Risk-taking propensity and its relationship to achievement motivation among selected municipal parks and recreation directors in the state of Iowa

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University of Northern Iowa

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RISK-TAKING PROPENSITY AND ITS RELATIONSHIP TO
ACHIEVEMENT MOTIVATION AMONG SELECTED MUNICIPAL PARKS AND
RECREATION DIRECTORS IN THE STATE OF IOWA

A Dissertation
Submitted
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved.

Dr. Christopher R. Edginton, Chair

Dr. Samuel V. Lankford, Co-Chair

Dr. A. Frank Thompson, Committee Member

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May 2010
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ABSTRACT

The purpose of the study was to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. More specifically, the study is designed to determine the relationships between risk-taking propensity and achievement motivation. In addition, the study seeks to explore the relationships between various demographic variables such as age, gender, education level, city size, agency size, organizational budget, and years of professional experience in the park and recreation field and either risk-taking propensity or achievement motivation.

Atkinson's Theory of Achievement Motivation and McClelland's Need for Achievement were employed to better understand the relationship between achievement motivation and risk-taking propensity, in support of the present study. In addition, three research instruments (1) Demographic Characteristics Survey, (2) The Choice Dilemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964), and Achievement Motive Questionnaire (AMQ) developed by Elizur (1979), were utilized to collect data. Statistical methods, such as Descriptive Statistical Analysis, Pearson's Product Moment Correlation Coefficient, Spearman's Rho Correlation Coefficient, Independent-sample t-test, and One-way ANOVA, were employed to analyze data in this study.

Results indicated that: (1) 81.4% of respondents demonstrate a moderate propensity for risk-taking; (2) 96.6% of respondents scored at the moderate or high levels of motivation achievement; (3) there exists a statistical correlation between propensity for risk-taking and achievement motivation at 0.01 level ($r = .341$, $p = .0008$); (4) there was only one demographical variable (age) weakly correlated with risk-taking propensity at
0.05 level; and (5) There were three demographical variables (full-time staff, city size, and organizational budget) moderately correlated with achievement motivation.
CHAPTER I
INTRODUCTION

Today many Americans are spending their leisure time participating in programs and services provided by municipal park and recreation agencies. Such organizations provide a wide array of programs and services that include activities, areas and facilities, enabling the enhancement of social, cultural and economic benefits for individuals, communities, and nations (Edginton & Chen, 2008). Many local communities provide outstanding park lands, recreation facilities and numerous innovative leisure programs and services, such as leagues and tournaments, instructional classes, clubs, drop-in/open programs, interest groups, special events, workshops and conferences (Edginton & O’Neill, 2005). As such, municipal park and recreation agencies have become an important element in the overall leisure service delivery system of many communities throughout the United States.

In Iowa, there are 121 municipal park and recreation agencies that administer more than 1,000 parks, recreation, and leisure areas, facilities and services (Iowa Park and Recreation Association [IPRA], 2009). These agencies not only offer leisure opportunities, but also provide attractive recreational amenities that include recreational programs and leisure services for over three million Iowa residents. One significant aspect of municipal park and recreation agencies is their promotion of a higher quality life for Iowa residents, as well as, encouragement of social, cultural, environmental and economic benefits for Iowa communities.

Meeting public needs for recreational programs and leisure services is the central goal of these agencies. In order to achieve this end, and more effectively deliver leisure
services to the communities and the public, park and recreation managerial leaders play a key role in determining the scope, direction, and resource allocations to leisure activities. Thus park and recreation directors hold a significant and important responsibility in insuring the success of park and recreation agencies. As Brody (2000) so wisely pointed out, “all organizations require effective managers who can inspire staff, set general directions, and be accountable for the organizations’ achievements” (p. 1). In recognition of managers’ critically important role in park and recreation administration, Edginton, Hudson, and Scholl (2005) define that role in even more detail:

Managerial leadership is that leadership which is provided by the organization’s top administrators or executives. These individuals provide overall direction to the organization, establishing broad goals, providing motivation, engaging in long-range planning, establishing and administrating reward systems, and overseeing those individuals who are directly accountable to them (p.113).

As one can discern, municipal park and recreation directors, serving either as top administrators or chief executive officers within their agencies have a pivotal role in the overall success of their leisure service programs. At the heart of the park and recreation agencies leadership, the role of the director whose work performance will directly influence the success or failure of the organization.

For the park and recreation directors, motivation is the driving force behind all of their behaviors and actions as administrators. According to Edginton and Williams (1978), “motivation is the center of the management process and the basis of productivity” (p. 81). This is especially true when considering directors’ motivations relating to their needs and desires for success, achievement or excellence and also achievement-oriented goals for the development of their organizations. For example, a director’s behaviors, actions,
thoughts and beliefs are often tied to decision making, establishing new tactics and solving risky problems.

Motivation is often thought of as involving basic drives, needs and wants. As Heckhausen, Schmalt, and Schneider (1985) have noted, “motivation consists of the anticipation of possible actions expected to lead an outcome that will have certain consequences, which will possibly bring the person closer to a super-ordinate goal” (p. 7).

Achievement motivation is drawn from a strong driving force of behaviors and actions which encourage individuals to take risks for self-satisfaction and self-enjoyment. Risky tasks such as learning new techniques, solving problems and achieving certain standards of quality (intrinsic motivation) or earning extrinsic rewards such as salary, job security and prestige (extrinsic motivation) are elements of achievement motivation.

These sources of motivation can be drawn from achievement, success, and excellence, as well as from the organization’s innovation and development (Mars, 1984). Intrinsic and extrinsic motivational elements are major factors of achievement motivation which often work together to impact an individual’s behavior, action, direction and passion (Brunstein & Maier, 2005). Need for success and attainment of excellence are often the common goals pursued by both individuals and their agencies. Therefore, Atkinson (1957) indicates that individuals high in achievement motivation anticipate greater satisfaction from success than individuals low in achievement motivation.

McClelland (1961) finds that individuals with strong achievement motivation are the best leaders. In addition, he notes that achievement-motivated individuals may possess the following characteristics: they (1) feel greater satisfaction through goal-achievement
rather than by what one may earn or the recognition received, (2) may measure success
through financial compensation, but view it as of lesser importance, (3) seek honest
evaluation from others as a means to measure success and guide future effort, (4) seek
work that may satisfy achievement needs, and (5) constantly seek ways to improve work
performance.

Indeed, many achievement-motivated individuals have their own goals and desires to
become successful people. In this aspect, managerial leaders seem to possess much
stronger desires than the general population for obtaining achievement and success. For
example, Meyer, Walker and Litwin (1961) examined two sets of individuals, managers
grouped as entrepreneurs or non-entrepreneurs. The grouping examined amount of job
risk, types of decisions made, and responsibility assumed by each individual. In the
measure of need for achievement, the entrepreneurs scored much higher than the other
group while also showing a preference for intermediate risk.

However, Cohen (1990) has a less positive perspective on the subject of
achievement motivation. He suggested that individual factors contributing to achievement
motivation include the pursuit of excellence, competitiveness, status aspiration, mastery,
dominance, work ethic, fear of failure, and the acquisitiveness for money and material
wealth (cited in Buehl, 1993, p. 25). Achievement motivation may be reflected not only
in its positive aspects, but also in its negative elements in the areas of competitiveness,
dominance, or fear of failure, factors which may also impact an individual’s behaviors,
actions, thoughts, and beliefs. On this point, Cohen’s views toward achievement
motivation are consistent with Atkinson’s (1957) suggestions of achievement motivation
theories. Two basic motivations in his theory are (1) a motive to approach success and (2) a motive to avoid failure.

In addition, some researchers (Sagie & Elizur, 1999; Sagie, Elizur, & Yamauchi, 1996; Tziner & Elizur, 1985) holding different views from Atkinson and Feather (1966), McClelland (1961), and McClelland, Atkinson, Clark, and Lowell (1953) when interpreting achievement motivation, believe that achievement motive is expressed by individual behaviors, such as working hard, calculating risks, facing uncertainty, and providing novel and creative solutions to problems. These behaviors are closely related to individual personality traits as well as individual job performance characteristics.

Risk-taking propensity is also closely related to a park and recreation director’s pursuit of success and innovation and development of the agency. Singh (1986) indicated that successful risk-taking by organizations often led to innovation. Shapira (1995) stated that risk-taking for most managers is an integral part of making decisions. Actually, risk-taking is a pervasive phenomenon in current social development. Risk often surrounds every individual, but we may not be always fully conscious of it, nor do we respond to it wisely or effectively (Edwards & Bowen, 2005). However, many risk-related elements like uncertainty of outcomes, various difficulties, and individual responsibilities may stimulate individuals to take risks for accomplishing achievement-related goals, especially in the area of leadership, because risk-taking for a managerial leader can offer great challenges or opportunities for promoting an agency’s development. As such, managerial leaders should take calculated risks that will produce gains while minimizing unexpected losses from their decisions. Knowles, Cutter, Walsh, and Casey (1973)
concluded in their study that risk-taking could be described as a willingness to seek or avoid risky situations.

These studies seem to indicate that the pursuit of achievement is always associated with a manager’s view of risk taking. This point is basically consistent with the viewpoints of McClelland’s (1967) theory of achievement motivation as well as Atkinson’s Risk-taking Model of Achievement Motivation. According to McClelland’s (1953) theory of achievement motivation, a high need for achievement is associated with competitive behavior and successful performance; and the focus of the theory of achievement motivation is on the desire to do things well, to overcome obstacles, to innovate, or to improve. These points are consistent with many managerial leaders’ expectations in the managing process. McClelland also believed that successful managerial leaders having high achievement motivation tended to choose more difficult tasks than those leaders characterized by low achievement motivation. According to McClelland, achievement-motivated individuals seek more difficult tasks because they want to find out more about their abilities to achieve. McClelland (1967) has suggested that a high level of need achievement is associated with more successful administrators or executives. According to McClelland (1985), individuals high in achievement are characterized by the following: (1) a strong desire to assume personal responsibility for finding solutions to problems, (2) a tendency to set moderately difficult goals, (3) an inclination to take calculated risks to reach goals, (4) a strong desire for feedback on task performance, and (5) a strong preoccupation with task accomplishment (cited in Krahe, 1990, p. 51).
Atkinson’s (1957) theory of achievement motivation reveals a relationship between the motive for achieving success and the motive for avoiding failure as related to risk-taking behavior. The focus of this theory involves three factors: motive, expectancy, and incentive. Atkinson and Feather (1966) stated, "The strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy that the act will attain a given incentive, and the value of the incentive: Motivation = f(Motive \times Expectancy \times Incentive)" (p. 13). The three variables are closely associated with individual motivation for obtaining achievement and avoiding failure.

The expectancy element directly reflects the probability of expected value; the incentive element refers to the expected outcome. In addition, Atkinson believes that a risk situation may provide certain successful opportunities which motivate people to achieve.

McClelland (1953) and Atkinson (1957) appear to hold identical views on achievement and risk-taking tendency in relation to a managerial leader’s drive for success and excellence. Their theories have enjoyed great acceptance by the general public. For example, McClelland reported in his original thesis that individuals approach tasks with the motives for either the "hope of success" or the "fear of failure."

Atkinson’s risk-taking model of achievement motivation and McClelland’s need for achievement theory have been broadly applied in various fields because of their theoretical and foundational value to explaining what appears to motivate managerial decisions.

Risk-taking propensity and achievement motivation are two motive-related managerial elements potentially associated with a park and recreation director’s pursuit
of success and excellence, as well as the drive for innovation and the development of his or her agency. Naisbitt and Aburdene (1985) claimed that, to be successful, today’s managerial leaders need to take risks that lead to innovation and improved self-confidence within their organization. In the area of park, recreation and leisure services, it is inevitable for a director to meet various difficulties, issues and risks. As a result, taking risks in order to pursue achievement-related goals may be one of the motivational characteristics associated with successful managerial leaders in leisure service programs.

McClelland (1967) has suggested that a high need for achievement is always accompanied by a moderate risk-taking propensity within the managerial ranks of an organizational structure. Atkinson (1964) believed that persons who are highly motivated to achieve were most attracted to risk situations which have a 50/50 chance of success. He indicated that situations offering a greater chance of success were favored by high achievers. Where the risks to success were low or high, he found these choices were preferred by low achievers. Many authors in the area of leadership have a similar position that successful managerial leaders should have the motivation, ability, and awareness to take appropriate risks (Bennis, 1989; Kouzes & Posner, 1987; Lussier & Acuha, 2001).

Although the two variables have been identified in different fields for many years, the application of the theory to these variables has been confined to business, education, and psychology, but not leisure services management. For example, studies linking the two variables in the area of psychology were focused on measuring the relationship between risk-taking propensity and one’s personality, motivation and behavior, in relation to age and gender. Risky preference and cautious preference in psychological
literature are viewed as two major positive characteristics by Wallach and Mabli (1970) and Vroom and Pahl (1971). Within the field of psychology, studies indicate that goal achievement motivations can affect the way a person performs a task and expresses a desire to show competence (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997).

Similar studies in the area of education have been focused on the relationship between achievement and risk-taking propensity among school administrators. Principals, for instance, are viewed as decision-makers, capable of setting policies and strategies. Their behaviors, actions, and thoughts are directly associated with the overall health of the student body, faculty attitude towards work, and success in reaching school goals (Lumley, 1971; Martin, 1997).

Similarly in the area of business, a sizable body of literature is related to financial consequences of risk-taking or achievement motivations of managers that bear on the level of innovation and success within the organization. How to minimize or avoid risk for gain has been considered the focus of many studies (Fischhoff, Lichtenstein, Slovic, Derby, & Keeney, 1981; MacCrimmon & Wehrung, 1986; Stewart, 1995).

While similar studies in the area of park and recreation are sparse, the few that borders this area focus on risk elements related to those participating in outdoor adventure/recreational programs, such as mountain climbing or canoeing (Cheron & Ritchies, 1982). The nature of this study was to look at what were the achievement motivation or risk-taking characteristics of those engaging in the leisure service activities of mountain climbing or canoeing, not the managerial decisions of those directing such activities.
In previous studies involving achievement motivation and risk taking, the subjects were in leadership positions, such as business entrepreneurs, managers of companies, principals of schools, or college student leaders. The directors of the municipal park and recreation agencies may play a similarly important role as managerial leaders in the leisure service field. However, there has yet to be study of municipal park administrators on this topic. A review of the literature shows that very little attention has been paid to the two variables in the area of the park and recreation. Only two scholars have offered pertinent studies that seek to examine achievement motivation and risk-taking by administrators within the leisure service field. A study by Rith (1973) found a relationship between the amount and type of athletic training received by recreation administrators, and their interrelation with risk-taking propensity scores. A more recent study by Edginton (1975) investigated the relationship between management style and risk-taking propensity among leisure service managers. Both research studies employed the same instrument, the Choice of Dilemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964), for measuring risk-taking propensity of managerial leaders.

Presently, there is a lack of research investigating the achievement motivational and risk-taking characteristics of park and recreational managers. The present investigation seeks to extend the range of research by conducting a study of municipal park and recreation directors’ achievement motivation and risk-taking propensity, in relationship to decision making.
Purpose of Research

The purpose of the study is to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. More specifically, the study is designed to determine the relationship between risk-taking propensity and achievement motivation within this population grouping of park and recreation professionals. This investigation seeks to explore the relationship between various demographic variables, such as age, gender, educational level, and years of professional service in park and recreation of the director, city size, organization size, and organizational budget in relation to risk-taking propensity and achievement motivation.

Research Questions

This study seeks to address the following research questions:

1. What is the risk-taking propensity of selected park and recreation directors in the state of Iowa?

2. What is the achievement motivation of selected park and recreation directors in the state of Iowa?

3. What is the relationship between the risk-taking propensity of selected park and recreation directors in the state of Iowa and their achievement motivation?

3a. What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.
3b. What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficulty, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa.

4. What is the relationship between risk-taking propensity of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience?

5. What is the relationship between achievement motivation of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience?

Hypotheses

1. There is no statistically significant relationship between risk-taking propensity and achievement motivation among a selected group of park and recreation directors in the state of Iowa.

1a. There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.
1b. There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficulty, responsibility, calculating risk, solving problem, and satisfying need, among a selected group of park and recreation directors in the state of Iowa.

2. There is no statistically significant relationship between risk-taking propensity and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience.

3. There is no statistically significant relationship between achievement motivation and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience.

Definition of Terms

1. Achievement motivation: the striving to increase or keep as high as possible one's own capability in all activities in which a standard of excellence is thought to apply and where the execution of such activities can therefore either succeed or fail (Heckhausen, 1967). It is the self need within a person to strive against some standard of excellence in reaching a goal.

2. Achievement Oriented Personality: aspires to accomplish difficult tasks; maintains high standards and is willing to work distant goals; responds positively to competition; willing to put forth effort to attain excellence (Jackson, 1967).
3. Motivation: can be defined as the driving force behind all the actions of an individual. The influence of an individual’s needs and desires both have a strong impact on the direction of their behavior (Rabideau, 2005).

4. Municipal Park and Recreation Agency: “a common form of organizing leisure services in the United States falls under the jurisdiction of municipal government” (Edginton, DeGraaf, Dieser, & Edginton, 2006, p. 217). This type of public government agency is found at the local level and generally is involved in providing programs, services, areas and facilities such as parks, swimming pools, fitness centers, playgrounds, recreation centers, special events, leagues, tournaments, classes, clubs and other leisure amenities.

5. Municipal Park and Recreation Director: an individual who has been employed as the executive responsible for the provision of public park and recreation services in a community. The chief executive full-time officer is in charge of a municipal park and recreation department and its personnel (Stormann, 1980). He or she is solely responsible for the operational effectiveness and efficiency of others within the agency.

6. Risk: the possibility of loss or injury, or the probability of such loss.

7. Risk Taking: taking action when the outcome is unknown (Moore & Gergen, 1985) or venturing upon that which involves possible loss, danger, or disadvantage (Totten & Keys, 1994).

8. Risk-taking propensity: the propensity for risk-taking is the perceived probability of receiving the rewards associated with success of a proposed
situation which is required by an individual before he or she will subject himself or herself to the consequences associated with failure, the alterative situation providing less reward as well as less severe consequences than the proposed situation (Brockhaus, 1976). In other words, an individual undertaking a task will have varying probability preferences to choose from for success in that task; the selection of a particular probability preference is an individual risk-taking propensity.

Assumptions of Research

1. It is assumed that the respondents will provide honest and accurate responses to questions posed within a survey instrument

2. It is assumed that a representative sample of respondents will cooperate with this study by completing a survey instrument.

3. It is assumed that park and recreation directors have the capacity to affect significant change within the organization, and that they have some position with respect to motivational achievement and risk-taking propensity in their decision making.

Study Limitations and Delimitations

In this study, the following limitations have been identified:

1. The study is limited by the degree of cooperation of municipal park and recreation directors in completing and returning the research instruments and personal data sheets.
2. The study is limited by the inability to control the self-administration of the instruments.

Further, the following delimitations are acknowledged:

1. The study has been delimitated to park and recreation directors in the state of Iowa in cities of 4,000 or more.

2. The study has been delimitated to municipal park and recreation directors serving communities in the state of Iowa.

Significance of the Study

Achievement motivation, risk-taking propensity, and their relationships to managerial leaders have been studied for many years, but the attention of researchers has been mainly concentrated on business, education, and psychology. In the past three decades, a review of literature shows only limited work in the area of determining the achievement motivational and risk-taking views of parks, and recreational directors within the leisure services field. This study will contribute to filling the void in the literature of the area regarding achievement motivation, risk-taking propensity and their relationship to municipal park and recreation directors. Within this context the proposed study may promote the pursuit of excellence among municipal park and recreation directors in the state of Iowa which may lead to better decision making allowing for the promotion of a better quality of life, improved community and well being amongst of the citizens of the state of Iowa.

This study will provide information that may assist municipal park and recreation directors in better understanding the influence of issues related to achievement
motivation, risk-taking propensity and selected demographic variables. Such information may be helpful for the administration of park and recreation agencies not only in the state of Iowa but across the United States. Further, the study may reveal information that will assist individual professionals in developing their potential capabilities, professional knowledge and, in general, advance their own personal skill set. Finally, a major beneficiary of the study will be the communities within which these park and recreation directors and the public they serve.
CHAPTER II
REVIEW OF LITERATURE

The purpose of this study is to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. This chapter presents a review of the literature related to the major variables used in this study. The chapter is divided into three major sections. The first section presents a review of the literature related to risk-taking propensity. The next section focuses on literature pertinent to achievement motivation. Finally, there is a discussion of the literature related to the interaction of these variables and previous findings related the park and recreation field.

Definition of Risk/Risk-Taking

With respect to the definition of risk/risk-taking, there is no widely accepted interpretation, because there is no one definition that is suitable for all problems (Fischhoff, Watson, & Hope, 1990). Cheron and Ritchie (1982) stated that risk should be described as a “multidimensional psychological phenomenon which influences individual perceptions and decision processes” (p. 140). Brehmer (1987) classified risk-taking as gambling, an individual judgment of risk is often based on previous experience and knowledge, and insufficient information may result in an individual’s risk-taking when making decisions or judgments.

Vlek and Stallen (1981) defined risk in their study as (1) the probability of a loss, (2) the degree of the potential loss, and (3) a function, mostly the outcome of probability and degree of loss. March and Shapira (1987) when investigating classical decision theory, that risk is the variation in distribution in possible outcomes, likelihoods, and subjective
values. Risk is also the variance in distribution of possible gains or losses associated with a particular alternative. Kogan and Wallach (1964) regarded risk-taking as an important part of decision-making, whereby individuals have to consider the probabilities of success and failure before making a decision. Cox and Rich (1964) identified perceived risk as the uncertainty of an outcome and uncertainty concerning the consequences of a decision. Calvert (1993) stated that without the possibility of loss, there is no true risk…, pure risks are unpredictable and involve only undesirable outcomes, like whether or not an employee is injured on the job.

Weinstein and Martin (1969) viewed risk as "endemic to goal directed activity, in pursuing purposes where there are probable costs as well as probable gains" (p. 499). According to MacCrimmon and Wehrung (1986), lack of control, lack of information, and a lack of time were viewed as determinants of risk-taking. Zaltman, Duncan, and Holbeck (1973) point out that risk-taking is an integral part of the innovation process. Plax and Rosenfield (1976) believed that "contemporary risk-taking research assumes that an individual’s risk orientation is persuasive and affects all of one's perceptions and behavior… risk-taking is a predispositional and not a situational variable" (p. 413). Knowles, Cutter, Walsh, and Casey (1973) concluded in their study that risk-taking could be described as a willingness to look for or stay away from risky situations. In a business or financial area, risk is seen as something to be calculated as well as to be minimized (Collins & Ruefli, 1996). Some literature regarding health and safety also presented similar perceptions toward risks which were viewed as something to be managed and minimized (Chicken & Posner, 1998).
The above interpretations reflect a host of researchers’ views and attitudes toward risk or risk-taking, where there is a common trait that individuals taking risk do so, in order to pursue individual needs in an uncertain situation or environment; where individual needs include broad physiological and physical desires (Alderfer, 1969; Maslow, 1954; Murray, 1938). A positive viewpoint of risk-taking suggests that it is good and should be sought actively (Goldman & Priest, 1990; Kouzes & Posner, 1987). A negative view of risk-taking suggests that it is bad and is a condition to be avoided (Chicken & Posner, 1998). In addition, Marquitz (2002) indicated that risk takers are those who consider risk as opportunities and challenges (positive view); whereas risk averters are those who consider risk as problems and threats to avoid (negative view). Both views may be represented as dual perspectives for most researchers.

Studies on Risk-Taking Propensity

Aside from the above literature regarding interpretations and definitions of risk-taking, a number of important studies also focused on the topic of risk-taking propensity. Kogan and Wallach (1964) have provided the classical foundation for research studies dealing with risk-taking propensity. In their investigation, they examined the relationship between several different measures of risk, including measures of judgmental extremity and confidence, and utility and subjective probability. Their findings showed a strong relationship between judgmental extremity and confidence. A lesser significance was found between utility and subjective probability. Between these two, however, they found no association. Their findings did not support a risk-taking propensity across different situations. In this study, it was found that the more cautious decision-makers examined
more elements relevant to their decisions; the opposite was found for those who took
greater risks; they examined fewer relevant criteria when making decisions involving risk.
Therefore, these authors proposed that a major form moderating risk-taking propensity is
determined by the number of factors being considered by the decision-makers.

Jackson, Hourany, and Vidmar (1972) proposed that risk-taking behavior is made up
of four facets: monetary, physical, ethical, and social. Based on their dimensions,
monetary risk is closely related to financial gain and loss; physical risk comprises risk-
taking and adventure-taking; ethical risk deals with individual values and beliefs, which
may include moral standards and potential dangerous factors; and social risk includes
constructs such a social bias or public complaints when meeting goals. The four
dimensions are highly correlated and are subsumed in a single risk scale (Jackson, 1977).
The monetary risk-taking in this study is weighted more heavily than the other three
facets because this risk-taking propensity is closely related to business activities. The
results of their research showed separate risk propensities for each consequence, as well
as, a general propensity for risk taking.

