton (1997) also noted that commitment can be used to explain participants’ consistent behavioral patterns and represent a willingness to make psychological and physical efforts for continuous participation in an activity.

Method

Data Collection

By using a computer-generated sampling procedure, this study randomly chose a sample of anglers (N = 10,000) from an email list of Wisconsin anglers who purchased diverse types of fishing licenses during the fiscal year of 2011 (July 1, 2010 – June 30, 2011). We conducted an online survey as a cost-efficient data collection method. Despite various advantages of online surveys, low response rates have been often reported (Sexton, Miller, & Dietsch, 2011). Accordingly, this study made use of Dillman, Smyth, and Chritian’s (2009) modified total design method to increase its response rate. In other words, an invitation and a set of reminders with a

link to the questionnaire were sent in three different waves during the course of four weeks from February to March, 2012. In order to test non-response bias, a condensed version of the questionnaire was sent to non-respondents. Statistical tests indicate that there were no significant differences between our respondents and non-respondents in terms of socio-demographic information (see Appendix A).

After deleting 72 respondents as non-deliverables, this survey procedure yielded 1,637 responses, indicating an effective response rate of 16.5%. Further, 923 responses were additionally dropped with incomplete information in at least one of the indicators in model estimation. As our final data, 714 responses were used.

Instrumentation

The dependent variable of latent demand was measured by using a three-step approach modified from Wall's measurement technique (1981). Specifically, respondents were first asked to report their number of fishing trips to four different types of Wisconsin waters (i.e., Great Lakes, Inland lakes or flowages, rivers or streams, and farm ponds or stock tanks) during the last 12 months; they were then asked levels of agreement with several statements in terms of leisure constraints on more frequent participation; in the final phase, respondents were asked to indicate their desired number of fishing trips during the last 12 months given four different hypothetical situations without particular constraints such as family and work commitments, inappropriate fishing facilities, absence of fishing peers, and financial inabilities. Respondents' latent demand was computed by summing up the number of desired fishing trips in each hypothetical scenario.

This study utilized multiple independent variables including leisure constraints, negotiation strategies, commitment, fishing trip experiences, willingness-to-pay (WTP) values, and a set of

socio-demographic information. Table III-1 presents the definitions of each variable. The concept of leisure constraints (CONSTRAINTS) were measured using ten different items that were identified from a review of previous literature (e.g., Fedler & Ditton, 2001; Ritter, Ditton, & Riechers, 1992; Sutton, 2007). Exploratory factor analysis (EFA) revealed the presence of three factors including intrapersonal (e.g., I don't have enough time), interpersonal (e.g., I can't find other people who have interest in fishing), and structural (e.g., Fishing facilities are poorly developed and maintained). A five-point Likert response format with values ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure these items.

Table III - 1. Characteristics of each variable used in this study

Variable names	Descriptions
NLD	Total number of latent demand for fishing during the last 12 months (dependent variable)
NFSHNG	Total number of fishing trips in Wisconsin waters
TYPDAY	Number of days spent on a typical fishing trip
SATISFACTION	Overall satisfaction level for fishing trip (1=not at all satisfied to 5=extremely satisfied)
WTP	Total amount of maximum willingness to spend over most typical fishing trip cost before respondents would not have taken the trip
AGE	Age
GENDER	Gender (0=female; 1=male)
INCOME	Annual household income level (1=less than \$20,000 to 8=\$140,000 and above)
EDUCATION	Education level (1=some high school or less to 5=postgraduate school)
EMPLOYMENT	Employment status (0=non full-time employment; 1=full-time employment)
CONSTRAINTS	Level of agreement with each statement in terms of leisure constraints to more frequent fishing (1=strongly disagree to 5=strongly agree)
NEGOTIATION	Frequency of implementation of each strategy in terms of negotiation (1=never to 5=always)
COMMITMENT	Level of agreement with each statement in terms of commitment (1=strongly disagree to 5=strongly agree)

Negotiation strategies (NEGOTIATION) were measured with eight items modified from previous studies (e.g., Alexandris, Kouthouris, & Girgolas, 2007; Jackson & Rucks, 1995; Jun & Kyle, 2011; White, 2008). A five-point Likert scale was employed with values ranging from 1 (never) to 5 (always), and the results of EFA suggested two different factors of cognitive (e.g., I try to persist until I overcome some obstacles in fishing) and behavioral strategies (e.g., I try to budget my money). The concept of commitment (COMMITMENT) was evaluated using four different measurement items derived from previous studies (e.g., Kim, Scott, & Crompton, 1997; Lee & Scott, 2006; McIntyre, 1989; Siegenthaler & Lam, 1992). With the use of a five-point Likert response format with values ranging from 1 (strongly disagree) to 5 (strongly agree), the results of EFA discovered a single factor. Several regression scores of each factor that comprises those three concepts of constraints, negotiation, and commitment were used as independent variables in order to reduce the number of components and minimize multicollinearity of each measurement item (Tabachnick & Fidell, 2007). Table III-2 shows the results of EFA with Varimax rotation for the three different concepts.

NFSHNG indicates an angler's total number of fishing trips during the last 12 months while TYPDAY suggests the number of days spent on a typical fishing trip. SATISFACTION, measured with a five-point Likert response format with values ranging from 1 (not at all satisfied) to 5 (extremely satisfied), represents an angler's level of overall satisfaction in terms of fishing trips in Wisconsin. The variable of WTP indicates an angler's maximum willingness to spend over most typical fishing trip cost before she or he would not have taken the trip. A set of socio-demographic variables such as AGE, GENDER, INCOME, EDUCATION, and EMPLOYMENT were further incorporated to examine the unique characteristics.

Table III - 2. Results of exploratory factor analyses

Second/first-order factors and indicators	Mean	S.D.	Variance explained	Factor loading	Reliability
Constraints			59.82%		.64
<i>Intrapersonal</i>			17.83%		
I don't have enough time	3.50	1.01		.860	
I have too many family responsibilities	3.26	.99		.835	
I don't have the necessary fishing skills	2.19	.93		.548	
<i>Interpersonal</i>			23.45%		
I can't find other people who have interest in fishing	2.29	.89		.912	
I can't find other people who have enough time to fish	2.62	1.00		.852	
I can't find other people who have the necessary fishing skills	2.16	.78		.801	
<i>Structural</i>			18.55%		
Fishing facilities are poorly developed and maintained	2.17	.96		.795	
Fishing regulations are too restrictive	2.45	1.06		.708	
I am not aware of fishing opportunities close to home	1.99	.94		.582	
The cost of fishing equipment and supplies is too expensive	2.43	.94		.536	
Negotiation			52.43%		.77
<i>Cognitive strategies</i>			30.13%		
I try to push myself harder when I encounter some obstacles in fishing	2.94	.88		.828	
I try to persist until I overcome some obstacles in fishing	3.05	.90		.831	
I try to swallow my pride when I encounter some obstacles in fishing	2.79	.97		.725	
I try to ignore some problems resulting from my fishing activity	2.46	.91		.725	
<i>Behavioral strategies</i>			22.30%		
I try to organize my schedule	3.68	.85		.756	
I try to budget my money	3.61	1.03		.652	
I try to find people with similar interests	3.30	.90		.604	
I try to persuade my family or friends to go fishing	3.50	.87		.553	
I try to practice to improve my fishing skills	3.33	1.01		.465	

Table III-2. (Cont'd)

Second/first-order factors and indicators	Mean	S.D.	Variance explained	Factor loading	Reliability
Commitment			56.43%		.74
If I stopped fishing, I would lose touch with my friends	2.13	.93		.712	
If I couldn't go fishing, I am not sure what I would do	2.42	1.12		.808	
Because of fishing, I don't have time to spend participating in other leisure activities	2.13	.84		.723	
I find that a lot of my life is organized around fishing	2.41	1.02		.758	

Results

Descriptive Statistics

Most respondents were males (95.5%) with a mean age of 49.5. Almost half of anglers (48.9%) reported annual household income of greater than \$80,000. The majority of respondents (87.6%) had college/university or graduate education and about two-thirds of anglers (65.5%) were employed on a full-time basis. More than half (54.0%) reported their primary residence in urban or suburban area. Table III-3 shows the descriptive statistics for variables employed in this study.

Table III - 3. Descriptive statistics for each variable (n = 714)

Variables	Mean	S.D.	Min	Max
NLD	31.45	29.35	1	220
NFSHNG	28.90	32.61	1	350
TYPDAY	1.83	1.45	1	9
SATISFACTION	3.15	.85	1	5
WTP	268.32	334.71	0	3,000
AGE	49.48	12.33	18	77
GENDER	.96	.21	0	1
INCOME	4.75	1.97	1	8
EDUCATION	3.54	.93	1	9
EMPLOYMENT	.67	.47	0	1
CONSTRAINTS	2.51	.46	1	5
NEGOTIATION	3.28	.56	1	5
COMMITMENT	2.24	.73	1	5

With respect to latent demand, our respondents reported that they would have gone on average 31.45 more fishing trips over their actual trips if they had no perception of leisure constraints on more frequent fishing during the last year. Specifically, they indicated the highest latent demand concerning family responsibilities and work commitments (13.42 more trips), followed by absence of fishing companions (7.61 more trips), financial inability (6.21 more trips), and inadequate fishing facilities (4.20 more trips). The average fishing trip was 1.8

days in length and respondents indicated \$268.3 of their maximum willingness to pay over the most typical fishing trip cost before they would not have taken the trip.

Models

Recreation demand is generally analyzed using count data models including Poisson and negative binomial models (Loomis & Walsh, 1997). It is reasoned that the distributions are commonly skewed to the left and considerably deviated from the typical normal curve (Long, 1997). The distribution of the dependent variable (NLD) for this study showed a similar pattern. In addition to the skewed distribution, the nature of non-negative integer also leads to the application of count data model.

This study made use of a general function of latent demand as follows:

$$NLD_i = f(NFSHNG_i, TYPDAY_i, SATISFACTION_i, WTP_i, CONSTRAINTS_i, NEGOTIATION_i, COMMITMENT_i, AGE_i, GENDER_i, INCOME_i, EDUCATION_i, EMPLOYMENT_i),$$

where i denotes as an individual Wisconsin angler. With an assumption that the number of latent demand shows a Poisson or negative binomial distribution, this general function for expected value of latent demand can be expressed as below:

$$NLD_i = \exp(NFSHNG_i, TYPDAY_i, SATISFACTION_i, WTP_i, CONSTRAINTS_i, NEGOTIATION_i, COMMITMENT_i, AGE_i, GENDER_i, INCOME_i, EDUCATION_i, EMPLOYMENT_i, e),$$

where e represents the error term. This function can be also given by $\lambda_i = \exp(X_i\beta)$, where β is a vector of the parameter estimates and X is the matrix of the explanatory variables (Hellerstein, 1991).

The Poisson distribution model strictly assumes that the variance is identical with its mean (Oh, Ditton, Anderson, Scott, & Stoll, 2005). The negative binomial distribution model is commonly used to relax the restrictive assumption of equidispersion in the Poisson model (Long,

1997). Thus, the negative binomial model has been widely applied given that the mean is not often equal to the variance (Hilbe, 2011). Our data also revealed the possibility of overdispersion because the mean of dependent variable (31.45) was obviously smaller than the variance (861.42). Accordingly, this study checked overdispersion using likelihood ratio tests (Long & Freese, 2006). Results of test statistics ($G^2(1) = 2(\ln L_{NB} - \ln L_P) = 2(-3061.95 - -7729.53) = 9935.17, p < 0.001$) confirmed rejection of the null hypothesis, $H_0: \alpha = 0$, where α denotes the overdispersion parameter, indicating the existence of overdispersion. Therefore, the negative binomial model was preferred to zero-truncated Poisson model.

According to Creel and Loomis (1990), the probability distribution for the negative binomial model is written as:

$$L(Z = z) = \frac{\Gamma(z + 1/\alpha)}{\Gamma(z+1)\Gamma(1/\alpha)} (\alpha\lambda)^z (1 + \alpha\lambda)^{-(z+1/\alpha)},$$

where Γ shows a gamma distribution. Because this study assumed that all people are constrained to more frequent participation, only non-zero latent demand was included into the model. Accordingly, zero-truncated count data model is appropriate to this study. The probability distribution for zero-truncated negative binomial model is given by:

$$L(Z = z | Z > 0) = \frac{\Gamma(z + 1/\alpha)}{\Gamma(z + 1)\Gamma(1/\alpha)} (\alpha\lambda)^z (1 + \alpha\lambda)^{-(z+1/\alpha)} \left[\frac{1}{1 - (1 + \alpha\lambda)^{-1/\alpha}} \right].$$

In order to assess the influences of other elements derived from participants' constraints negotiation process on latent demand, this study made a comparison of two different zero-truncated negative binomial models. As presented in Table III-4, Model 1 encompassed a set of independent variables representing respondents' fishing experiences and their socio-demographics, whereas Model 2 involved several factors comprising the constraints negotiation

process in addition to all explanatory variables of Model 1. Results of the two model estimations showed an identical pattern of regression coefficients except for the two variables of TYPDAY and AGE.

Table III - 4. Results of zero-truncated negative binomial model estimations

	Model 1 Coefficient (Z-value)	Model 2 Coefficient (Z-value)
NFSHNG	.0042 (4.07*)	.0056 (5.06*)
TYPDAY	-.0119 (-.56)	.0041 (.20)
SATISFACTION	-.1109 (-3.05*)	-.0734 (-1.90)
WTP	.0005 (4.95*)	.0004 (4.73*)
AGE	-.0013 (-.46)	.0002 (.07)
GENDER	-.1640 (-1.11)	-.0484 (-.34)
INCOME	-.0572 (-3.20*)	-.0612 (-3.58*)
EDUCATION	-.0147 (-.43)	-.0212 (-.65)
EMPLOYMENT CONSTRAINTS	.0820 (1.11)	.0478 (.66)
Intrapersonal		.1879 (5.85*)
Interpersonal		.1524 (5.36*)
Structural		.1301 (4.09*)
NEGOTIATION		
Cognitive		-.0636 (-2.16*)
Behavioral		-.0577 (-2.00*)
COMMITMENT		.0491 (1.52)
Constant	4.0153 (15.58*)	3.6872 (14.20*)
Log Likelihood	-3108.86	-3061.95
R ²	.0826	.1441

* indicates statistical significance at 5% level

The two models indicated significant associations from the number of previous fishing participation (NFSHNG) and maximum willingness-to-pay values (WTP) to our dependent variable of latent demand. The positive coefficient signs of NFSHNG and WTP signified that anglers with more experiences of past participation and higher importance of the activity are more likely to exhibit unfulfilled desires for more frequent fishing. Among several socio-

demographic variables, INCOME was the only significant explanatory variable in both models, implying that anglers who have higher income are less likely to reveal latent demand.

Estimation results of Model 2 provided strong evidence that the formation of latent demand is closely related to anglers' constraints negotiation process. The significant positive coefficients of three factors of CONSTRAINTS demonstrated that anglers who perceived stronger impacts of constraints are likely to indicate greater latent demand. Conversely, the negative signs of NEGOTIATION factors showed that respondents with higher levels of negotiation efforts possibly report lower degrees of latent demand. However, the concept of commitment failed to reveal a significant relationship with latent demand. The difference of R^2 values between the two models also indicated the importance of the constraints negotiation process in the assessment of latent demand.

Marginal effects are commonly examined to better understand the association between an estimated explanatory variable and its predictive probability, with other independent variables held at a specified value (Hilbe, 2011). According to Cameron and Trivedi (2010), the coefficients of count data models are largely interpreted as a semi-elasticity. For example, the coefficient of NFSHNG (0.0056) in Model 2 can be understood as one more time of past fishing trips being associated with a 0.56% increase in latent demand. This result is identical with the exponential conditional mean, which is produced by $\exp(X'\beta)$. According to Long (1997), the average marginal effects can be also computed by $\hat{\beta}_j \bar{y}$, where j denotes a continuous regressor. Accordingly, an additional past fishing trip is expected to generate 0.1618 (0.0056×28.90) more trips of latent demand.

