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Examining the Influence of Loyalty Reward  
Program Membership on the Behavior  
Of Casino Patrons

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Robert Palmer

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**Examining the Influence of Loyalty Reward Program  
Membership on the Behavior of Casino Patrons**

**by**

**Robert Palmer**

**A DISSERTATION**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirement  
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## **ABSTRACT**

### **Examining the Influence of Loyalty Reward Program Membership on the Behavior of Casino Patrons**

**By**

**Robert Palmer**

Numerous industries have implemented frequent buyer or loyalty rewards programs as part of their marketing mix. As the gaming industry continues to grow exponentially, these organizations are using player's club programs as a key component of their marketing strategies. This study investigates the relationship between casino player's club programs and its members. As the gaming industry continues to grow exponentially, these organizations are using player's club programs as a key component of their marketing strategies. Building on past loyalty studies, this study will attempt to further the knowledge of how these programs affect the behavior of casino patrons.

Through the use of a 200,000 member casino player's club tracking database, a detailed analysis of four years of member behavior was undertaken to explore how behaviors have changed over the course of their membership. The findings suggest that not all segments of a loyalty program are potentially profitable and that the costs of serving frequent (loyal) customers increase over the course of their lifetime. A structural model was developed in order to examine the development of attitudinal and behavioral loyalty based on data collected from a mail survey of 3000 player's club members. The results suggest that perceived value is a better predictor of behavioral loyalty as compared to attitudinal loyalty.

Overall this study had four distinct contributions: (1) It reveals that lifetime visitation does not fully explain lifetime casino revenues and that the costs associated with serving loyal long-term player's club members actually increase over their lifetime; (2) It demonstrates that commonly utilized loyalty segmentation bases are ineffective in terms of identifying segments of a player's club program; (3) the development of behavioral loyalty varies across segments of players club members, and (4) a large segment of members in the player's club program are potentially unprofitable and should not be targeted as part of any marketing initiative. Practical and research implications will be also provided by the author.

## DEDICATION

Always remember to forget  
The things that made you sad.  
But never forget to remember  
The things that made you glad.  
Always remember to forget  
The Friends that proved untrue.  
But never forget to remember  
Those that have stuck by you.  
Always remember to forget  
The troubles that passed away.  
But never forget to remember  
The blessings that come each day.  
*Irish Blessing*

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# **CHAPTER 1**

## **INTRODUCTION**

### **Product Centric to Customer Centric**

Marketing managers today are facing challenges that can only be characterized as revolutionary. Many firms must now compete on a global level. Consumers have many more product, service, and entertainment alternatives to choose from and an enormous amount of information on which to base their appraisals and selections. In response, marketing managers have focused on developing strategies for increasing customer loyalty as a key part of their overall marketing strategy. Even though loyalty building and retention strategies incorporate various customer relationship management tools and systems, they continue to be based on conventional ways of acting or thinking (Berthon, Holbrook, and Hulbert, 2000).

Although imbalance of power between customers and businesses has existed for centuries, the power (e.g. information about alternative products and services) now resides in the hands of customers. This power allows customers at all stages of the supply chain to exact ever more demands from suppliers and/or organizations (Berthon et al., 2000). Businesses have responded to this imbalance by striving to become more “customer centric” as opposed to “product centric” by developing new marketing approaches, including a much greater emphasis on loyalty programs (Woods, 1998).

profitability and gain a competitive advantage (Fredericks, Hurd, and Salter, 2001). Examples of these initiatives include *Total Quality Management (TQM)* and the *Malcolm Baldrige National Quality Award*. Unfortunately, research has shown that the majority of firms have not achieved the predicted economic benefits from implementing these initiatives (Anderson Anderson, Fornell, and Lehmann, 1994; Bolton, 1998; Reichheld and Teal, 1996). However, they spawned a great deal of emphasis among academics and practitioners on developing new customer attentive business approaches. As a direct result of this work, many service organizations in the 1990s focused on implementing relationship management strategies intended to attract, maintain, and enhance customer relationships (Bolton, 1998).

The casino gaming industry is one of the industries that have adopted a more “customer centric” loyalty building marketing orientation. Casinos have moved away from solely focusing on building multi-million dollar facilities and attractions and are now placing greater emphasis on developing marketing programs intended to forge and enhance relationships in order to retain their customer base. This is in large part due to the increased competition brought on by the exponential growth of casinos and other gaming opportunities (e.g. web based gaming, lotteries) within the United States. While more persons are gaming and revenues continue to climb, individual casinos are now directing more resources at efforts aimed at creating longer lasting relationships with gamers.