Slovic (1972) believed that risk-taking preferences vary from one situation to the
next. Subjects in this study were examined in various risk-taking tasks in different
situations, such as problem-solving, athletic, social, vocational, and gambling. The
findings revealed that individuals in the same or similar risky situation may demonstrate
completely different attitudes; someone facing a risky situation may reveal a cautious
attitude and take no action; the risky situation may result in one's fear or desire for self-
protection, while another may tend to bravely take various risks, the higher the risk, the
stronger the stimulation or attraction for him or her. The author further concluded that risk-taking propensity is significantly associated with personal behavior; however, factors such as a given situation or environmental condition seem much more significant than personal behavior in determining human risk-taking preference.

Byrd (1974) studied the features of risky situations in the field of finance and economy where risk-taking may be both static and dynamic. A static view of risk tends to seriously consider that risk-taking is likely to result in potential harm, threat, or loss, whereas a dynamic view of risk tends to consider the value of risk-taking which may build the foundation of creativity, innovation, and gain. Byrd’s research reflects two different attitudes toward risk-taking; the static view to risk reflects a very passive attitude toward risky situations such as avoidance or worry about failure, while the dynamic view to risk reflects a very active attitude toward risky situations resulting in actively challenging difficulty and risk. According to Prospect Theory, offered by Kahneman and Tversky (1982; 2000), a static view of risk would tend to be risk-seeking for losses, and a dynamic view of risk would lead to risk-aversion for gains. Both authors express individual views on risk-taking in different forms.

Fischhoff, Lichtenstein, Slovic, Derby, and Keeney’s (1981) research studied the theme: what is acceptable risk? The authors set forth five possible dimensions of consequences in decision-making about individual risks: economic, such as compliance costs, market efficiency, or innovation; physical such as death, genetic damage, or injury; ecological such as species extinction, altered ecosystem balances, or change gene pools; political/ethical such as centralization, personal freedom, or inter-generational equity; and
psychological such as worry, anxiety, or alienation. This study is mainly utilized in the field of political science and related to areas such as consumer protection and social policy decisions, which offer a critical analysis of possible approaches to making acceptable-risk. The findings of the study did not reach an agreement on acceptable-risk. Individuals’ opinions, in choosing risks, strongly rely on their own values, beliefs and outside factors.

March and Shapira’s (1987) work, “Managerial Perspectives on Risk and Risk-taking,” compared standard decision theory with risk-taking attitudes actually held by executives. The results showed that managers employ different approaches in decision making rather than standard decision theory. The authors believe risk-taking should not be completely described in the classical theoretic concept of risk. For example, (1) “managers are quite insensitive to estimates of the probabilities of possible outcomes” (p. 1404), which differs from standard decision theory; decision makers prefer larger expected consequence/value, (2) “managers’ decision are particularly affected by the way their attention focuses on critical performance targets” (p. 1404), meaning that managers judge the risks in terms of actual amount of loss rather than the probability of loss; which is also different from the classical definition of risk-taking: “I take large risks regarding the probability but not the amounts” (p. 1404), and (3) “managers make a sharp distinction between taking risks and gambling” (p. 1404). This indicates that managers try to decrease the potential loss without sacrificing the potential gain. In general, this study does not support the classical definition on risk-taking, as the authors summarized, “it might be more effective to affect risk-taking behavior by changing attention behavior
rather than probability estimation ability” (p. 1415). Different individuals assess risk-taking in different ways. In another study, Shapira’s *Risk Taking: A Managerial Perspective* (1995) emphasized three major aspects: (1) manager’s definitions of risk, (2) their attitudes toward risk, and (3) their method of dealing with risk. There were 706 managers who participated in this research. The important contribution of the work is that it assists in understanding the managerial behavior of risk-taking in terms of a manager’s individual viewpoints and perception.

Sitkin and Pablo (1992) conducted research regarding forecasting risk behaviors by examining three variables: individual traits, organizational context traits, and problem-related traits. The three variables have been viewed as directly influencing individual risk behaviors, especially an individual’s decision making in risky situations. In addition, the authors developed a re-conceptualized or mediated-model regarding individual risk-taking behavior. This model used three factors (risk preference, inertia, and outcome history) to operationally define risk propensity and also used six factors (problem framing, social influence for leader and culture elements, problem domain familiarity, organizational control systems, and top management) to operationally define risk perception. The new model suggests that risk propensity and risk perception play a mediating role in causing the shift of determinants from directly influencing individual risk behavior to indirectly influencing risk behavior. Although the authors did not validate their derived proposals, they suggested that the study presented an outline for future research in the area of risk propensity.
Sitkin and Weingart (1995) conducted a study: “Determinants of risky decision-making behavior: A test of the mediating role of risk perceptions and risk propensity.” Their research examined the findings of two previous studies on Sitkin and Pablo's (1992) re-conceptualized or mediated model. The central focus of the study was on how risk propensity and risk perception mediates the effects of outcome history and problem framing behavior. They demonstrated support for the function of outcome history in their posited re-conceptualized or mediated model, and also showed support that problem framing has both directly and indirectly influence on risky decision-making behavior. Their findings clearly suggest risk propensity and risk perception should be included as mediating variables in models of risky decision making behavior. Kennedy (1998) later proposed a hypothesis that “...decisions to risk...are...a function of two factors: impact on the decision maker’s identity and the decision maker’s familiarity with the decision domain” (p. 9). The author stated that identity and familiarity play crucial roles in risky decisions. Kennedy concludes that the more taking a risk promises to support the construction and maintenance of the identity people desire, the more likely one is to take the risk. However, despite the promise of benefits to the construction and maintenance of a desired identity, a lack of familiarity with the decision domain reduces one's likelihood to take the risk. In addition, the author believed that Sitkin and Pablo’s (1992) mediated model is a noteworthy construct, but all their key factors of risk behavior such as propensity can be decreased to the identity-familiarity hypothesis.

Nicholson, Dow, Fenton-O'Creevy, Soane, and Willman (2001) conducted a theoretical and empirical study concerning conceptualization and measurement of risk
propensity. The purpose of the investigation was to establish an effective measure of domain-specific and trans-domain risk taking, as well as, to examine the relationships between personality and risk-taking. According to Sitkin and Pablo’s re-conceptualized model (1992), risk propensity was defined as “the tendency of a decision maker either to take or to avoid risks” (p. 12), while this study defined risk propensity as the frequency with which people do or do not take different kinds of risks, for example, risk propensity is tested here as a summary concept for the risk-taking behavior of an individual across time and situations.

In order to comprehensively examine risk behaviors, these authors above measured six different decision domains: (1) recreational risks (e.g. rock-climbing, sky diving); (2) health risks (e.g. smoking, drugging, high alcohol consumption); (3) career risks (e.g. unemployment, unstable jobs); (4) financial risks (e.g. gambling, risky investments); (5) safety risks (e.g. fast driving, city cycling without a helmet); and (6) social risks (e.g. standing for election, publicly challenging a rule or decision). The six domains basically represent the main areas of life experience in which most people would potentially be exposed to risk. The four key findings revealed that: (1) risk-taking in any domain is influenced by general factors, such as age, sex and personality, (2) risk-taking in any one domain is not “... entirely generalizable...” (p. 18) to risk-taking in another domain, (3) risk behavior is patterned, some individuals are habitually risk takers or risk averter, while others have domain-specific patterns of risk behavior, and (4) “...personality profiles can be used to predict risk-taking in each of the six domains measured, and overall risk taking” (p. 18). These findings may have important implications for
administrators' risk management tactics when considering the variables that might influence one's propensity to take risk.

Risk-taking propensity in these researches appears to be associated with individual behavior when making decisions under risky situations. In addition, the propensity for risk-taking was determined by various factors such as individual value and beliefs (Fischhoff et al., 1981), decision makers' identity and familiarity to risk decision (Kennedy, 1998), and situational or environmental factors (Slovic, 1972).

Risk-Taking and Managerial Leaders

Empirical studies regarding the relationship between risk-taking and managerial leaders have been conducted and explored in a variety of situations. It is generally believed that managerial leaders should have a greater propensity for risk-taking than non-managerial employees. Rith (1973) investigated relationships between amount and type of athletic training and risk-taking propensity. He studied a total of 545 recreation investigation were administrators, ranging in ages from 22 to 69 (mean age, 41). These administrators were each sent three questionnaires in order to gather data on their athletic experience, risk-taking propensity, and their interpersonal relations. The questionnaires used were the Personal Data and Athletic Experience Questionnaire, the Choice Dilemmas Questionnaire (CDQ) for propensity of risk-taking, and the Fundamental Interpersonal Relations Orientation Behavior Questionnaire (FIRO-B).

In Rith's study, the findings showed a very low relationship between the recreation administrator's amount of athletic experience and their FIRO-B affection-expressed (r= .13) and affection-wanted scores (r= .10), and a significant but low positive
relationship between the amount of team sports participants and their risk-taking scores 
(r= .18). A fairly high negative relationship was found between individual sports 
participation and risk-taking scores (r=.50), and a low relationship between 
administrator’s FIRO-B controlled-expressed (r= -0.13) and affection-wanted scores 
(r=.09) and risk-taking scores was obtained. Finally, Rith's study suggests that high risk-
takers are more controlling towards others and were not concerned about being liked by 
those with whom he or she worked.

Edginton (1975) examined 103 subjects by using three instruments which included 
(1) an instrument for gathering personal and professional information from each leisure 
service manager, (2) the CDQ for measuring a subject’s risk-taking propensity, and (3) 
the Management Style Diagnostic Test providing a description of the subject’s 
management style and profile, task orientation, relationships orientation and level of 
effectiveness. Findings in Edginton’s study indicated no significant relationship between 
management styles and their risk-taking propensity, but a strong significant relationship 
between the level of responsibility and a high risk-taking propensity. Also, a significant 
relationship was found between risk-taking propensity and the means of total 
budget(r=.104, p=.05) and education (t= 1.78, p=.005).

Grey and Gordon (1978) reported several studies on risk-taking in different major 
companies. They offered several interesting findings including the result that a person's 
future success might be demonstrated by a willingness to take risks. Further, they found 
that risk-taking employers seemed to prefer hiring other risk-takers. Also, they noted that 
risk-takers might view their companies’ goals as conservative, while those same goals
would be seen as too risky by low risk-takers. Employees who were successful risk-takers tended to move up in the company more quickly than those who were more cautious.

Lattimer and Winitsky (1984) described the characteristics of what they felt were good leaders and good managers. They described good leaders as being brave, committed, disciplined, enlightened, and willing to take risks to try new things. Good managers exhibit different core behaviors. The successful manager desires order in which to accomplish tasks and recognizes the value of spontaneity. They appear to make better decisions when using both objective and subjective thinking.

MacCrimmon and Wehrung (1986) spent twelve years developing a study entitled, Taking Risks: the Management of Uncertainty. 500 top level industry administrators were studied with the central focus to probe whether individuals could be classified as risk-takers or risk-avoiders. The practical implication of the study was to help understand the differences between risk-taking administrators and non-risk-taking administrators. These authors also established a REACT model in terms of theories of risks in different fields such as economics, finance, management, and psychology. The acronym REACT stands for: R represents recognizing and structuring risks; E represents evaluating and decision making; A represents adjusting the risks; C represents choosing among different actions; and T represents tracking outcomes.

Through comparison and analysis, the results of the study showed that: (1) successful administrators are willing to take risks all the time; (2) top level administrators take more risks than did low level administrators; (3) highly educated administrators (university education) are willing to challenge themselves through taking risks for their
businesses; (4) younger individuals are willing to take greater risk than older individuals to advance their businesses; (5) administrators are willing to take more risks at their work than in their actual lives; and (6) most administrators prefer being viewed as real risk-takers by others, but they may not actually have the characteristics of real risk-takers.

These findings represent many researchers' views in realizing the different characteristics between risk-taker and non-risk-taker. These authors further indicated that individuals may take risks in one situation, but may not able or willing to take risks in a different situation.

Miller and Toulouse (1986) conducted a study regarding CEO's personal characteristics including flexibility, locus of control and need for achievement in relation to risk-taking behavior. These characteristics, such as one's leadership traits, may impact an organization's culture. The results showed that flexible leaders preferred to seek new information, easily adapt to new environments and changing conditions, and were willing to accept other personnel's opinions when making decisions. Leaders with the disposition of internal locus of control demonstrated risk-taking behaviors, along with innovative, creative, task-oriented, and forceful personality behaviors. In contrast, leaders with a high need for achievement preferred dictated, centralized, and regular procedures, and avoided risk-taking behaviors. The authors concluded their study with the finding that the personalities of CEO's were closely associated with the organizational culture.

Labich (1988) found that "the willingness and ability to take risks is one of seven leadership qualities distinguishing highly effective and respected senior managers and CEOs in the U.S" (cited in Calvert, 1993, p. 19). Those managers are who are willing to
take on more risks than those who are risk-averse, tend to be considered more
distinguished as leaders of their organization.

Macmillan (1993) investigated principals who were from different schools in Canada. Some interesting results emerged from this study where principals were classified as “new,” “middle career,” and “senior” officers based on their experiences in leadership position. The new principals tended to make quick decisions and like change; and often took risks of questionable value. The mid-career principals had a stable psychological approach in handling risk situations characterized by being willing to wait for change and looking for practical solutions to problems. Senior principals were the most conservative, and seemed more comfortable with maintaining established routines. With their greater experience, senior principals were better at predicting outcomes of risk-taking situations. Even though personally they felt less at stake for the consequences of their decisions, they took minimal risks. In general, this study seemed to indicate that an individuals’ risk-taking propensity may gradually decrease with length of time spent as a leader in higher education.

Shapira (1995) stated that managerial leaders should be classified as risk-seeking leaders and risk-averse leaders. Risk-seeking leaders were characterized as confident, outgoing, outspoken, achievement oriented, innovative, and slightly messy. Risk-seeking leaders prefer relatively high risks and are willing to sacrifice some expected return in order to increase the variation. While risk-averse leaders were depicted as nervous, unsure, passive, slow, yes men, pessimistic, reserved, spineless, and other pejoratives. Risk-averse leaders prefer relatively low risks and are willing to sacrifice some expected
returned in order to reduce the variation in possible outcomes. Shapira further noted that risk-seeking leaders were either very successful or very unsuccessful; while the risk-averse leaders tended to perform in the middle, being neither very successful nor very unsuccessful with their decisions.

Berman and West (1998) in their study “Responsible Risk-Taking” examined responsible risk-taking among a national sample of 236 senior local government managers. The findings showed that “many senior managers are responsible risk-takers whose orientation toward responsible risk-taking is associated with high level of productivity and low levels of litigation” (p. 346).

As aforementioned studies, managerial leaders should have more risk-taking propensities than non-managerial employees (Grey & Gordon, 1978; Lattimer & Winitsky, 1984; MacCrimmon & Wehrung, 1986). At the same time, they also undertake more responsibilities than general population (Edginton, 1975).

**Positive Views of Managerial Risk-Taking**

A host of scholarly literature and popular press articles regarding leadership or effective management have shown positive views or attitudes toward risk or risk-taking, emphasizing more potential gains than potential losses of taking risks when making decisions, solving problems or developing new programs. Risk-taking implies taking chances to achieve a goal. Risk-seeking individuals who think of risks in positive terms may consider risk-taking as opportunities, challenges or learning. Calvert (1993) and Kindler (1998) stated that risk-taking is a learning process. The learning process may lead to creativity and innovation, as well as growth (Byrd, 1974; Calvert, 1993; Kindler, 1998).
These authors suggest that being as well informed as possible is a requisite to making a risky decision. Leaders must realize there is uncertainty in any decision. There is the potential for either gain or loss from any risk-taking decision. Gains can represent increased self-confidence (Goldman & Priest, 1990), creativity, innovation, and progress (Kouzes & Posner, 1987), but leaders need to understand there is a chance of loss even while they make decisions with the hope for gain.

Some empirical studies on the value of risk-taking presented positive results. For instance, Kuczmarski (1988) stated that “risk is the backbone of new product development; it is the central core, the spinal cord, and the brain stem” (p. 15). Webber and Bottom (1989) believed that risk equals uncertainty. Wriston (1986) indicated that

Uncertainty is the invitation to innovate, to create; uncertainty is the blank page in the author’s typewriter, the granite block before a sculptor, the capital in the hands of an investor, or the problem challenging the inventive mind of a scientist or an engineer. In short, uncertainty is the opportunity to make the world a better place (cited in Calvert, 1993, p. 19).

Uncertainty, for managerial leaders, may be not only a great opportunity but also a sort of challenge; holding positive attitudes toward uncertainty may avail administrators to bravely face risky situation, wisely overcome various difficulties, and finally reach a desired outcome.

Kouzes and Posner (1987) investigated 750 managers and found that effective managerial leaders were willing to undertake the responsibility of making risky decisions in their organizations and were able to realize the importance of a willingness to learn from previous mistakes and failures they had made. Although one may wish to know the balance between the fear of failure and what one might gain, “there is no simple test for
determining what an acceptable level of risk is” (p. 61). The more progressive and positive the view to risk or risk-taking, the greater the chance of gains instead of losses (cited in Calvert, 1993, p. 16). In addition, Edwards and Bowen (2005) indicated that risk avoidance may easily result in lost opportunities.

From these perspectives, managers should take risks and learn from them (Calvert, 1993; Kindler, 1998); they should avail themselves as well of the opportunity, challenge, innovation, and growth that can be realized from taking risks (Byrd, 1974; Calvert, 1993; Kindler, 1998). Thus park and recreation directors should view risks as positive opportunities for change. Directors who take chance may produce new ideas or active innovation and development of their agencies.

Negative Views of Managerial Risk-Taking

In an uncertain situation or environment, gains and losses are still two unpredictable outcomes for individuals or organizations. In order to obtain more gains, managerial leaders need a set of new risk-taking approaches suited to the new realities of managing in an unpredictable, uncertain, and unforgiving business environment (Calvert, 1993).

Compared with those who holding positive views to risk, risk aversive individuals seem to be shy and cautious in dealing with uncertainty in decision making or problem solving. The common characteristic of risk-aversive individuals is fear, fear of punishment (Turk, 1994) and fear of failure (Riggs & Sykes, 1993; Shapira, 1995). Risk aversion reflects an individual’s behavior under uncertain circumstances. As Edwards and Bowen (2005) have stated, “a negative view to risk is prevalent throughout the society… and many people tend towards risk aversion in their decision-making,
especially in relation to follow-up decisions after an initial risk-seeking choice” (p.174). For those who have a negative view of risks, they may consider risk-taking as potential threat to their reaching a desired goal. They are often viewed as risk averters or avoiders. In decision-making, they tend to choose a less-risky return alternative. In order to reduce fear, many researchers encourage taking “calculated risks” (Riggs & Sykes, 1993), reducing uncertainty (Zinkhan, Joachimsthaler, & Kinnear, 1987) and minimizing the risk (Shwiel, 1986). However, risk aversive behavior doesn’t always have negative effects in uncertain situations; sometimes, it may generate positive results such as avoiding huge losses or threats.

All in all, a successful managerial leader should realize that the greater the gain or loss, the higher the risk; the smaller the gain or loss, the lower the risk. Risk aversion may depend on the relative size of loss with respect to the likelihood of it occurring. In those instances where the probability and severity of loss is high, it may be prudent to avoid risk altogether.

Risk-Taking and Demographic Variables

This section discusses the relationship between risk-taking and demographic variables such as age, gender, level of education, work experience, and organization size. Many previous studies have examined the relationship between these types of variables. Basowitz and Korchin (1957) employed Gestalt Completion and Thurstone’s adaptation of the Gottschaldt’s Concealed Figures Instrument to measure differences in risk-taking propensity between a young group of decision makers whose mean age was 26.8 and an older group whose mean age was 78.1. The authors found a high correlation between age
and risk-taking propensity, where the older group tended to be more conservative and less willing to take risks than the younger group. MacCrimmon and Wehrung (1986) experienced similar findings; they believed that young administrators preferred more risk seeking than older administrators. Fear of failure or punishment seemed to be the important element influencing the older individuals' preference for avoiding risks.

In Kogan and Wallach's (1964) study, they utilized the Choice Dilemmas Questionnaire (CDQ) to measure confidence for risk-taking between males and females. The findings found no difference between young women and older women in risk taking, while young men displayed higher confidence for risk-taking than older men. The findings also reflect the different attitudes toward risk-taking amongst men and women.

In a 1971 study, Vroom and Pahl also used CDQ to investigate 1,484 managers whose age-range was from 22 to 58. The results showed a significant relationship between age and risk-taking propensity ($r = .80, p = .0001$). The authors concluded that with increasing age, the level of risk-taking propensity tended to decrease as the responsibilities of participants increased (e.g. marriage, children). Another finding of this study indicated that social factors such as society's growth and economic stability were influential elements causing younger managers to accept greater risks.

In addition, study was conducted by Calhoun and Hutchinson (1981), in which they surveyed 45 female and 19 male older subjects with a modified CDQ; the participants had an average age of 69 years, 13 years social services experience, and was from southern Virginia agencies. The modified CDQ contained questions on personality characteristics of younger or older persons and allowed participants to select a "no choice"
alternative (which allowed them to avoid making a decision). The authors found that most of the older participants tended to select the “no choice” alternative, which reflected their passive psychology for taking risks. Findings indicated that the older subjects were very cautious and conservative when choosing answers concerning younger characteristics. The findings appeared to indicate the older participants’ cautious attitude and fear of failure when engaging in decision making or choosing risky alternatives.

The relationship between gender and risk-taking propensity is also an important theme discussed by many researchers who often hold different views of the relationship between these two variables. Kogan and Wallach’s (1964) utilized the Choice Dilemmas Questionnaire (CDQ) to measure male and female college students’ preference for risk-taking. The results showed that female students performed more cautiously than male students in making decision under condition of uncertainty. Muldrow and Bayton (1979) administrated a battery of tests to female and male administrators of federal agencies. The CDQ was also utilized as an instrument to examine risk-taking propensity. The results showed that female administrators were less inclined to take risks than male administrators under similar circumstances. Also, Bailey (1991) believed that males were greater risk takers than females only in financial matters.

While a number of studies presented different findings from those above, Wallach and Mabli (1970) found no difference between males and females in risk-taking propensity. Masters and Meier (1988) indicated that there was no significant difference in risk-taking between males and females in small business companies. In Davis’ (1975) study, he found the same result when investigating male and female subjects’ risk-taking
propensity in Outward Bound courses. The above studies present two different beliefs of
the relationship between risk-taking propensity and gender; one believes there is no
difference between male and female risk-taking preference, while the other believes that
males a significant difference exists between male and female risk-taking behavior.

A study regarding “What area will be the first in the organization to adopt
technological innovation?” conducted by Masters and Meier (1990), examined
preferences for risk-taking amongst different university groups (faculty and staff) whose
age range was from 30 to 60. They found that their propensity for risk-taking was closely
related to an individual’s education level and with no relation to gender and income.
They concluded that faculty with technology skills tended to take more risks than staff.
Edginton (1975) also discovered a significant relationship between risk-taking propensity
and managerial leaders’ education level (t = 1.78, p = .005). MacCrimmon and Wehrung
(1986) believed that highly educated administrators were willing to take more challenges
than general employees. In addition, Garder (cited in Wallman, 1991) recognized that
educational leaders in today’s schools desired to have a “willingness to accept
responsibility and courage.”

Frost, Fiedler, and Anderson (1983) administrated a study regarding the relationship
between time in a leadership position and personal risk-taking behavior. These authors
found that the longer the school principals stayed in their leadership positions, the greater
the propensity for risk taking.

Stewart (1995) surveyed a sample of 767 small business owner-managers and
corporate managers (entrepreneurs) from 20 state regions. He used the Jackson Personality
Inventory instrument to measure the risk-taking propensity and preference for innovation, and he used the Personality Research Form to examine their achievement motivation. In order to find the differences with three variables between the two types of business managers, this study found that both small business owner-managers and corporate managers had a high level of achievement motivation and preference for innovation; while, the risk-taking propensity of corporate managers was much higher than the small business owners.

The findings of the research represent a host of researchers' attitudes toward the relationship between risk-taking propensity and demographic variables such as age, gender, education level, agency size and professional experience but some of these researches are not always in agreement for example their attitudes toward gender.

Achievement Motivation Related Theories

The origins of the study of achievement motivation or the need for achievement can be traced back to the late 1800s. James (1890) stated that striving for achievement could be linked to self-evaluation, and that achievement motivation was a way to discover or enhance an individual's potential abilities through work. In the twentieth century, another scholar, Taylor (1911), continued previous studies using money as an incentive to motivate employees; his studies indicated that highly-motivated employees' performance was much better than for most other employees. This finding expanded research views for understanding human motivation as a need. In the same era, a number of well-known scholars such as Murray (1938), Maslow (1954), Alderfer (1969), McClelland (1953), Atkinson (1957), and Elizur (1979), set forth individual theories and valuable insights
regarding motivation through need for achievement. Their theories used physiological and psychological needs as a basis for studying motivation.

Maslow (1954) established his Need Hierarchy model/theory consisting of five need motivations: (1) the physiological needs, (2) the safety and security needs, and job security, (3) the love and belonging needs, (4) the esteem needs, and (5) the self-actualization needs. The five levels of the need-motivation represent the hierarchical nature of individual needs.