Conclusion and Discussion

Recent studies (e.g., Sutton, 2007; Upneja, Shafer, Seo, & Yoon, 2001) show a gradual decline in the number of recreational anglers. Further, this downward trend is more alarming in the Great Lakes with about 30 percent drop in fishing populations over the ten-year period from 1996 to 2006 (US Fish and Wildlife Service, 2007). With this steady decrease in fishing participation, it will be beneficial for fisheries managers to understand how they transform anglers' latent demand into actual demand. Accordingly, this study aimed to examine what factors affect anglers' formation of latent demand and how their unfulfilled interests can be converted to effective (or actual) demand.

Based on the estimation results of count data models, this study disclosed that leisure constraints play an important role in forming anglers' latent demand. However, the latent demand for more frequent participation was likely to decrease as anglers' efforts to negotiate the impacts of constraints increased. The positive coefficient signs of respondents' past fishing experiences (NFSHNG) and maximum willingness-to-pay value (WTP) revealed that their latent demand was more likely to increase when they indicated a higher level of involvement in their favorite recreation activity. Moreover, this study provided empirical evidence that anglers' latent demand is negatively associated with their levels of household income.

In general, study results indicated that recreationists' latent demand for more frequent participation is closely related to their process of constraints negotiation. Among diverse components in the constraints negotiation process, leisure constraints were found to be the most influential elements that help form individuals' latent demand. It can be reasoned that leisure constraints serve as critical factors to determine either leisure preferences or subsequent leisure choices, or both (Crawford & Godbey, 1987; Jackson, 2005a). Therefore, insights into recreation demand are likely to be broadened by scrutinizing how leisure constraints are

associated with recreationists' preferences and participation. The existence of latent demand is also attributed to insufficient usable resources and facilities in our real world (Mannell & Kleiber, 1997). Indeed, a set of independent variables including costs (e.g., entrance fees, parking fees, etc.) and non-price shifters (e.g., qualities of resources, congestion, crowdedness) in recreation demand functions determine the shape of particular demand curves (Loomis & Walsh, 1997). These variables need to be more fully understood from the perspectives of leisure constraints. In this sense, recreationists' latent demand is likely to be best explained by using the concept of leisure constraints.

According to the first proposition of Jackson, Crawford, and Godbey (1993), individuals' decision to participate in an activity is dependent not upon the absence of constraints, but upon the presence of negotiation efforts. Different types of latent demand (i.e., deferred and potential demand) are known to be fulfilled not through eliminating leisure constraints, but through exerting diverse negotiation efforts to attenuate the impacts of constraints (Wall, 1981). Our findings indicated supportive evidence that anglers' latent demand is diminished with the use of their cognitive and behavioral negotiation strategies. These results are consistent with the discussion of Williams and Basford (1992): latent demand is converted to actual demand provided that various leisure constraints are alleviated by the operation of negotiation strategies. Dissimilar to the two components of constraints negotiation process (i.e., leisure constraints and negotiation strategies), the concept of commitment used as a proxy for motivations in this study failed to disclose a significant linkage to latent demand.

It is important to note that the principal responsibilities for the transformation of latent demand into actual demand lie with leisure service practitioners. Our respondents reported that family and work commitments were one of the most important predictors that contribute to the

formation of latent demand. This also corresponds with the results that several intrapersonal constraints including family responsibilities revealed highest mean scores. Accordingly, various policies and practices that provide fishing experiences and inform diverse benefits of fishing participation to family members may be beneficial for anglers to lessen the perception of those constraints. Similar to prior research (e.g., Jackson & Dunn, 1991; McCarville & Smale, 1993; Shaw, Bonen, & McCabe, 1991), time constraints were one of the most influential reasons why our respondents did not participate as often as they desire. From the perspective of leisure service delivery, greater efforts should be made to help recreation resource users mitigate the pressures of their everyday lives. As noted by Scott (1993), several management strategies that offer better opportunities to make reservations for leisure facilities and services and provide accurate information about time requirements may be feasible to relieve the influences of time constraints.

The positive linkages from past experiences and willingness-to-pay values to latent demand were also worth noting. It is known that these behavioral aspects are closely associated with recreationists' attitudes toward their preferred activities (Manning, 1999). This study found that the behavioral dimensions including use experience are likely to reinforce individuals' habitual engagement in a specific activity and subsequently enhance their levels of leisure involvement. As an indicator to measure individuals' behavioral intentions, WTP also played an important role in determining their attitudinal orientation toward more frequent participation and the quantity of latent demand. An implication learned from these findings is that leisure service practitioners can benefit from developing different strategies in order to facilitate the conversion of latent demand into actual participation (Scott, 2005).

Despite the existence of several interesting findings, there still remain multiple study limitations and future research suggestions. While this study attempted to employ a semi-experimental design to measure anglers' latent demand, it revealed various measurement difficulties that were associated with the hypothetical situations. A set of open-ended questions were used for our respondents to report their differences between the numbers of actual and desired participation in this study. However, the development of a structured scale is needed to enhance its applicability. Similar to previous studies on the constraints negotiation process, this study provided incomplete information on what specific negotiation strategies are specifically employed within leisure service practitioners' control. According to Scott (2005) and Samdahl and Jekubovich (1997), practitioners have steadily become uninterested in constraints research since the conceptual development of negotiation. It may be reasoned that there exist limited roles of leisure service organizations given that people continuously participate in their favorite activities by voluntarily making various efforts to negotiate constraints. More research is required on how practitioners assist their clientele to effectively negotiate various constraints.

In conclusion, this study provided empirical evidence that recreationists' latent demand for more frequent participation is better addressed by understanding the framework of constraints negotiation. Study results indicated that participants' latent demand is transformed into actual participation through exerting diverse efforts to attenuate the perception of leisure constraints. We hope that this study will be useful for leisure service practitioners to better understand their clientele's formation of latent demand.

CHAPTER IV: THE THEORETICAL CONNECTIONS BETWEEN THE MECHANISMS OF CONSTRAINTS NEGOTIATION AND SERIOUS LEISURE

Introduction

A wide variety of beneficial outcomes accrue from participation in desired leisure activities (Driver & Bruns, 1999; Freudenberg & Arlinghaus, 2010; Manfredi, Driver, & Tarrant, 1996). Leisure participants formulate or affirm personal and social identities in their leisure careers, which are normally classified as a part of leisure benefits (Haggard & Williams, 1991; Kivel & Kleiber, 2000). Nevertheless, not all types and levels of leisure involvement can automatically produce diverse benefits. Only particular recreation activities and experiences that challenge participants and require personal effort and perseverance to overcome difficulties are able to yield these beneficial outcomes (Mannell & Kleiber, 1997).

Despite the presence of various constraints, individuals continuously participate in and enjoy their favorite activities by making various negotiation efforts (Jackson, 2005a). Negotiation strategies are largely acknowledged as the most typical ways to avoid or reduce the impacts of diverse constraints to leisure participation and enjoyment (Jackson, Crawford, & Godbey, 1993). The strategies also play an important role in adjusting the influences of constraints and motivations on the ability to participate in leisure activities (Hubbard & Mannell, 2001). For those reasons, negotiation strategies are commonly placed at the center in the constraints negotiation process, which demonstrates individuals' decision-making procedure to participate in their favorite activities (Jun & Kyle, 2011).

In addressing individuals' leisure involvement, Stebbins (1992, 1993, 1999) used the two features of serious leisure mechanism, "the occasional need to persevere" and "a significant personal effort," instead of the terminology of constraints negotiation, to attain leisure goals

(McQuarrie & Jackson, 1996). Jackson (2005b) suggested that such perseverance and personal effort to develop a career in an activity can be understood as the core of negotiation strategies. From the short-term perspective, this type of negotiation strategies may be considered hard work rather than playing and having fun (Mannell & Kleiber, 1997). However, leisure participants' negotiation efforts to overcome different difficulties eventually result in producing a variety of personal benefits (Crompton, Jackson, & Witt, 2005; Stebbins, 1982, 1999). Stebbins (1992) noted that those desirable consequences include personal enduring benefits such as self-actualization, self-enrichment, and self-expression in addition to the benefits of acquiring identities with their leisure pursuits such as unique sub-social bonding and feelings of contributing to an activity.

Although the theoretical frameworks of constraints negotiation and serious leisure have been independently developed to understand individuals' leisure behaviors, there exist intimate connections between two leisure theories, which involve similar transitions in leisure careers (Jackson, 2005b; McQuarrie & Jackson, 1996). The conceptual similarities are based on the fact that the most important premise of serious leisure embraces the presence of constraints which restrain participants from attaining leisure goals and the need for continuous negotiation efforts to acquire desired outcomes in leisure careers (Stebbins, 1992, 2001). Accordingly, the purpose of this study is to better understand recreationists' benefit realization process jointly using the mechanisms of constraints negotiation and serious leisure. This inter-theoretical approach is likely to assist leisure service practitioners to broaden awareness of their clientele's procedures for leisure involvement.

Literature Review

Constraints Negotiation Process

Leisure constraints are generally defined as factors perceived or experienced by individuals that limit the formation of leisure preferences and inhibit participation in their desired activities (Jackson, 1997). Prior to the early 1990s, a wealth of constraints research largely believed that the desire to participate in an activity plays the most important role in overcoming the influences of constraints (Jackson & Scott, 1999). Nevertheless, several studies (e.g., Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991) suggested that constraints do not necessarily restrict or preclude leisure participation. Put otherwise, there may not be a simple linear association between constraints and participation because a large number of individuals participate in leisure activities while continuously searching for innovative ways to alleviate and overcome the effects of constraints (Kay & Jackson, 1991). Jackson, Crawford, and Godbey (1993) argued that participation is not dependent upon the absence of constraints, but upon successful negotiation of leisure constraints, which is often influenced by various psychological (e.g., motivations, personality, preferences) and socio-demographic factors (e.g., gender, age, income).

The conceptual development of constraints negotiation contributed to the emergence of the constraints negotiation process, which exhibits the role of negotiation strategies in individuals' leisure pursuits. With multivariate methods such as structural equation modeling (SEM), Hubbard and Mannell (2001) empirically tested the process. Through a comparison of four competing models (i.e., independence model, negotiation-buffer model, constraint-effects-mitigation model, and perceived-constraint-reduction model), they disclosed that the constraint-effects-mitigation model (see Figure I-3) was found to be superior to the others. According to this model, the operation of negotiation efforts triggered by an increase in levels of constraints

and motivations, mitigates the negative relationship between constraints and participation but intensifies the positive association between motivations and participation.

In order to better understand the systematic process of constraints negotiation, several modifications have been made to the constraint-effects-mitigation model. Diverse psychological factors and socio-demographic variables have been also added into the model to examine their effects in the process. For example, Loucks-Atkinson and Mannell (2007) and White (2008) expanded the constraint-effects-mitigation model by inserting an additional construct of negotiation-efficacy, modified from Bandura's (1994) concept of self-efficacy into the model. Besides negotiation-efficacy, the influences of different psychological constructs such as celebrity involvement and identity conflict and facilitation on the process were empirically examined by several researchers (e.g., Jun & Kyle, 2011; Lee & Scott, 2009).

Serious Leisure Mechanism

Stebbins (1992) defined serious leisure as “the systematic pursuit of an... activity that is sufficiently substantial and interesting for the participant to find a career there in the acquisition and expression of its special skills and knowledge” (p. 3). While serious leisure is believed to make a significant contribution to the quality of life, there may be also considerable self-sacrifice and perseverance in the short-term period (Stebbins, 1982, 1992). The hard work to meet the challenge of serious leisure is known to generate diverse psychological benefits including self-accomplishment and self-enrichment and provide particular identities associated with social worlds and leisure pursuits (Mannell & Kleiber, 1997; Stebbins, 1992, 1999).

Stebbins suggested six particular qualities of serious leisure participants, which are different from casual leisure: 1) serious leisure participants occasionally need to persevere in the difficult situations; 2) the participants have leisure careers in their endeavors which are largely

associated with their own career contingencies, stages of involvement, and histories of turning points; 3) this type of leisure requires significant personal effort and application of acquired knowledge, training, and skill; 4) the participants acquire eight different durable benefits (i.e., self-actualization, self-enrichment, self-expression, enhanced self-image, etc.); 5) they develop unique ethos or subcultures which imply the existence of distinct beliefs, identities, values, ideals, and traditions; and 6) serious leisure participants indicate strong identification associated with their activity.

While prior studies on serious leisure theory have largely focused on a variety of qualitative methods, a growing number of quantitative approaches to the mechanism (e.g., Gould, Moore, McGuire, & Stebbins, 2008; Tsaur & Liang, 2008) have recently emerged to understand individuals' leisure pursuits. Among these quantitative studies, the work of Gould et al. (2008) is worth noting because the authors developed a measurement scale for serious leisure. As a result, much empirical research using diverse quantitative techniques is expected to examine the associations between serious leisure mechanism and other theories.

Constraints Negotiation Process vs. Serious Leisure Mechanism

Stebbins (2001) defined leisure careers, the second quality of serious leisure framework, as an enduring personal pursuit or passage “shaped by its own special contingencies, turning points, and stages of achievement or involvement” (p. 9). Individuals' leisure careers are often related to the third quality of serious leisure, a significant personal effort, concentrated on acquiring particular skills, knowledge, and training (Stebbins, 1999). In this sense, using qualitative methods, several researchers have attempted to examine the associations of leisure careers with diverse facets of leisure pursuits such as preferences, motivations, skill development, and

constraints negotiation strategies (e.g., Gibson, Willming, & Holdnak, 2002; Hastings, Kurth, Scholder, & Gyr, 1995; Kane & Zink, 2004; McQuarrie & Jackson, 1996, 2002).

Among the multifaceted components of leisure careers, constraints are commonly believed to be most important because these factors restrict an individual's ability to pursue desired activities (Jackson & Scott, 1999). Scott and Shafer (2001) noted that individuals' leisure careers involve a variety of contingencies, which frequently limit their ability to progress along the specialization continuum. Accordingly, career contingencies are considered to encompass various constraints that individuals inevitably confront during their leisure pursuits (Tsaur & Liang, 2008). At transitional points wherein individuals attempt to develop their careers, the impacts of constraints cause behavioral and attitudinal changes and trigger the operations of several negotiation strategies (Jackson, 2005b; Stebbins, 1992). The occasional need to persevere and a significant personal effort, the two qualities of serious leisure mechanism, can be better understood using the notion of negotiation in the constraints negotiation process. It is reasoned that these two features of serious leisure involve resolving and overcoming various kinds of difficulties and obstacles (McQuarrie & Jackson, 1996). Previous studies on the constraints negotiation process (e.g., Hubbard & Mannell, 2001; Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007; White, 2008) provided supportive evidence that there is a positive relationship between constraints and negotiation strategies. Therefore, the first hypothesis can be stated as below:

H 1: Constraints positively affect negotiation strategies.

Serious leisure is normally characterized by long-term commitment to a leisure activity (Stebbins, 1992). The concept of commitment is popularly applied to explain individuals' consistent behavioral patterns (Havitz & Dimanche, 1997; Kim, Scott, & Crompton, 1997). Previous studies (e.g., Shamir, 1988; Tinsley & Tinsley, 1986) indicated that continuance and dedication are the most appropriate dimensions of commitment. Particularly, behavioral consistency involves consistent or focused behaviors over time and a rejection of substitute behaviors, and influences membership in social groups (Buchanan, 1985). As a result, commitment may be better viewed within the scope of serious leisure careers. For those reasons, Stebbins (1992) emphasized commitment as the core element of serious leisure mechanism.

Commitment indicates a willingness to exert psychological and physical efforts on frequently participating in an activity (Tinsley & Tinsley, 1986). According to Stebbins (1992, 2001), individuals with strong personal and behavioral commitment to their preferred activities are more likely to become serious leisure participants, consider their desired activities as an important life interest, and overcome diverse difficulties to continue leisure pursuits. In other words, people with higher levels of commitment to a specific leisure activity show stronger efforts and greater intentions to actively negotiate various constraints in their leisure careers. Shamir (1988) also defined commitment as a motivational state or disposition to continue an activity. Accordingly, the concept of commitment can be believed to be an appropriate surrogate variable of motivations in the constraint negotiation process. Based on this background, the next hypothesis is presented as below:

H 2: Commitment positively affects negotiation strategies.