Maslow’s model of Needs Hierarchy is often described as a “pyramid” (see Figure 1), which means that the most basic physiological human needs must first be met to ensure survival. Beyond these basic needs, there are fewer and fewer persons capable of fulfilling their higher level needs. At the top of the pyramid, self-actualization needs refer to psychological factors such as pursuit of achievement, creativity, and advancement. Maslow (1970) believed that once one level of need had been met, the individual would then seek to satisfy needs of the next higher level. If a level of needs could not be met, the individual would continue focusing on the unaccomplished needs. Maslow’s theory reflects the nature of personal growth in striving for a higher level of capacities, as he believed that it is the nature of human beings to pursue new goals for meeting an individual’s higher needs.
Figure 1. Maslow’s (1943) Model of Needs Hierarchy

Maslow’s theory has been applied in a variety of areas, including management, for an extended period of time and broadly accepted by researchers. However, its validity has been challenged by a number of researchers (Locke, 1991). Maslow’s model was believed to lack systematic research and scientific support and was mostly derived from his individual experience (Campbell & Pritchard, 1976; Steers & Porter, 1979). In spite of these criticisms, Maslow’s theory is still very popular. Szilagyi and Wallace (1983) indicated that this model was very easy to decipher and understand. Edginton and William (1978) stated that “Maslow’s major contribution lies in the hierarchy concept; and the fact that an individual is always reaching for something he or she does not have, suggests to management that one must constantly be searching for new ways to motivate managerial leaders by providing new challenges” (pp. 89-90). This theory benefits those of managerial leaders who prefer pursuing new or higher goals of individual success and
achievement and suggests that his or her behavior is self-challenging in pursuit of higher needs.

Alderfer (1972) condensed Maslow's theory of Hierarchy of Needs to three aspects; he believed that human needs were composed of existence, relatedness, and growth (ERG). The existence category is similar to Maslow's first two levels of the needs: physiological and safety needs, which involve pursuing very basic needs like food, water, sleep, sex, and physical health. The relatedness category is comparable to Maslow's third and forth levels of needs: belonging and esteem needs, such as social and external esteem with family, friends, co-workers and employers. The growth category is related to Maslow's fourth and fifth levels of needs: self actualization and internal esteem needs, which desire to be creative and productive, to complete meaningful tasks, and to pursue success and achievement. In the aforementioned aspects, both theories have certain similarities, whereas the difference from Maslow's theory is that Alderfer's theory maintains that more than one need may be sought at the same time; if the needs in a higher level, such as self actualization or self esteem, could not be met, the individual's attention may automatically transfer to a lower category need such as relatedness. The common trait of the two theories is that a person's needs are always raised from physiological needs to higher psychological needs.

Szilagyi and Wallace (1983) summarized Alderfer's ERG theory suggesting that the less the needs of each level has been obtained, the more it will be desired; the more the needs of lower-level have been obtained, the greater the desire of higher level needs; the less the needs of the higher-level have been obtained, the more the lower-level needs will
be desired. Alderfer's ERG-theory, for many leaders, may be a very good edification; in a practical managing process, a leader's responsibilities and his or her considerations should be multifold when making decisions or solving problems. He or she has to pay attention to several different need motivators simultaneously such as individual needs, organizational needs, staff's needs and customers' needs.

Another scholar, Henry Murray, developed a Manifest Needs Theory during the 1930s, 40s, 50s and 60s. Murray (1938) believed that "a need is potentiality or readiness to respond in a certain way under certain given circumstances..., it is a noun which stands for the fact that a certain trend is apt to recur" (p. 124). Murray classified human needs as two categories: primary needs and secondary needs. Although the primary needs are very important, secondary needs may represent higher human needs reflected in spiritual pursuits like individual ideals or goals.

Murray's theory of motivation suggests that human personalities are a reflection of behaviors controlled by psychological needs: achievement, dominance, affiliation, and nurturance. Murray (1938) indicated that achievement motivation should be viewed as a desire to accomplish difficult tasks, to overcome obstacles, to attain a high standard, to do things better, and to enhance self-confidence by successfully using one's talents and efforts. Many researches, regarding Murray's theory, have demonstrated that people with high achievement needs tend to undertake greater challenges, especially as it concerns job performance in organizational settings.

Compared with Maslow's and Alderfer's theories, Murray's theory seemed to place more attention on the area of psychological pursuits and less on the area of physiological
needs. His theory focused on the interrelationship between psychological needs and human personality and behavior, which is slightly different from Maslow’s and Alderfer’s theories.

David McClelland (1985) and John Atkinson (1964) were two prominent academic experts who made great contributions to research of achievement motivation (Elliot & Reis, 2003). They spent over three decades studying the need to achieve motive. Their theories of achievement motivation have been widely accepted in management practice and in the academic community. McClelland (1953) viewed the goal of the need for achievement as “success in the competition with a standard of excellence” (p. 110). He believed that rewards represent a measurement of successful performance. A number of studies on the need for achievement also revealed a positive relationship between high need for achievement, excellent performance, and executive success. For example, Alschuler (1973) described the achievement motive as a “pattern of planning actions, and feelings associated with striving for some kind of excellence ...” (p.21).

McClelland developed his theory of achievement motivation in terms of the model of Thematic Apperception Test (TAT) designed by Murray (1938). The TAT test, as one of the oldest measurement tools, is frequently utilized in different fields for determining human personalities and behaviors. During the 40s, McClelland attempted to discover whether the TAT was able to measure human need motivation. His first reaction in utilizing the model was that TAT reflected individual needs and that one could use TAT pictures (stories) to measure individual needs. The TAT test is also employed for assessing individual job performance such as one’s degree of skill in dealing with other
people and ability to effectively address a difficult task or situation, etc. In the early 50's, McClelland created a coding system for TAT pictures to measure achievement motivation.

McClelland (1985) found, in his original thesis, that individuals approach tasks with two different primary motives: the “hope of success” or the “fear of failure.” Clark, Teevan, and Ricciuti (1956) supported his theory in their study.

One is an approach motive involving anticipation of reward; the other is an avoidance motive involving anticipation of punishment. The main source of evidence for this distinction consists of the repeated findings that individuals with moderate or low achievement scores appear fearful or defensively oriented whereas individuals with high scores appear hopeful (p. 186).

McClelland believed that “hope of success” represents the construct of high achievers, while, “fear of failure” represents individuals who are in anxiety.

McClelland (1961) was the first researcher to use the theory to measure entrepreneurial and managerial behavior. He believed there was an influence of achievement motivation on economic growth. McClelland (1961) also examined differences among occupations in another study. The study drew a comparison between managers and specialist in the U.S.A, Italy and Poland. The results showed that managers scored much higher on need for achievement than did the staff specialists. In still another investigation regarding examining middle level executives and students of law, medicine and technology in Italy, McClelland found that middle level executives’ performance indicated quite a higher need for achievement than did those of students. His last investigation examined the differences between managers and professionals in Poland. The findings showed that managers scored higher in need for achievement than did the
professionals. McClelland’s studies reflected the tendency that the higher the position of the managerial leader, the more the need for achievement; the lower the position of the managerial leader, the lesser the need for achievement. The individual position may be viewed as the key factor determining the degree of their needs for achievement. In other words, a person with high achievement motivation is apt to choose more difficult tasks than a person with low achievement motivation, because they may want to prove or find out more about their ability to achieve.

McClelland (1961) stated that individuals with strong achievement motivation are the effective leaders. He believed that achievement-motivated individuals should possess the following characteristics: (1) generation of a feeling of greater satisfaction through goal-achievement than by what one may earn or recognition received, (2) measurement of success through financial compensation, otherwise, not important, (3) honest evaluation from others as a means to measure success and guide future effort, (4) work that may satisfy achievement needs, and (5) the constant pursuit of ways to improve work performance.

Indeed, many individuals with high achievement motivation needs have as their own goals and desires to become successful people. In this aspect, managerial leaders seem to possess much stronger desires than the general population for obtaining achievement and success.

Atkinson (1957) expanded McClelland’s theory of achievement motivation and further developed Atkinson’s achievement motivation theory. His theory emphasizes need for achievement for a specific activity which includes a motivation to achieve
success and a motivation to avoid failure. Atkinson and Feather (1966) stated that "The strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy that the act will attain a given incentive, and the value of the incentive: Motivation = f(Motive × Expectancy × Incentive)" (p. 13). This model refers to the relationship between individuals who were high in achievement motivation and their preference for risk taking. The focus of the model involves motive, expectancy, and incentive. The three variables refer to individual behaviors associated with achievement motivation and risk taking.

He defined motive as "...a disposition to strive for a certain kind of satisfaction, as a capacity for satisfaction in the attainment of a certain class of incentives" (p. 360). An individual's motives impact the way in which they pursue their work efforts. Positive motives may lead to higher possibility of success, while negative motives may result in lower probability of success. A managerial leader's motives may influence individual needs and direction of his or her agency. In defining expectancy, Atkinson stated that "expectancy is a cognitive anticipation, usually aroused by cues in a situation, that performance of some act will be followed by a particular consequence; the strength of the expectancy can be represented as the subjective probability of the consequence, given the act" (p. 360). For one in a managerial leadership position, expectancy may be strong, moderate or weak due to the uncertainty of the outcome which might be influenced by one's management skills. Regarding the definition of incentive, Atkinson points out that "...the relative attractiveness of a specific goal that is offered in a situation, or the relative unattractiveness of an event that might occur as a consequence of some act" (p. 360)
determines the level of incentive. Incentive is similar to motive; incentive comes from extrinsic factors while motive refers to intrinsic factors. Both factors work together to impact an individual’s behavior, action, direction and passion (Brunstein & Maier, 2005).

Atkinson and Feather (1966) described the relationship between three variables: the higher the incentive value of success, the higher the probability of success; the more the difficult task, the lower the probability of success.

Atkinson’s theory is derived from McClelland’s research on the relationship between the need for achievement and preference for moderate probabilities of success. Therefore, Nygard (1977) summarized Atkinson’s achievement motivation theory which reflects personality characteristics:

The motive to achieve success (Ms) is considered as a capacity to anticipate positive affects in achievement situations, combining with the situationally aroused expectancy of success (Ps) and the incentive value of success (Is) in order to achieve success (Ts). In the same way, the motive to avoid failure (Mf), which is considered as a capacity of negative affects in achievement situations, combines with the situationally aroused expectancy of failure (Pf) and incentive value of failure (If) into a negative tendency and the tendency to avoid failure (Tf). The resultant motivation or tendency to engage in a particular task equals the tendency to achieve success minus the tendency to avoid failure (p. 74).

Atkinson’s theory of achievement motivation reflects the combination of two motives: the motive to approach success (Ms) and the motive to avoid failure (Mf). The approach motive consists of the probabilities of success and the incentive value of success, whereas the avoidance motive is composed of the probability of failure and the incentive value of failure. Atkinson and Feather (1966) also proposed that a person’s achievement oriented behavior depends on three aspects, (1) individual’s fondness for achievement, (2) the prospect of success, and (3) individual’s insight of value of the task.
Atkinson believes that a risk situation may provide certain successful opportunities which motivate people to achieve. Brockhaus (1976) believed that Atkinson’s model was an accurate measure of achievement motivation and risk-taking propensity, offering the following:

The resultant motive function has the maximum at \( \text{Ps}= .5 \) if \( \text{Ms} \) is greater than \( \text{Mf} \). Where \( \text{Mf} \) is greater than \( \text{Ms} \). The resultant motive function would be maximum either at the lowest value of \( \text{Ps} \) or the highest value of \( \text{Ps} \). The major prediction that follows from Atkinson’s theory is that performance level should be greatest when there is greater uncertainty about the outcome when the subjective probability of success is .5 (p. 512).

Compared with Murray (1938), Maslow (1954), and Alderfer’s (1969) theories, Atkinson and McClelland’s theory of achievement motivation points out the relationship between achievement motivation and risk-taking propensity. For example, McClelland (1967) stated that a high need for achievement is always accompanied by a moderate risk-taking propensity, while a low need for achievement is accompanied by a very high or very low risk-taking propensity. Atkinson’s (1957) theory of achievement motivation revealed the relationship between the motive for achieving success and the motive for avoiding failure which is related to risk-taking behavior. The approach motive consists of the probabilities of success and the incentive value of success, whereas the avoidance motive is composed of the probability of failure and the incentive value of failure. Both authors believed that the need for achievement has a tendency to strive for success and excellence.

McClelland and Atkinson contributed much to research of achievement motivation, but some researchers (Elizur & Tchaikovsky, 2002; Sagie & Elizur, 1999; Sagie, Elizur, & Yamauchi, 1996; Tziner & Elizur, 1985) hold different views about assessing
motivation through need for achievement. They believe that achievement motive should be expressed by individual behaviors such as working hard, calculating risks, facing uncertainty, and providing novel and creative solutions to problems. These behaviors not only reflect individual personality traits but are also closely related to their performance characteristics. Going beyond previous theoretical conceptions of achievement motivation, established by Atkinson (1957, 1964), McClelland (1961), and Mehrabian (1968), Elizur (1979) developed a three-facet model pertaining to need for achievement. The model is focused on three aspects which are composed of Facet A: behavior modality, Facet B: type of confrontation, and Facet C: time perspective (see Figure 2) for measuring people's achievement motive. The author indicated that this model was a multivariate approach to this construct, unlike traditional theory that considered achievement motive as a unitary concept (Atkinson, 1957, 1964; McClelland, 1961).

Figure 2. The Facet Structure of Achievement Motive from Assessing Achievement Motive of American and Israeli Managers: Design and Application of a Three-Face Measure. Adapted from Elizur, D. (1979). Applied Psychological Measurement. 3(2).
This model is a three-dimensional structure which enables researchers to assess and realize individual achievement motivation through multiple facets. For example, Facet A: behavior modality is related to three human behavior characteristics: (1) cognitive (preference), (2) affective (satisfaction), and (3) instrumental (performance); Facet B: type of confrontation refers to (1) confront oneself with a challenge and (2) match solutions to problematic situations; and Facet C: time perspective is associated with task performance in three periods which include (1) before, (2) during, and (3) after (Elizur, 1979, 1986, Elizur & Tchaikovsky, 2002; Sagie & Elizur, 1999; Sagie, Elizur, & Yamauchi, 1996; Tziner & Elizur, 1985). Each choice of its components (3×2×3) stands for an aspect of assessing achievement motive according to the structure of the model.

In addition, the major researching content of the model is mainly focused on confronting oneself with uncertainty, difficulty, and responsibility, calculating risk, solving problems, and satisfying need to succeed; these elements, for managerial leaders, appear to be frequently encountered in practical management process. Therefore, a number of researchers prefer this model as their instrument for measuring managerial leaders’ achievement motivation.

Risk-Taking and Achievement Motivation
in the Area of Park and Recreation

As noted in a previous statement, there are 121 municipal park and recreation agencies administering more than 1,000 parks, recreation, and leisure service settings in the state of Iowa (IPRA, 2009). These agencies provide a wide array of benefits including the provision of activities, areas and facilities that enable the enhancement of social,
cultural and economic benefits for individuals, communities, and nations (Edginton & Chen, 2008). Their contributions are directly associated with the quality life of Iowa residents as well as benefit for park and recreation organization.

The development of municipal park and recreation areas depends upon an effective administration; at the heart of the agency leadership, directors play a significant role in managing their agencies. Murphy, Niepoth, Jamieson, and Williams (1991) stated that "directors of park and recreation agencies have the broadest responsibilities and authority, they are responsible for long range planning, establishing policies, organization structuring and restructuring, coordination, implementation, and many other broad-based managerial function" (p. 320); they represent the organization to legislative or city managerial authorities and also are responsible for the overall direction of the agencies (Murphy, Williams, Niepoth, & Brown, 1973). According to Edginton et al. (2005), "a leader guides participants toward goals that are intended to meet their individual needs, wants, and interests while at the same time achieving the goals of recreation, parks, and leisure services organization" (p. 30). In addition, Brademas (1984) indicated that:

Many behavioral scientists believe that nobody can truly motivate anyone else. Actually, the only thing a leader can do to achieve better results from employees is to establish the sort of climate in his relationship with them that will encourage them to want to move in the direction of achieving departmental goals while, at the same time, achieving their own personal goals" (p. 71).

Thus the directors of municipal park and recreation systems play an important role in providing high quality and high impact services to the communities which they serve and represent a understudied population of public service. Due to a park and recreation directors' position of authority and responsibility, they are often required to address
various issues such as qualified personnel, land acquisition, financial considerations for recreational facilities, innovative leisure programs and services for the public, and etc. These issues can be simple or complex, open or closed, and nearby or remote, any of which may generate a great deal of uncertain elements influencing a park and recreation directors' performance.

In order to promote the development of municipal park and recreation areas and to better serve the communities and the public, directors should have the education and training for solving issues, overcoming barriers, and promoting more effective practices which encourage organizational growth from both a quantitative and qualitative perspective. To be a successful managerial leader, the leader must have the willingness, ability, and knowledge to take appropriate risks (Bennis, 1989; Kouzes & Posner, 1987; Lussier & Acuha, 2001) but also be open to innovation and be self-confident (Naisbitt & Aburdene, 1985) when encountering any challenge. In many empirical studies, achievement motivation and risk-taking propensity are viewed as motive-related managerial elements which are significantly associated with a managerial leader's performance. McClelland (1953) believed that a high need for achievement was associated with behavior toward competition and the successful performance of administrators or executives. McClelland (1967) further claimed that a high need for achievement is always accompanied by a moderate risk-taking propensity.

In the public mind, the two variables, achievement motivation and risk-taking propensity are often considered only a businessman's priority, relating to the entrepreneurial desire for success. In reality, a park and recreation director's performance
also relates to these two variables, for example, Rith (1973) investigated a total of 545 park and recreation administrators; the author summarized from the findings that park and recreation administrators with high risk-taking scores sought to control others. Edginton (1975) examined 103 park and recreation administrators; he discovered a significant relationship between risk-taking propensity and the administrator’s responsibilities. Jordan (2007) stated that achievement orientation can help park and recreation administrators see a task through, from beginning to end. Russell (2001) indicated that an achievement-oriented leader’s behavior involves setting goals, expecting a high level of achievement, and conveying a high degree of confidence to participants. Mars (1984) believed that creative park and recreation administrators should trust their own thinking for their own benefit and the organization. He further indicated that a leader should possess the following traits: “need for recognition of achievement, need for variety, need for autonomy, need for mastery of a problem..., willing to take greater and more long-range risks for greater gain, high self-sufficiency, and independence in judgment” (p. 25). These traits are strong indicators that park and recreation directors have individual achievement motivation and a willingness to take risks in the management process.

Many researchers believe that today’s managerial leaders should be creative people who must rely more on their own judgment and less on rules and regulations in their efforts to improve the organization’s services (Altschuler & Behn, 1997; Berman & West, 1998; Gore, 1994). This has occurred as a result of working in a more complex environment and/or as a consequence of a variety of unexpected issues that may produce
uncertain outcomes for an agency. Such uncertain outcomes may require managerial leaders to take risks when working toward organizational goals. As Edwards and Bowen (2005) have stated, “risk arises out of individual or organizational decision-making” (p. 14). Hertz and Thomas (1984) indicated that “risk means uncertainty and the results of uncertainty...risk refers to a lack of predictability about problem structure, outcomes or consequences in a decision or planning situation” (p. 18). Taking-risk for a park and recreation director is both a challenge and an opportunity for both individual and organizational achievement because of their special position and central role they play in their park and recreation organization. As Russell (2001) has described, the director is like an innovator, communicator, enabler, problem solver, and decision maker, instructor, policymaker, planner, organizer, resource person, stimulator, referee, disciplinarian, group symbol, and spokesperson (Edginton et al., 2005). These titles represent the organizational expectation and public trust for managerial leaders. Some titles, such as innovator, problem solver, decision maker, policy maker, or planner, are important symbols of risk-takers and achievement motivated people.

In general, the productive management of any park and recreational organization is greatly dependent on the ability of a managerial leader to work with and through people to achieve organizational goals (Edginton, Hudson, Lankford, & Larsen, 2008). Achievement motivation and risk-taking propensity are two motive-related managerial elements which influence a park and recreation directors’ ability performance. As noted, Murray (1938) has indicated that achievement motivation desires to encourage individuals to accomplish difficult tasks, to overcome obstacles, to attain a high standard,
to do things better, and to enhance self-confidence by successfully using one's talent and efforts, while risk-taking desires opportunities and challenges (Marquitz, 2002) for individual growth.

Therefore, this study is designed to fill the void in the literature relating to the motivational and risk-taking behaviors of Iowa municipal park and recreation directors. The results of this study may also prove helpful to Iowa municipal and park recreation programs in understanding director characteristics that lead to improved decision making. In addition, the findings may also expand the application of motivational and risk-taking theories to administrators in the leisure service industry.
CHAPTER III

METHODOLOGY

The purpose of this investigation was to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. Specifically, this study was designed to determine the relationships between risk-taking propensity and achievement motivation among Iowa park and recreational directors using a survey methodology. In addition, this study explored the relationship between various demographic variables such as age, gender, education level, city size, agency size, organizational budget, and years of professional experience among park and recreation directors in relation to their risk-taking propensity and achievement motivation.

Chapter III focuses on providing information regarding procedures in data collection and data analysis for this study when examining the risk-taking propensity and achievement motivation behaviors involving selected municipal park and recreation directors in the state of Iowa. The chapter is also organized to present information regarding the subjects and the procedures used to select participants for this investigation. Information regarding the instruments used for data collection will be detailed. The procedures for distributing and collecting data will be described. Lastly, procedures used for analysis of the data will be discussed. This chapter includes: (a) a description of the study framework, (b) population, (c) research questions, (d) hypotheses, (e) research instruments, (f) data distribution and collection, (g) statistical analysis procedures, and (h) summary of methodologies and working hypotheses.
Framework of the Study

This study examined the relationship between risk-taking propensity, achievement motivation, and demographic variables among selected park and recreation directors in the state of Iowa (see Figure 3). The independent variables (IV) were identified as demographic variables, such as age, gender, education level, city size, agency size, agency budget, and years of professional experience. The dependent variables (DV) were identified as directors' risk-taking propensity and achievement motivation.

![Diagram of the study framework](image)

**Figure 3. Framework of the Study**

Population

The study was delimited to municipal park and recreation directors in the state of Iowa, in cities with a population of 4,000 or more. There are 78 park and recreation directors from 54 counties that fit these criteria and will be included in the study. Each
city has only one municipal park and recreation director who generally is in charge of the local communities' provision of park lands, recreation facilities, and numerous innovative leisure programs and services.

Research Questions

This study attempted to answer the following research questions:

1. What is the risk-taking propensity of selected park and recreation directors in the state of Iowa?

2. What is the achievement motivation of selected park and recreation directors in the state of Iowa?

3. What is the relationship between the risk-taking propensity of selected park and recreation directors in the state of Iowa and their achievement motivation?

3a. What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.

3b. What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements, such as uncertainty, difficulty, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa.

4. What is the relationship between risk-taking propensity of selected park and recreation directors in the state of Iowa and selected demographic variables,
such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience?

5. What is the relationship between achievement motivation of selected park and recreation directors in the state of Iowa and selected demographic variables, such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience?

Hypotheses

To aid in the statistical analysis of this research study, the following hypotheses were formulated in terms of null hypotheses to be rejected only if the results were statistically significant. The following null hypotheses were formulated with respect to the responses of selected Iowa park and recreation directors:

1. There is no statistically significant relationship between risk-taking propensity and achievement motivation among a selected group of park and recreation directors in the state of Iowa.

1a. There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.

1b. There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements, such as uncertainty, difficulty, responsibility,
calculating risk, solving problem, and satisfying need, among a selected group of park and recreation directors in the state of Iowa.

2. There is no statistically significant relationship between risk-taking propensity and selected demographic variables, such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience.

3. There is no statistically significant relationship between achievement motivation and selected demographic variables, such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience.

Instrumentation

Three instruments that have been used in collecting data investigations were used by this study to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa: (1) the Personal and Professional Information Questionnaire (PPIQ); (2) the Choice Dilemmas Questionnaire (CDQ); and (3) the Achievement Motive Questionnaire (AMQ). Following is a description of each of these instruments which will be used to collect data in this study.

(1) Personal and Professional Information Questionnaire (PPIQ)

The first survey instrument is a 9-item questionnaire developed by the researcher to provide demographic data on each respondent and background information on municipal park and recreation agencies where they are employed. Instrument information includes
such data as age, gender, education level, city size, agency size, organizational budget, and years of professional experience.

(2) Choice Dilemmas Questionnaire (CDQ)

The second instrument is the Choice Dilemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964). This instrument provides respondents with 12 hypothetical situations designed to measure their risk-taking propensity. The 12 situations refer to a broad range of choices about personal needs such as money, reputation, happiness, health, and satisfaction. Here is a sample question from Kogan and Wallach's CDQ (1964, pp. 257-258).

Mr. D. is the captain of College X's football team. College X is playing its traditional rival, College Y in the final game of the season. The game is in its final seconds, and Mr. D's team, College X, is behind in the score. College X has time to run one more play. Mr. D, the captain must decide whether it would be best to settle for a tie score with a play which would be almost certain to work or, on the other hand, should he try a more complicated and risky play which could bring victory, if it succeeded, but defeat if not.

Imagine that you are advising Mr. D. Listed below are several probabilities or odds that the risky play will work.

*Please check the lowest probability that you would consider acceptable for the risky play to be attempted.*

Place a check here if you think Mr. D. should not try the risky play no matter what the probabilities.