Schlenker (1984) noted that individuals tend to validate whether they develop specific identities by showing their personal commitment to specific activities. In other words, people become personally committed to their favorite activities, and then pursue a variety of leisure behaviors consistent with their self-identity and social identity (Haggard & Williams, 1992; Kuentzel, 2000). The fifth and sixth qualities of serious leisure mechanism (i.e., unique ethos and self-identification) may fall into these categories of leisure identity because serious leisure participants are socially attached to their peer group and seek a stronger self-identity related to their activities. Moreover, Shamir (1988) suggested that behavioral commitment to a leisure activity, consistent with the notion of side bets (Becker, 1960), likely engenders diverse enduring beneficial outcomes including feelings of self-determination and freedom of choice. According to Tsaur and Liang (2008), behavioral commitment provides serious leisure participants with durable benefits and personal commitment allows them to develop social world identity and self-identity strongly associated with their favorite activity. Therefore, these facts lead this study to hypothesize as below:

H 3-1: Commitment positively affects enduring benefits;

H 3-2: Commitment positively affects social world identity;

H 3-3: Commitment positively affects self-identity.

Stebbins (1993) suggested that new meanings of negotiation can be identified by comparing the two frameworks of serious leisure and constraints negotiation because serious leisure needs to alleviate the overwhelming influences of social, psychological, and physical

obstacles. Put otherwise, the occasional need to persevere and significant personal efforts involve surmounting and overcoming diverse hardships and obstacles (Stebbins, 1992). These two qualities of serious leisure can be understood as substantial elements of negotiation strategies to relieve the impacts of leisure constraints (Jackson, 2005b; McQuarrie & Jackson, 1996).

Moreover, a vast variety of beneficial outcomes garnered from leisure involvement serve as important reasons for challenging the influences of constraints (Driver & Bruns, 1999; Mannell & Kleiber, 1997). According to the integrated framework of leisure constraints and leisure benefits (see Figure I-2), proposed by Crompton, Jackson, and Witt (2005), individuals' leisure pursuits sequentially proceed to reach diverse leisure benefits by means of negotiating a series of constraints at several stages. This integrated approach demonstrates that individuals' ultimate end of leisure involvement is the attainment of desired beneficial outcomes rather than participation itself. Stebbins (1992) also noted that serious leisure can make a significant contribution to the realization of diverse psychological benefits. In this sense, various personal efforts to negotiate diverse difficulties in leisure careers likely help individuals realize an array of durable beneficial outcomes such as self-actualization and self-enrichment (Jackson, 2005b; Stebbins, 1993). In addition to these personal psychological benefits, individuals' efforts to challenge a variety of constraints possibly contribute to forming and affirming self-identity and feelings of social world identity (Mannell & Kleiber, 1997; Stryker, 1987). As a result, the following three hypotheses can be presented:

H 4-1: Negotiation strategies positively affect enduring benefits;

H 4-2: Negotiation strategies positively affect social world identity;

H 4-3: Negotiation strategies positively affect self-identity.

According to the identity formation theory (Erickson, 1959; Shaw, Kleiber, & Caldwell, 1995), individuals' identity can be formed from their feelings of self-determination and self-expression. In other words, the process of leisure identity formation requires recreationists' preferred self-images that accrue from strong involvement into particular leisure activities (Mannell & Kleiber, 1997). The identity affirmation theory also emphasized that leisure identities are developed sequentially in the following order: personal → social (Haggard & Williams, 1992). In other words, once individuals formulate unique self-identity through perceiving various psychological benefits from leisure engagement, they tend to develop sub-cultural identity in response to their behaviors and other's feedback (Dimanche & Samdahl, 1994). These identities embrace a set of meanings defining who an individual is and an array of expectations determining how the individual should behave (Jun & Kyle, 2011). Accordingly, this study hypothesizes as below:

H 5-1: Enduring benefits positively affect self-identity;

H 5-2: Enduring benefits positively affect social world identity;

H 6: Self-identity positively affects social world identity.

A theoretical model is presented in Figure IV-1 in order to help understand the proposed study hypotheses.

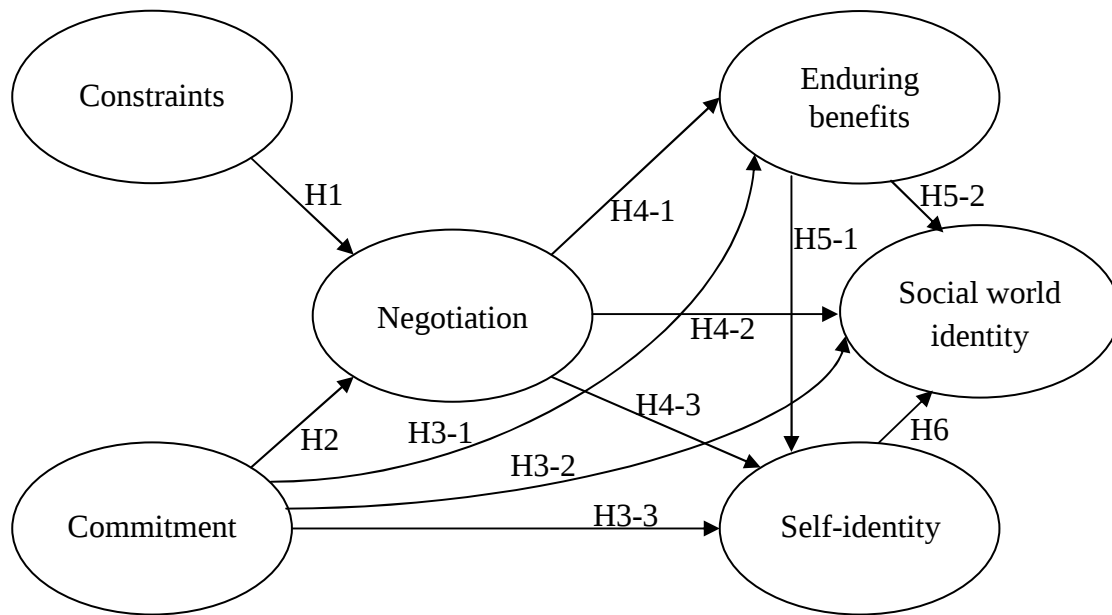


Figure IV - 1. Proposed conceptual model for this study

Method

Data Collection

This study made use of Wisconsin anglers as a study population. A sample of anglers ($N = 10,000$) was randomly selected using a computer-generated random sampling procedure from an email list of fishing participants who purchased Wisconsin fishing licenses in the 2011 fiscal year (July 1, 2010 – June 30, 2011). As a cost-efficient data collection method, an online survey was conducted during the course of four weeks from February to March, 2012. In order to increase a response rate, this study carefully used a modified total design method recommended by Dillman, Smyth, and Christian (2009) for the survey procedures. Accordingly, an invitation letter and a set of reminders were sent in three different waves. A non-response check with several survey items including socio-demographic information was conducted to determine if our respondents are different from non-respondents. The results indicated that there is no significant difference between the two groups (see Appendix A).

After deleting 72 respondents as non-deliverables, the survey procedure yielded 1,637 responses, indicating an effective response rate of 16.5%. Further, 667 cases were dropped with incomplete information in at least one of the indicators in model estimation and 8 cases were excluded as multivariate outliers during the data screening process. For final data analysis, 962 responses were used.

Measures

In order to measure the concept of leisure constraints, this study made use of a four-dimensional approach comprising intrinsic, interactional, regulatory, and structural constraints. A tripartite approach embracing intrapersonal, interpersonal, and structural constraints has been popularly applied in empirical studies to address intricate relations with leisure preferences and leisure engagement (Jun & Kyle, 2011). However, the number of sub-dimensions is likely to vary according to the context of diverse recreation activities (Godbey, Crawford, & Shen, 2010). A sub-dimension, regulatory constraints, was additionally inserted based on a review of past literature on fishing constraints (e.g., Fedler & Ditton, 2001; Ritter, Ditton, & Riechers, 1992; Sutton, 2007). The sub-dimensions of intrinsic (e.g., I have too many family responsibilities) and interactional constraints (e.g., I can't find other people who have interest in fishing) were comprised of two and three measurement items, respectively. Structural (e.g., Fishing facilities are poorly developed and maintained) and regulatory constraints (e.g., Fishing regulations are too restrictive) also included two items each. The results of exploratory factor analysis (EFA) supported the four-dimensional approach to the concept with 77.5% of total variance explained. A five-point Likert response format with values ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure these items.

Anglers' level of negotiation efforts was measured with twelve different items modified from previous studies on the concept (e.g., Alexandris, Kouthouris, & Girgolas, 2007; Jackson & Rucks, 1995; Jun & Kyle, 2011; White, 2008). Based on results of EFA, this study classified negotiation strategies into five different sub-dimensions. Firstly, we employed three different items of cognitive negotiation strategies (e.g., I try to push myself harder when I encounter some obstacles in fishing). Diverse behavioral negotiation strategies were also categorized into four different types including financial adjustment (e.g., I try to budget my money), time management (e.g., I try to organize my schedule), interpersonal coordination (e.g., I try to find people with similar interests), and skill development (e.g., I try to practice to improve my fishing skills). A five-point Likert scale was employed with values ranging from 1 (never) to 5 (always), and the results of EFA revealed the presence of the five sub-dimensions in the concept of negotiation with 74.9% of total variance explained.

The concept of commitment was measured using a combination of several scales adopted from previous studies (e.g., Kim, Scott, & Crompton, 1997; Lee & Scott, 2006; McIntyre, 1989; Siegenthaler & Lam, 1992). This scale included four different items (e.g., If I stopped fishing, I would lose touch with my friends) that were measured on a five-point Likert format with values ranging from 1 (strongly disagree) to 5 (strongly agree). The results of confirmatory factor analysis (CFA) revealed its unidimensionality and acceptable fit to the data (NFI = 0.987; CFI = 0.989; NNFI = 0.967; RMSEA = 0.76) except for the ratio of chi-square/degree of freedom ($\chi^2/df = 6.580$, $p < 0.001$).

The different types of beneficial outcomes (i.e., enduring benefits, social world identity, and self-identity) that are known to ensue from serious leisure involvement were measured with twelve items mainly using the scale developed by Gould, Moore, McGuire, and Stebbins (2008).

The construct of enduring benefits was measured with four scale items (e.g., Fishing has enabled me to realize my potential). The two constructs of social world identity (e.g., I share many of my fishing group ideals) and self-identity (e.g., Others recognize that I identify with fishing) were also evaluated by using three and five different measurement items, respectively. Each item used a five-point Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree). The results of EFA indicated the existence of these three factors with 77.2% of total variance explained. Several descriptive statistics for all indicators and the internal consistency of each latent variable are presented in Table IV-1.

Results

Descriptive Statistics

Most respondents were males (95.8%) with a mean age of 50.0 years. Almost half (46.5%) of anglers reported an annual household income of greater than \$80,000. The majority of respondents (87%) had college/university or graduate education and about two-thirds of anglers (65.2%) were employed on a full-time basis. More than half (53.0%) reported their primary residence in urban or suburban areas. The average number of years respondents resided in their counties was 27.6. In terms of fishing experience in Wisconsin waters, our respondents fished 33.6 times on average during the last 12 months and inland lakes or flowages (19.6 times) were their most preferred fishing places, followed by rivers or streams (10.4 times) and Great Lakes (4.3 times).

Table IV - 1. Descriptive statistics for diverse constructs and measurement items

Second and first-order constructs and observed variables	Mean	S.D.	Cronbach's alpha
Constraints			.71
Intrinsic constraints (F1)			
I have too many family responsibilities (V1)	3.19	.96	
The cost of fishing equipment and supplies is too expensive (V2)	2.41	.90	
Interactional constraints (F2)			
I can't find other people who have interest in fishing (V3)	2.27	.88	
I can't find other people who have enough time to fish (V4)	2.56	.98	
I can't find other people who have the necessary fishing skills (V5)	2.17	.78	
Regulatory constraints (F3)			
Fishing regulations are too restrictive (V6)	2.42	1.02	
Fishing regulations are difficult to understand (V7)	2.53	1.07	
Structural constraints (F4)			
Fishing facilities are poorly developed and maintained (V8)	2.20	.94	
Fishing facilities and areas are too crowded (V9)	2.72	1.07	
Commitment			.77
If I stopped fishing, I would lose touch with my friends (V10)	2.10	.87	
If I couldn't go fishing, I am not sure what I would do (V11)	2.39	1.11	
Because of fishing, I don't have time to spend participating in other leisure activities (V12)	2.09	.79	
I find that a lot of my life is organized around fishing (V13)	2.41	1.02	
Negotiation			.83
Cognitive strategies (F5)			
I try to push myself harder when I encounter some obstacles in fishing (V14)	2.91	.92	
I try to persist until I overcome some obstacles in fishing (V15)	3.00	.93	
I try to swallow my pride when I encounter some obstacles in fishing (V16)	2.72	.98	
Financial adjustment (F6)			
I try to budget my money (V17)	3.57	1.04	
I try to find inexpensive fishing equipment and supplies (V18)	3.18	1.06	
Time management (F7)			
I try to organize my schedule (V19)	3.65	.89	
I try to drop other obligations and activities (V20)	2.74	.83	
Interpersonal coordination (F8)			
I try to find people with similar interests (V21)	3.25	.92	
I try to persuade my family or friends to go fishing (V22)	3.46	.91	
I try to meet people who like fishing (V23)	2.87	.96	

Table IV - 1. (cont'd)

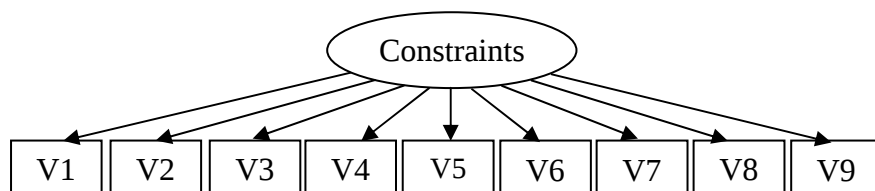
Second and first-order constructs and observed variables	Mean	S.D.	Cronbach's alpha
Skill development (F9)			
I try to practice to improve my fishing skills (V24)	3.30	1.04	
I try to ask for help with fishing skills (V25)	2.88	1.02	
Enduring benefits			.90
Fishing has enabled me to realize my potential (V26)	2.99	.76	
Fishing allows me to express my knowledge and expertise (V27)	3.20	.81	
Fishing is an important means to express myself (V28)	3.02	.86	
My view of myself has improved as a result of fishing (V29)	2.94	.84	
Social world identity			.88
I share many of the sentiments of my fellow fishing devotees (V30)	3.43	.77	
Other fishing enthusiasts and I share many of the same ideals (V31)	3.53	.72	
I share many of my fishing group's ideals (V32)	3.40	.72	
Self-identity			.94
Being an angler is an important part of who I am (V33)	3.41	.97	
Other people who know me understand that fishing is a part of who I am (V34)	3.43	1.01	
I am often recognized as a person devoted to fishing (V35)	2.98	1.05	
Others recognize that I identify with fishing (V36)	3.33	.97	
I have many goals related to fishing (V37)	2.96	.95	

Second- vs. First-Order Factor Models

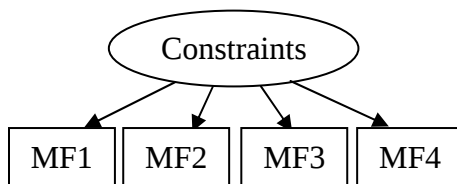
As Anderson and Gerbing (1988) recommended, this study made use of a two-step modeling approach for structural equation modeling (SEM). In order to assess the degree of fit of the measurement and structural model, this study adopted five different fit indices: the chi-square (χ^2)/degree of freedom statistics, Normed Fit Index (NFI), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), and Root Mean Square Error of Approximation (RMSEA). The indices of NFI, CFI and NNFI are commonly recommended to be greater than 0.9 for an acceptable model fit (Bentler, 1990). The RMSEA value of less than 0.08 also indicates an acceptable fit (Browne & Cudeck, 1993). Finally, a non-significant value of chi-square/degree of freedom ratio suggests a good fit to the data although this statistics are known to be highly

sensitive to sample size (Kline, 2005). Prior to examining the measurement model, this study compared several models representing the concepts of constraints and negotiation. In order to specify the underlying structure of each concept, this study developed three different models including a first-order factor model with all indicators, a first-order factor model with indicators portraying aggregated scores, and a second-order factor model. Figure IV-2 shows several first- and second-order factor models to demonstrate the concepts of constraints and negotiation. Based on the results of the comparison, the second-order factor models were temporarily selected as the best options with their superior fits to the data. A comparison of several fit indices for each model is presented in Table IV-2.

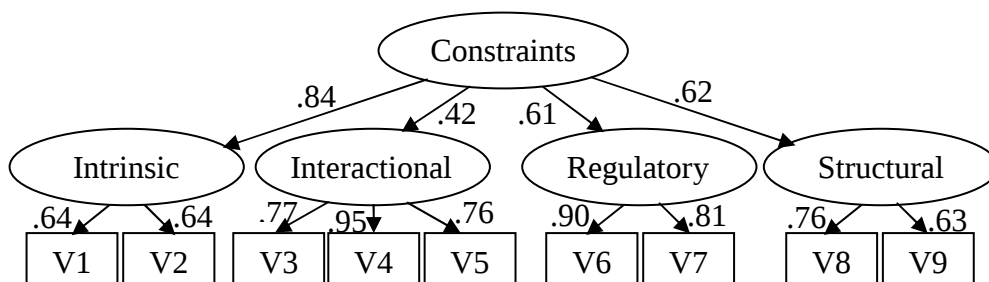
Higher order factor models are known to be more appropriate when lower order factors are highly interrelated (Chen, Sousa, & West, 2005). According to our comparison results, the second-order factor models were beneficial to account for the concepts of leisure constraints and negotiation because these concepts are often conceptualized in a hierarchical manner (Gerbing, Hamilton, & Freeman, 1994; Godbey, Crawford, & Shen, 2010). For example, the second-order construct of constraints can be conceptualized as a composite of several first-order dimensions such as intrapersonal, interpersonal, and structural constraints. These first-order latent variables are likely to vary according to the context of particular activities, which are measured by using observed indicators. Nevertheless, a sizable number of previous studies on the constraints negotiation process (e.g., Hubbard & Mannell, 2001, Jun & Kyle, 2011; Lee & Scott, 2009) simply aggregated scores of each first-order construct and treated as manifest variables in data analysis. However, despite the specification complexity of second-order factor models (Koufteros, Babbar, & Kaighobadi, 2009), there are substantial advantages of this higher order approach, which effectively illustrates the underlying conceptual structure.



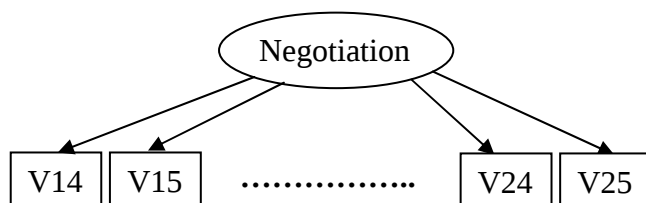
First-order factor model with all indicators



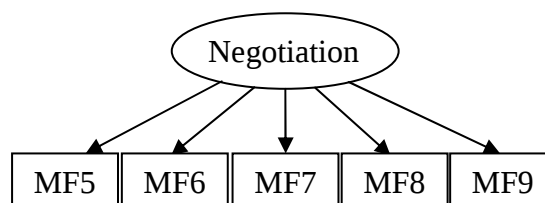
First-order factor model with aggregated indicators



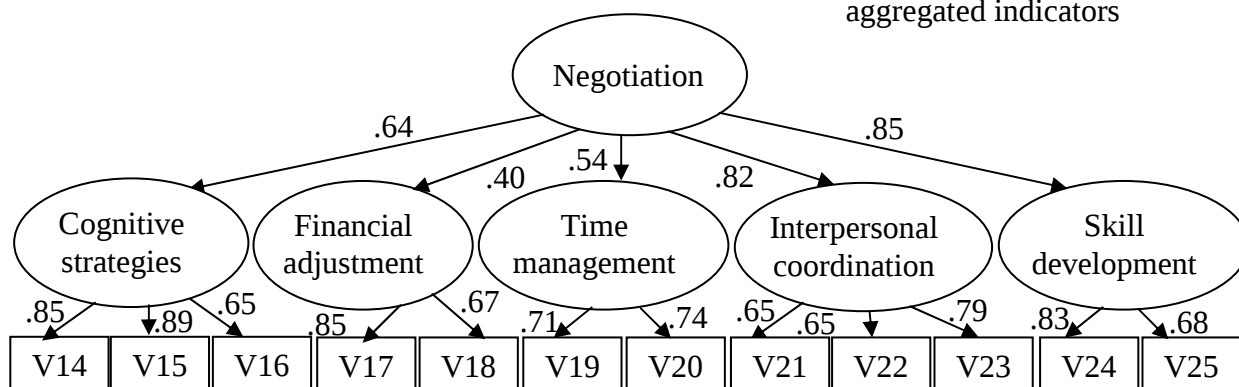
Second-order factor model



First-order factor model with all indicators



First-order factor model with aggregated indicators



Second-order factor model

MF: Aggregated mean values of first-order factors

Numbers in the second-order models indicate the factor loadings

Figure IV - 2. Comparison between second- and first-order factor models

Table IV - 2. Comparisons of several second- and first-order factor models

Construct	Model	χ^2/df	NFI	CFI	NNFI	RMSEA
Constraints	First-order with all indicators	1352.7/27	.559	.563	.417	.226
	First-order with aggregates	41.3/2	.902	.905	.716	.143
	Second-order	131.3/23	.957	.964	.944	.070
Negotiation	First-order with all indicators	1529.8/54	.620	.627	.544	.169
	First-order with aggregates	49.6/5	.942	.947	.895	.096
	Second-order	230.6/49	.943	.954	.938	.062

First-Order CFA for Constraints and Negotiation

Once the second-order factor models for the concepts of constraints and negotiation demonstrated better fits to the data, this study conducted first-order CFA to examine the unidimensionality of each concept. Results indicated that all fit indices for constraints (NFI = 0.973; CFI = 0.979; NNFI = 0.964; RMSEA = 0.056) and negotiation (NFI = 0.959; CFI = 0.969; NNFI = 0.954; RMSEA = 0.054) were adequate except for the highly significant chi-square/degree of freedom ratios of 4.008 for constraints and 3.779 for negotiation. In terms of internal consistency, the latent factors seemed marginally reliable because the statistics of the composite reliabilities were greater than 0.6 (Hatcher, 1994). Anderson and Gerbing (1988) noted that convergent validity is considered to be satisfactorily met when indicators show significant factor loading scores. In this regard, convergent validity was demonstrated because all *t*-values of indicator coefficients ranging from 10.13 to 26.49 were highly significant. In order to examine discriminant validity, this study conducted a comparison between error variances of each latent factor and the values of squared correlations. The results confirmed discriminant validity given that error variance statistics of each first-order factor were greater than the squared correlation estimates (Fornell & Larcker, 1981). Subsequently, this study chose the second-order models for the concepts of constraints and negotiation. Table IV-3 displays the results of the first-order CFA which present construct reliability and validity.

Table IV - 3. Results of first-order confirmatory factor analyses for constraints and negotiation

Constructs	Regression weight	Factor loadings	t-value	C.R.	Correlation matrices and error variances				
Constraints					F1	F2	F3	F4	
Intrinsic (F1)									
V1	.726	.524	11.32*	.66	.52				
V2	1.000	.651	–						
Interactional (F2)									
V3	1.406	.943	26.49*	.77	.48	.74			
V4	1.282	.771	24.55*						
V5	1.000	.758	–						
Regulatory (F3)									
V6	1.000	.902	–	.74	.47	.19	.71		
V7	1.075	.801	16.65*						
Structural (F4)									
V8	1.128	.787	10.13*	.68	.46	.16	.48	.55	
V9	1.000	.612	–						
Fit indices	$\chi^2/df=4.01$, $p<.001$; NFI=.97; CFI=.98; NNFI=.96; RMSEA=.06								
Negotiation					F5	F6	F7	F8	F9
Cognitive (F5)									
V14	1.232	.854	21.43*	.70	.66				
V15	1.262	.890	21.59*						
V16	1.000	.653	–						
Financial (F6)									
V17	1.000	.853	–	.62	.33	.56			
V18	.799	.667	10.60*						
Time (F7)									
V19	1.000	.791	–	.68	.37	.44	.61		
V20	.778	.663	11.48*						
Interpersonal (F8)									
V21	1.000	.646	–	.61	.48	.30	.40	.57	
V22	1.026	.643	15.76*						
V23	1.279	.801	17.50*						
Skill (F9)									
V24	1.276	.832	17.17*	.62	.54	.26	.39	.74	.56
V25	1.000	.677	–						
Fit indices	$\chi^2/df=3.78$ $p<.001$; NFI=.96 CFI=.97; NNFI=.95; RMSEA=.05								

C.R.: Composite reliability

* indicates significant at the level of .05

Italics indicate error variances

Measurement Model

The measurement model with the free correlations among the four different first-order constructs (i.e., commitment, enduring benefits, self-identity, and social world identity) and the two second-order latent variables (i.e., constraints and negotiation) was examined to validate the underlying unidimensionality. All indices (NFI = 0.904; CFI = 0.933; NNFI = 0.927; RMSEA = 0.046) indicated an acceptable model fit to the data except for the ratio of chi-square/degree of freedom ($\chi^2 = 1810.312$, $df = 604$, $p < 0.001$). The six different first- and second- order latent factors were considered moderately reliable because all statistics of the composite reliabilities indicated greater than 0.6. Convergent validity also seemed to be satisfactorily met based on the fact that t -values ranging from 7.67 to 31.10 were highly significant as shown in Table IV-4. Discriminant validity is apparent given that the statistics of error variances are greater than the squared correlation estimates between the constructs of interest. A comparison of squared correlation estimates and error variances presented in Table IV-5 supported discriminant validity.

Structural Model

The measurement model showed an acceptable fit to the data and a set of reliability and validity tests provided evidence that diverse observed variables effectively measured the underlying constructs. Then, this study proceeded to specify the hypothesized structural model. Prior to performing a path analysis with first- and second- order latent variables, nomological validity should be evaluated by using chi-square difference tests between the theoretical structural model and the measurement model (Hatcher, 1994). Provided that there is no significant difference, the hypothesized structural model is generally believed appropriate to explain the predictive relationships among the latent variables (Anderson & Gerbing, 1988; Kline, 2005). A chi-square difference test between the measurement model and the

hypothetical structural model ($\Delta\chi^2 = 8.12$, $\Delta df = 4$, $p = 0.087$) revealed no significant difference.

In other words, the structural model for this study successfully demonstrated the predictive relationships between the underlying constructs. In addition to the support for nomological validity, several fit indices of the structural model (NFI = 0.902; CFI = 0.932; NNFI = 0.926; RMSEA = 0.046) were acceptable to account for the hypothesized interrelations.

Table IV - 4. Results of measurement model estimation

Second/first-order constructs and indicators		Unstandardized regression weights	Factor loadings	t-value	Composite reliability
Constraints	F1	1.000	.849	—	.63
	F2	.795	.422	7.67*	
	F3	1.028	.600	8.40*	
	F4	.817	.611	7.47*	
Commitment	V10	.526	.513	15.08*	.68
	V11	.865	.664	20.12*	
	V12	.543	.547	16.35*	
	V13	1.000	.837	—	
Negotiation	F5	1.000	.665	—	.69
	F6	.742	.362	7.83*	
	F7	.730	.521	8.73*	
	F8	1.131	.807	11.93*	
	F9	1.271	.831	11.51*	
Enduring benefits	V26	.914	.783	25.37*	.78
	V27	1.021	.816	26.64*	
	V28	1.156	.879	28.91*	
	V29	1.000	.774	—	
Social world identity	V30	1.115	.826	25.12*	.81
	V31	1.090	.842	25.49*	
	V32	1.000	.766	—	
Self-identity	V33	1.106	.774	28.81*	.76
	V34	1.219	.861	31.10*	
	V35	1.255	.884	30.61*	
	V36	1.133	.895	29.57*	
	V37	1.000	.844	—	

* indicates significant at the level of .05

Table IV - 5. Correlation estimates between latent variables and error variances

	1	2	3	4	5	6
1. Constraints	<i>.50</i>					
2. Commitment	.07	<i>.63</i>				
3. Negotiation	.17	.58	<i>.60</i>			
4. Enduring benefits	-.02	.66	.56	<i>.73</i>		
5. Social world identity	-.04	.54	.52	.59	<i>.78</i>	
6. Self-identity	-.07	.78	.61	.76	.67	<i>.72</i>

Italics indicate error variances

Study results suggested that negotiation strategies play an important role in bridging the relationships from leisure constraints and commitment to diverse psychological beneficial outcomes from leisure involvement. As expected, this study found a positive linkage between constraints and negotiation (H 1: $\beta = 0.15$, $t = 3.416$). Commitment also positively affected anglers' efforts to negotiate leisure constraints (H 2: $\beta = 0.59$; $t = 11.179$) and showed significant positive associations with enduring benefits (H 3-1: $\beta = 0.53$, $t = 10.986$) and self-identity (H 3-2: $\beta = 0.53$, $t = 11.324$). Negotiation was significantly associated with the three different types of psychological benefits, namely, enduring benefits (H 4-1: $\beta = 0.25$, $t = 5.322$), social world identity (H 4-2: $\beta = 0.15$, $t = 3.327$), and self-identity (H 4-3: $\beta = 0.09$, $t = 2.647$). Furthermore, enduring benefits positively affected self-identity (H 5-1: $\beta = 0.35$, $t = 9.334$) and social world identity (H 5-2: $\beta = 0.16$, $t = 3.262$). The construct of self-identity also exhibited a positive relationship with social world identity (H 6: $\beta = 0.50$, $t = 6.848$).

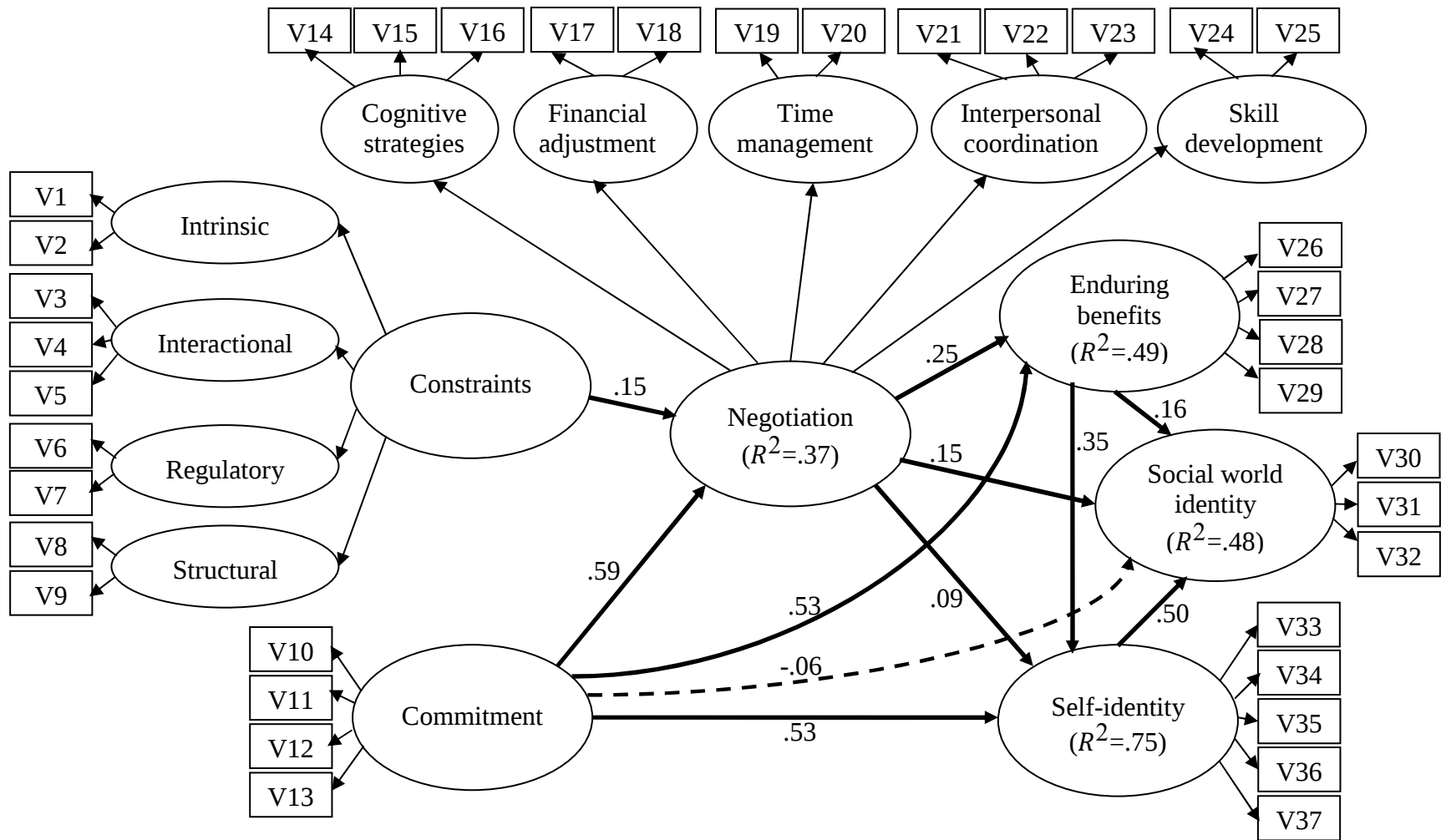
The three different types of psychological beneficial outcomes indicated a high magnitude of associations with a set of explanatory latent variables. More than 75% of variance in self-identity was explained by negotiation, commitment, and enduring benefits. Similarly, almost half of the variance in enduring benefits was accounted by the two different constructs of

negotiation and commitment. The standardized regression coefficients and squared multiple correlations (R^2) of the structural model are presented in Figure IV-3.