- The chances are 9 in 10 that the risky play will succeed
- The chances are 7 in 10 that the risky play will succeed
- The chances are 5 in 10 that the risky play will succeed
- The chances are 3 in 10 that the risky play will succeed
- The chances are 1 in 10 that the risky play will succeed

The options on the CDQ represent the respondent's perceived probability levels of success for each risky alternative. Respondents are required to choose between a safe
alternative (X) and a more attractive (Y) but nevertheless risky competing choice so that each of the situations in the 12-item CDQ correlates with two alternatives, one that has attractive aspects but is riskier, and another which is safe but less attractive. Bolton (1997) suggests that the higher the score (6 points), the greater the risk (1 in 10); in the same way, the lower the score (1 point), the more cautious the answer (10/10, avoiding the risky alternative; see Table 1).

Table 1


<table>
<thead>
<tr>
<th>Response</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 in 10</td>
<td>6</td>
</tr>
<tr>
<td>3 in 10</td>
<td>5</td>
</tr>
<tr>
<td>5 in 10</td>
<td>4</td>
</tr>
<tr>
<td>7 in 10</td>
<td>3</td>
</tr>
<tr>
<td>9 in 10</td>
<td>2</td>
</tr>
<tr>
<td>Don’t choose risky alternative</td>
<td>1</td>
</tr>
</tbody>
</table>

The CDQ was selected for this study because it has been widely used to measure individual risk-taking propensity by researchers in many different areas of management (Aram, 1992; Bolton, 1997; Brockhaus & Nord, 1979; Brown, 1970; Cartwright, 1971; Edginton, 1975; Masters & Meier, 1988; Rith, 1973; Schwer & Yucelt, 1984). Compared with other instruments for measuring individuals’ risk-taking propensity, the CDQ is easy
to administer and also has an acceptable level of dependability. Cartwright (1971) indicated that the widespread use of the CDQ was due to its ease of use and its reliability.

Regarding its reliability and validity, Wallach and Kogan (1961) in their study used the Spearman-Brown formula to determine the split-half reliability coefficient for the CDQ, with results showing .53 for young men (n=89), .63 for young women (n= 132), and .80 for older men (n= 60) and women (n= 80) which shows a high level of reliability. Using Cronbach’s alpha, the reliability of the long pilot instrument was .81, which again reinforces the reliability of using the CDQ instrument. According to these values, their assessment establishes consistency that is statistically significant. Due to stability and good internal consistency of the CDQ instrument, many researchers (see Table 4) have chosen the CDQ as the instrument to measure individuals’ risk-taking propensity for their studies; estimates of the content, criterion-related and construct validity of the CDQ has been obtained from a number of empirical studies.

(3) Achievement Motive Questionnaire (AMQ)

The last instrument, Achievement Motive Questionnaire (AMQ), was developed by Elizur (1979) to measure the subjects’ achievement motivation. The AMQ was devised in terms of previous theoretical analysis of achievement motivation such as the Thematic Apperception Test (McClelland et al. 1953), the Manifest Needs Questionnaire (Marshall & Wijting, 1980), and the Iowa Picture Interpretation Test (Johnston, 1957).

This questionnaire, a self-reporting instrument, contains eighteen items to assess respondents’ achievement motivation and achievement motivation related three facets of behavior modalities: instrumental modality, affective modality, and cognitive modality.
Each facet of the behavior modalities separately corresponds to six achievement motive components, such as uncertainty, difficulty, calculating risk, solving problem, responsibility, and satisfying need. For example, *Instrumental* modality is identified based on individual performance (e.g., “Do you usually undertake to perform tasks that involve uncertainty or tasks with sure outcomes?”). *Affective* modality is identified based on satisfaction (e.g., “Do you generally feel more satisfied when your task requires problem-solving or tasks that have to be carried out by following clear instructions?”). *Cognitive* modality is identified based on the degree of preference (e.g., Do you generally prefer tasks involving calculated risk or tasks whose accomplishment is ensured’?). Therefore, the six elements: uncertainty, difficulty, calculating risk, solving problem, responsibility, and satisfying need in relationship to achievement motivation modality of behavior are also employed to examine respondents’ achievement motivation.

The three behavior modalities comprehensively reflect human motive of preference, satisfaction, and performance for achievement, in other words, to assess individuals’ achievement motivation from three facets. The scales of the instrument were further developed and validated by Elizur (1979). Respondents choose one out of five answer categories, ranging from difficult (5 points) to easy (1 point), as for example (Tziner & Elizur, 1985, p. 221):

Do you generally prefer **difficult** tasks or **easy** tasks?

I generally prefer:
(1) Difficult tasks **much more** than easy tasks.
(2) Difficult tasks a **little more** than easy tasks.
(3) Difficult and easy tasks to the **same extent**.
(4) Easy tasks a **little more** than difficult tasks.
(5) Easy tasks **much more** than difficult tasks.
This instrument is chosen for this study because of its use in many previous empirical research investigations (Elizur, 1979, 1986, Elizur & Tchaikovsky, 2002; Elizur & Beck, 1994; Sagie & Elizur, 1999; Tziner & Elizur, 1985), and its worldwide use with empirical studies across different languages, such as Hebrew (Shye, 1978), Hungarian (Elizur & Beck, 1994), Dutch, and Japanese (Sagie et al. 1996). The findings in previous studies demonstrate a very high level of consistency and reliability (Cronbach’s \( \alpha \)) of AMQ’s six achievement components which were all above .70. Many of the studies in the English version (Elizur, 1986; Sagie & Elizur, 1999; Tziner & Elizur, 1985) demonstrate a strong and acceptable reliability which generally exceeded .80. The AMQ’s criterion-related validity was strongly supported when examining managerial performance ratings (Tziner & Elizur, 1985).

For example, Tziner and Elizur (1985) utilized the AMQ to measure a sample of 190 middle managers in a large industrial corporation in Israel. The reliability of almost all achievement component measures exceeded .80 which is considered to be extremely high (see Table 2). In this study, validity assessment was based on ability to predict an individuals’ actual performance. Table 2 presents achievement motive component scores on performance, there are three out of six aspects which include calculating risk, uncertainty, and solving problems contributed significantly to interpreted variance in managerial performance. Most individuals prefer taking calculated risks when solving problems in an uncertain situation or environment. These aspects correlate moderately to individual’s managerial performance (\( p<0.05, R = .22 \)).
Table 2

Regression of Managerial Performance on the Six Measurements of Achievement Motive and Their Internal Consistency Reliability (n = 190).

<table>
<thead>
<tr>
<th>Internal consistency Reliability (Cronbach’s α)</th>
<th>Achievement motive measure</th>
<th>r</th>
<th>R</th>
<th>Beta (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.84</td>
<td>Calculating risk</td>
<td>0.15*</td>
<td>0.15</td>
<td>0.18*</td>
</tr>
<tr>
<td>0.84</td>
<td>Uncertainty</td>
<td>0.01</td>
<td>0.18</td>
<td>0.14*</td>
</tr>
<tr>
<td>0.80</td>
<td>Solving problems</td>
<td>0.14*</td>
<td>0.20</td>
<td>0.12*</td>
</tr>
<tr>
<td>0.78</td>
<td>Satisfying needs</td>
<td>0.01</td>
<td>0.21</td>
<td>0.05</td>
</tr>
<tr>
<td>0.79</td>
<td>Responsibility</td>
<td>0.10</td>
<td>0.22</td>
<td>0.07</td>
</tr>
<tr>
<td>0.80</td>
<td>Difficulty</td>
<td>0.04</td>
<td>0.22</td>
<td>0.04</td>
</tr>
</tbody>
</table>

*p<0.05, R = 0.22*


Another example of the AMQ was a study conducted by Elizur and Tchaikovsky’s (2002) piloting the instrument to assess achievement tendencies of a sample of 132 managers from the USA, 202 managers from Brazil, and 114 managers from Israel. These subjects were from different public or private organizations with various cultural backgrounds. Cronbach’s Alpha reliability coefficient of internal consistency for achievement motive questions were as follows: “calculating risk (.75), facing difficulty (.77), undertaking personal responsibility (.83), uncertainty (.74), solving problem (.87), and sensing a need for success (.86)” (p. 58). These results appear to demonstrate a high
level of internal consistency when considering the research of Nunnally (1978) who argues that the widely accepted minimum standard for internal consistency is .70.

Such assessments regarding reliability analysis of the AMQ above present a strong internal consistency reason for its selection in this investigation of park and recreation directors in the state of Iowa. Based on AMQ’s scoring scale, the higher the achievement motive score, the higher the respondent’s performance is likely to be.

In general, CDQ for risk-taking propensity and AMQ for achievement motivation are selected for this study due to their high reliability and validity. These two instruments have been used by many researchers (see Table 3) at different times over the last three decades, largely due to their reliability and internal consistency. Therefore, the use of these advanced research instruments offers set of methodologies that can help explain the relationship between risk-taking propensity and achievement motivation among park and recreation directors in the state of Iowa for the current investigation.
## Table 3

*Selected Empirical Studies on Achievement Motivation and Risk-taking Propensity*

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Sample</th>
<th>Instrument</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown (1970)</td>
<td>Business (n=63) and public school administrators (n=84)</td>
<td>CDQ</td>
<td>Business administrators were significantly greater risk takers than were the school administrators.</td>
</tr>
<tr>
<td>Rith (1973)</td>
<td>Administrators (n=454) in physical education and park and recreation</td>
<td>FIOO-B CDQ</td>
<td>Low positive relationship between the amount of team sports participants and risk-taking scores (r= 18).</td>
</tr>
<tr>
<td>Edginton (1975)</td>
<td>Managers (n=103) of park and recreation.</td>
<td>CDQ</td>
<td>No significant difference between management style and risk-taking propensity</td>
</tr>
<tr>
<td>Brockhaus &amp; Nord (1979)</td>
<td>New founders, newly hired managers &amp; newly promoted managers (all within 3 months, N=31 for each group)</td>
<td>CDQ</td>
<td>No significant differences among the groups</td>
</tr>
<tr>
<td>Elizur (1979)</td>
<td>Managers (n=132) from U.S. and (n=114) from Israel</td>
<td>AMQ</td>
<td>No significant differences between the two groups</td>
</tr>
<tr>
<td>Brockhaus (1980)</td>
<td>New founders, newly hired managers &amp; newly promoted managers (all within 3 months, N=31 for all 3 group)</td>
<td>CDQ</td>
<td>No significant differences among the groups</td>
</tr>
<tr>
<td>Schwer &amp; Yucelt (1984)</td>
<td>Owners and small business managers (total. N =71; primary males.</td>
<td>CDQ</td>
<td>No differences in personal risk; other risks mitigated by age and education</td>
</tr>
<tr>
<td>Tziner and Elizur (1985)</td>
<td>Managers (n=190) employed by industrial corporation in Israel</td>
<td>AMQ</td>
<td>Be able to positively assess managerial performance</td>
</tr>
<tr>
<td>Elizur (1986)</td>
<td>Subjects (n=186) involved in sport and physical education</td>
<td>AMQ</td>
<td>Moderately assess athletes’ performance levels</td>
</tr>
<tr>
<td>Peacock (1986)</td>
<td>Successful (ongoing) and unsuccessful (bankrupt) small business owners (N=20 each)</td>
<td>CDQ</td>
<td>Both moderate in risk taking</td>
</tr>
<tr>
<td>Masters &amp; Meier (1988)</td>
<td>Owner or owner-managers and managers (total N=50, no further information)</td>
<td>CDQ</td>
<td>No differences between owners and managers nor between males and females</td>
</tr>
<tr>
<td>Sagie (1994)</td>
<td>Subjects (n=159) from Israel</td>
<td>S-AMQ</td>
<td>No significant difference</td>
</tr>
<tr>
<td>Sagie, Elizur &amp; Yamauchi (1996)</td>
<td>Subjects (n=100) from U.S., (n=506) from Dutch, (n=175) from Israel, (n=527) from Hungarian, and (n=560) from Japan</td>
<td>AMQ</td>
<td>No significant difference among groups</td>
</tr>
<tr>
<td>Sagie &amp; Elizur (1999)</td>
<td>Business students (n=114) and economics students (n=171) in Dutch</td>
<td>AMQ</td>
<td>No significant difference between groups</td>
</tr>
<tr>
<td>Elizur &amp; Tchaikovsky (2002)</td>
<td>Managers (n=132) from the USA, (n=202) from Brazil, and (n=114) from Israel.</td>
<td>AMQ</td>
<td>No differences among the groups</td>
</tr>
</tbody>
</table>
Data Distribution and Collection

A set of complete investigational documents was separately mailed to every participant (Iowa park and recreational director) with an envelope containing two letters inviting participation (see Appendix A), an informed consent letter (see Appendix C), along with the three instruments: (1) Personal and Professional Information Questionnaire (PPIQ)—Demographic variables, (2) Choice Dilemmas Questionnaire (CDQ)—Risk-Taking Propensity, developed by Kogan and Wallach (1964), and (3) Achievement Motive Questionnaire (AMQ)—Achievement Motivation, developed by Elizur (1979); (see Appendix F). In addition, a thank-you email or telephone call was sent when the investigator receives the completed questionnaires (see Appendix D). Also, a reminder email or telephone call was made if the questionnaires were not received by the investigator after two weeks (see Appendix E). In order to be able to collect all questionnaires from respondents, another completed investigational document packet with an additional letter requesting their cooperation was sent to those non-responding participants.

Treatment of Data

The entire procedure of the research utilized the SPSS 16.0 statistical software packages for Windows to analyze the collected instrument data from the directors of municipal park and recreation in the state of Iowa. According to aforementioned research questions and hypotheses in the study, the data was analyzed in the following manner:

In response to Research Question 1: What is the risk-taking propensity of selected park and recreation directors in the state of Iowa? The Descriptive Statistical Method,
such as frequency, percentage, mean, median and sum, was applied to evaluate all respondents’ propensity of risk-taking in order to obtain the central tendency of their risk-taking propensity in the process of handling daily businesses, such as decision making, solving problems or innovation in the area of park and recreation. A sum of response scores was computed on this variable.

In response to Research Question 2: What is the achievement motivation of selected park and recreation directors in the state of Iowa? The Descriptive Statistical Method, such as frequency, percentage, mean, median and sum, was employed to assess all respondents’ achievement motivation in order to obtain the central tendency of directors’ achievement motivation in the process of handling daily businesses, such as decision making, solving problems or innovation in the area of park and recreation. A sum of response scores was computed on this variable.

In response to Research Question 3: What is the relationship between the risk-taking propensity of selected park and recreation directors in the state of Iowa and their achievement motivation? The Null Hypothesis 1: there is no statistically significant relationship between one’s risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa was tested for answering the research question. Pearson’s Product Moment Correlation Coefficient and Descriptive Statistical Analysis were utilized to measure the relationship between risk-taking propensity and achievement motivation of all directors in the area of park and recreation of Iowa. Whether or not the null hypothesis could be retained or rejected, was based on the statistical tests run on the collected data.
In response to Research Question 3a: What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa. The Null Hypothesis 1a: There is no statistically significant relationship between risk-taking propensity and achievement motivation related modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa was used to test the research question. Pearson’s Product Moment Correlation Coefficient and Descriptive Statistical Analysis were utilized to measure the relationship between risk-taking propensity and achievement motivation related modalities (cognitive, affective, and instrumental) of behavior of all directors in the area of park and recreation in Iowa. Whether or not the null hypothesis could be retained or rejected depended on the results of the statistical tests run on the collected data.

In response to Research Question 3b: What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa. The Null Hypothesis 2b: There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa was examined for answering the research question. Pearson’s Product Moment Correlation Coefficient and
Descriptive Statistical Analysis were employed to measure the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need of all directors in the area of park and recreation in Iowa. Whether or not the null hypothesis could be retained or rejected depended on the statistical tests that were run on the collected data.

In response to Research Question 4: What is the relationship between risk-taking propensity of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, sex, education level, city size, agency size, budget, and years of professional experience? The Null Hypothesis 2: there is no statistically significant relationship between risk-taking propensity of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, city size, agency size, budget, and years of professional experience was tested for interpreting the research question. Spearman Rho Correlation Coefficient, Independent-Samples T-test, One-way ANOVA, and Descriptive Statistical Analysis were employed to calculate the relationship between respondents' risk-taking propensity and their demographic variables. Whether or not the null hypothesis could be retained or rejected depended on the statistical tests run on the collected data.

In response to Research Question 5: What is the relationship between achievement motivation of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, city size, agency size, and years of professional experience? The Null Hypothesis 3: that there is no statistically
significant relationship between achievement motivation of selected park and recreation
directors in the state of Iowa and selected demographic variables such as age, sex,
education level, city size, agency size, budget, and years of professional experience were
tested for answering the research question. Spearman Rho Correlation Coefficient,
Independent-Samples T-test, One-way ANOVA, and Descriptive Statistical Analysis
were employed to assess the relationship between respondents' achievement motivation
and their demographic variables. Whether or not the null hypothesis could be retained or
rejected depended on the statistical tests run on the collected data.
CHAPTER IV

ANALYSIS OF RESULTS

Introduction

The purpose of this study is to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. In this chapter, the results of the study are presented. First, data related to responses of the subjects in the state of Iowa will be presented. Following these results will be a presentation and discussion of the demographic variable findings related to the sample population. Next, scores regarding the respondents’ risk-taking propensity and achievement motivation will be reviewed, followed by an analysis of the relationship between various demographic variables and the two major dependent variables, risk-taking propensity and achievement motivation. The last part reported in this chapter is an analysis of the interaction between the two main variables with a discussion of the relationship between these variables and the independent variables: age, gender, education level, city size, agency size, organizational budget, and years of professional experience.

Return of Data

In this study, responses were sought from full time municipal park and recreation directors in the state of Iowa, in communities of 4,000 or more residents. The study sample included full-time park and recreation directors from 78 cities located within 54 Iowa counties. Instruments, which included questionnaires regarding various demographic variables and one’s risk-taking propensity and achievement motivation,
were sent to these 78 potential subject city directors. This yielded returned questionnaire responses from 59 respondents, producing a 75.6% return rate. Forty-four surveys were completed by male directors and 15 were completed by female directors (Table 4). This response rate approximated the researcher’s predicted feedback participation rate, a level at the high end of an acceptable response rate range from 60% to 75% (Fowler, 1993). Of the questionnaires returned, five of these respondents did not indicate their majors in the first instrument; however, that lack of this one item did not appear to significantly influence the data analysis in relation to the main hypotheses to be tested. Therefore, the 59 respondents or 75.6% response rate could be employed for the study.

Table 4

Response Rate by Sex of Respondents

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Males</th>
<th>Females</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires Sent</td>
<td>61</td>
<td>17</td>
<td>78</td>
</tr>
<tr>
<td>Questionnaires Returned</td>
<td>44 (72.1%)</td>
<td>15 (88.2%)</td>
<td>59 (75.6%)</td>
</tr>
</tbody>
</table>

Demographic Characteristics of the Sample Population

This section reports on an analysis of the demographic characteristics of the sample population, including responses by age, gender, education level, city size, agency size, organizational budget, and years of professional experience. As indicated in Chapter III,
frequencies, percentages, means, and medians were calculated for most of these variables where appropriate.

Age

In this study, the mean age of respondents was 46.1 and its median was 49.0. Their ages range from 24 years old to 60 years old. Broken into quartiles, there were 7 individuals from the ages of 30 or younger; from 31 to 40, there were also 7 individuals; from 41 to 50, there were 20 individuals; from 51 to 60, there were 25 individuals; there were no respondents over sixty. Table 5 presents information regarding the age of the respondents in this study.

Table 5

*Age of Respondents*

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 or younger</td>
<td>7</td>
<td>11.9</td>
<td>11.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>7</td>
<td>11.9</td>
<td>23.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td>20</td>
<td>33.9</td>
<td>57.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51-60</td>
<td>25</td>
<td>42.4</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61 or older</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
<td>46.1</td>
<td>49.0</td>
</tr>
</tbody>
</table>


The highest respondent age group (42.4%) ranged from 51-60, and the second high respondent age group (33.9%) was 41-50; a result that may reflect the importance of experience and maturity in defining the role of a managerial leader in charge of parks and recreation affairs. Table 5 also presents two younger respondent groups whose ages ranged from 31-40 and 30 or less; they each have an 11.9% response rate. This finding may indicate a trend towards emerging leaders who start in a parks and recreation department and gain greater managerial confidence, maturity and training over the years.

Gender

Table 6 presents the gender of the respondents. There were 44 males and 15 females involved in this study; 74.6% of the study respondents were males and 25.4% were females.

Table 6

*Gender of Respondents*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>15</td>
<td>25.4</td>
<td>25.4</td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>74.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Education

The educational levels of the respondents are reported in Table 7. As one can see in viewing this table, 69.5% of the respondents reported holding a Bachelor of Science or Bachelor of Arts degree, which was the highest respondent group (41 respondents); the second highest respondent group was 16.9% of the sample population (10 respondents), who reported holding a Master’s degree; the lower respondent groups, each having a 6.8% response completion rate, were those holding associate degrees (10 respondents) or those having a high school diploma or less (10 respondents). This statistical outcome showed that Bachelor and Master’s degree holders represented 86.4% of the total respondents; which may reflect the importance of education to the duties of the current directors here in Iowa.

Table 7

*Educational Level of Respondents*

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Degree or less</td>
<td>4</td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>4</td>
<td>6.8</td>
<td>13.6</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>41</td>
<td>69.5</td>
<td>83.1</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>10</td>
<td>16.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Seventy-nine point eight percent (79.8%) of the respondents' educational coursework focused on three main areas: park and recreation administration (35.7%), leisure studies or services (20.4%) and health, physical education or sports (23.7%). These majors are often combined as related subjects by many universities in the United States, because they are closely related to one another in actual application and management processes. In addition, there were 7 respondents (11.8%) from other majors, such as architecture, business administration, education administration, horticulture, and mass communication, and with some of these also having a leadership component in their curriculum. Also, five of these respondents did not indicate their majors. Despite the lack of information on these respondents, a significant portion of completed surveys included data on educational background to offer insights in this area. Table 8 presents information regarding park and recreation directors' study areas.

Table 8

<table>
<thead>
<tr>
<th>Areas of Study</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure Studies or Leisure Services</td>
<td>12</td>
<td>20.4</td>
<td>20.4</td>
</tr>
<tr>
<td>Park and Recreation Administration</td>
<td>21</td>
<td>35.7</td>
<td>56.1</td>
</tr>
<tr>
<td>Health and Physical Education/Sports</td>
<td>14</td>
<td>23.7</td>
<td>79.8</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>11.8</td>
<td>91.7</td>
</tr>
<tr>
<td>No Response</td>
<td>5</td>
<td>8.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
City Population

In this study, cities of 4,000 in population or greater were included. The range of population of cities served by the respondents was 4,000 to 200,000. When examining the population numbers of the respondents’ cities, 30 respondents (50.8%) were in the category of 4,000 to 10,000 persons. In communities ranging from 10,001 to 20,000, there were 11 respondents (18.6%). In communities ranging from 20,001 to 30,000, there were 5 respondents (8.5%). In the category of communities over 30,000, there were 13 respondents (22%). Table 9 presents the percentages of respondents who were from each category of city population.

Table 9

Population of Cities of Respondents

<table>
<thead>
<tr>
<th>City Population</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,000-10,000</td>
<td>30</td>
<td>50.8</td>
<td>50.8</td>
</tr>
<tr>
<td>10,001-20,000</td>
<td>11</td>
<td>18.6</td>
<td>69.5</td>
</tr>
<tr>
<td>20,001-30,000</td>
<td>5</td>
<td>8.5</td>
<td>78.0</td>
</tr>
<tr>
<td>30,001 and above</td>
<td>13</td>
<td>22.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

This table shows about half (50.8%) of the cities have populations between 4,000 and 10,000, while the rest shows a great population span above 10,001. This result would indicate that city population in relation to completed surveys is bi-modal, with one
group coming from those cities with populations less than 20,000 and the other coming from cities having populations greater than 30,000.

**Agency Staff**

The number of staff under the direction of each respondent was included in the study. As shown in Table 10, the number of full-time, supervised staff ranged from fewer than 5 to more than 21. In terms of part-time staff, their numbers varied greatly, at some locations, more than 200. In the category of full-time staff, 31 (52.5%) respondents reported supervising 5 or fewer full-time employees. The results show that around half of the cities where full-time staff are 5 or fewer working in localities of 4,000 to 10,000 populations. In the category of 6 to 10 full-time employees, 12 (20.3%) of the respondents reported directing this number of staff. The next category, 11 to 15 full-time employees, 3 (5.1%) respondents reported directing this number of staff. In the category of 16 to 20 full-time employees, 3 (5.1%) of the respondents reported directing this number of staff. The last category of 21 or more staff, 10 (16.9%) respondents reported directing this number of employees.

Table 10 also presents information regarding the supervision of part-time staff. In the category of 50 or fewer, 27 (45.8%) respondents reported directing this number of employees. The next category, 51 to 100 part-time employees, 20 (33.9%) respondents reported directing this number. Two (3.4%) of the respondents reported directing 101 to 150 part-time staff and another 2 (3.4%) respondents supervised 151 to 200 part-time staff. Eight (13.6%) respondents reported part-time staffs of more than 200. Due to
seasonal needs, agencies have flexible policies in employment which may explain some of the variability in number of employees being supervised by an Iowa director.

Table 10

*Agency Staff Supervised by Respondents*

<table>
<thead>
<tr>
<th>Agency Staff</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Full-time</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 or fewer</td>
<td>31</td>
<td>52.5</td>
<td>52.5</td>
</tr>
<tr>
<td>6-10</td>
<td>12</td>
<td>20.3</td>
<td>72.9</td>
</tr>
<tr>
<td>11-15</td>
<td>3</td>
<td>5.1</td>
<td>78.0</td>
</tr>
<tr>
<td>16-20</td>
<td>3</td>
<td>5.1</td>
<td>83.1</td>
</tr>
<tr>
<td>21 or more</td>
<td>10</td>
<td>16.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Part-time</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 or fewer</td>
<td>27</td>
<td>45.8</td>
<td>45.8</td>
</tr>
<tr>
<td>51-100</td>
<td>20</td>
<td>33.9</td>
<td>79.7</td>
</tr>
<tr>
<td>101-150</td>
<td>2</td>
<td>3.4</td>
<td>83.1</td>
</tr>
<tr>
<td>151-200</td>
<td>2</td>
<td>3.4</td>
<td>86.4</td>
</tr>
<tr>
<td>201 or more</td>
<td>8</td>
<td>13.6</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Years of Professional Experience in Leadership Position*

Each of the respondents was asked to provide information regarding their years in a professional leadership position. Table 11 presents this information. It shows that 21 (35.6%) of the respondents noted that they had 5 or fewer years of professional
experience in a leadership position. There were 6 (10.2%) respondents in each category of 6 to 10 years and 11 to 15 years of professional leadership experience. Next, in the category of 16 to 20 years, 8 (13.6%) of the respondents reported having professional leadership experience. In the category of 21 years or more, 18 (30.5%) of the respondents reported having professional leadership experience. As shown in Table 11, the majority (35.6%) of the respondents had served as director for fewer than 5 years and about (30.5%) had served more than 20 years. Reviewing Table 11 again, 45.8% of respondents had 10 or fewer years of professional leadership experience, while 54.2% of respondents had over 10 years experiences in professional leadership. These results show that most responding directors have varying levels of administrative experience, showing 35.6% having 5 years of work experience or less as a director, to 54.2% that had over 10 years serving as a director.

Table 11

*Years of Professional Service in a Leadership Position*

<table>
<thead>
<tr>
<th>Years served as a director</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or fewer</td>
<td>21</td>
<td>35.6</td>
<td>35.6</td>
</tr>
<tr>
<td>6-10</td>
<td>6</td>
<td>10.2</td>
<td>45.8</td>
</tr>
<tr>
<td>11-15</td>
<td>6</td>
<td>10.2</td>
<td>55.9</td>
</tr>
<tr>
<td>16-20</td>
<td>8</td>
<td>13.6</td>
<td>69.5</td>
</tr>
<tr>
<td>21 or more</td>
<td>18</td>
<td>30.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Annual Budget of Agency

Respondents were also asked to provide information regarding the annual budget of their agency. The annual budgets reported ranged from $146,000 to $7,500,000. The mean annual budget reported was $1,540,013., and the median was $700,000. For the purpose of statistical analysis, the budgets were divided into five categories. As shown in Table 12, nine agencies (20.3%) reported annual budgets ranging from $300,000. or less. Eighteen (30.5%) reported annual budgets of $300,001. to $600,000. Seven (11.9%) reported annual budgets of $600,001. to $900,000. Six (10.2%) reported annual budgets of $900,001. to $1,200,000. Nineteen (32.2%) reported annual budgets of $1,200,001. or more.

Table 12

<table>
<thead>
<tr>
<th>Annual Budget (dollars)</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>300,000 or less</td>
<td>9</td>
<td>15.3</td>
<td>15.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300,001-600,000</td>
<td>18</td>
<td>30.5</td>
<td>45.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>600,001-900,000</td>
<td>7</td>
<td>11.9</td>
<td>57.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>900,001-1,200,000</td>
<td>6</td>
<td>10.2</td>
<td>67.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,200,001 or more</td>
<td>19</td>
<td>32.2</td>
<td>100.0</td>
<td>1,540,013.0</td>
<td>700,000.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To whom do you directly report?

Table 13 shows there were 50 (84.7%) respondents who directly reported their agency operations to city administrators; there were 2 (3.4%) who reported directly to a Mayor/council; there were 6 (10.2%) who directly reported to public works directors; and 1 (1.7%) indicated that the position of superintendent was vacant.

Table 13

*To Whom Do Directors Directly Report?*

<table>
<thead>
<tr>
<th>Higher Authorities</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Administrator</td>
<td>50</td>
<td>84.7</td>
<td>84.7</td>
</tr>
<tr>
<td>Mayor/Council</td>
<td>2</td>
<td>3.4</td>
<td>88.1</td>
</tr>
<tr>
<td>Public Works Director</td>
<td>6</td>
<td>10.2</td>
<td>98.3</td>
</tr>
<tr>
<td>Superintendent of park and recreation (vacant)</td>
<td>1</td>
<td>1.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Research Questions

This section presents the results relating to the respondents' risk-taking propensity and achievement motivation, and their relationship to each other in demographic variables such as age, gender, education level, city size, agency size, organizational budget, and years of professional experience.
Research Question 1

What is the risk-taking propensity of selected park and recreation directors in the state of Iowa?

One of the primary objectives of this research was to assess park and recreation directors’ propensity for taking risks in their management process by using the Choice Dilemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964). Risk-taking propensity scores ranged from a low of 12 points to a high of 72 points; the score range was evenly divided into three sub-score levels; the low risk-taker category ranged from 12-32 points, the moderate risk-taker category, from 33-52 points, and the high risk-taker category, from 53-72 points (Bolton, 1997). This evaluative criterion was employed for assessing respondents' propensity for risk-taking. According to Kogan and Wallach’s (1964) model, the lower the score, the lower the propensity for taking risks; the higher the score, the higher the propensity for taking risks.

Table 14

Respondents Risk Taking Propensity Scores

<table>
<thead>
<tr>
<th>Score Range</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-32 (Low Risk-Taker)</td>
<td>9</td>
<td>15.3</td>
<td>15.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33-52 (Moderate Risk-Taker)</td>
<td>48</td>
<td>81.4</td>
<td>96.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53-72 (High Risk-Taker)</td>
<td>2</td>
<td>3.4</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
<td>39.9</td>
<td>40.0</td>
</tr>
</tbody>
</table>
Respondents' risk-taking scores are found in Table 14. The mean score of risk-taking propensity was 39.9 and its median was 40.0. There were 48 (81.4%) respondents who were ranked in the moderate level (33-52 points); the next largest group had 9 (15.3%) respondents whose score range was at the low level (12-32 points); and there were only 2 (3.4%) respondents in the high risk-taking level.

Figure 4 also reflects the same results as Table 14 regarding identifying risk-takers' categories.

Figure 4. Respondents' Risk-taking Propensity

In answering the research question using frequency of scores for each answer, a summary of the results is shown in Table 15. Regarding the six possible responses to
each question, 6 points or 1/10 identifies a very high level of risk-taking, while 1 point or 10/10 signifies a very low level of risk-taking.

As Table 15 shows, 7.5% of respondents scored 6 points indicating a very high level of risk-taking propensity; 16.1% of respondents scored 5 points; 25.8% of respondents scored 4 points; 20.8% of respondents scored 3 points; 13.5% of respondents scored 2 points; and last, 16.3% of respondents scored 1 point, indicating a very low level of risk-taking propensity.

According to the respondents’ six alternative percentage distribution in Table 15, the first two high scores were answers 5/10 (4 points) and 7/10 (3 points); their scores are respectively 183 or 25.8% and 147 or 20.8%; two sub-central alternatives are responses 3/10 (5 points) and 7/10 (2 points); their scores are respectively 114 or 16.1% and 96 or 13.5%. These four options make up the middle of the total of six options; their total score is 540 (76.2%). This value indicates that most respondents have a moderate risk-taking propensity, while the other two options are respectively at the lowest level of risk-taking 10/10 (16.3%) and the highest level of risk-taking 1/10 (7.5%); these two groups make up 23.8% of the respondents. This result is consistent with Table 14 and Figure 4.
Table 15

Frequencies of Directors’ Selection at 12 Items of CDQ

<table>
<thead>
<tr>
<th>Scale Item/Question No.</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participants (N=59)</td>
</tr>
<tr>
<td></td>
<td>1/10</td>
</tr>
<tr>
<td>Questions</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
</tr>
<tr>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>Cumulative Percent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.5</td>
</tr>
</tbody>
</table>

Research Question 2

What is the achievement motivation of selected parks and recreation directors in the state of Iowa?

Another primary objective of the research project was to determine parks and recreation directors’ motivation for achievement, as measured by Elizur’s (1979) Achievement Motivation 18-item questionnaire. Table 16 illustrates the respondents’
achievement motivation scores which ranged from 18 points to 90 points with a mean score of 64.8 and a median score of 65.0. As is shown, 2 respondents scored between 18 and 42 points, a low range of achievement motivation; 34 respondents scored between 43 and 66 points, a moderate range of achievement motivation; and 23 respondents scored between 67 and 90 points, the high range of achievement motivation.

Table 16

*Respondents Achievement Motivation Scores*

<table>
<thead>
<tr>
<th>Score Range</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-42 (Low Achievement Motivator)</td>
<td>2</td>
<td>3.4</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43-66 (Moderate Achievement Motivator)</td>
<td>34</td>
<td>57.6</td>
<td>61.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-90 (High Achievement Motivator)</td>
<td>23</td>
<td>39.0</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.0</td>
<td></td>
<td>64.8</td>
<td>65.0</td>
</tr>
</tbody>
</table>
Table 16 illustrates findings regarding respondents’ motivation achievement scores. 57.6% of respondents selected moderate achievement motivation alternative; 39.0% of respondents showed a high level of achievement motivation; only 3.4% of respondents chose the lowest level of achievement motivation. Of the total number of respondents', 96.6% scored at the moderate or high levels of motivation achievement. Figure 5 also presents the same characteristics as Table 16.

According to Elizur’s theory of achievement motivation, assessing individuals’ achievement motives should be focused on three facets: cognitive (preference), affective (satisfaction), and instrumental (performance), which represents different achievement motive modalities of behavior. Each section is composed of 6 questions and each
The question contains 5 alternative answers; the score range of each facet was from 6-30 points. Table 17 presents frequency of respondents' modality scores in the three facets.

Table 17

Frequencies of Directors' Achievement Motivation Modalities of Behavior

<table>
<thead>
<tr>
<th>Score Range</th>
<th>N</th>
<th>Relative Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive (preference)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-14 (low)</td>
<td>4</td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>15-22 (moderate)</td>
<td>37</td>
<td>62.7</td>
<td>69.5</td>
</tr>
<tr>
<td>23-30 (high)</td>
<td>18</td>
<td>30.5</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td><strong>Affective (satisfaction)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-14 (low)</td>
<td>2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>15-22 (moderate)</td>
<td>24</td>
<td>40.7</td>
<td>44.1</td>
</tr>
<tr>
<td>23-30 (high)</td>
<td>33</td>
<td>55.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td><strong>Instrumental (performance)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-14 (low)</td>
<td>2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>15-22 (moderate)</td>
<td>31</td>
<td>52.5</td>
<td>55.9</td>
</tr>
<tr>
<td>23-30 (high)</td>
<td>26</td>
<td>44.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>59</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

In the cognitive aspect, 4 (6.8%) respondents scored between 6 and 14, a low preference score range for achievement; 37 (62.7%) respondents scored between 15 and 22, a moderate preference score range for achievement; while 18 (30.5%) respondents scored between 23 and 30, a high preference score range for achievement. Figure 6 indicates the same feature as Table 17.
Figure 6. Respondents’ Cognitive Modality of Behavior

In affective aspect, 2 (3.4%) respondents scored between 6 and 14, a low satisfaction score for achievement; 24 (40.7%) respondents scored between 15 and 22, a moderate satisfaction score for achievement; and 33 (55.9%) respondents scored between 23 and 30, a high satisfaction score for achievement. A similar result is presented in Figure 7.
In the instrumental aspect, 2 (3.4%) respondents scored between 6 and 14, a low performance score for achievement; 31 (52.5%) respondents scored between 15 and 22, a moderate performance score for achievement; and 26 (44.1%) respondents scored between 23 and 30, a high performance score for achievement. Figure 8 shows a similar pattern with the features in Table 17.
In addition to the three achievement motive modalities of behavior above, Elizur's Achievement Motive Questionnaire also encourages assessing individuals' achievement motive from six factors, uncertainty, difficulty, responsibility, calculating risk, solving problems and satisfying needs. These six factors are closely associated with a respondent's cognitive, affective, and instrumental behavior modalities. Table 18 illustrates information regarding these modalities and one's ability to address these issues. In the cognitive modality, scores for uncertainty were 141; for difficulty scores were 202; for responsibility scores were 232; for calculating risk scores were 164; for solving
problems scores were 210; and for satisfying needs scores were 242. The total score for the cognitive modality reported was 1191 (31.1%) of the entire sample.

In the affective modality, scores for uncertainty were 174; for difficulty scores were 252; for responsibility scores were 248; for calculating risk scores were 206; for solving problems scores were 223; and for satisfying needs scores were 245. The total score for the cognitive modality reported was 1348 (35.3%) for the entire sample.

In the instrument modality, scores for uncertainty were 186; for difficulty, scores were 220; for responsibility, scores were 238; for calculating risk, scores were 196; for solving problems, scores were 214; and for satisfying need, scores were 233. The total score for the cognitive modality reported was 1287 (33.6%) of the entire sample.

Table 18

Achievement Motive of Respondents and Their Modalities Related Variables

<table>
<thead>
<tr>
<th>Content</th>
<th>Cognitive Score</th>
<th>Affective Score</th>
<th>Instrumental Score</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>141</td>
<td>174</td>
<td>186</td>
<td>501</td>
</tr>
<tr>
<td>Difficulty</td>
<td>202</td>
<td>252</td>
<td>220</td>
<td>674</td>
</tr>
<tr>
<td>Responsibility</td>
<td>232</td>
<td>248</td>
<td>238</td>
<td>718</td>
</tr>
<tr>
<td>Calculating Risk</td>
<td>164</td>
<td>206</td>
<td>196</td>
<td>566</td>
</tr>
<tr>
<td>Solving Problems</td>
<td>210</td>
<td>223</td>
<td>214</td>
<td>647</td>
</tr>
<tr>
<td>Satisfying Needs</td>
<td>242</td>
<td>245</td>
<td>233</td>
<td>720</td>
</tr>
<tr>
<td>Total scores</td>
<td>1191</td>
<td>1348</td>
<td>1287</td>
<td>3826</td>
</tr>
<tr>
<td>Percentage</td>
<td>31.1</td>
<td>35.3</td>
<td>33.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Research Question 3

What is the relationship between the risk-taking propensity of selected parks and recreation directors in the state of Iowa and their achievement motivation?

The objective of this research question was to determine the relationship between risk-taking propensity and achievement motivation among parks and recreation directors in the state of Iowa. To determine whether or not there is a relationship between the respondents’ propensity for risk-taking and their achievement motivation, Pearson’s product-moment correlations coefficients were calculated between risk-taking propensity scores and achievement motivation scores.

Table 19

*Coefficients of Correlation between Propensity for Risk-taking and Achievement Motivation*

<table>
<thead>
<tr>
<th>Participants</th>
<th>Correlation Coefficients</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>.341**</td>
<td>.008</td>
</tr>
</tbody>
</table>

** p<.01 (2 tailed)
Table 19 presented that the probability level was set at 0.01 for significance and the product-moment correlations between propensity for risk-taking and achievement motivation were $r = .341$. This correlation was statistically significant at the 0.01 level where $P = .008$. According to Connolly’s (2007) interpretation pertaining to the magnitude of correlation coefficients between variables, the range of possible value is from -1.00 for a perfect negative correlation to $+1.00$ for a perfect positive correlation. A correlation coefficient more than $\pm .60$ was considered to be strong, between $\pm .30$ and $\pm .60$ was considered to be moderate, between 0 and $\pm .30$ was considered to be weak, and 0.00 was considered as having no relationship between variables. Therefore, the null hypothesis that there is no statistically significant relationship between one’s propensity for risk-taking and their achievement motivation scores is rejected. According to the survey results, there appears to be an association between risk-taking propensity and

Figure 9. Correlation Coefficient between RTP and AM
achievement motivation due to the reported positive correlation between the variables. The directors who have a moderate risk-taking propensity generally appear to have a moderate or higher achievement motivation score.

**Research Question 3a.** What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of parks and recreation directors in the state of Iowa?

According to Elizur’s theory of achievement motivation, assessing individuals’ achievement motives should focus on three facets: cognitive (preference), affective (satisfaction), and instrumental (performance), which represents different respondents’ achievement motive modalities of behavior. When determining whether or not there are relationships between the respondents’ propensity for risk-taking and the three achievement motivation modalities of behavior, Pearson’s product-moment correlation coefficients were also calculated between risk-taking scores and achievement motivation scores and the subscales.

Table 20 presents the results of data analysis, only the affective modality of behavior showed a moderate correlation with directors’ risk-taking propensity. The product-moment correlation between propensity for risk-taking and achievement motivation modality of affective behavior was $r = .439$. This correlation was statistically significant at the 0.01 level, where $P = .001$. Therefore, the null hypothesis that there is no statistically significant relationship between one’s propensity for risk-taking and their affective scores is rejected, which means that there is an association between risk-taking propensity and affective modality of behavior. Due to a positive moderate correlation
between the two variables, the directors who have a moderate risk-taking propensity generally have a moderate achievement motivation score. Figure 10 also presents the correlation coefficient between RTP and AM-Affective. However, other two variables' correlations were not statistically significant at the 0.05 level: cognitive $r = .244$, instrumental $r = .255$.

Table 20

*Coefficients of Correlation between Propensity for Risk-taking and Three Modalities of Behavior in Achievement Motivation*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficients</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>0.244</td>
<td>0.062</td>
</tr>
<tr>
<td>Affective</td>
<td>0.439**</td>
<td>0.001</td>
</tr>
<tr>
<td>Instrumental</td>
<td>0.255</td>
<td>0.051</td>
</tr>
</tbody>
</table>

** $p<.01$ (2 tailed)
**Figure 10.** Correlation Coefficient between RTP and AM-Affective

**Research Question 3b.** What is the relationship between risk-taking propensity and achievement motivation modalities of behavior (cognitive, affective, and instrumental) related to elements such as uncertainty, difficulty, responsibility, calculating risk, problem solving, and satisfying needs among a selected group of parks and recreation directors in the state of Iowa?

According to Elizur's achievement motive questionnaire, the six variables (uncertainty, difficulty, responsibility, calculating risk, solving problems, and satisfying needs) were viewed as important elements influencing respondents' achievement motive modalities of behavior. It is necessary to consider if there exist a correlation between these variables and respondents' propensity of risk-taking. When determining the relationship between respondents' propensity for risk-taking and the six achievement motive variables, Pearson's product-moment was calculated for assessing their
relationships. Table 21 showed that four of the six variables correlated with respondents' propensity of risk-taking at .05 level.

Table 21

*Coefficients of Correlation between Propensity for Risk-taking and Six Variables of Achievement Motivation*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficients</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty</td>
<td>.267*</td>
<td>.041</td>
</tr>
<tr>
<td>Difficulty</td>
<td>.300*</td>
<td>.021</td>
</tr>
<tr>
<td>Responsibility</td>
<td>.155</td>
<td>.240</td>
</tr>
<tr>
<td>Calculating Risk</td>
<td>.268*</td>
<td>.040</td>
</tr>
<tr>
<td>Solving Problems</td>
<td>.283*</td>
<td>.030</td>
</tr>
<tr>
<td>Satisfying Needs</td>
<td>.201</td>
<td>.128</td>
</tr>
</tbody>
</table>

*p< .05 (2 tailed)

The product-moment correlation between propensity for risk-taking and achievement motivation variable uncertainty was $r = .267$. This correlation was statistically significant at the .05 level where $P = .041$ (Figure 11).
The product-moment correlation between propensity for risk taking and achievement motivation variable difficulty was $r = .300$; this correlation was statistically significant at the 0.05 level where $P = .021$ (Figure 12).
The product-moment correlation between propensity for risk-taking and achievement motivation variable calculating risk was $r = .268$; this correlation was statistically significant at the 0.05 level where $P = .040$ (Figure 13).

![Correlation Coefficient between RTP and Calculating Risk](image)

*Figure 13. Correlation Coefficient between RTP and Calculating Risk*

The product-moment correlations between propensity for risk-taking and achievement motivation variable problem solving was $r = .283$. This correlation was statistically significant at the 0.05 level where $P = .030$ (Figure 14).
Therefore, the null hypothesis that there are no statistically significant relationships between one's propensity for risk-taking and their uncertainty, difficulty, calculating risk, and solving problems scores is rejected; namely, there is an association between risk-taking propensity and uncertainty, difficulty, calculating risk, and solving problems; because of positive correlation between one’s propensity for risk-taking and the four variables, the higher their cooperation scores, the closer their relationships between them; the outcome of data analysis reflects that directors having a weak risk-taking propensity generally have a weak uncertainty, difficulty, calculating risk, and solving problems score.

In Table 21, these results also showed that responsibility and satisfying needs do not have 
exist a statistical correlation with risk-taking propensity at the 0.05 level: responsibility $r = .244$ and satisfying needs $r = .255$. 

---

*Figure 14. Correlation Coefficient between RTP and Solving Problems*
Research Question 4

What is the relationship between risk-taking propensity of selected parks and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience?

The objective of the research question was to determine the relationship between risk-taking propensity and respondents' demographical variables. To determine whether or not there are relationships between the respondents' propensity for risk-taking and age, gender, education level, agency size, city size, organizational budget, and years of professional experience, Spearman correlations coefficients were calculated. An independent-sample T-test was employed to determine the relationship between respondents' propensity of risk-taking and gender (female code: 0 and male code: 1), and One-way ANOVA was utilized to assess the relationship between respondents' propensity of risk-taking and education level (associate degree or lower code: 1, bachelor degree code 2, and master degree or higher code: 3).
Table 22

*Coefficients of Correlation between Propensity for Risk-taking and Personal Demographic Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Correlation Coefficient</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.265*</td>
<td>.043</td>
</tr>
<tr>
<td>Working Experience</td>
<td>-.147</td>
<td>.268</td>
</tr>
<tr>
<td>Full-time Staff</td>
<td>.194</td>
<td>.142</td>
</tr>
<tr>
<td>Part-time Staff</td>
<td>.073</td>
<td>.584</td>
</tr>
<tr>
<td>City Population</td>
<td>-.053</td>
<td>.692</td>
</tr>
<tr>
<td>Budget</td>
<td>.145</td>
<td>.273</td>
</tr>
</tbody>
</table>

*p < .05 (2 tailed)

Table 22 presents findings regarding correlation between risk-taking propensity and among respondents' demographical variables. The probability level was set at 0.05 for significance. A Spearman correlation between propensity for risk-taking and age was \( r = -.265, P = .043 \) (see Figure 15). Therefore, the null hypothesis that there is no statistically significant relationship between one's propensity for risk-taking and their age scores is rejected. There is an association between risk-taking propensity and age. The correlation is negative, namely, the younger the respondents, the higher their risk-taking propensity. The outcome of data analysis reflects a weak relationship between directors' risk-taking propensity score and their age score.
The following correlations were not statistically significant at the 0.05 level: full-time staff $r = .194$; city population $r = .073$, years of professional experience $r = -.053$, and organizational budget $r = .145$.

In order to know whether or not existing relationships between respondents’ propensity of risk-taking and their gender; an independent-sample T-test was calculated to determine the significance of the difference between mean scores for propensity for risk-taking and gender (male and female). When comparing the difference in means for level of risk-taking propensity of male ($M = 39.6$) and female ($M = 39.9$), the level of gender was found to have no statistically significance; the $t$ ratio was 102 (Table 23).
Table 23

*T-test of Differences between Male and Female’s Propensity for Risk-Taking*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTP</td>
<td>44</td>
<td>39.6</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>102</td>
<td>57</td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

To determine the relationship between respondents’ propensity of risk-taking and their education levels, one-way ANOVA was calculated to determine the significance of differences between mean scores for propensity for risk-taking and their education levels (associate degree or lower code: 1, bachelor degree code 2, and master degree or higher code: 3). When comparing the difference in means for level of risk-taking propensity with their education levels (associate degree or lower, M= 37.1, SD=7.4; bachelor degree M=39.9, SD=7.3; master degree or higher, M=40.8, SD=8.4), the level of education was found to have no statistically significance; their P value was .555 (F= .595). This means that respondents’ education level does not influence their propensity for taking risks in the area of parks and recreation (Table 24).
Research Question 5

What is the relationship between achievement motivation of selected parks and recreation directors in the state of Iowa and selected demographic variables such as age, sex, education level, agency size, city size, organizational budget, and years of professional experience?

The objective of research question 5 was to determine the relationship between achievement motivation and respondents’ demographical variables of age, gender, education level, agency size, city size, organizational budget, and years of professional experience. Spearman correlation coefficients were calculated between achievement motivation and age, agency size, city size, organizational budget, and years of professional experience. An independent-samples T-test was employed to determine the relationship between respondents’ achievement motivation and gender (female code: 0 and male code: 1), and One-way ANOVA was utilized to assess the relationship between respondents’ achievement motivation and education level (associate degree or lower code:
1, bachelor degree code 2, and master degree or higher code: 3). Table 25 presents the results of data analysis.