Discussion and Conclusion

Individuals' fulfillment of desired leisure benefits is known to be closely associated with the extent to which they challenge various leisure constraints (Jackson, 2005b; Mannell & Kleiber, 1997). With an integrated model of leisure constraints and benefits (see Figure I-2), Crompton, Jackson, and Witt (2005) suggested that diverse beneficial psychological outcomes that accrue from leisure involvement are attributable to various leisure constraints and subsequent efforts to negotiate the impacts of constraints. This study intended to examine how leisure participants acquire diverse psychological benefits by exerting negotiation efforts to overcome the effects of leisure constraints. Further, several researchers (e.g., McQuarrie & Jackson, 1996, 2002; Stebbins, 1993) noted that various negotiation efforts to overcome leisure constraints are the most important elements of serious leisure involvement. Accordingly, this study attempted to investigate recreationists' benefit realization process using an inter-theoretical approach between constraints negotiation process and serious leisure mechanism.

Overall, this study provided empirical evidence that the systematic process of benefit realization can be better understood by incorporating the two major leisure theories of constraints negotiation and serious leisure into a combined framework. According to the results of the structural model, several latent factors derived from the two theories were meaningfully interconnected to each other. The second-order construct of leisure constraints indicating the presence of hardships and difficulties in individuals' serious leisure careers was significantly associated with negotiation strategies (H 1).



Note: Bold lines indicate significant paths at the level of .05

Dotted line indicates an insignificant path at the level of .05

Figure IV - 3. Path coefficients and squared multiple correlations of the structural model

As a proxy variable of motivations in the constraints negotiation process, the latent factor of commitment which is known as an important element of serious leisure mechanism positively affected negotiation efforts (H 2) as well as enduring benefits (H 3-1) and self-identity (H 3-3). The higher order concept of negotiation strategies that implies the perseverance in difficult situations and significant personal efforts in serious leisure careers revealed strong connections to all of the three types of psychological leisure benefits (H 4-1; H 4-2; H 4-3). Finally, this study disclosed intimate interconnections among desired outcomes from serious leisure involvement. The structural model demonstrated that personal enduring benefits are positively related to self-identity (H 5-1) as well as social world identity (H 5-2). Results also showed that self-identity associated with serious leisure careers positively affected individuals' sub-social identity (H 6).

Several discussion points emerge based on these study findings. Our results showed that negotiation strategies to endure various difficulties and defy several constraints eventually are key elements that help recreationists accomplish desired benefits and form distinctive leisure identities. Previous studies on the process of constraints negotiation reached a consensus that individuals' level of participation is dependent upon the extent of negotiation efforts. However, this study witnessed another substantial role of negotiation strategies that help realize diverse beneficial outcomes and develop unique leisure identities.

Stebbins (1992) emphasized that some recreationists' hard work and perseverance stimulate individuals to develop their perceptions of self-identity and social belongingness as well as feelings of self-accomplishment and personal psychological benefits. Our structural model demonstrated that negotiation efforts to challenge diverse leisure constraints positively affect the accomplishment of several leisure benefits. This result seems to be consistent with

the argument of Crompton et al. (2005) that the use of negotiation strategies is often witnessed when various benefits from leisure engagement are able to compensate individuals' perseverance and efforts to attenuate the impacts of constraints. Accordingly, a variety of psychological beneficial consequences can be better predicted by understanding intricate interactions among several important components in the constraints negotiation process.

Furthermore, the structural model used in this study illustrated that the concept of negotiation efforts is placed at the center of both major leisure theories. The cognitive and behavioral negotiation strategies served as mediators which connect between recreationists' commitment to an activity and diverse psychological benefits from serious leisure involvement. These strategies also acted as conciliators which attenuate the impacts of constraints on the realization of various leisure benefits. Put otherwise, this finding supported that a variety of negotiation strategies determine the extent to which recreationists realize their desirable consequences while balancing the potential counter impacts of constraints and commitment on more frequent participation. Taken together, study results found that the serious leisure mechanism involves the need for various negotiation efforts that arrange the interventions of constraints and commitment and facilitate to realize individuals' leisure-related goals. Based on this importance of negotiation strategies in serious leisure careers, Jackson (2005b) noted that the terminologies of Stebbins (1992, 1999), who characterized the serious leisure mechanism through the two qualities of "the occasional need to persevere" and "a significant personal effort", can be replaced with "the adoption of leisure constraints negotiation strategies".

Study results demonstrated that individuals' leisure identities with an activity and a peer group are generated by their self-images that are formed with the senses of diverse personal benefits such as self-expression, self-determination, and self-actualization (Mannell & Kleiber,

1997). Our structural model showed the process of identity development from self-identity to sub-social identity and supported the theory of identity formation and affirmation. These outcomes from serious leisure involvement were found to be closely related to commitment to a specific activity as well as negotiation efforts. This study also provided supportive evidence that higher order factor models are beneficial to specify the underlying conceptual structure of leisure constraints and negotiation strategies. The hierarchical approach is known to be more useful provided that several lower order factors indicate modest to high levels of correlations as shown in our data (see Table IV-2). Further, results disclosed potential drawbacks that several lower order factor models treat aggregated mean scores of first-order constructs as indicators.

Despite the presence of these contributions, several study limitations and future research suggestions are worth noting. This study made use of leisure constraints as the most typical career contingencies which recreationists often face during the course of serious leisure involvement. Nevertheless, life transitions embrace a wealth of positive or negative events and experiences (e.g., birth of a child and loss of a spouse, emigration and immigration, marriage and divorce, etc.) that substantially change their leisure careers (Jackson, 2005b; Scott & Shafer, 2001). In order to better understand the mechanism of serious leisure, other key concepts which include these life transitions and career contingencies are needed in addition to leisure constraints. Another important weakness of this study is the use of cross-sectional data. McQuarrie and Jackson (1996) stated that recreationists' negotiation strategies in serious leisure careers are less likely to be invariant over time. As Hubbard and Mannell (2001) suggested, a longitudinal study design with panel data is believed to be more advantageous to investigate a complete picture of how and when the constraints negotiation mechanism operates in their leisure careers. Lastly, while several types of psychological benefits were examined in the

frameworks of serious leisure and constraints negotiation, this study shed little light on economic benefits which are classified as important outcomes from leisure pursuits (Driver & Bruns, 1999). Future research with economic benefits is expected to provide a more accurate picture of recreationists' benefit realization process.

In conclusion, this study provided useful opportunities to better understand recreationists' systematic process of benefits realization by exploring the conceptual bridges between the mechanisms of serious leisure and constraints negotiation. We hope that this study will assist leisure service practitioners to implement diverse practices and policies which encourage recreationists' leisure engagement and facilitate their benefit realization.

CHAPTER V: SUMMARY AND CONCLUSION

The goal of this dissertation was to provide a comprehensive understanding of how participants with desires for more frequent participation make use of negotiation strategies to mitigate the influences of diverse constraints, determine their continual engagement in favorite activities, and realize beneficial outcomes from their leisure involvement. The following section will present limitations of previous studies on the constraints negotiation process and advantages of the framework of participants' constraints negotiation. Moreover, this chapter will include brief summaries of the three different research essays and several suggestions for future research and leisure service delivery practitioners.

Limitations of Past Studies

Previous studies on leisure constraints paid much attention to examining how different types of leisure constraints are negatively associated with leisure preferences and leisure participation (Jackson & Scott, 1999). However, the concept of constraints negotiation suggested a new viewpoint that constraints do not necessarily restrict or impede participation (Jackson, Crawford, & Godbey, 1993). In other words, constraints can be overcome and negotiated by using diverse negotiation efforts (Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991). As a result, the conceptual development of negotiation provided the theoretical background for the constraints negotiation process (Jackson, 2005a). According to the process, negotiation strategies play an important role in alleviating or overcoming the effects of constraints on leisure pursuits (Loucks-Atkinson & Mannell, 2007). This process also demonstrates that individuals' negotiation strategies reinforce the positive association between motivations and participation (Hubbard & Mannell, 2001). A growing body of literature on the constraints negotiation process has contributed to a comprehensive understanding of how

individuals' efforts to negotiate constraints are related to their leisure engagement and how diverse psychological concepts function in the process for negotiating constraints.

Despite these significant contributions, prior research focusing on recreationists' constraints negotiation process shed little light on their ultimate goals of leisure involvement (Crompton, Jackson, & Witt, 2005). In other words, previous literature mostly used levels of participation that represent direct outcomes derived from negotiating various constraints as a final dependent variable (Jackson et al., 1993). However, the adoption of leisure participation as an ultimate end in the constraints negotiation process showed a limited picture of individuals' heterogeneous goals of leisure pursuits (Jackson & Rucks, 1993). Dissimilar to prospective participants with desire to initiate participation, a large percentage of current participants are likely to have interest in more frequent participation and stronger leisure involvement (Gilbert & Hudson, 2000).

According to the hierarchical model of leisure constraints (see Figure I-1), proposed by Crawford, Jackson, and Godbey (1991), the second phase demonstrates how current participants develop a higher level of specialization. Based on this model, participants already negotiated a set of constraints in their decision-making process for initial leisure participation. Even after their attainment of the initial goal (i.e., participation), nevertheless, participants are continually affected by a variety of constraints. Different from the first phase focusing on initiating leisure participation, the second phase shows that participants are still constrained and need to constantly negotiate those constraints to progress toward a higher specialization level.

Further, current participants are possibly eager to pursue diverse benefits from their habitual leisure engagement while negotiating a series of constraints (Driver & Bruns, 1999; Jackson, 2005b; Stebbins, 1993). According to the integrated model of leisure constraints and

benefits (see Figure I-2), proposed by Crompton et al. (2005), individuals' leisure behaviors (i.e., participation) are not the ultimate goal. Rather, benefit realization through stronger leisure involvement is a more significant goal of their leisure pursuits. This model also suggests that the presences of constraints and various efforts to overcome several constraints have important implications associated with diverse benefits at personal and social levels. Therefore, a more comprehensive understanding of leisure involvement can be drawn from an integrated study framework that can combine leisure constraints with benefits. Nevertheless, these beneficial outcomes commonly sought by participants have rarely been incorporated in previous studies examining the process of constraints negotiation.

It is known that frequent participation is a direct means to reaching a higher level of leisure involvement (Ditton, Loomis, & Choi, 1992; Scott & Shafer, 2001). Accordingly, the application of various leisure goals associated with participants' desired behavioral consequences likely contributes to broadening our knowledge of the constraints negotiation process. In other words, taking into account several variables representing participants' future intentions and recreation demand for more frequent participation may be beneficial to more accurately understand their courses of leisure pursuits. Further, a new insight into the constraints negotiation process is possibly engendered by considering several desired psychological outcomes as the final goals of leisure involvement (Crompton et al. 2005). It is reasoned that participants are known to pursue diverse leisure benefits by way of challenging diverse leisure constraints.

Summaries of Three Independent Essays

Essay 1: The Roles of the Constraints Negotiation Process in Predicting Intentions to Participate More Frequently

A sizable body of previous literature (e.g., Hubbard & Mannell, 2001; Jun & Kyle, 2011; Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007; White, 2008) provided supportive evidence for the negative associations between leisure constraints and participation.

Accordingly, constraints are likely to wield negative influences on behavioral intentions. It is also known that individuals' perceptions of constraints trigger the operation of negotiation strategies in cognitive and/or behavioral ways (Jackson, Crawford, & Godbey, 1993).

Nevertheless, there have been a few research efforts to examine how the two different negotiation strategies are associated with individual dimensions of leisure constraints (i.e., intrapersonal, interpersonal, and structural).

Several researchers (e.g., Huang, 2009; Hung & Petrick, 2012; Mannell & Loucks-Atkinson, 2005) noted that individuals' behavioral intentions for future participation are likely to be determined through negotiating the influences of various constraints. In light of the fact that the concept of commitment is generally characterized by individuals' consistent behavioral patterns, this essay made use of this concept as a proxy variable for motivations in the constraints negotiation process. Collectively, this essay is devoted to understanding a comprehensive framework that depicts how the two different types of negotiation strategies are associated with leisure constraints and commitment as well as behavioral intentions for more frequent participation.

With a data set including the total responses of 917 Wisconsin anglers, this essay employed structural equation modeling to examine a set of predictive relationships among multiple latent variables in participants' constraints negotiation process. Empirical analyses generally

supported that recreationists' behavioral intentions for more frequent participation is better viewed using the constraints negotiation process. As expected, the two different strategies for negotiating leisure constraints were closely related to their future intentions. Likewise, the concept of commitment played an important role in addressing recreationists' efforts to assuage the impacts of leisure constraints as well as behavioral intentions to participate more often.

Of the three different types of leisure constraints, structural constraints were significantly connected to future intentions in both direct and indirect manners. Dissimilar to structural constraints, other two kinds of leisure constraints (i.e., intrapersonal and interpersonal constraints) were only indirectly related to recreationists' intentions for a higher level of leisure involvement via various negotiation strategies. Moreover, this essay demonstrated a strong connection from cognitive to behavioral negotiation strategies. In sum, the provision of diverse policies that intend to minimize the influences of intrapersonal and interpersonal constraints is recommended to facilitate recreationists' higher levels of leisure involvement.

Essay 2: The Influences of Diverse Components in the Constraints Negotiation Process on Latent Demand

Non-participants generally indicate two distinct types of recreation demand: latent and no demand (Jackson & Dunn, 1988). No demand is revealed by individuals who have no interest whereas latent demand is exhibited by people who would like to participate in an activity but do not actually participate due to several constraints (Kotler, 1973). Similar to non-participants, participants are commonly categorized as having three different forms of demand: full, actual, and latent (Wright & Goodale, 1991). In addressing participants' recreation demand, Wall (1981) uniformly considered all participants actual (or effective) demand based on the current level of participation in an activity. However, several studies (e.g., Richardson & Crompton,

1988; Scott & Mowen, 2010; Wright & Goodale, 1991) noted that there is heterogeneous nature of actual demand among participants as a result of the interactions between levels of desires and participation. For participants, latent demand characterizing the extent to which people with interest do not participate seems to be evident because they mostly indicate their desires to increase levels of participation in preferred activities and reach full demand.

Participants' latent demand can be more accurately understood with the framework of constraints negotiation (Jackson & Dunn, 1988). Among diverse components in the constraints negotiation process, constraints which limit to reaching an individual's full demand are considered the most important factors to predict latent demand. With a diagrammatical framework to demonstrate the formation of latent demand, Davis and Prentice (1995) noted that different types of latent demand are determined by intricate interactions between motivations and negotiation. Wall (1981) also emphasized that individuals' latent demand are fulfilled through various efforts to negotiate constraints.