Table 25

*Coefficients of Correlation between Achievement Motivation and Personal Demographic Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Correlation Coefficient</th>
<th>Probability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>.032</td>
</tr>
<tr>
<td>Working Experience</td>
<td></td>
<td>-.046</td>
</tr>
<tr>
<td>Full-time Staff</td>
<td></td>
<td>.353**</td>
</tr>
<tr>
<td>Part-time Staff</td>
<td></td>
<td>.116</td>
</tr>
<tr>
<td>City Population</td>
<td></td>
<td>.322*</td>
</tr>
<tr>
<td>Budget</td>
<td></td>
<td>.301*</td>
</tr>
</tbody>
</table>

NOTE. **Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

To determine whether or not there are relationships between the respondents’ achievement motivation and their age, agency size, city size, organizational budget, and years of professional experience, Spearman correlations coefficients were calculated for achievement motivation scores and age, agency size, city size, organizational budget, and years of professional experience. The probability level was set at 0.01 for significance. The Spearman correlations between achievement motivation and full-time staff score \( r = .353 \) (Figure 16). The null hypothesis that there is no statistically significant relationship between one’s achievement motivation and their full-time staff scores is
rejected. The probability level was set at 0.05 for significance. The Spearman correlations between achievement motivation and city population score $r = .322$ (Figure 17) and organizational budget $r = .301$ (Figure 18). The null hypothesis that there are no statistically significant relationships between one's achievement motivation and their city population scores and organizational budget score is also rejected; thus, there is a moderate association between achievement motivation and full-time staff size, city size and organizational budget. Because the correlation is positive, the higher the three demographical variable scores, so are the achievement motivation scores.

![Correlation Coefficient between AM and Full-time Staff](image)

*Figure 16. Correlation Coefficient between AM and Full-time Staff*
Figure 17. Correlation Coefficient between AM and City Population

Figure 18. Correlation Coefficient between AM and Agency’s Budget

However, the following correlations were not statistically significant at the 0.05 level: age $r = .032$, part-time staff $r = .116$, and years of professional experience $r = -.046$. 
To determine whether or not there exists a relationship between respondents' achievement motivation and their gender; an independent-samples T-test was used to determine the significance of differences between mean scores for achievement motivation and gender (male and female). When comparing the difference in means for level of achievement motivation with male (M=66.3) and female (M=60.7), gender was found to have no statistical significance; the t ratio was 101 (Table 26).

Table 26

*T-test of Differences between Male and Female’s Achievement Motivation*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>AM</td>
<td>44</td>
<td>66.3</td>
<td>12.3</td>
</tr>
</tbody>
</table>

To determine relationship between respondents’ achievement motivation and their education levels, one-way ANOVA was calculated to determine the significance of the difference (associate degree or lower code: 1, bachelor degree code: 2, and master degree or higher code: 3). When comparing the difference in mean scores for level of achievement motivation with their education levels (associate degree or lower, M=67.3, SD=11.4; bachelor degree M=64.9, SD=12.6; master degree or higher, M=63.4, SD=11.6), the level of education was found to have no statistical significance; their P
value was .706 (F=.351). This indicates that respondents’ education level may not be associated with achievement motivation in the area of parks and recreation (Table 27).

<table>
<thead>
<tr>
<th>Categories</th>
<th>Samples</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Degree or lower</td>
<td>8</td>
<td>67.3</td>
<td>11.4</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>41</td>
<td>64.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Master Degree or higher</td>
<td>10</td>
<td>62.4</td>
<td>11.6</td>
</tr>
</tbody>
</table>

**Limitations of the Study**

With the completion of this research, the following limitations have been identified by the researcher:

First, the study was dependent on the degree of cooperation of municipal parks and recreation directors in completing and returning the research instruments and personal data sheets. Some directors may not have read through the set of instruments or were not interested in participating in this study, resulting in a 75.6% return rate.

Second, the study was limited by the inability to control the self-administration of the instruments, thus subjects’ treatment to this survey might be different (seriously or casually) in its completion.

Finally, due to the survey being delimited to parks and recreation directors, in Iowa cities of 4,000 or more, directors from communities of fewer than 4000 in population
were not surveyed. In addition, while the survey response rate of 75.6% provides some strength to research conclusions, there are still 24.4% of respondents whose results might offer slightly different findings.

**Summary of Findings**

The purpose of this chapter was to demonstrate the results of this study. In particular, the chapter was divided into three sections: (1) demographic characteristics of subjects of the study; (2) the results of the statistical analysis of the five major research questions and two sub-research questions examined in this study; and (3) a discussion of the limitation of the study.

**Demographic Characteristics of Subjects**

Descriptive statistics were employed to analyze demographic data of the respondents; several interesting findings were found. The respondents’ age range was 24 years to 60 years old, with a mean age of 46.1; the majority (76.3%) of respondents was over 40 year old. Most subjects were male (74.6%). There were 86.4% who had earned a bachelor and master degree and 79.8% of them had majored in parks, recreation administration, and leisure services. In addition, 50.8% of these respondents worked in communities with 4,000-10,000 population, which are small cities when compared to a few communities with 30,001 or above. Next, findings regarding some numbers of agency size, city size, and organization annual budget, the full-time staffs were much less than part-time staffs in employing quantities, the more the city population, the more the agency staff. In addition, organization budgets are directly proportional to city populations. The last feature is that 84.7% of total respondents report directly to a city administrator.
Conclusions of Research Questions

In response to research question 1: What is the risk-taking propensity of selected park and recreation directors in the state of Iowa? The results of statistical analysis indicate that 81.4% of respondents (48) demonstrate a moderate propensity for risk-taking.

In response to research question 2: What is the achievement motivation of selected park and recreation directors in the state of Iowa? The finding shows that 57.6% of respondents scored in the moderate level of achievement motivation, while 39% of respondents scored in the high level of achievement motivation. The vast majority of subjects scored in the moderate to high levels of achievement motivation.

In addition, when examining the three achievement motivation modalities of behavior (cognitive, satisfied, and instrumental), cognitive aspect and instrumental aspect showed the highest scores in moderate level of achievement motivation, while satisfaction aspect showed the highest score in high level of achievement motivation. Their common feature is that the three aspects show their lowest scores in the low motivation for achievement. These findings indicate that most directors have a higher motive for their achievement.

Last, according to Elizur's achievement motive questionnaire, the six variables (difficulty, uncertainty, responsibility, calculating risk, satisfying needs, and solving problems) were viewed as important elements influencing respondents' three achievement motive modalities of behavior. The order of the six variable scores, from high to low, is: satisfying needs, responsibility, difficulty, solving problems, calculating...
risk, and uncertainty. The lower the score of the elements, the harder the issues for the respondents when making decisions, therefore, uncertainty, calculating risk, and solving problems appear to be much harder to incorporate in decision making than difficulty, responsibility, and satisfying needs for respondents.

In response to research question 3: what is the relationship between the risk-taking propensity of selected park and recreation directors in the state of Iowa and their achievement motivation? The major finding shows that there exists a statistical correlation between propensity for risk-taking and achievement motivation at 0.01 level (r = .341, p = .0008). Therefore, null hypothesis 1: there is no statistically significant relationship between one’s propensity for risk-taking and their achievement motivation scores is rejected. There is a moderate association between risk-taking propensity and achievement motivation.

In response to research question 3a: what is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa? The result shows a significant relationship between risk-taking propensity and affective, an achievement motive modality of behavior at 0.01 level (r = .439, p = .001). Therefore, null hypothesis 1a: there is no statistically significant relationship between one’s propensity for risk taking and their achievement motive modality (affective) of behavior scores is rejected; while, other two modalities (cognitive and instrumental) of behavior are not association with risk-taking propensity.
In response to research question 3b: What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa? The result shows a significant relationship between risk-taking propensity and four of the six achievement motive variables such as uncertain \( r = .267, p = .041 \), difficulty \( r = .300, p = .021 \), calculating risk \( r = .268, p = .040 \), and solving problems \( r = .283, p = .030 \) at 0.05 level. Therefore, null hypothesis 1b: there is no statistically significant relationship between one’s propensity for risk-taking and their achievement motive modality of behavior related elements (uncertainty, difficulty, calculating risk, solving problem scores) is rejected, while other two variables (responsibility and satisfying needs) have no association with respondents’ risk-taking propensity.

In response to research question 4: What is the relationship between risk-taking propensity of selected parks and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, organization budget, and years of professional experience? Only age correlated with risk-taking propensity, therefore, null hypothesis 2: there is no statistically significant relationship between one’s propensity for risk taking and their age is rejected. However, there are no relationship between risk taking propensity between gender, education levels, full-time staff, city population, years of professional experience, and organization budget and risk-taking propensity.
In response to research question 5: What is the relationship between achievement motivation of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, organization budget, and years of professional experience? There were only three demographical variables correlated with achievement motivation; therefore, null hypothesis 3: there is no statistically significant relationship between one’s achievement motivation and their full-time staff scores is rejected at 0.01 level. The null hypothesis that there is no statistically significant relationship between one’s achievement motivation and their city population scores and organizational budget score is rejected at 0.05 level. There is an association between achievement motivation and full-time staff size, city size and organizational budget. However, there are no relationships between age, gender, education levels, part-time staff, and years of professional experience and achievement motivation.

A summary of the testing results of three major null hypotheses and two sub-null hypotheses is demonstrated in Table 28; all rejected situations of these hypotheses are presented in this table. In other words, among these variables in Results Column are significantly correlated with either RTP or AM of respondents.
Table 28

*Testing Results for the Five Null Hypotheses*

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is no statistically significant relationship between risk-taking propensity and achievement motivation among a selected group of park and recreation directors in the state of Iowa.</td>
<td>REJECTED</td>
</tr>
<tr>
<td>1a. There is no statistically significant relationship between <em>risk-taking propensity</em> and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.</td>
<td>REJECTED (affective)</td>
</tr>
<tr>
<td>1b. There is no statistically significant relationship between <em>risk-taking propensity</em> and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need, among a selected group of park and recreation directors in the state of Iowa.</td>
<td>REJECTED (uncertainty, difficult, calculating risk, and solving problem)</td>
</tr>
<tr>
<td>2. There is no statistically significant relationship between <em>risk-taking propensity</em> and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience.</td>
<td>REJECTED (age)</td>
</tr>
<tr>
<td>3. There is no statistically significant relationship between <em>achievement motivation</em> and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience.</td>
<td>REJECTED (full-time staff, city population, and budget)</td>
</tr>
</tbody>
</table>
Summary of Limitations in the Study

The major weaknesses of this study reflect three aspects:

1. Response rate depends on the degree of cooperation of subjects in completing the survey.

2. Subjects’ treatment to the survey determines quality of the study.

3. Agency size is dependent on communities’ population

Further discussion on each of these findings is presented and summarized in the next chapter. Chapter V also presents the researcher’s recommendations and comments for future research.
CHAPTER V
SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The purpose of this study was to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. More specifically, the study is designed to determine the relationships between risk-taking propensity and achievement motivation, in addition to an exploration of the relationships between various demographic variables, such as age, gender, education level, city size, agency size, organizational budget and years of professional experience in the park and recreation field. This chapter contains a summary and discussion of this study and a presentation of the researcher’s recommendations for future study.

Summary of Introduction

Today’s municipal park and recreation directors are called upon to be innovators, problem solvers, decision makers, instructors, policymakers, planners, and organizers, who play an important role as the top administrator or chief executive officer within their agencies (Russell, 2001; Edginton et al., 2005). These roles represent needed abilities in managing park and recreation affairs as well as reflect public expectations of directors. Brody (2000) specifically indicated that all organizations require effective managers for inspiring staff, setting general directions, and being accountable for the organizations’ achievements. Therefore, the working performance of park and recreation directors, such as their managerial motivations, behaviors, and actions, may directly determine the success or failure of their organizations.
Achievement motivation and risk-taking propensity are two motive-related managerial elements potentially associated with directors' pursuit of success as well as the drive for innovation and the development of their agencies. Achievement motivation is drawn from a strong driving force of behaviors and actions which encourage individuals to take risks for self-satisfaction and enjoyment as well as for achieving certain standards of quality from the organization's innovation and development (Mars, 1984). McClelland (1961) believed that an individual with strong achievement motivation is the most effective leader. Atkinson (1957) stated that individuals high in achievement motivation anticipate greater satisfaction from success than individuals low in achievement motivation. Thus, it is evident that a managerial leader's success is significantly associated with individual achievement motivation.

Risk-taking propensity as another achievement-related element is also associated with a director's pursuit of success and innovation and development of the agency. Singh (1986) indicated that successful risk-taking by organizations often led to innovation. Shapira (1995) stated that "risk-taking for most of managers is an integral part in making decision" (p. 58). Many authors in the area of leadership also agree that successful managerial leaders should have the willingness, ability, and knowledge to take appropriate risks (Bennis, 1989; Kouzes & Posner, 1987; Lussier & Acuha, 2001). Risk-taking for a managerial leader is both opportunity and challenge in order to pursue individual needs and promote the development of his or her agency.

The purpose of the research was to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa.
More specifically, the study was designed to determine the relationship between risk-taking propensity and achievement motivation. The research results of this study may provide information that will assist municipal park and recreation directors in better understanding the influence of issues related to achievement motivation, risk-taking propensity and selected demographic variables. Such information may be helpful for the administration of park and recreation agencies, not only in the state of Iowa but across the United States.

Summary of Literature Review

In the first section, a comprehensive literature review on risk/risk-taking was presented which included differing views on the definitions of risk and risk-taking, major studies on risk-taking, managerial leaders and risk-taking, positive approaches to risk-taking, negative approaches to risk-taking, and demographic variables and risk-taking.

Definition of Risk and Risk-Taking

In defining risk and risk-taking, a host of researchers outlined a variety of individual viewpoints on the subject. Weinstein and Martin (1969) and Brehmer (1987) defined risk-taking in terms of possible gain or possible loss and success or failure (Kogan & Wallach, 1964; Vlek & Stallen, 1981). Unpredictable outcome, lack of control, and lack of information were regarded as key aspects by Cox and Rich (1964), MacCrimmon and Wehrung (1986), and Calvert (1993). Holding active attitudes toward risk-taking, for example, is an important part of innovation (Zaltman, Duncan, & Holbeck, 1973) and willingness to seek or avoid risky situations (Knowles, Cutter, Walsh, & Casey, 1973). Most business or financial approaches see risk as something to be analyzed, calculated,
and then minimized (Collins & Ruefli, 1996), and health and safety literature also view risks as something to be managed and minimized (Chicken & Posner, 1998). Cheron and Ritchie (1982) stated that risk should be described as a “multidimensional psychological phenomenon which influences individual perceptions and decision processes” (p. 140). These interpretations and definitions represented views and attitudes toward risk or risk-taking reflect different historical backgrounds and periods produced reactions to risk or risk-taking.

Studies on Risk-Taking Propensity

Major research findings from selected studies on risk-taking revealed that risk-taking propensity was closely associated with human behavior in making decisions (Kogan & Wallach, 1964; Shapira, 1995; Sitkin & Pablo, 1992). The propensity for risk-taking was determined by various factors, such as individual value and beliefs (Fischhoff et al., 1981), decision makers' identity and familiarity to risk decision (Kennedy, 1998), and also situational or environmental factors (Slovic, 1972). Byrd (1974) studied the features of risky situations in the field of finance and economy and proposed a static (passive attitude) or dynamic (active attitude) view to risk taking, which differed from prospect theory, Kahneman and Tversky (1982; 2000), in that a static view of risk would tend to be risk-seeking for losses, and a dynamic view of risk would lead to risk-aversion for gains. In addition, Jackson and others (1972) believed that risk-taking behavior comprises four facets: monetary, physical, ethical, and social; the monetary risk-taking was more important than the other three facets in a business field.
Risk-Taking and Managerial Leaders

Empirical studies regarding the relationship between risk-taking and managerial leaders have been conducted and explored in a variety of situations. It is generally believed that managerial leaders should have a greater propensity for risk-taking than non-managerial employees (Grey & Gordon, 1978; Lattimer & Winitsky, 1984; MacCrimmon & Wehrung, 1986). Managerial leaders were classified as both risk takers and non-risk takers or low risk takers (Shapira, 1995); risk-seeking leaders preferred taking more risks than risk aversive leaders (Grey & Gordon, 1978; MacCrimmon & Wehrung, 1986; Labich, 1988); Lattimer and Winitsky (1984) viewed a good and successful leader as a risk taker. Macmillan (1993) classified administrators as “new,” “middle career,” and “senior” in terms of their experiences in leadership position, the “new” leaders are willing to take more risks than “senior” leaders. Berman and West (1998) believed that many senior managers are responsible risk-takers. In addition, in the area of park and recreation, Rith’s (1973) findings that park and recreation administrators with high risk-taking scores sought to control others. Edginton (1975) discovered a significant relationship between risk-taking propensity and the administrator’s level of responsibility, education level and budget.

Positive and Negative Views of Managerial Risk-Taking

Positive and negative approaches to risk-taking represent two different viewpoints. Risk-taking for a risk taker may be both an opportunity and a challenge; Calvert (1993) and Kindler (1998) stated that risk-taking is a learning process, which may lead to creation and innovation, as well as growth (Byrd, 1974; Calvert, 1993; Kindler, 1998;
Kouzes & Posner, 1987). Uncertainty of an outcome for the risk taker may be a great challenge in making a decision (Kouzes & Posner, 1987; Kuczmaszski, 1988; Webber & Bottom, 1989). With a negative view to risk taking, risk averse people may see risk-taking as a threat, such as fear of punishment (Turk, 1994) or fear of failure (Riggs & Sykes, 1993; Shapira, 1995), or issue (Edwards & Bowen, 2005).

Risk-Taking and Demographic Variables

Individual demographic variables, such as age, gender, education level, working experience and agency size, are important elements influencing individuals’ risk-taking behavior. Research findings showed that young adults were willing to take more risks than old adults (Basowitz & Korchin, 1957; Kogan & Wallach, 1961; MacCrimmon & Wehrung, 1986; Vroom & Pahl, 1970). Males preferred taking more risks than females (Bailey, 1991; Calhoun & Hutchinson, 1981; Kogan & Wallach, 1961; Muldrow & Bayton, 1979). However, Wallach and Mabli (1970), Davis (1975), and Masters and Meier (1988) found that no difference exists between males and females in risk-taking propensity. In addition, highly educated leaders have more confidence in facing a challenge than individuals with a low level of education (MacCrimmon & Wehrung, 1986; Masters & Meier, 1990; Wallman, 1991). Frost, Fiedler and Anderson (1983) found that the longer the school principals stayed in their leadership positions, the greater the propensity for understanding the elements of risk-taking, resulting in more stable decisions. Finally, Stewart (1995) found that the risk-taking propensity of corporate managers was much higher than the small business owners.
In general, there are a variety of interpretations and understandings regarding the topic of risk-taking as revealed in the chapter of literature review; the majority of the attention within the literature appears to be concerned with psychology-related, business-related, education-related risk-taking and demographic variables-related risk taking; there was little study in regards to risk-taking behavior by park and recreation directors (see Table 29).
Table 29

*Literature Summary: Relationship of Various Factors to Risk-taking*

<table>
<thead>
<tr>
<th>Topics</th>
<th>Researchers</th>
</tr>
</thead>
</table>
Achievement Motivation Related Theories

In the second section, the construct of the achievement motivation or the need for achievement, as one of a number of significant human need elements, has been studied for over half a century. It remains as an important theme for considering what motivates decision makers today. There are six dominant theorists: Murray, Maslow, Alderfer, Atkinson, McClelland, and Elizur; they have advanced differing motivation theories and viewpoints referring to human needs based on alternative research traits (see Table 30). Maslow’s Need Hierarchy Theory, Alderfer’s ERG Theory, and Murray’s Need Theory are associated with a very broad spectrum of human needs from physiological to psychological. These authors employed different classifications of human needs in their theories. Compared to Murray (1938), Maslow (1954), and Alderfer’s (1969) theories, Atkinson and McClelland’s theory of achievement motivation highly emphasized the relationship between achievement motivation and risk-taking propensity; Elizur’s (1979) achievement motivation theory presented a three-dimensional structure in assessing individual achievement motivation; the context of theory also contains risk-taking or risk-taking related elements such as uncertainty, calculating risk, and problem solving. In general, all six theories have individual theoretical value and predisposition regarding human need (achievement) motivation.
Table 30

Need (Achievement) Motivation Related Theories

<table>
<thead>
<tr>
<th>Authors and their theories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maslow’s (1954) Need Hierarchy Theory</td>
<td>Five need motivations: (1) physiological needs (2) safety and security needs (3) love and belonging needs (4) esteem needs (5) self-actualization needs such as achievement, reputation</td>
</tr>
<tr>
<td>Alderfer’s (1969) ERG Theory</td>
<td>Three need categories: (1) existence (2) relatedness (3) growth</td>
</tr>
<tr>
<td>Murray’s (1938) Need Theory</td>
<td>Two need motivators: (1) primary needs, such as food, water, air, or sex... (2) secondary needs, such as achievement, dominance, affiliation In addition, the Thematic Apperception Test (TAT) is a personality test designed to determine personality themes as well as unconscious motivation.</td>
</tr>
<tr>
<td>McCelland’s (1953) Theory of Achievement Motivation</td>
<td>(1) need for achievement or achievement motivation (2) need for power (3) need for affiliation A high need for achievement was always accompanied by a moderate risk-taking propensity.</td>
</tr>
<tr>
<td>Atkinson’s (1957) Theory of Achievement Motivation</td>
<td>The motive to approach success ($M_s$) and the motive to avoid failure ($M_f$). A model of expectancy/valence: $\text{Motivation} = f (\text{Motive} \times \text{Expectancy} \times \text{Incentive})$ is utilized to measure achievement motivation and preference for risk taking</td>
</tr>
<tr>
<td>Elizur’s (1979) Theory of Achievement Motivation</td>
<td>Three facet structure: Facet A: behavior modality Facet B: type of confrontation Facet C: time perceptive relative to task performance</td>
</tr>
</tbody>
</table>
Risk-Taking and Achievement Motivation in the Area of Park and Recreation

The last section reports about the area of park and recreation and studies focusing on risk-taking propensity and achievement motivation. Municipal park and recreation agencies provide a wide array of benefits including the provision of activities, areas and facilities that enable the enhancement of social, cultural and economic benefits for individuals, communities, and nations (Edginton & Chen, 2008). Park and recreation managerial leaders in their organizations play a key role in determining the scope, direction, and resource allocations to leisure activities. As Edginton et al. (2008) have stated that the productive management of any park and recreational organization is greatly dependent on the ability of a managerial leader to work with and through people to achieve organizational goals. Achievement motivation and risk-taking propensity are two motive-related managerial elements which influence a park and recreation directors’ ability and performance. As noted, Murray (1938) has indicated that achievement motivation desires to encourage individuals to accomplish difficult tasks, to overcome obstacles, to attain a high standard, to do things better, and to enhance self-confidence by successfully using one’s talent and effort, while risk-taking desires opportunities and challenges (Marquitz, 2002) for individual growth.

Therefore, this study is designed to fill the void in the literature relating to the motivational and risk-taking behaviors of municipal park and recreation directors. The results of this study may also prove helpful to municipal and park recreation programs in understanding director characteristics that lead to improved decision making. In addition,
the findings may also expand the application of motivational and risk-taking theories to administrators in the leisure service industry.

**Summary of Methodology**

The methodology offered presents a plan (see Table 31) for investigating the relationship between risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa, as well as exploring the relationships between various demographic variables, such as age, gender, education level, city size, agency size, organizational budget, and years of professional experience in the park and recreation field.

Risk-taking propensity and achievement motivation are identified as two dependent variables and the demographical elements listed above are identified as independent variables. In addition, 59 subjects are included in the sample and surveyed in this study. The entire data collecting procedure took place by mail, email and telephone contact with participants.

In order to study these research questions, three research instruments were employed for this study.

1. Demographic Characteristics Survey was designed by the researcher—personal information of participants.

2. The Choice Dilemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964)—Risk-Taking Propensity.

3. Achievement Motive Questionnaire (AMQ) developed by Elizur (1979)—Achievement Motivation.
They are used to examine the basic features of the data include calculating frequencies, means, median scores and percentages for demographic data, along with using the descriptive statistical method to produce a cumulative score for respondents’ risk-taking propensity and achievement motivation. In order to examine the relationship between risk-taking propensity and achievement motivation scores, Pearson’s Product-moment Correlation Coefficient and Descriptive Statistical Analysis was calculated. Lastly, the Spearman Correlation Coefficient, an independent-sample T-test, one-way ANOVA, and the SPSS Descriptive Statistical Analysis Package were used to investigate the relationship between either risk-taking propensity or achievement motivation scores and demographic variables.
Table 31

Summary of Major Elements of Research Procedures

<table>
<thead>
<tr>
<th>Procedural Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling</td>
<td>59 municipal park and recreation directors (75.6%) from Iowa in cities of 4000 or more residents.</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>Instrument contains:</td>
</tr>
<tr>
<td></td>
<td>(1) Personal and Professional Information Questionnaire (PPIQ)—Demographic variables.</td>
</tr>
<tr>
<td></td>
<td>(2) Choice Dilemmas Questionnaire (CDQ)—Risk-Taking Propensity, developed by Kogan &amp; Wallach (1964).</td>
</tr>
<tr>
<td></td>
<td>(3) Achievement Motive Questionnaire (AMQ)—Achievement Motivation, developed by Elizur (1979).</td>
</tr>
<tr>
<td>Dependent Variables</td>
<td>Directors’ risk-taking propensity and achievement motivation</td>
</tr>
<tr>
<td>Independent</td>
<td>Directors’ age, gender, education level, city size, agency size, organizational budget, and years of professional experience.</td>
</tr>
<tr>
<td>Collection of Data</td>
<td>A complete set of investigational documents were separately mailed to every participant (Iowa park and recreational director) with an envelope containing a letter inviting participation, an informed consent letter, along with the three instruments. In addition, a thank-you email or telephone call will be sent when the investigator receives the completed questionnaires (see attached script). Also, a reminder email or telephone call will be made if the questionnaires are not received by the investigator after four weeks.</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>The entire procedure of the research used statistical software SPSS 16.0 for Windows to analyze the collected datum from the directors of municipal park and recreation in the state of Iowa. In addition, using ordinal data analysis to process elements of second and third questionnaires, such as descriptive analysis. Last, Pearson’s Product Moment Correlation Coefficient, Spearman’s Rho Correlation Coefficient, an independent-sample t-test, and one-way ANOVA have been employed to assess the relationships among variables.</td>
</tr>
</tbody>
</table>
Summary of Procedure

The study took place in the fall of 2009; there were 78 municipal park and recreation directors, from 78 cities, in 54 counties, in the state of Iowa invited as potential survey subjects in this study. They were responsible for provisions of recreation and leisure services for communities with 4000 or more local residents. As a result, a total of 59 directors (75.6%) of municipal park and recreation agencies participated in this study. This response rate reached a high level of an acceptable response rate range from 60 % to 75% (Fowler, 1993).

Three questionnaires were utilized to collect data for this study.

The first instrument was used to collect personal and professional information of these subjects. This questionnaire was used to obtain participant and agency information such as age, gender, education level, city size, agency size, organizational budget, and years of professional experience in the field of park and recreation.

The second instrument was the Choice Dilemmas Questionnaire (CDQ), developed by Kogan and Wallach (1964). This instrument provides respondents with 12 hypothetical situations to measure their risk-taking propensity. The 12 situations refer to a broad range of personal needs such as money, reputation, happiness, health, and satisfaction. Each item comprises six options, which can be summarized as:

Please select the lowest odds that you would consider acceptable risky alternative for success.

The chances that the risky alternative will be successful are:
A. 1 in 10
B. 3 in 10
C. 5 in 10
D. 7 in 10
E. 9 in 10
F. Select this option if you think that people should NOT select the risky alternative no matter what the odds.

The CDQ was selected for this study because it has been widely employed to measure individual risk-taking propensity in many different areas by researchers (Brown, 1970; Cartwright, 1971; Rith, 1973; Edginton, 1975; Brockhaus & Nord, 1979; Schwer & Yucelt, 1984; Masters & Meier, 1988, Aram, 1992; Bolton, 1997).

The last instrument, Achievement Motive Questionnaire (AMQ), was developed by Elizur (1979) to measure directors’ achievement motivation. The AMQ was devised in terms of previous theoretical analysis of achievement motive, such as the Thematic Apperception Test (McClelland, Atkinson, Clark, & Lowell, 1953), the Manifest Needs Questionnaire (Marshall & Wijting, 1980), and the Iowa Picture Interpretation Test (Johnston, 1957).

This questionnaire, self-report instrument, contains eighteen items to assess three facets of behavior modalities: instrumental modality, affective modality, and cognitive modality. Each facet of the behavior modalities separately corresponds to six achievement motive components, such as difficulty, uncertainty, responsibility, calculating risk, solving problem, and satisfying need. The advantage of using this instrument is that it enables the researcher to recognize directors’ achievement motivation from different angles.
The second instrument, CDQ for risk-taking propensity, and the third instrument, AMQ for achievement motivation, were selected for this study because of their high reliabilities (over .80) and validities in previous empirical studies. Therefore, making use of these advanced characteristics should benefit the researcher for measuring the relationship between risk-taking propensity and achievement motivation among park and recreation directors, in the state of Iowa.

**Demographic Characteristics of the Sample Population**

The descriptive statistics were employed to analyze demographic data of the respondents, and several interesting findings were found in this chapter. The respondents' age range was from 24 to 60 years old, with their mean age being 46.1; the majority (76.3%) of respondents were over 40 years of age. The majority of the subjects were male (74.6%). There were 86.4% of respondents holding a bachelor or master degree and 79.8% of them majored in park, recreation administration, and leisure services; these findings reflect current directors' knowledge structure and their professionalism. In addition, these respondents indicated that 69.5% of total respondents were in charge of communities with 4,000-20,000 population, which are small cities when compared to communities with populations above 30,001. Next, findings regarding the number of full-time staff showed that there were many fewer than part-time staff; the larger the city population, the greater the number of agency staff. In addition, organizational annual budgets are proportional to city populations. The last feature is that 84.7% of total respondents directly report the individual agency situation to a city administrator.
Discussion

According to findings of Chapter IV, a discussion of the five major research questions and two sub-research questions examined in the study is presented in the following context. For the ease of the reader the discussion is grouped by research questions.

Research Question 1

What is the risk-taking propensity of selected park and recreation directors in the state of Iowa?

According to the outcomes of the statistical data analysis, 81.4% of respondents (48) prefer moderate level of risk-taking (see Table 14). A total of 540 (76.4%) scores were concentrated in the middle of the six answer options (see Table 15). These results reflect that most respondents have a moderate propensity for risk-taking in administering their park and recreation affairs, which is fully consistent with Edginton’s (1975) finding. These findings support Atkinson (1964) and McClelland’s (1967) theories that a managerial leader who holds moderate risk-taking propensity would pursue a higher level of success. Bem (1980) also believed that managers who are oriented toward high achievement tend to take medium-level risks. In addition, many other authors, in the area of leadership, believe that successful managerial leaders should have the willingness, ability, and knowledge to take appropriate risks (Bennis, 1989; Kouzes & Posner, 1987; Lussier & Acuha, 2001) to achieve their goals. From the results above, municipal park and recreation directors’ performance are similar to leaders in other fields such as business, education, or other enterprises. They demonstrate a certain degree of propensity for taking risks for both individual pursuits and their agencies’ development.
Research Question 2

What is the achievement motivation of selected park and recreation directors in the state of Iowa?

The findings show that 57.6% of respondents scored at a moderate level of achievement motivation, 39% of respondents scored at a high level of achievement motivation, and only 3.4% of respondents scored at the lowest level of achievement motivation. These results show 96.6% of the respondents have a moderate to high level of motivation achievement. Murray (1938) indicated that achievement motivation can encourage individuals to accomplish difficult tasks, to overcome obstacles, to attain high standards, and to enhance self-confidence by successfully using one’s talents and efforts. Park and recreation directors who are in leadership positions must have high motive-related goals that support efforts to accomplish individual success as well as their agencies’ development. As McClelland (1953) viewed the need for achievement as “success in the competition with a standard of excellence” (p. 110). On this point, park and recreation directors’ performances are similar to managerial leaders in other fields, such as university presidents, company managers, entrepreneurs, and so on. Therefore, a moderate to high level of achievement motivation should assist a directors’ success in administrating park and recreation affairs.

In addition, according to Elizur’s achievement motive model, respondents’ three achievement motivation modalities (cognitive, affective and instrumental) of behavior should be considered when assessing their achievement motivations’ elements. Cognitive and instrumental aspects showed the highest scores (62.7% and 52.5%) in moderate level of achievement motivation and their second highest scores (30.5% and 44.1%) in high
level of achievement motivation. The highest affective score was (55.9%) in high level of achievement motivation, while the second highest score was (40.7%) in moderate level of achievement motivation. A common feature of the three modalities is that they all have their lowest score in the low level of motivation for achievement. These results reflect the respondents’ achievement motivation in these three modalities of behavior. These directors show a higher motivation for achievement, in the three modalities of behavior, similar to results shown in Table 16. When comparing the total scores among cognitive (1191 or 31.1%), affective (1348 or 35.3%), and instrumental (1287 or 33.6%), the differences among them are not significant. More specifically, respondents’ achievement motivation, in the three modalities of behavior, appeared to be stable.

Last, according to Elizur’s achievement motive questionnaire, the six variables (difficulty, uncertainty, responsibility, calculating risk, satisfying needs, and solving problems) were also viewed as important elements influencing respondents’ three achievement motive modalities of behavior. When comparing the six variables’ scores, respondents had the highest scores in satisfying needs (720) and responsibilities (718), moderate scores in difficulty (674) and solving problems (647), and the lowest scores in calculating risk (566) and uncertainty (501). Ordering their scores from high to low, the six variables are: satisfying needs, responsibility, difficulty, solving problems, calculating risk, and uncertainty. The lower the score of these variables, the harder they were for the respondents; therefore, uncertainty, calculating risk, and solving problem were viewed as the three harder issues for respondents; while, difficulty, responsibility, and satisfying needs were viewed as the three easier issues for respondents. These findings are
consistent with findings of Tziner and Elizur’s (1985) study; three (uncertainty, calculating risk, and solving problems) of the six variables were identified as having a significant relationship with respondents’ achievement motivation.

Research Question 3

What is the relationship between the risk-taking propensity of selected park and recreation directors in the state of Iowa and their achievement motivation?

The null hypothesis: There is no statistically significant relationship between risk-taking propensity and achievement motivation among a selected group of park and recreation directors in the state of Iowa. The major findings show that there is a statistical correlation between propensity for risk-taking and achievement motivation at 0.01 level (r= .341, p=.0008). Therefore, the null hypothesis that there is no statistically significant relationship between one’s propensity for risk taking and one’s achievement motivation is rejected. Due to a moderate correlation between risk-taking propensity and achievement motivation, the directors who have a moderate risk-taking propensity generally appear to have a moderate or higher achievement motivation score. The finding of this research is consistent with McClelland’s (1967) theory in understanding the relationship between risk-taking propensity and achievement motivation. McClelland found that a higher need for achievement is always accompanied by a moderate risk-taking propensity.

Referring to Table 14, respondents had a very high percentage (81.4%) in moderate level of risk-taking propensity; referring to Table 16, respondents had a higher percentage between moderate (57.6%) and high (39%) levels of achievement motivation. Linking these findings, the respondents have moderate risk-taking propensity scores, as well as,
higher achievement motivation scores. In many empirical studies, achievement motivation and risk-taking propensity are viewed as motive-related managerial elements which are significantly associated with a leader's performance. As McClelland (1953) believed, a high need for achievement was associated with behavior toward competition and the successful performance of administrators or executives.

In addition, Mars (1984) indicated that a leader should possess the following traits: "...need for recognition of achievement, need for variety, need for autonomy, need for mastery of a problem..., willing to take greater and more long-range risks for greater gain, high self-sufficiency, and independence in judgment" (p. 25). These traits are strong indicators that park and recreation directors have individual achievement motivation and a willingness to take risks in the management process. Therefore, combining research questions 1 and 2, risk-taking propensity and achievement motivation should be viewed as two important managerial elements influencing park and recreation directors' performance in management process.

Research Question 3a

What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa?

The null hypothesis 1a: There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior among a selected group of park and recreation directors in the state of Iowa.
The results show a significant relationship between risk-taking propensity and the affective, an achievement motive modality of behavior at 0.01 level ($r = .439$, $p = .001$). Therefore, the null hypothesis that there is no statistically significant relationship between one’s propensity for risk-taking and one’s achievement motive modality (affective) of behavior is rejected; the results also show that there are no significant relationships between risk-taking propensity and two other modalities of behavior (cognitive and instrumental). According to Sagie and Elizur’s (1996) study, the affective modality was addressed in terms of satisfaction (e.g. do you generally feel more satisfied when your task involves calculated risk or when its accomplishment is ensured?). Respondents’ feelings toward risk-taking represent human behaviors, for risk-takers may consider risks as gains or opportunities, while risk-avoiders may consider taking risks as losses or threats. These are two different behavioral expressions when encountering uncertain or difficult situations. The result shows a moderate level of correlation between risk-taking propensity and affective modality, which means that the directors who have a moderate risk-taking propensity generally have a moderate affective modality score. Affective modality is an important predictor of the respondents’ future behavior, such as satisfaction and enjoyment when making decisions.

**Research Question 3b**

What is the relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need among a selected group of park and recreation directors in the state of Iowa.
The null hypothesis 1 b: There is no statistically significant relationship between risk-taking propensity and achievement motivation modalities (cognitive, affective, and instrumental) of behavior related elements such as uncertainty, difficult, responsibility, calculating risk, solving problem, and satisfying need, among a selected group of park and recreation directors in the state of Iowa.

The result shows that there exists significant relationships between risk-taking propensity and four of the six achievement motive variables, such as uncertain, difficulty, calculating risk, and solving problem at 0.05 level ($r= .267, p= .041; r= .300, p= .021; r= .268, p= .040; r= .283, p= .030$). Therefore, the null hypothesis that there is no statistically significant relationship between one’s propensity for risk taking and one’s achievement motive modality of behavior related elements such as uncertainty, difficult, calculating risk, solving problem scores is rejected; while, the results also indicate that there are no significant relationships between respondents’ risk-taking propensity and responsibility and satisfying needs. This finding is different from Edginton (1975) who discovered a strong significant relationship between the level of responsibility and a high risk-taking propensity.

Research Question 4

What is the relationship between risk-taking propensity of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience?

The null hypothesis 2: There are no statistically significant relationships between risk-taking propensity and selected demographic variables such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience.
The results show that there was only age correlated with risk-taking propensity, therefore the null hypothesis that there is no statistically significant relationship between one’s propensity for risk taking and one’s age scores is rejected. Due to a negative correlation value, this means that the younger the respondent, the higher their risk-taking propensity. The outcome of data analysis also reflects that directors having a weak risk-taking propensity generally have a weak age score ($r = -0.265$, $p = .043$). This finding is slightly different from findings in the literature review, for example, Basowitz and Korchin (1957) have found a high correlation between age and risk-taking propensity, where the older group tended to be more conservative and less willing to take risks than the younger group. Although the two findings regarding the relationship between risk-taking propensity and age is different in degree (close or far), the two variables still have a correlation. MacCrimmon and Wehrung (1986) also indicated that young administrators preferred more risk-seeking than older administrators.

However, the results also show that there are no relationships between risk taking propensity and gender, education level, full-time staff, city population, years of professional experience, and organizational budget and risk-taking propensity. These results also show some difference from the findings of the literature review; for example, Vroom and Pahl (1971) pointed out that managers who are more experienced take fewer risks than those who are less experienced. MacCrimmon and Wehrung (1986) indicated that managers in larger firms actually take fewer risks than managers in smaller firms.

In addition, in order to know whether or not existing relationships between respondents’ propensity of risk-taking and their gender; an independent-sample T-test
was calculated to determine the significance of the difference between mean scores for propensity for risk-taking and gender. When comparing the difference in means for level of risk-taking propensity of male (M= 39.6) and female (M=39.9), the level of gender was found to have no statistically significance; the t ratio was 102 (Table 23). This finding appears to be the same as Wallach and Mabli (1970) who found no difference between males and females in risk-taking propensity. MacCrimmon and Wehrung (1986) also believed that female managers take risks just as frequently as do male managers. To the contrary, some findings from Muldrow and Bayton (1979), they administrated a battery of tests to female and male administrators of federal agencies. The CDQ was also utilized as an instrument to examine risk-taking propensity. The results showed that female administrators were less inclined to take risks than male administrators, under similar circumstances. Also, Bailey (1991) believed that males were greater risk-takers than females only in financial matters.

Last, to determine the relationship between respondents’ propensity of risk-taking and their education levels, one-way ANOVA was calculated to determine the significance of differences between mean scores for propensity for risk-taking and their education levels (associate degree or lower code: 1, bachelor degree code 2, and master degree or higher code: 3). When comparing the difference in means for level of risk-taking propensity with their education levels (associate degree or lower , M= 37.1, SD=7.4; bachelor degree M=39.9, SD=7.3; master degree or higher, M=40.8, SD=8.4), the level of education was found to have no statistically significance; their P value was .555 (F= .595). This means that respondents’ education level does not influence their
propensity for taking risks in the area of parks and recreation (Table 24). This finding is different from Calvert (1993) discovered that managers with master’s degrees in any subject tend to take more risks than those with bachelor’s degree or high school credentials. Edginton (1975) also discovered a significant relationship between risk-taking propensity and managerial leaders’ education level ($t= 1.78$, $p= .005$).

Research Question 5

What is the relationship between achievement motivation of selected park and recreation directors in the state of Iowa and selected demographic variables such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience?

The null hypothesis 3: There is no statistically significant relationship between achievement motivation and selected demographic variables such as age, gender, education level, agency size, city size, budget, and years of professional experience.

The results show that there were only three elements of the eight demographic variables which correlated with achievement motivation; therefore, the null hypothesis that there is no statistically significant relationship between one’s achievement motivation and one’s full-time staff scores is rejected at 0.01 level. The null hypothesis that there is no statistically significant relationship between one’s achievement motivation and one’s city population size and organizational budget is rejected at 0.05 level. There is an association between achievement motivation and full-time staff size, city size and organizational budget. Because the correlation is positive, namely, the higher the three demographic variables score, the higher their achievement motivation score; the outcome of data analysis also reflects that directors having a moderate achievement motivation generally have a moderate full-time staff size, city size and
organizational budget scores. However, the results also illustrate that there are no relationships between age, part-time staff, and years of professional experience and achievement motivation.

In addition, an independent-sample T-test was used to determine the significance of differences between mean scores for achievement motivation and gender. When comparing the difference in means for level of achievement motivation with male (M=66.3) and female (M=60.7), gender was found to have no statistical significance; the $t$ ratio was 1.01 (Table 26).

Last, One-way ANOVA was calculated to determine the significance of the difference between mean scores for achievement motivation and their education levels. When comparing the difference in mean scores for level of achievement motivation with their education levels: associate degree or lower, $M=67.3$, SD=11.4; bachelor degree $M=64.9$, SD=12.6; master degree or higher, $M=63.4$, SD=11.6. The levels of education were also found to have no statistical significance; their $P$ value was .706 ($F=.351$). This indicates that respondents' education level may not be associated with achievement motivation in the area of parks and recreation (Table 27).

**Recommendations for Future Study**

From findings of the study, the following recommendations and comments for future study are considered:

1. This study was conducted in the state of Iowa. It is recommended that this study be conducted across the nation to increase survey width.
2. This study was focused on municipal park and recreation directors in the state of Iowa. The subjects of the study could be expanded to different central governments, such as governors, state government officers, local government administrators, nonprofit organization managerial leaders, and commercial company managers.

3. This study was conducted in the area of park and recreation management in the state of Iowa. It is recommended that this study be conducted in different areas, such as leisure tourism, recreational therapy, and indoor and outdoor recreation.

4. The relationship between respondents’ risk-taking propensity and their achievement motivation in the area of park and recreation was assessed in this study. It is recommended that this study further probe the relationship between RPT and AM in the aspects of organizational culture, cross culture and even professional study.

5. This study was only conducted in quantitative methodology. It is recommended that this study be conducted by qualitative method, such as interview, case study, or mixed method between quantitative and qualitative.

6. The study was conducted regarding the relationship between nine demographical variables such as age, gender, education level, agency size, city size, organizational budget, and years of professional experience, risk-taking propensity, and achievement motivation. It is recommended that this study expand the scope of demographic variables, such as subject’s individual goal and agency’s developmental direction.
7. Respondents’ risk-taking propensity and achievement motivation were two psychological elements examined in the study. It is recommended that this study be conducted with a wider and deeper psychological study such as intrinsic motivational needs (learning new techniques, solving problems and achieving certain standards of quality) and extrinsic motivational needs (individual salary, job security, and prestige).

8. It is recommended that this study analyzed by Chi square, regression, MANOVA. This type of statistical analysis will provide greater insight into the differences between and among groups and the clustering of several independent variables with the dependent variables.

9. CDQ and AMQ were employed for testing respondents’ risk-taking propensity and achievement motivation. If CDQ could be utilized to test respondents’ risk-taking propensity from health, money, reputation, happiness, and satisfaction according to Kogan and Wallach’s model; if AMQ could be utilized to test respondents’ achievement motivation from more aspects such as time perspective (before, during and after) and kind of confrontation (oneself and answer) in terms of Elizur’s achievement motive model. The respondents’ risk-taking propensity and their achievement motivation may be further understood from mentioned angles above in the area of park and recreation.

10. Atkinson and McClelland’s achievement motivation theories were employed for understanding the relationship between risk-taking propensity and achievement motivation. These theories were strongly supported by this study and are
basically consistent with the two theories' views. It is recommended that the two theories be used in similar studies in different areas such as leisure tourism, outdoor recreation, and recreational therapy.
REFERENCES


Jackson, D. N. (1977). Reliability of Jackson Personality Inventory. *Psychological Reports, 40*, 613-14


APPENDIX A

SAMPLE COVER LETTER I

Dear Sir/Madam:

I would like to ask your cooperation in participating in obtaining information related to a study focused on risk-taking propensity and achievement motivation of municipal parks and recreation directors in the state of Iowa. By providing information, you are in a position to make a valuable contribution to our understanding and knowledge of those factors affecting the management of leisure services in municipal settings.

Enclosed in this packet are three questionnaires which have been selected to provide information for this study. These questionnaires are designed to (1) obtain selected personal and professional data; (2) determine how you would respond if faced with risky dilemmas; and (3) determine your perception of your achievement motivation. In general, the purpose of this study is to find if there is a relationship between your achievement motivation and one's propensity toward risk-taking and other selected variables.

There are no right or wrong answers and you should feel free to answer the questions so that they reflect your thinking. To insure your anonymity, a code number has been assigned to your questionnaires. No matter will be made to identify individual answers with you as a person, but rather, the study comparisons will be grounded in broad classifications.

A self-addressed, stamped envelope is enclosed for your convenience. The questionnaire will take approximately 15-25 minutes to complete and should be sealed in the provided envelope and placed in the mail.

Your cooperation in completing this important study shall be greatly appreciated.

Respectfully,

Jiangfeng (Brad) Tan
Doctoral candidate

The undersigned endorse this study and urge your cooperation in order that it may be successfully completed.

Christopher R. Edginton, Ph.D
Chair of Mr. Tan's dissertation committee
Professor and Director of HPELS
University of Northern Iowa

Samuel Lankford, Ph.D
Co-chair of Mr. Tan's dissertation committee
Professor of HPELS
University of Northern Iowa

September 9, 2009
APPENDIX B
SAMPLE COVER LETTER II

Iowa Park & Recreation

September 11, 2003

Dear fellow Park and Recreation Professional:

Ever wonder how or why you got the job you are in now? Leadership and willingness to take risks. These two basic skills of a park and recreation director will ensure success. To understand more fully these concepts, IPRA is collaborating with Jiangong (Brad) Tan of the University of Northern Iowa. Mr. Tan is a Ph.D. candidate in the School of Health, Physical Education and Leisure Services. He is closely working with Dr. Christopher Edginton and Dr. Sam Lankford in researching risk taking in addition to achievement motivation.

They can ensure your anonymity through the use of special codes assigned to each questionnaire. Final results will be shared with IPRA members in an effort for our local folks to have an understanding of how risk-taking and achievement are affected.

Mr. Tan’s goal is for 100% response rate of the 78 agencies he will he contacting. Your assistance will not only benefit his research but aid us as an association.

Thank you in advance for your time, energy, and thoughtfulness.

May you have an awesome autumn season!

Yours in leisure,

Steven E. Jordison
Executive Director
APPENDIX C

SAMPLE OF INFORMED CONTENT LETTER

University of Northern Iowa Human Participants Review

Informed Consent Letter for Adult Participants

**Project Title:** Risk-Taking Propensity and its Relationship to Achievement Motivation Among Selected Municipal Parks and Recreation Directors in the State of Iowa

**Name of Investigator:** Jiangong (Brad) Tan

**Invitation to Participate:** You are invited to participate in a research project conducted by Jiangong (Brad) Tan through the University of Northern Iowa. The following information is provided to help you make an informed decision about whether or not to participate.

**Nature and Purpose:** The purpose of the study will be to examine the risk-taking propensity and achievement motivation among selected park and recreation directors in the state of Iowa. More specifically, the study is designed to determine the relationship between risk-taking propensity and achievement motivation within this population grouping of park and recreation professionals.

**Explanation of Procedures:** If you agree to participate in this study you will be asked to complete three questionnaires that measure achievement motivation, risk-taking propensity, and demographic information. It will take approximately 15-25 minutes to complete all questionnaires. Upon completion of these questionnaires you will return them to me in the enclosed envelope.
Discomfort and Risks: This study is designed to examine participants’ achievement motivations and their risk-taking propensities in the area of parks and recreation. There are no foreseeable risks to your participation in the study. Completing the questionnaires may take 15-25 minutes, but you may stop or skip any questions without penalty.

Benefits and Compensation: Although you will receive no direct benefit from participating in the study, the results may assist municipal parks and recreation directors to better understand various factors that may influence the delivery of leisure services they manage.

Confidentiality Information obtained during the study which could identify you will be kept confidential. Names or direct identifiers will be deleted from the collected data. The summarized findings with no identifying information may be published in an academic journal or presented at a scholarly conference.