This essay aimed to examine how diverse components derived from participants' constraints negotiation process are associated with latent demand. With a sample of 714 Wisconsin anglers, this essay made use of count data models. The dependent variable of latent demand was measured using a three-step approach. Specifically, respondents were first asked to report the number of fishing trips taken; then, asked levels of agreement with several statements in terms of leisure constraints to more frequent participation; finally, asked to indicate their desired number of fishing trips assuming four different hypothetical situations.

Results suggested that a variety of leisure constraints play an important role in forming anglers' latent demand. However, anglers' efforts to negotiate the impacts of leisure constraints decreased their unfulfilled interests in stronger leisure involvement. This study found that

latent demand was more likely to increase when our respondents showed higher levels of past fishing experiences and willingness-to-pay values. This essay also provided empirical evidence that anglers' latent demand is negatively associated with their levels of household income.

Essay 3: The Theoretical Connections between the Mechanisms of Constraints Negotiation and Serious Leisure

Several researchers (e.g., Jackson, 2005b; McQuarrie & Jackson, 1996) noted that there are close associations between the two theoretical frameworks of constraints negotiation and serious leisure. The conceptual similarities result from the fact that the most important premise of serious leisure embraces the presence of constraints which restrain participants from attaining their leisure goals and the need for continuous negotiation efforts to acquire desired outcomes in leisure careers (Stebbins, 1992). Scott and Shafer (2001) indicated that individuals' leisure careers involve diverse contingencies that are considered to encompass a variety of constraints. The core qualities of serious leisure, the occasional need to persevere and a significant personal effort, can be also better understood using the notion of negotiation because these two features help recreationists overcome various difficulties and constraints (McQuarrie & Jackson, 1996).

According to Stebbins (1992, 2001), individuals with strong personal and behavioral commitment to their preferred activities are more likely to overcome diverse difficulties to continue leisure pursuits. Tsaor and Liang (2008) suggested that behavioral commitment provides leisure participants with durable benefits whereas personal commitment allows them to develop social world identity and identify themselves strongly with the chosen activity. Moreover, Crompton et al. (2005) noted that individuals' leisure pursuits sequentially proceed to reach diverse leisure benefits by negotiating a series of constraints. In other words, individuals' ultimate end of leisure involvement is the attainment of desired beneficial outcomes rather than

participation itself. The identity formation and affirmation theory (Erickson, 1959; Shaw, Kleiber, & Caldwell, 1995) suggests that individuals develop sub-cultural identity in response to their behaviors and other's feedback after formulating unique self-identity through perceiving various psychological benefits from leisure engagement.

In order to better understand recreationists' process of benefit realization jointly using the mechanisms of constraints negotiation and serious leisure, this essay made use of structural equation modeling approach with a data set of 962 responses. Results provided empirical evidence that the systematic process of constraints negotiation is closely related to the framework of serious leisure involvement. The second-order construct of leisure constraints indicating the presence of hardships and difficulties in individuals' leisure careers was significantly associated with negotiation strategies. As a proxy variable of motivations, the latent factor of commitment positively affected negotiation efforts as well as enduring benefits and self-identity among the three different beneficial outcomes. Likewise, negotiation strategies revealed strong connections to the three types of leisure benefits. Finally, this essay disclosed intimate connections among desired outcomes from serious leisure involvement.

Conceptual Framework of Participants' Constraints Negotiation Process

Despite the popularity of academic work examining leisure constraints, there is limited information about how current participants with desire for reaching a higher level of specialization effectively assuage the effects of constraints for continual participation. Previous studies have also paid little attention to recreationists' process to attain their ultimate leisure goals other than participation itself. Accordingly, this dissertation attempted to present a systematic framework of how participants negotiate leisure constraints to participate more frequently and how they acquire diverse beneficial outcomes from leisure involvement. Overall, study results indicated that participants with desire for more frequent participation employ

diverse negotiation strategies to attenuate the influences of leisure constraints for continual engagement in an activity. From the viewpoint of serious leisure mechanism, they also made substantial efforts to realize beneficial outcomes from their leisure involvement by way of negotiating the overwhelming impacts of constraints and hardships.

This dissertation proposed a theoretical framework to better understand participants' constraints negotiation process and their benefit realization mechanism as shown in the shaded area of Figure I-4. This conceptual framework was modified from several theoretical models including the hierarchical model of leisure constraints (Figure I-1), the integrated model of leisure constraints and benefits (Figure I-2), and the constraint-effects-mitigation model (Figure I-3). In order to better delineate a holistic picture of participants' constraints negotiation process, several concepts such as future intentions for more habitual engagement and diverse beneficial outcomes from leisure involvement were included into the framework for this dissertation.

The three independent research essays provided empirical support for the conceptual framework used in this dissertation. The first essay was dedicated to addressing the framework that participants' future intentions for more frequent participation are dependent upon their negotiation efforts to challenge constraints. Study findings from the second essay showed that the cognitive and behavioral negotiation strategies serve as important elements to reduce the disparities between desired and actual level of participation (i.e., latent demand). Using the incorporated theoretical frameworks of constraints negotiation and serious leisure, the third essay offered ample information about the mechanism of benefit realization through leisure involvement. Collectively, the conceptual framework of this dissertation seemed to allow leisure researchers to broaden awareness of the dynamic process of constraints negotiation.

Recommendations for Future Research

This dissertation focuses on the development of a theoretical framework and subsequent empirical examinations of explanatory relationships among diverse elements in participants' constraints negotiation process. Accordingly, it is expected that this dissertation provides meaningful opportunities to broaden our insights into the importance of negotiation efforts in current participants' leisure pursuits. Nevertheless, several future studies should be directed to the following theoretical and methodological areas: 1) the refinement of the tripartite approach for the measurement of leisure constraints; 2) the adoption of a longitudinal study design; 3) the utilization of more comprehensive concepts representing life transitions; 4) the development of a structured measurement scale for latent demand; and 5) the inclusion of economic benefits into the constraints negotiation process.

First, the tripartite approach to the concept of leisure constraints, generally classified into the three different dimensions of intrapersonal, interpersonal, and structural constraints, is commonly applied in empirical studies (Jackson & Scott, 1999). Because of the popularity, this dissertation made use of the approach in the first and second essays. Nevertheless, Godbey, Crawford, and Shen (2010) pointed out critical drawbacks of the three-dimensional construct structure. For example, several previous studies (e.g., Hubbard & Mannell, 2001; Raymore, Godbey, Crawford, & von Eye, 1993) often reported high correlation statistics particularly between intrapersonal and structural constraints and low internal consistency in the three dimensions. In reality, relatively low reliabilities, ranging from 0.62 to 0.86, in each sub-scale of constraints were witnessed in our data used in the first essay (see Table II-1). Moderately high correlation statistics among several dimensions comprising the concept of constraints were also revealed during the analysis procedure for the third essay (refer to Table IV-3). These problematic situations are likely to be resolved when researchers make use of an alternative

measurement approach to the concept (Godbey, Crawford, & Shen, 2010). The utilization of a set of higher order factor models to avoid the measurement concerns will be a good suggestion for future studies.

Second, quantitative analyses for the constraints negotiation process were mostly based on the use of cross-sectional data (Mannell & Iwasaki, 2005). Cross-sectional data with the application of multivariate techniques are advantageous to demonstrate the presence of interconnected linkages among diverse elements in the constraints negotiation process. However, recreationists' attitudinal and behavioral patterns are likely to change over time (Jackson, 2005b). Nevertheless, there are only a few longitudinal approaches to leisure constraints (e.g., Jackson & Witt, 1994; Wright, Rodgers, & Backman, 2001). By using a longitudinal study design with panel data, those studies found that the magnitudes of leisure constraints on participation are vary according to specific time periods. In other words, a longitudinal approach can be beneficial to more accurately view the operations of constraints negotiation in the context of everyday life (Hubbard & Mannell, 2001).

Third, Scott and Shafer (2001) noted that the awareness of career contingencies plays an important role in better understanding the close relationships between participants' perceptions of constraints and their mechanisms of leisure involvement. In the third essay, this dissertation made use of leisure constraints as the most typical career contingencies which recreationists often face during the course of serious leisure involvement. Besides leisure constraints, nevertheless, life transitions involve a wealth of positive or negative events and experiences (e.g., birth of a child and loss of a spouse, emigration and immigration, marriage and divorce, etc.) that sufficiently alter their leisure careers (Jackson, 2005b; Scott & Shafer, 2001). More extensive concepts which include these life transitions and career contingencies are needed for future

studies to better understand conceptual bridges between the two mechanisms of constraints negotiation and serious leisure.

Fourth, the second essay in this dissertation utilized a semi-experimental design to measure anglers' latent demand, which was based on the recommendations of prior research (e.g., Richardson & Crompton, 1988; Wall, 1981). Nevertheless, several measurement concerns associated with the hypothetical situations were apparent. In particular, the use of open-ended question formats brought some concerns in terms of reliability and validity. Further studies will be beneficial to develop a structured scale and utilize an econometric approach to more accurately measure the demand.

Finally, the third essay focused on several different types of psychological leisure benefits while examining the conceptual connections between the two frameworks of serious leisure and constraints negotiation. However, the essay paid little attention to economic benefits, which are commonly believed as another important type of beneficial outcomes from individuals' leisure involvement (Driver & Bruns, 1999; Mannell & Kleiber, 1997). More research is needed to illuminate the effects of leisure constraints and negotiation strategies on the formation of economic benefits.

Management Implications

This dissertation suggests multiple management and policy implications based on the support for the proposed conceptual framework that demonstrated participants' constraints negotiation process for a higher level of leisure involvement. As Scott (2005) noted, "research on leisure constraints can potentially help practitioners to understand why population groups do not make greater use of agency offerings and provide directions about how to allay the conditions that inhibit involvement" (p. 279). Despite this obvious fact that leisure constraints studies are closely associated with leisure service delivery, previous studies have shed little light

on practical implications to improve the quality of leisure service (Jackson & Scott, 1999). In this sense, the concept of leisure constraints has been largely believed for practitioners to be an esoteric academic topic (Godbey, Crawford, & Shen, 2010). Accordingly, this dissertation will discuss several management and policy implications by addressing the three different main concerns: 1) time constraints, 2) dynamic characteristics of constraints, and 3) practitioners' viewpoints toward recreationists' negotiation efforts.

First, time scarcity is considered as one of the most important factors which constrain to individuals' leisure involvement (Mannell & Zuzanek, 1991; McCarville & Smale, 1993; Shaw, Bonen, & McCabe, 1991). Because leisure participation inevitably requires the sacrifice of time, this type of leisure constraints is commonly believed as necessary conditions for leisure engagement (Godbey, 2005). The data used in this dissertation also provided supportive evidence that time constraints are placed at the core of leisure constraints. According to Scott (2005), a variety of factors including family responsibilities, work commitments, economic downsizing, and changing gender roles contribute to the emergence of time constraints.

It is important for leisure service practitioners to recognize how recreationists allocate their limited time resources by using diverse negotiation strategies to mitigate the effects of the most prominent constraints, time constraints. For instance, some recreationists are likely to employ cognitive negotiation strategies (e.g., ignoring their gender roles); others presumably utilize behavioral strategies (e.g., rescheduling their work shift). In this regard, various kinds of efforts that help attenuate recreationists' perception of time constraints are required from the course of service planning. Several marketing and programming options recommended by Scott (1993) are worth noting: 1) provision of comprehensive opportunities to make reservations

for services, 2) provision of attractive opportunities for more brief and self-directed experiences, and 3) provision of accurate information about time requirements.

Second, the heterogeneous influences of leisure constraints have been extensively examined by prior studies (e.g., Hultsman, 1993; Nadirova & Jackson, 2000; Scott & Munson, 1994). It is known that the impacts of particular constraints vary across different facets of leisure involvement. Jackson and Dunn (1991) indicated individuals' distinctive perceptions of leisure constraints. According to their work, expenditures for preparing equipment and supplies were found to be the most important factors which restrict non-participants' initiation of participation whereas current participants were less likely to report the financial constraints as reasons for ceasing participation. The intensity of several constraints is also dependent upon diverse segments of population (Scott & Jackson, 1996). For example, some older females with low income do not participate in a specific activity due to lack of companions while many housewives between the ages of 25 and 45 stated family responsibilities as their most influential constraints.

These dynamic characteristics of leisure constraints request leisure service practitioners to make use of appropriate management options. Specifically, service delivery organizations necessitate an enhanced understanding about what facets of leisure are constrained in their clientele's leisure pursuits. It is reasoned that there are apparent disparities between different factors: some constraints limit to *initiating* participation whereas others assist in *ceasing* involvement. A better awareness of group diversity in the perception of leisure constraints was also emphasized by Scott (2005). For instance, efforts to mitigate the influences of particular constraints to older females should be different from those to adolescents.

Finally, a substantial number of people continuously participate in their favorite activities despite the existence of leisure constraints (Jackson, Crawford, & Godbey, 1993). With the three different research essays, this dissertation provided empirical evidence that negotiation efforts play an important role in mediating the relationships between leisure constraints and several concepts associated with participants' stronger leisure involvement. Nevertheless, this concept of negotiation may lead leisure service practitioners to be confused about their roles (Samdahl & Jekubovich, 1997). Put otherwise, a large percentage of practitioners reveal a misunderstanding that recreation resource users actively make various negotiation efforts regardless of their management strategies to reduce the effects of constraints on participation. However, it is particularly important to acknowledge that overall responsibilities to relieve the influences of leisure constraints and facilitate their clientele's efforts to mitigate the perception of constraints are within leisure service practitioners' control.

APPENDICES

Appendix A: Non-response check

Socio-demographic features of non-respondents and respondents for each essay

Socio-demographics	Non-respondents (n=85)	Essay I (n=917)	Essay II (n=714)	Essay III (n=962)
Age				
Mean (SD)	48.9 (13.6)	50.3 (12.6)	49.5 (12.3)	50.3 (12.4)
Gender				
Female	5 (6.0%)	38 (4.2%)	32 (4.5%)	42 (4.4%)
Male	79 (94.0%)	864 (95.8%)	682 (95.5%)	907 (95.6%)
Income				
Less than \$20,000	3 (3.7%)	27 (3.1%)	20 (2.8%)	29 (3.2%)
\$20,000 ~ 39,999	9 (11.1%)	87 (10.0%)	69 (9.7%)	94 (10.3%)
\$40,000 ~ 59,999	13 (16.0%)	168 (19.4%)	136 (19.0%)	174 (19.1%)
\$60,000 ~ 79,999	18 (22.2%)	180 (20.7%)	133 (18.6%)	185 (20.3%)
\$80,000 ~ 99,999	15 (18.5%)	110 (12.7%)	90 (12.6%)	113 (12.4%)
\$100,000 ~ 119,999	8 (9.9%)	111 (12.8%)	104 (14.6%)	124 (13.6%)
\$120,000 ~ 139,999	5 (6.2%)	82 (9.4%)	72 (10.1%)	79 (8.7%)
\$140,000 and above	10 (12.3%)	103 (11.9%)	90 (12.6%)	115 (12.6%)
Education				
Some high school or less	2 (2.4%)	9 (1.0%)	3 (0.4%)	10 (1.0%)
High school graduate	7 (8.2%)	108 (11.9%)	82 (11.5%)	113 (11.8%)
Some college/Technical school	33 (38.8%)	371 (40.8%)	285 (39.9%)	401 (41.9%)
University graduate	33 (38.8%)	272 (29.9%)	215 (30.1%)	274 (28.6%)
Post graduate school	10 (11.8%)	150 (16.5%)	129 (18.1%)	160 (16.7%)
Employment				
Homemaker	0 (0%)	5 (0.5%)	5 (0.7%)	6 (0.6%)
Student	3 (3.5%)	16 (1.7%)	11 (1.5%)	16 (1.7%)
Unemployed	2 (2.4%)	15 (1.6%)	11 (1.5%)	19 (2.0%)
Retired	16 (18.8%)	196 (21.4%)	125 (17.5%)	198 (20.6%)
Employed, part time	6 (7.1%)	48 (5.2%)	38 (5.3%)	49 (5.1%)
Employed, full time	55 (64.7%)	582 (63.6%)	478 (66.9%)	614 (63.9%)
Other	3 (3.5%)	53 (5.8%)	46 (6.4%)	59 (6.1%)
Residence				
Urban/Suburban	39 (47.0%)	486 (53.3%)	385 (54.1%)	506 (52.8%)
Rural	44 (53.0%)	425 (46.7%)	327 (45.9%)	452 (47.2%)

Appendix B: Questionnaire

Section 1. For questions 1 – 8, please tell us about your fishing activity and experience.

1. Have you fished during the last 12 months?
☐ Yes ☐ No (*If No, please skip ahead to Question 4*)
2. How many times have you gone fishing during the last 12 months?
 - Farm ponds or stock tanks: _____TIMES
 - Rivers or streams: _____TIMES
 - Great Lakes: _____TIMES
 - Inland lakes or flowages: _____TIMES
3. Have you mostly fished in Wisconsin waters during the last 12 months?
☐ Yes ☐ No
4. How many days did you spend on your typical fishing outing? _____DAYS
5. How would you compare your knowledge of fishing regulations, fish habitats, and fishing techniques to other anglers in general?
☐ Less knowledgeable ☐ Equally knowledgeable ☐ More knowledgeable
6. How would you compare your fishing ability to other anglers in general?
☐ Less skilled ☐ Equally skilled ☐ More skilled
7. As an angler, which of the following best describes you?
 - ☐ **A CASUAL ANGLER:** a person whose fishing is incidental to other outdoor interests, who may not belong to a formal fishing club, who may read an article on fishing in a local newspaper or on the web but does not subscribe to any fishing magazine, and for whom fishing is an enjoyable yet infrequent activity
 - ☐ **AN ACTIVE ANGLER:** a person who travels infrequently away from home specifically to fish, who may or may not belong to a local fishing club, who subscribes to general interest fishing magazines, who participates in but does not present seminars, and for whom fishing is an important but not exclusive activity
 - ☐ **A COMMITTED ANGLER:** a person who travels frequently away from home specifically to fish, who subscribes to fishing magazines that focus on skills or equipment, who leads local fishing clubs, who purchases ever-increasing amounts of fishing equipment, and for whom fishing is primary activity

8. Please indicate the extent to which you agree or disagree with each of these statements as to why you do not fish more frequently.

<u>I want to fish more often, but ~</u>	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I have too many family responsibilities	1	2	3	4	5
I don't have enough time	1	2	3	4	5
Other leisure activities take up my time	1	2	3	4	5
I don't have the necessary fishing skills	1	2	3	4	5
I can't catch enough fish to suit me	1	2	3	4	5
The cost of fishing equipment and supplies is too expensive	1	2	3	4	5
I can't find other people who have enough time to fish	1	2	3	4	5
I can't find other people who have interest in fishing	1	2	3	4	5
I can't find other people who have the necessary fishing skills	1	2	3	4	5
Fishing regulations are too restrictive	1	2	3	4	5
Fishing regulations are difficult to understand	1	2	3	4	5
I am not aware of fishing opportunities close to home	1	2	3	4	5
I don't have adequate transportation	1	2	3	4	5
I can't get enough information for fishing	1	2	3	4	5
Fishing facilities are poorly developed and maintained	1	2	3	4	5
Fishing facilities and areas are too crowded	1	2	3	4	5
Other (<i>Please describe</i>): _____	1	2	3	4	5
Other (<i>Please describe</i>): _____	1	2	3	4	5

Section 2. For questions 9 – 13, please read and consider the hypothetical scenarios in each question. These scenarios deal with your perceptions of particular constraints which limit your fishing participation. Please assume that other constraining factors which are not mentioned in each question would be the same with your opinions indicated in question 8.

9. **If fishing expenses were not an issue** and other factors were the same with your opinions indicated in question 8,

- How many **more times** would you have gone fishing during the last 12 months?
_____TIMES

10. **If family responsibilities and/or work commitments were not important issues** and other factors were the same with your opinions indicated in question 8,

- How many **more times** would you have gone fishing during the last 12 months?
_____TIMES

11. **If you knew someone who was willing to go fishing with you at any time** and other factors were the same with your opinions indicated in question 8,

- How many **more times** would you have gone fishing during the last 12 months?
_____TIMES

12. **If you knew fishing facilities that were well managed and maintained** and other factors were the same with your opinions indicated in question 8,

- How many **more times** would you have gone fishing during the last 12 months?
_____TIMES

13. **If you had no constraints on more frequent fishing listed in question 8 above,**

- How many **more times** would you have gone fishing during the last 12 months?
_____TIMES

Section 3. For questions 14 – 16, please give us information on your responses to fishing constraints and commitment to the activity.

14. Please circle the number that indicates how often you adopt these to fish more often.

<u>For more frequent fishing participation, ~</u>	Never	Rarely	Someti- mes	Often	Always
I try to ignore some problems resulting from my fishing activity	1	2	3	4	5
I try to persist until I overcome some obstacles in fishing	1	2	3	4	5
I try to push myself harder when I encounter some obstacles in fishing	1	2	3	4	5
I try to swallow my pride when I encounter some obstacles in fishing	1	2	3	4	5
I try to budget my money	1	2	3	4	5
I try to find inexpensive fishing equipment and supplies	1	2	3	4	5
I try to find fishing places I can afford	1	2	3	4	5
I try to organize my schedule	1	2	3	4	5
I try to drop other obligations or activities	1	2	3	4	5
I try to find people with similar interests	1	2	3	4	5
I try to persuade my family or friends to go fishing	1	2	3	4	5
I try to meet people who like fishing	1	2	3	4	5
I try to practice to improve my fishing skills	1	2	3	4	5
I try to ask for help with fishing skills	1	2	3	4	5
Other (<i>Please describe</i>): _____	1	2	3	4	5
Other (<i>Please describe</i>): _____	1	2	3	4	5

15. Due to various constraint factors that limit frequent fishing participation presented in Question 8 above, what did you typically do for your fishing activity during the last 12 months?

- ☐ I fished frequently at my most preferred fishing site regardless of those factors
- ☐ I reduced frequency of fishing at my most preferred fishing sites
- ☐ I went to other substitute fishing sites in Wisconsin
- ☐ I went to other substitute fishing sites in other states
- ☐ I quit fishing and participated in other types of outdoor recreation activities

16. Please indicate the extent to which you agree or disagree with each of these statements regarding your fishing commitment.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
If I stopped fishing, I would lose touch with my friends	1	2	3	4	5
If I couldn't go fishing, I am not sure what I would do	1	2	3	4	5
Because of fishing, I don't have time to spend participating in other leisure activities	1	2	3	4	5
Most of my friends are in some way connected with fishing	1	2	3	4	5
I consider myself to be somewhat expert at fishing	1	2	3	4	5
I find that a lot of my life is organized around fishing	1	2	3	4	5

Section 4. For questions 17 – 20, provide your opinions regarding how fishing makes you feel and how often you will go fishing. We are also interested in your reasons for fishing.

17. Please indicate the extent to which you agree or disagree with each of these statements regarding your future intentions for more frequent fishing participation.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
If I have chances, I intend to go fishing more often over the next 12 months	1	2	3	4	5
I am determined to go fishing more often over the next 12 months	1	2	3	4	5
I will go fishing more often over the next 12 months if my family or friends want to do	1	2	3	4	5

18. Overall, how satisfied are you with fishing in Wisconsin during the last 12 months?

Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Extremely satisfied
1	2	3	4	5

19. Which of the amounts listed below best describes your maximum willingness to spend over your most typical fishing trip cost (i.e., sum of gas price, parking fee, boat rental and launch fee, lodging fee, license fee, bait fee, etc.) before you wouldn't have taken the trip?

- ☐ \$0 ☐ \$1 ☐ \$3 ☐ \$5 ☐ \$10 ☐ \$20
☐ \$30 ☐ \$50 ☐ \$75 ☐ \$100 ☐ \$150 ☐ \$200
☐ \$300 ☐ \$500 ☐ \$750 ☐ Other (*Please specify*):\$_____

20. Please indicate the extent to which you agree or disagree with each of these statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Being involved in fishing has added richness to my life	1	2	3	4	5
Fishing has enabled me to realize my potential	1	2	3	4	5
Fishing allows me to express my knowledge and expertise	1	2	3	4	5
Fishing is an important means to express myself	1	2	3	4	5
My view of myself has improved as a result of fishing	1	2	3	4	5
Fishing provides me with a profound sense of satisfaction	1	2	3	4	5
I share many of the sentiments of my fellow fishing devotees	1	2	3	4	5
Other fishing enthusiasts and I share many of the same ideals	1	2	3	4	5
I share many of my fishing group's ideals	1	2	3	4	5
Being an angler is an important part of who I am	1	2	3	4	5
Other people who know me understand that fishing is a part of who I am	1	2	3	4	5
I am often recognized as a person devoted to fishing	1	2	3	4	5
Others recognize that I identify with fishing	1	2	3	4	5
I have many goals related to fishing	1	2	3	4	5

Section 5. For questions 21 – 27, please help us to know about you. The information you provide will remain strictly confidential and you will not be identified with your answers.

21. How old are you? _____

22. Are you:

☐ Female

☐ Male

23. What is your annual household income before taxes?

☐ Less than \$20,000

☐ \$20,000 ~ 39,999

☐ \$40,000 ~ 59,999

☐ \$60,000 ~ 79,999

☐ \$80,000 ~ 99,999

☐ \$100,000 ~ 119,999

☐ \$120,000 ~ 139,999

☐ \$140,000 and above

24. Which of the following best describes the highest level of education you have completed?

☐ Some high school or less

☐ High school graduate

☐ Some college/Technical school

☐ University graduate

☐ Post graduate school

25. Which of the following best describes your present employment status?

☐ Homemaker

☐ Student

☐ Unemployed

☐ Retired

☐ Employed, part time

☐ Employed, full time

☐ Other (*Please specify*): _____

26. How would you describe your primary residence? (*Check one*)

☐ Urban/Suburban

☐ Rural

27. How many years have you resided in your county? (*If less than 1 year, please write 1*)

____ YEARS

REFERENCES

REFERENCES

- Aas, Ø. (1995). Constraints on sport fishing and effect of management actions to increase participation rates in fishing. *North American Journal of Fisheries Management*, 15(3), 631-638.
- Ajzen, I. (1991). The theory of planned action. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Alexandris, K., Funk, D. C., & Pritchard, M. (2011). The impact of constraints on motivation, activity attachment, and skier intentions to continue. *Journal of Leisure Research*, 43(11), 56-79.
- Alexandris, K., Kouthouris, C., & Girgolas, G. (2007). Investigating the relationships among motivation, negotiation, and alpine skiing participation. *Journal of Leisure Research*, 39(4), 648-667.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Babbie, E. (2001). *The practice of social research*. Belmont, CA: Wadsworth.
- Backman, S. J. (1991). An investigation of the relationship between activity loyalty and perceived constraints. *Journal of Leisure Research*, 23, 332-344.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66, 32-40.
- Bentler, P. M. (1989). *EQS structural equations program manual*. Los Angeles, CA: BMDP Statistical Software.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (eds.), *Testing structural equation models* (pp. 445-455). Newbury Park, CA: Sage.
- Bryan, H. (1977). Leisure value systems and recreational specialization: The case of trout fishermen. *Journal of Leisure Research*, 9, 174-187.
- Bryan, H. (2000). Recreation specialization revisited. *Journal of Leisure Research*, 32(1), 18-21.
- Buchanan, T. (1985). Commitment and leisure behavior: A theoretical perspective. *Leisure Sciences*, 7(4), 401-420.

- Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using STATA*. College Station, TX: STATA Press.
- Caroll, B., & Alexandris, K. (1997). Perception of constraints and strength of motivation: Their relationship to recreational sport participation in Greece. *Journal of Leisure Research*, 29(3), 279-299.
- Chen, F. F., Sousa, K. H., & West, S. G. (2005). Testing measurement invariance of second-order factor models. *Structural Equation Modeling*, 12(3), 471-492.
- Clawson, M., & Knetsch, J. L. (1966). *Economics of outdoor recreation*. Baltimore, MD: Johns Hopkins Press.
- Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences*, 9(2), 119 - 127.
- Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences*, 13, 309-320.
- Creel, M. D., & Loomis, J. B. (1990). Theoretical and empirical advantages of truncated count data estimators for analysis of deer. *American Journal of Agricultural Economics*, 72(2), 434.
- Crompton, J. L., Jackson, E. L., & Witt, P. (2005). Integrating benefits to leisure with constraints to leisure. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 245-259). State College, PA: Venture.
- Davies, A., & Prentice, R. (1995). Conceptualizing the latent visitor to heritage attractions. *Tourism Management*, 16(7), 491-500.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method*. Hoboken, NJ: John Wiley & Sons.
- Dimanche, F., & Samdahl, D. (1994). Leisure as symbolic consumption: A conceptualization and prospectus for future research. *Leisure Sciences*, 16, 119-129.
- Ditton, R. B., Loomis, D. K., & Choi, S. (1992). Recreation specialization: Re-conceptualization from a social world perspective. *Journal of Leisure Research*, 24, 33-51.
- Driver, B. L., & Brown, P. J. (1975). A socio-psychological definition of recreation demand with implications for recreation resource planning. In *Assessing demand for outdoor recreation* (pp. 62-88). Washington, DC: National Academy of Sciences.
- Driver, B. L., & Bruns, D. H. (1999). Concepts and uses of the benefits approach to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 349-369). State College, PA: Venture.
- Erikson, E. H. (1959). Identity and the life cycle: Selected papers. *Psychological Issues*, 1(1), 5-165.

- Fedler, A. J., & Ditton, R. B. (2001). Dropping out and dropping in: A study of factors for changing recreational fishing participation. *North American Journal of Fisheries Management*, 21, 283-292.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Frederick, C. J., & Shaw, S. M. (1995). Body image as a leisure constraint: Examining the experience of aerobic exercise classes for young women. *Leisure Sciences*, 17(2), 57-73.
- Freudenberg, P., & Arlinghaus, R. (2010). Benefits and constraints of outdoor recreation for people with physical disabilities: Inferences from recreational fishing. *Leisure Sciences*, 32(1), 55 - 71.
- Gerbing, D. W., Hamilton, J. G., & Freeman, E. B. (1994). A large-scale second-order structural equation model of the influence of management participation on organizational planning benefits. *Journal of Management*, 20(4), 859-885.
- Gibson, H., Willming, C., & Holdnak, A. (2002). 'We're Gators...not just Gator fans': Serious leisure and University of Florida football. *Journal of Leisure Research*, 34(4), 397-425.
- Gilbert, D., & Hudson, S. (2000). Tourism demand constraints: A skiing participation. *Annals of Tourism Research*, 27(4), 906-925.
- Gobster, R. H. (1998). Explanations for minority "underparticipation" in outdoor recreation: A look at golf. *Journal of Park and Recreation Administration*, 16(1), 46-64.
- Godey, G. (2005). Time as a constraint to leisure. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 185-200). State College, PA: Venture.
- Godbey, G., Crawford, D. W., & Shen, X. S. (2010). Assessing hierarchical leisure constraints theory after two decades. *Journal of Leisure Research*, 42(1), 111-134.
- Goff, S. J., Fick, D. S., & Oppliger, R. A. (1997). The moderating effect of spouse support on the relation between serious leisure and spouses' perceived leisure-family conflict. *Journal of Leisure Research*, 29(1), 47-60.
- Gould, J., Moore, D., McGuire, F., & Stebbins, R. (2008). Development of the serious leisure inventory and measure. *Journal of Leisure Research*, 40(1), 47-68.
- Haggard, L. M., & Williams, D. R. (1991). Self-identity benefits of leisure activities. In B. L. Driver, R. J. Brown, & G. L. Peterson (Eds.), *Benefits of leisure* (pp. 103-119). State College, PA: Venture.
- Haggard, L. M., & Williams, D. R. (1992). Identity affirmation through leisure activities: Leisure symbols of the self. *Journal of Leisure Research*, 24, 1-18.