Right to Refuse or Withdraw: Your participation is completely voluntary. You are free to withdraw from participation at any time or choose not to participate at all, and by doing so, you will not be penalized or lose benefits to which you are otherwise entitled.

Questions: If you have any questions or want more information about this study you can contact investigator Jiangong (Brad) Tan at 319-273-4393 (office)/319-493-8177 (cell), email: jgtan@uni.edu, or the investigator’s faculty advisor Dr. Samuel Lankford at 319-273-6840, email: sam.lankford@uni.edu. You can also contact the office of the IRB Administrator at the University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.
You must be 18 years of age or older to take part in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to take part in the research. Please keep this form for your records or future reference.
APPENDIX D

THANK-YOU E-MAIL AND PHONE CONTACT

Dear Director,

I have received your completed questionnaires in the mail. Thank you very much for participating in my research study on the relationship between risk-taking propensity and achievement motivation among park and recreation directors in the state of Iowa. If you wish to contact me about any aspect of this research project, please feel free to email me at jgtan@uni.edu or (319) 273-4393 (campus office). I appreciate your spending time to provide information for this study.

Sincerely,

Jiangong (Brad) Tan

Graduate Student in HPELS

University of Northern Iowa
Dear Director

About two weeks ago I mailed to you some questionnaires associated with my study of the relationship between risk-taking propensity and achievement motivation among park and recreation directors in the state of Iowa. I wonder if you received the three short questionnaires, the informed consent letter, and my invitation to you to participate in the research study. If you did not receive these materials and would like to participate in the study, please contact me at jgtan@uni.edu or (319) 273-4393 (campus office). I would be happy to send you another copy of these documents so that you can be involved in the study. Your response will be very helpful for my research. Thank you, and I look forward to receiving your surveys as soon as you have time to complete them.

Sincerely,

Jiangong (Brad) Tan

Graduate Student in HPELS

University of Northern Iowa
APPENDIX F

SURVEY INSTRUMENT

The entire survey instrument is included beginning on page 174 reduced from original format and type size.
Personal and Professional Information Questionnaire

Please check or complete the answer that best describes you as director of a park and recreation agency.

1. Gender
   - _______ Female, _______ Male

2. What is your age? _________

3. What degree and in what major are your academic areas of study (check all that apply)?
   A. _______ Associate's Degree _______ Major?
   B. _______ Bachelor's Degree _______ Major?
   C. _______ Master's Degree _______ Major?
   D. _______ Doctor's Degree _______ Major?

4. How many years of full-time experience in your current position as director of parks and recreation do you have? _________

5. To whom do you directly report? _________

6. How many current full-time staff does your agency employ? _________

7. How many part-time or second staff does your agency employ annually? _________

8. What is the total budget of your agency? _________

9. What is the population of the city your agency serves? _________
Kogan-Wallach Choice Dilemmas Questionnaire

Instructions

On the following pages, you will find a series of situations that are likely to occur in everyday life. The central person in each situation is faced with a choice between two alternative courses of action, which we might call X and Y. Alternative X is more desirable and attractive than alternative Y, but the probability of attaining or achieving X is less than that of attaining or achieving Y.

For each situation on the following pages, you will be asked to indicate the minimum odds of success you would demand before recommending that the more attractive or desirable alternative, X be chosen.

Read each situation carefully before giving your judgment. Try to place yourself in the position of the central person in each of the situations. There are twelve situations in all. Please do not omit any of them.

1. Mr. A, an electrical engineer, who is married and has one child, has been working for a large electronics corporation since graduating from college five years ago. He is assured of a lifetime job with a modest, though adequate, salary, and liberal pension benefits upon retirement. On the other hand, it is very unlikely that his salary will increase much before he retires. While attending a convention, Mr. A. is offered a job with a small, newly founded company which has a highly uncertain future. The new job would pay more to start and would offer the possibility of a share in the ownership if the company survived the competition of the larger firms.

Imagine that you are advising Mr. A. Listed below are several probabilities or odds of the new company’s proving financially sound.

Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. A. to take the new job.

- The chances are 1 in 10 that the company will prove financially sound.
- The chances are 3 in 10 that the company will prove financially sound.
- The chances are 5 in 10 that the company will prove financially sound.
- The chances are 7 in 10 that the company will prove financially sound.
- The chances are 9 in 10 that the company will prove financially sound.
- Place a check here if you think Mr. A. should not take the new job no matter what the probabilities.
2. Mr. B, a 45 year old accountant, has recently been informed by his physician that he has developed a severe heart ailment. The disease would be sufficiently serious to force Mr. B. to change many of his strongest life habits—reducing his work load, drastically changing his diet, giving up favorite leisure-time pursuits. The physician suggests that a delicate medical operation could be attempted which, if successful, would completely relieve the heart condition. But its success could not be assured, and in fact, the operation might prove fatal.

Imagine that you are advising Mr. B. Listed below are several probabilities or odds that the operation will prove successful.

Please check the lowest probability that you would consider acceptable for the operation to be performed.

- Place a check here if you think Mr. B should not have the operation no matter what the probabilities.
- The chances are 9 in 10 that the operation will be a success.
- The chances are 7 in 10 that the operation will be a success.
- The chances are 5 in 10 that the operation will be a success.
- The chances are 3 in 10 that the operation will be a success.
- The chances are 1 in 10 that the operation will be a success.

3. Mr. C, a married man with two children, has a steady job that pays him about $6000 per year. He can easily afford the necessities of life, but few of the luxuries. Mr. C's father, who died recently, carried a $4000 life insurance policy. Mr. C would like to invest this money in stocks. He is well aware of the secure “blue-chip” stocks and bonds and would pay approximately 6% on his investment. On the other hand, Mr. C has heard that the stocks of a relatively unknown Company X might double their present value if a new product currently in production is favorably received by the buying public. However, if the product is unfavorably received, the stocks would decline in value.

Imagine that you are advising Mr. C. Listed below are several probabilities or odds that Company X stocks will double their value.

Please check the lowest probability that you would consider acceptable for Mr. C to invest in Company X Stocks.

- The chances are 1 in 10 that the stocks will double their value.
- The chances are 3 in 10 that the stocks will double their value.
- The chances are 5 in 10 that the stocks will double their value.
- The chances are 7 in 10 that the stocks will double their value.
- The chances are 9 in 10 that the stocks will double their value.
- Place a check here if you think Mr. C should not invest in Company X stocks, no matter what the probabilities.
4. Mr. D. is the captain of College X's football team. College X is playing its traditional rival, College Y in the final game of the season. The game is in its final seconds, and Mr. D's team, College X, is behind in the score. College X has time to run one more play. Mr. D, the captain must decide whether it would be best to settle for a tie score with a play which would be almost certain to work or, on the other hand, should he try a more complicated and risky play which could bring victory, if it succeeded, but defeat if not.

Imagine that you are advising Mr. D. Listed below are several probabilities or odds that the risky play will work. **Please check the lowest probability that you would consider acceptable for the risky play to be attempted.**

- Place a check here if you think Mr. D. should not try the risky play no matter what the probabilities.
- The chances are 9 in 10 that the risky play will succeed.
- The chances are 7 in 10 that the risky play will succeed.
- The chances are 5 in 10 that the risky play will succeed.
- The chances are 3 in 10 that the risky play will succeed.
- The chances are 1 in 10 that the risky play will succeed.

5. Mr. E is president of a light metals corporation in the United States. The corporation is quite prosperous, and has strongly considered the possibilities of business expansion by building an additional plant in a new location. The choice is between building another plant in the U.S., where there would be a moderate return on the initial investment, or building a plant in a foreign country. Lower labor costs and easy access to raw materials in that country would mean a much higher return on the initial investment. On the other hand, there is a history of political instability and revolution in the foreign country under consideration. In fact, the leader of a small minority party is committed to nationalizing, that is, taking over, all foreign investments.

Imagine that you are advising Mr. E. Listed below are several probabilities or odds of continued political stability in the foreign country under consideration. **Please check the lowest probability that you would consider acceptable for Mr. E's corporation to build a plant in that country.**

- The chances are 1 in 10 that the foreign country will remain politically stable.
- The chances are 3 in 10 that the foreign country will remain politically stable.
- The chances are 5 in 10 that the foreign country will remain politically stable.
- The chances are 7 in 10 that the foreign country will remain politically stable.
- The chances are 9 in 10 that the foreign country will remain politically stable.
**6.** Mr. F is currently a college senior who is very eager to pursue graduate study in chemistry leading to the Doctor of Philosophy degree. He has been accepted by both University X and University Y. University X has a world-wide reputation for excellence in chemistry. While a degree from University X would signify outstanding training in this field, the standards are so very rigorous that only a fraction of the degree candidates actually receive the degree. University Y, on the other hand, has much less of a reputation in chemistry, but almost everyone admitted is awarded the Doctor of Philosophy degree, though the degree has much less prestige than the corresponding degree from University X.

Imagine that you are advising Mr. F. Listed below are several probabilities or odds that Mr. F would be awarded a degree at University X, the one with the greater prestige.

*Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. F to enroll in University X rather than University Y.*

- Place a check here if you think Mr. F should not enroll in University X, no matter what the probabilities.
- The chances are 9 in 10 that Mr. F would receive a degree from University X.
- The chances are 7 in 10 that Mr. F would receive a degree from University X.
- The chances are 5 in 10 that Mr. F would receive a degree from University X.
- The chances are 3 in 10 that Mr. F would receive a degree from University X.
- The chances are 1 in 10 that Mr. F would receive a degree from University X.

**7.** Mr. G, a competent chess player, is participating in a national chess tournament. In an early match he draws the top-favored player in the tournament as his opponent. Mr. G has been given a relatively low ranking in view of his performance in previous tournaments. During the course of his play with the top favored man. Mr. G notes the possibility of a deceptive though risky maneuver which might bring him a quick victory. At the same time, if the attempted maneuver should fail, Mr. G would be left in an exposed position and defeat would almost certainly follow.

Imagine that you are advising Mr. G. Listed below are several probabilities or odds that Mr. G’s deceptive play would succeed.

*Please check the lowest probability that you would consider acceptable for the risky play in question to be attempted.*

- The chances are 1 in 10 that the play would succeed.
- The chances are 3 in 10 that the play would succeed.
8. Mr. H, a college senior, has studied the piano since childhood. He has won amateur prizes and given small recitals, suggesting that Mr. H has considerable musical talent. As graduation approaches, Mr. H has the choice of going to medical school to become a physician, a profession which would bring certain prestige and financial rewards; or entering a conservatory of music for advanced training with a well-known pianist. Mr. H realizes that even upon completion of his piano studies, which would take many more years and a lot of money, success as a concert pianist would not be assured.

Imagine that you are advising Mr. H. Listed below are several probabilities or odds that Mr. H would succeed as a concert pianist.

Please check the lowest probability that you would consider acceptable for Mr. H to continue with his musical training.

- Place a check here if you think Mr. H should not pursue his musical training, no matter what the probabilities.
- The chances are 9 in 10 that MR. H would succeed as a concert pianist.
- The chances are 7 in 10 that MR. H would succeed as a concert pianist.
- The chances are 5 in 10 that MR. H would succeed as a concert pianist.
- The chances are 3 in 10 that MR. H would succeed as a concert pianist.
- The chances are 1 in 10 that MR. H would succeed as a concert pianist.

9. Mr. J is an American captured by the enemy in World War II and placed in a prisoner-of-war camp. Conditions in the camp are quite bad, with long hours of hard physical labor and a barely sufficient diet. After spending several months in this camp, Mr. J notes the possibility of escape by concealing himself in a supply truck that shuttles in and out of the camp. Of course, there is no guarantee that the escape would prove successful. Recapture by the enemy could well mean execution.

Imagine that you are advising Mr. J. Listed below are several probabilities or odds of a successful escape from the prisoner-of-war camp.

Please check the lowest probability that you would consider acceptable for an escape to be attempted.

- The chances are 1 in 10 that the escape would succeed.
- The chances are 3 in 10 that the escape would succeed.
• The chances are 5 in 10 that the escape would succeed.
• The chances are 7 in 10 that the escape would succeed.
• The chances are 9 in 10 that the escape would succeed.
• Place a check here if you think Mr. J. should not try to escape no matter what the probabilities.

10. Mr. K is a successful businessman who has participated in a number of civic duties of considerable value to the community. Mr. K has been approached by the leaders of his political party as a possible congressional candidate in the next election. Mr. K’s party is a minority party in the district, though the party has won occasional elections in the past. Mr. K would like to hold political office, but to do so would involve a serious financial sacrifice, since the party has insufficient campaign funds. He would also have to endure the attacks of his political opponents in a hot campaign.

Imagine that you are advising Mr. K. Listed below are several probabilities or odds of Mr. K’s winning the election in his district. Please check the lowest probability that you would consider acceptable for Mr. K to decide to run for office.

• Place a check here if you think Mr. K. should not run for office no matter what the probabilities.
• The chances are 9 in 10 that MR. K would win the election.
• The chances are 7 in 10 that MR. K would win the election.
• The chances are 5 in 10 that MR. K would win the election.
• The chances are 3 in 10 that MR. K would win the election.
• The chances are 1 in 10 that MR. K would win the election.

11. Mr. L, a married 30-year-old research physicist, has been given a five-year appointment by a major university laboratory. As he contemplates the next five years, he realizes that he might work on a difficult, long-term problem which, if a solution could be found, would resolve basic scientific issues in the field and bring high scientific honors. If no solution were found, however, Mr. L would have little to show for his five years in the laboratory, and this would make it hard for him to get a good job afterwards. On the other hand, he could, as most of his professional associates are doing, work on a series of short-term problems where solutions would be easier to find, but where the problems are of lesser scientific importance.

Imagine that you are advising Mr. L. Listed below are several probabilities or odds that a solution would be found to the difficult, long-term problem that Mr. L has in mind.
Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. L to work on the more difficult long-term problem.

- The chances are 1 in 10 that Mr. L would solve the long-term problem.
- The chances are 3 in 10 that Mr. L would solve the long-term problem.
- The chances are 5 in 10 that Mr. L would solve the long-term problem.
- The chances are 7 in 10 that Mr. L would solve the long-term problem.
- The chances are 9 in 10 that Mr. L would solve the long-term problem.
- Place a check here if you think Mr. L should not choose long-term, difficult problem no matter what the probabilities.

12. Mr. M is contemplating marriage to Miss T, a girl whom he has known for a little more than a year. Recently, however, a number of arguments have occurred between them, suggesting some sharp differences of opinion in the way each views certain matters. Indeed, they decide to seek professional advice from a marriage counselor as to whether it would be wise for them to marry. On the basis of these meetings with a marriage counselor, they realize that a happy marriage, while possible, would not be assured.

Imagine that you are advising Mr. M and Miss T. Listed below are several probabilities or odds that their marriage would prove to be a happy and successful one.

Please check the lowest probability that you would consider acceptable for Mr. M and Miss T to get married.

- Place a check here if you think Mr. M and Miss T should not marry, no matter what the probabilities.
- The chances are 9 in 10 that the marriage would be happy and successful.
- The chances are 7 in 10 that the marriage would be happy and successful.
- The chances are 5 in 10 that the marriage would be happy and successful.
- The chances are 3 in 10 that the marriage would be happy and successful.
- The chances are 1 in 10 that the marriage would be happy and successful.

1 Reproduced from RISK TAKING: A Study in Cognition and Personality, by Nathan and Kogan and Micheal A. Wallach. Copyright (c) 1964 by Holt, Rinehart and Winston, Inc. Used by permission of Holt, Rinehart and Winston, Inc.
**Achievement Motive Questionnaire**

The questions in the following questionnaire are intended to cover attitudes towards tasks and assignments from various points of view.

You are requested to answer the questions by circling the number next to the response which most nearly expresses your opinion in each of the questions. Please answer all the questions, and circle only one answer in each question.

This is an attitude survey and there are no "right" or "wrong" answers. We are interested, only in your personal opinions. As far as we are concerned, these are the only correct answers.

You are participating in a scientific study; frank and truthful answers are the most important contribution you can make to its success.

Thank you for your cooperation.

People have different attitudes regarding tasks assigned to them. We would like to ask you a few questions on this subject. We shall start with questions regarding your preferences concerning task performance in general.

1. **Do you generally prefer tasks involving uncertainty as regards the results or tasks with sure outcomes?**

   I generally prefer:
   (1) Tasks involving uncertainty much more than tasks with sure outcomes.
   (2) Tasks involving uncertainty a little more than tasks with sure outcomes.
   (3) Tasks involving uncertainty and tasks with sure outcomes to the same extent.
   (4) Tasks with sure outcomes a little more than tasks involving uncertainty.
   (5) Tasks with sure outcomes much more than tasks involving uncertainty.

2. **Do you generally prefer difficult tasks or easy tasks?**

   I generally prefer:
   (1) Difficult tasks much more than easy tasks.
   (2) Difficult tasks a little more than easy tasks.
   (3) Difficult and easy tasks to the same extent.
   (4) Easy tasks a little more than difficult tasks.
   (5) Easy tasks much more than difficult tasks.
3. Do you generally prefer tasks over which you are personally responsible or tasks over which responsibility is shared with others?

I generally prefer:
(1) Tasks with personal responsibility much more than tasks with shared responsibility.
(2) Tasks with personal responsibility a little more than tasks with shared responsibility.
(3) Tasks with personal responsibility and tasks with shared responsibility to the same extent.
(4) Tasks with shared responsibility a little more than tasks with personal responsibility.
(5) Tasks with shared responsibility much more than tasks with personal responsibility.

4. Do you generally prefer tasks involving calculated risk or tasks whose accomplishment is ensured?

I generally prefer:
(1) Tasks involving calculated risk much more than tasks whose accomplishment is ensured.
(2) Tasks involving calculated risk a little more than tasks whose accomplishment is ensured.
(3) Tasks involving calculated risk and tasks whose accomplishment is ensured to the same extent.
(4) Tasks whose accomplishment is ensured a little more than tasks involving calculated risk.
(5) Tasks whose accomplishment is ensured much more than tasks involving calculated risk.

5. Do you generally prefer tasks whose performance requires problem-solving or tasks that have to be carried out by following clear instructions?

I generally prefer:
(1) Tasks requiring problem-solving much more than tasks carried out by following clear instructions.
(2) Tasks requiring problem-solving a little more than tasks carried out by following clear instructions.
(3) Tasks requiring problem-solving and tasks carried out by following clear instructions to the same extent.
(4) Tasks carried out by following clear instructions a little more than tasks requiring problem-solving.
(5) Tasks carried out by following clear instructions much more than tasks requiring problem-solving.
6. **In different situations in life one should choose between the possibility of succeeding in one's performance of a job and the avoidance of possible failure.** Some people prefer jobs that might meet their need to succeed, while others prefer jobs that ensure avoidance of failure.

I generally prefer:
1. Tasks that might meet the need to succeed much more than tasks that ensure avoidance of failure.
2. Tasks that might meet the need to succeed a little more than tasks that ensure avoidance of failure.
3. Tasks that might meet the need to succeed and tasks that ensure avoidance of failure to the same extent.
4. Tasks that ensure avoidance of failure a little more than tasks that might meet the need to succeed.
5. Tasks that ensure avoidance of failure much more than tasks that might meet the need to succeed.

With this we finish this series of questions. We shall now proceed to the next series of questions.

The following questions are about the same issues, but from a different perspective. Please relate to the particular perspective to which the questions relate. The following questions refer to your feelings about tasks.

7. **Do you generally feel more satisfied with tasks involving uncertainty or with tasks with sure outcomes?**

I generally feel satisfied with:
1. Tasks involving uncertainty much more than with tasks with sure outcomes.
2. Tasks involving uncertainty a little more than with tasks with sure outcomes.
3. Tasks involving uncertainty and with tasks with sure outcomes to the same extent.
4. Tasks with sure outcomes a little more than with tasks involving uncertainty.
5. Tasks with sure outcomes much more than with tasks involving uncertainty.

8. **Do you generally feel more satisfied when you have a difficult task or when you have an easy task?**

I generally feel satisfied with:
1. Difficult tasks much more than with easy tasks.
2. Difficult tasks a little more than with easy tasks.
3. Difficult tasks and easy tasks to the same extent.
4. Easy tasks a little more than with difficult tasks.
5. Easy tasks much more than with difficult tasks.
9. **Do you generally feel more satisfied when you are personally responsible for a certain task or when you share responsibility with others?**

I generally feel satisfied with:

1. Tasks with personal responsibility **much more** than with tasks with shared responsibility.
2. Tasks with personal responsibility a **little more** than with tasks with shared responsibility.
3. Tasks with personal responsibility and tasks with shared responsibility to the **same extent**.
4. Tasks with shared responsibility a **little more** than with tasks with personal responsibility.
5. Tasks with shared responsibility **much more** than with tasks with personal responsibility.

10. **Do you generally feel more satisfied when your task involves calculated risk or when its accomplishment is ensured?**

I generally feel satisfied with:

1. Tasks involving calculated risk **much more** than with tasks whose accomplishment is ensured.
2. Tasks involving calculated risk a **little more** than with tasks whose accomplishment is ensured.
3. Tasks involving calculated risk and with tasks whose accomplishment is ensured to the **same extent**.
4. Tasks whose accomplishment is ensured a **little more** than with tasks involving calculated risk.
5. Tasks whose accomplishment is ensured **much more** than with tasks involving calculated risk.

11. **Do you generally feel more satisfied when your task requires problem-solving or tasks that have to be carried out by following clear instructions?**

I generally feel satisfied with:

1. Tasks requiring problem-solving **much more** than with tasks carried out by following clear instructions.
2. Tasks requiring problem-solving a **little more** than with tasks carried out by following clear instructions.
3. Tasks requiring problem-solving and with tasks carried out by following clear instructions to the **same extent**.
4. Tasks carried out by following clear instructions a **little more** than with tasks requiring problem-solving.
(5) Tasks carried out by following clear instructions much more than with tasks requiring problem-solving.

12. Do you generally feel more satisfied when the performance of your task might meet your need to succeed or when it ensures avoidance of failure?

I generally feel satisfied with tasks that:
(1) Meet the need to succeed much more than with tasks that ensure avoidance of failure.
(2) Meet the need to succeed a little more than with tasks that ensure avoidance of failure.
(3) Meet the need to succeed and tasks that ensure avoidance of failure to the same extent.
(4) Ensure avoidance of failure a little more than with tasks that meet the need to succeed.
(5) Ensure avoidance of failure much more than with tasks that meet the need to succeed.

With this we finish this series of questions. We shall now proceed to the next series of questions.

The following questions refer to your daily life, i.e. how you act in your daily performance.

13. Do you usually undertake to perform tasks that involve uncertainty or tasks with sure outcomes?

I usually undertake to perform:
(1) Tasks involving uncertainty much more than tasks with sure outcomes.
(2) Tasks involving uncertainty a little more than tasks with sure outcomes.
(3) Tasks involving uncertainty and tasks with sure outcomes to the same extent.
(4) Tasks with sure outcomes a little more than tasks involving uncertainty.
(5) Tasks with sure outcomes much more than tasks involving uncertainty.

14. Do you usually undertake to perform difficult tasks or easy tasks?

I usually undertake to perform:
(1) Difficult tasks much more than easy tasks.
(2) Difficult tasks a little more than easy tasks.
(3) Difficult tasks and easy tasks to the same extent.
(4) Easy tasks a little more than difficult tasks.
(5) Easy tasks much more than difficult tasks.
15. Do you generally undertake to perform tasks over which you are personally responsible or tasks over which you share responsibility with others?

I usually undertake to perform:
(1) Tasks with personal responsibility much more than tasks with shared responsibility.
(2) Tasks with personal responsibility a little more than tasks with shared responsibility.
(3) Tasks with personal responsibility and tasks with shared responsibility to the same extent.
(4) Tasks with shared responsibility a little more than tasks with personal responsibility.
(5) Tasks with shared responsibility much more than tasks with personal responsibility.

16. Do you usually undertake to perform tasks involving calculated risk or tasks whose accomplishment is ensured?

I usually undertake to perform:
(1) Tasks involving calculated risk much more than tasks whose accomplishment is ensured.
(2) Tasks involving calculated risk a little more than tasks whose accomplishment is ensured.
(3) Tasks involving calculated risk and tasks whose accomplishment is ensured to the same extent.
(4) Tasks whose accomplishment is ensured a little more than tasks involving calculated risk.
(5) Tasks whose accomplishment is ensured much more than tasks involving calculated risk.

17. Do you usually undertake to perform tasks whose performance requires problem-solving or tasks that have to be carried out by following clear instructions?

I usually undertake to perform:
(1) Tasks requiring problem-solving much more than tasks carried out by following clear instructions.
(2) Tasks requiring problem-solving a little more than tasks carried out by following clear instructions.
(3) Tasks requiring problem-solving and tasks carried out by following clear instructions to the same extent.
(4) Tasks carried out by following clear instructions a little more than tasks requiring problem-solving.
(5) Tasks carried out by following clear instructions much more than tasks requiring problem-solving.

18. Do you usually undertake tasks that meet your need to succeed or tasks that ensure avoidance of failure?

I usually undertake to perform tasks that:
(1) Meet my need to succeed much more than tasks that ensure avoidance of failure.
(2) Meet my need to succeed a little more than tasks that ensure avoidance of failure.
(3) Meet my need to succeed and tasks that ensure avoidance of failure to the same extent.
(4) Ensure avoidance of failure a little more than tasks that meet my need to succeed.
(5) Ensure avoidance of failure much more than tasks that meet my need to succeed.