- Hastings, D. W., Kurth, S. B., Schloder, M., & Cyr, D. (1995). Reasons for participating in a serious leisure career: Comparison of Canadian and U.S. masters swimmers. *International Review for the Sociology of Sport*, 30(1), 101-119.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS systems for factor analysis and structural equation modeling*. Cary, NC: SAS Institute.
- Havitz, M. E., & Dimache, F. (1997). Leisure involvement revisited: Conceptual conundrums and measurement advances. *Journal of Leisure Research*, 29(3), 245-278.
- Hellerstein, D. (1991). Using count data models in travel cost analysis with aggregate data. *American Journal of Agricultural Economics*, 73, 660-666.
- Henderson, K. A., & Bialeschki, M. D. (1993). Exploring an expanded model of women's leisure constraints. *Journal of Applied Recreation Research*, 18, 229-252.
- Henderson, K. A., Bedini, L. A., Hecht, L., & Schuler, R. (1995). Women with physical disabilities and the negotiation of leisure constraints. *Leisure Studies*, 14, 17-31.
- Hilbe, J. M. (2011). *Negative binomial regression*. Cambridge, UK: Cambridge University Press.
- Howard, D. R., & Crompton, J. L. (1980). *Financing, managing and marketing recreation & park resources*. Dubuque, IA: Wm. C. Brown Company Publishers.
- Huang, Y. -C. (2009). *Examining the antecedents of behavioral intentions in tourism context*. Unpublished doctoral dissertation, Texas A&M University, College Station.
- Hubbard, J., & Mannell, R. C. (2001). Testing competing models of the leisure constraint negotiation process in a corporate employee recreation setting. *Leisure Sciences*, 23, 145-163.
- Hudson, S., & Gilbert, D. (2000). Tourism constraints: The neglected dimension in consumer behaviour research. *Journal of Travel & Tourism Marketing*, 8(4), 69-78.
- Hultsman, W. Z. (1993). Is constrained leisure an internally homogeneous concept? An extension. *Journal of Leisure Research*, 25(4), 319-334.
- Hung, K., & Petrick, J. F. (2012). Comparing constraints to cruising between cruisers and non-cruisers: A test of the constraint-effects-mitigation model. *Journal of Travel & Tourism Marketing*, 29(3), 242-262.
- Iso-Ahola, S. E. (1999). Motivational foundation of leisure. In E. L. Jackson, & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 35-51). State College, PA: Venture.
- Jackson, E. (1990). Variations in the desire to begin a leisure activity: Evidence of antecedent constraints? *Journal of Leisure Research*, 22(1), 55-70.
- Jackson, E. L. (1997). In the eye of the beholder: A comment on Samdahl & Jekubovich (1997), "A critique of leisure constraints: Comparative analyses and understanding". *Journal of Leisure Research*, 29(4), 458-468.

- Jackson, E. L. (2005a). Leisure constraints research: Overview of a developing theme in leisure studies. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 3-19). State College, PA: Venture.
- Jackson, E. L. (2005b). Impacts of life transitions on leisure and constraints to leisure. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 115-136). State College, PA: Venture.
- Jackson, E. L., Crawford, D. W., & Godbey, G. (1993). Negotiation of leisure constraints. *Leisure Sciences*, 15, 1-11.
- Jackson, E. L., & Dunn, E. (1988). Integrating ceasing participation with other aspects of leisure behavior. *Journal of Leisure Research*, 20(1), 31-45.
- Jackson, E. L., & Dunn, E. (1991). Is constrained leisure an internally homogeneous concept? *Leisure Sciences*, 13(3), 167 - 184.
- Jackson, E. L., & Rucks, V. C. (1995). Negotiation of leisure constraints by junior-high and high-school students: An exploratory study. *Journal of Leisure Research*, 27(1), 85-105.
- Jackson, E. L., & Scott, D. (1999). Constraints to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 299-321). State College, PA: Venture.
- Jackson, E. L., & Searle, M. S. (1985). Recreation non-participation and barriers to participation: Concepts and models. *Society and Leisure*, 8, 693-707.
- Jackson, E. L., & Witt, P. A. (1994). Change and stability in leisure constraints: A comparison of two surveys conducted four years apart. *Journal of Leisure Research*, 26(4), 322-336.
- Jun, J., & Kyle, G. T. (2011). The effect of identity conflict/facilitation on the experience of constraints to leisure and constraint negotiation. *Journal of Leisure Research*, 43(2), 176-204.
- Jun, J., Kyle, G. T., & Mowen, A. J. (2009). Market segmentation using perceived constraints. *Journal of Park & Recreation Administration*, 27(1), 35-55.
- Kane, M., & Zink, R. (2004). Package adventure tours: Markers in serious leisure careers. *Leisure Studies*, 23(4), 329-345.
- Kay, T., & Jackson, G. (1991). Leisure despite constraint: The impact of leisure constraints on leisure participation. *Journal of Leisure Research*, 23(4), 301-313.
- Kelly, J. R. (1996). *Leisure*. Boston, MA: Allyn& Bacon.
- Kim, S.-S., Scott, D., & Crompton, J. L. (1997). An exploration of the relationship among social psychological involvement, behavioral involvement, commitment, and future intentions in the context of birdwatching. *Journal of Leisure Research*, 29(3), 320-341.
- Kivel, B. D., & Kleiber, D. A. (2000). Leisure in the identity formation of lesbian/gay youth: Personal, but not social. *Leisure Sciences*, 22, 215-232.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York: The Guilford Press.

- Kotler, P. (1973). The major tasks of marketing management. *Journal of Marketing*, 37(4), 42-49.
- Koufteros, X., Babbar, S., & Kaighobadi, M. (2009). A paradigm for examining second-order factor models employing structural equation modeling. *International Journal of Production Economics*, 120, 633-652.
- Kuentzel, W. F. (2000). Self-identity, modernity, and the rational actor in leisure research. *Journal of Leisure Research*, 32(1), 87-92.
- Lam, T., & Hsu, C. H. C. (2006). Predicting behavioral intention of choosing a travel destination. *Tourism Management*, 27(4), 589-599.
- Lee, B. K., Agarwal, S., & Kim, H. J. (2011). Influences of travel constraints on the people with disabilities' intention to travel: An application of Seligman's helplessness theory. *Tourism Management*, 33(3), 569-579.
- Lee, J., & Scott, D. (2006). For better or worse? A structural model of the benefits and costs associated with recreational specialization. *Leisure Sciences*, 28, 17-38.
- Lee, S., & Scott, D. (2009). The process of celebrity fan's constraint negotiation. *Journal of Leisure Research*, 41(2), 137-155.
- Long, J. S. (1997). *Regression models for categorical and limited dependent variables*. Thousand Oaks, CA: Sage Publications.
- Long, J. S., & Freese, J. (2006). *Regression models for categorical dependent variables using STATA*. College Station, TX: STATA Press.
- Loomis, J. B., & Walsh, R. J. (1997). *Recreation economic decisions: Comparing benefits and costs*. State College, PA: Venture Publishing.
- Loucks-Atkinson, A., & Mannell, R. C. (2007). Role of self-efficacy in the constraints negotiation process: The case of individuals with Fibromyalgia syndrome. *Leisure Sciences*, 29, 19-36.
- Maddux, J. E. (1993). Social cognitive models of health and exercise behavior: An introduction and review of conceptual issues. *Journal of Applied Sport Psychology*, 5, 116-140.
- Manfredo, M. J., Driver, B. L., & Tarrant, M. A. (1996). Measuring leisure motivation: A meta-analysis of the recreation experience preference scales. *Journal of Leisure Research*, 28(3), 188-213.
- Mannell, R. C., & Iwasaki, Y. (2005). Advancing quantitative research on social cognitive theories of the constraint-negotiation process. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 261-275). State College, PA: Venture.
- Mannell, R. C., & Kleiber, D. A. (1997). *A social psychology of leisure*. State College, PA: Venture.
- Mannell, R. C., & Loucks-Atkinson, A. (2005). Why don't people do what's "good" for them? Cross-fertilization among the psychologies of nonparticipation in leisure, health, and

- exercise behaviors. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 221-232). State College, PA: Venture.
- Mannell, R. C., & Zuzanek, J. (1991). The nature and variability of leisure constraints in daily life: The case of the physically active leisure of older adults. *Leisure Sciences*, 13(4), 337-351.
- Manning, R. (1999). *Studies in outdoor recreation: Search and research for satisfaction*. Corvallis, OR: Oregon State University Press.
- McCarville, R. E., & Smale, B. J. A. (1993). Perceived constraints to leisure participation within five activity domains. *Journal of Park and Recreation Administration*, 11(2), 40-59.
- McIntyre, N. (1989). The personal meaning of participation: Enduring involvement. *Journal of Leisure Research*, 21(2), 167-179.
- McIntyre, N., & Pigram, J. J. (1992). Recreation specialization reexamined: The case of vehicle-based campers. *Leisure Sciences*, 14, 3-15.
- McQuarrie, F. A. E., & Jackson, E. L. (1996). Connections between negotiation of leisure constraints and serious leisure: An exploratory study of adult amateur ice skaters. *Society and Leisure*, 19(2), 459-483.
- McQuarrie, F. A. E., & Jackson, E. L. (2002). Transitions in leisure careers and their parallels in work careers: The effect of constraints on choice and action. *Journal of Career Development*, 29(1), 37-53.
- Nadirova, A., & Jackson, E. L. (2000). Alternative criterion variables against which to assess the impacts of constraints to leisure. *Journal of Leisure Research*, 32(4), 396-405.
- Oh, C. O., Ditton, R. B., Anderson, D. K., Scott, D., & Stoll, J. R. (2005). Understanding differences in nonmarket valuation by angler specialization level. *Leisure Sciences*, 27, 263-277.
- Oh, C., Lyu, S. O., & Hammitt, W. E. (2012). Predictive linkages between recreation specialization and place attachment. *Journal of Leisure Research*, 44(1), 68-85.
- Raymore, L., Godbey, G., Crawford, D., & von Eye, A. (1993). Nature and process of leisure constraints: An empirical test. *Leisure Sciences*, 15(2), 99 - 113.
- Richardson, S. L., & Crompton, J. L. (1988). Latent demand for vacation travel: A cross-cultural analysis of French- and English-speaking residents of Ontario and Quebec. *Leisure Sciences*, 10(1), 17-26.
- Ritter, C., Ditton, R. B., & Riechers, R. K. (1992). Constraints to sport fishing: Implications for fisheries management. *Fisheries*, 17(4), 16-19.
- Rodgers, H. B. (1973). The demand for recreation. *The Geographical Journal*, 139(3), 467-473.
- Samdahl, D. M., & Jekubovich, N. J. (1997). A critique of leisure constraints: Comparative analyses and understandings. *Journal of Leisure Research*, 29(4), 430-452.

- Schlenker, B. R. (1984). Identities, identifications, and relationships. In V. Derlaga (ed.), *Communication, intimacy and close relationships* (pp. 71-104). New York: Academic Press.
- Schroeder, T. D., & Wiens, M. (1986). The nonuse of public park and recreation facilities in Tulsa. *Journal of Park & Recreation Administration*, 4(3), 75-87.
- Scott, D. (1991). The problematic nature of participation in contract bridge: A qualitative study of group-related constraints. *Leisure Sciences*, 13, 321-336.
- Scott, D. (1993). Time scarcity and its implications for leisure behavior and leisure delivery. *Journal of Park & Recreation Administration*, 11, 51-60.
- Scott, D. (2005). The relevance of constraints research to leisure service delivery. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 279-293). State College, PA: Venture.
- Scott, D., & Jackson, E. L. (1996). Factors that limit and strategies that might encourage people's use of public parks. *Journal of Park & Recreation Administration*, 14, 1-17.
- Scott, D., & Mowen, A. J. (2010). Alleviating park visitation constraints through agency facilitation strategies. *Journal of Leisure Research*, 42(4), 535-530.
- Scott, D., & Munson, W. (1994). Perceived constraints to park usage among individuals with low incomes. *Journal of Park & Recreation Administration*, 12, 52-69.
- Scott, D., & Shafer, C. S. (2001). Recreation specialization: A critical look at the construct. *Journal of Leisure Research*, 33(3), 319-343.
- Sexton, N. R., Miller, H. M., & Dietsch, A. M. (2011). Appropriate uses and considerations for online surveying in human dimensions research. *Human Dimensions of Wildlife*, 16(3), 154-163.
- Shamir, B. (1988). Commitment and leisure. *Sociological Perspectives*, 31(2), 238-258.
- Shaw, S. M., Bonen, A., & McCabe, J. F. (1991). Do more constraints mean less leisure? Examining the relationship between constraints and participation. *Journal of Leisure Research*, 23(4), 286-300.
- Shaw, S. M., Kleiber, D. A., & Caldwell, L. L. (1995). Leisure and identity formation in male and female adolescents: A preliminary examination. *Journal of Leisure research*, 27(3), 245-263.
- Siegenthaler, K. L., & Lam, T. C. M. (1992). Commitment and ego-involvement in recreational tennis. *Leisure Sciences*, 14(4), 303 - 315.
- Smith, R. W. (1987). Leisure of disable tourists: Barriers to participation. *Annals of Tourism Research*, 14(3), 376-389.
- Son, J. S., Mowen, A. J., & Kerstetter, D. L. (2008). Testing alternative leisure constraints negotiation model: An extension of Hubbard and Mannell's study. *Leisure Sciences*, 30, 198-216.

- Stebbins, R. A. (1982). Serious leisure: A conceptual statement. *Pacific Sociological Review*, 25, 252-272.
- Stebbins, R. A. (1992). *Amateur, professional, and serious leisure*. Montreal, Canada: McGill-Queen's University Press.
- Stebbins, R. A. (1993). Il tempo libera utilizzato seriamente. *Lo Spettacolo*, 43, 213-226.
- Stebbins, R. A. (1999). Serious leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 69-79). State College, PA: Venture.
- Stebbins, R. A. (2001). The costs and benefits of hedonism: Some consequences of taking casual leisure seriously. *Leisure Studies*, 20(4), 305-309.
- Stryker, S. (1987). Identity theory: Development and extensions. In L. Yardley & T. Honess (Eds.), *Self and identity* (pp. 89-103). Chichester, UK: John Wiley & Sons.
- Sutton, S. G. (2007). Constraints on recreational fishing participation in Queensland, Australia. *Fisheries*, 32(2), 73-83.
- Tabachnick, R. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Boston, MA: Pearson.
- Tian, S., Crompton, J. L., & Witt, P. A. (1996). Integrating constraints and benefits to identify responsive target markets for museum attractions. *Journal of Travel Research*, 35(2), 34-45.
- Tietenberg, T. H. (2006). *Environmental and natural resource economics*. Boston, MA: Pearson/Addison Wesley.
- Tinsley, H. E. A., & Tinsley, D. J. (1986). A theory of the attributes, benefits, and causes of leisure experience. *Leisure Sciences*, 8(1), 1-45.
- Tsaur, S.-H., & Liang, Y.-W. (2008). Serious leisure and recreation specialization. *Leisure Sciences*, 30(4), 325 - 341.
- Upneja, A., Shafer, E. L., Seo, W., & Yoon, J. (2001). Economic benefits of sport fishing and angler wildlife watching in Pennsylvania. *Journal of Travel Research*, 40(1), 68-78.
- US Fish and Wildlife Service. (2007). *2006 National survey of fishing, hunting, and wildlife-associated recreation*. Washington, DC: US Department of the Interior.
- Walker, G. J., & Virden, R. (2005). Constraints on outdoor recreation. In E. L. Jackson (ed.), *Constraints to leisure* (pp. 202-219). State College, PA: Venture.
- Wall, G. (1981). Research in Canadian recreation planning and management. In B. Mitchell & W. R. D. Sewell (Eds.), *Canadian resource policies: Problems and prospects* (pp. 233-261). Toronto, Canada: Methuen.
- White, D. (2008). A structural model of leisure constraints negotiation in outdoor recreation. *Leisure Sciences*, 30, 342-359.

- Williams, P. W., & Basford, R. (1992). Segmenting downhill skiing's latent demand markets. *American Behavioral Scientist*, 36(2), 222-235.
- Wright, B. A., & Goodale, T. (1991). Beyond non-participation: Validation of interest and frequency of participation categories in constraints research. *Journal of Leisure Research*, 23, 314-331.
- Wright, B. A., Rodgers, E. B. D., & Backman, K. F. (2001). Assessing the Temporal Stability of Hunting Participation and the Structure and Intensity of Constraints: A Panel Study. *Journal of Leisure Research*, 33(4), 450-469.