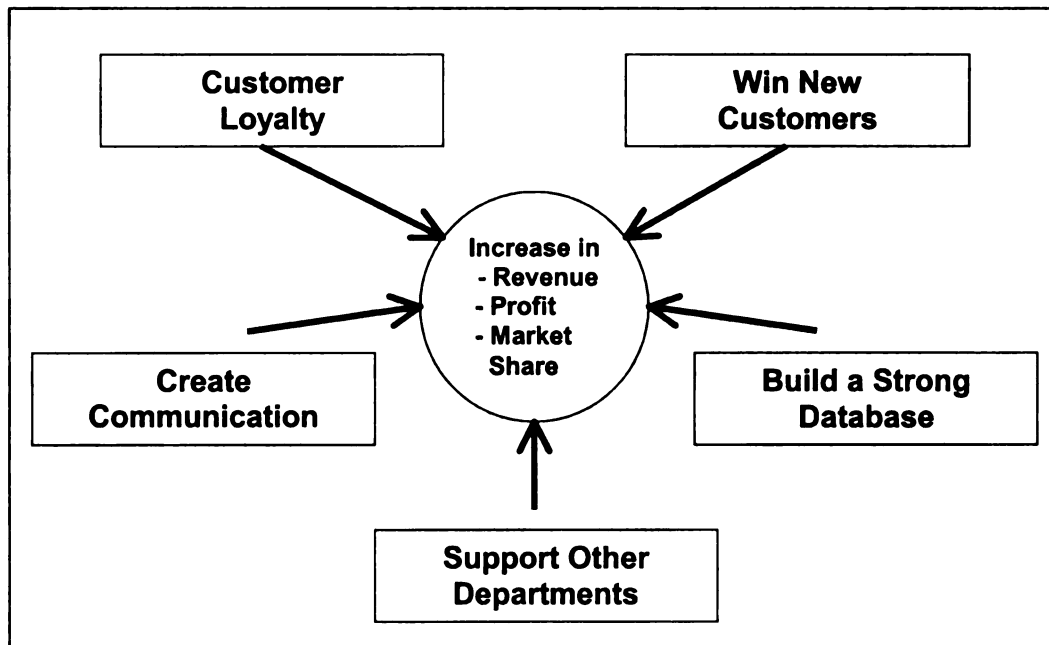
## **The Growth of Loyalty Rewards Programs**

One popular marketing relationship strategy is loyalty rewards programs. Loyalty rewards programs are also referred to as affinity groups, frequent buyer programs, and customer clubs. They were first developed by the airline industry in the early 1980s and are now being utilized by many different tourism and hospitality industries including casinos, hotels, and restaurants. Examples of loyalty reward programs include Northwest Airlines WorldPerks Plan, Harrah's Total Rewards Program, and Hertz Club Gold card. For example, Harrah's Total Rewards Program allows members access to special events, comp privileges (e.g. free meals, hotel stays), and cash back programs. The benefits provided to the consumers vary based on their level of spending per calendar year.

A review of the history of these programs reveals that the proliferation of loyalty programs across an industry is often the result of a progression of competitive reaction to the introduction of a loyalty program by an industry innovator. For example, within weeks after American Airlines introduced their frequent flyer program in the early 80s, each of its major competitors had a similar program. Interestingly, this "follow the leader" approach can be seen for almost every industry that loyalty rewards programs are being utilized including airlines, hotels, casinos and grocery stores. The question that must be asked is whether the managers of these "successive" organizations analyzed the benefits of loyalty rewards programs within the context of their own marketing strategies, or were they merely provoked by the competition.

Although the scopes of these programs vary considerably across industries, they frequently play a critical role in the marketing strategies and account for a significant portion of their marketing budgets (Dowling and Uncles, 1997). While the goals of these programs are predominantly marketing focused (depicted in *Figure 1*), they can also benefit other business units and functions. For example, tracking the services/products purchased by loyalty program members produces information can be utilized by operation managers for their product planning decisions. This same information can be utilized by human resources for developing their training and hiring schedules. Additionally, loyalty club promotions can be used to test market responsiveness.

**Figure 1: The Main Goals of Loyalty Programs**



Source: (Butscher 1998)

The major focus of loyalty programs is to increase revenues, profit, and market share. In order to accomplish these goals, the program must identify current loyalty program members that are profitable and attempt to increase their usage levels and/or market share. This same information must also be utilized to identify new markets and to build these markets using information gathered on current loyalty program members. In addition, loyalty programs, especially rewards programs, are a significant source of revenues for many businesses. An example of this is the profits generated by frequent flyer programs often exceed those generated by actual ticket sales.

### **Growth of Casino Gaming and Casino Loyalty Programs**

Although casinos and gaming have been a part of North American culture for centuries, the passage of the 1988 Indian Gaming Regulatory Act produced a rapid expansion of the number of casinos across North America. This act essentially authorized commercial casino gaming on Native American lands in approximately 31 states. In part, as a response to this act, the State of Iowa legalized riverboat casinos on navigable waters for the purpose of stimulating Iowa tourism. Five additional states- Illinois, Indiana, Louisiana, Mississippi, and Missouri--had done the same by May 1994. In 1995, licensed casino table or machine games were being operated or had been authorized in approximately 28 states and provinces (Christianson and Brinkerhoff-Jacobs, 1995). In 2000, only Utah and Hawaii had no forms of legalized gambling (Morais, 2002). It is estimated that the revenues generated by the US gambling industry (Casinos, lotteries, bingo) in 2001 were \$64 billion and that the United States will be the

World's fastest-growing gambling market during the next decade (Morais, 2002). It is estimated that legal gaming estimates globally exceeded \$900 billion in 2001, with revenues accrued to casinos at \$270 billion.

The rapid expansion in casinos and gaming has dramatically increased competition for gamblers, especially heavy gamblers or what are commonly referred to as "big-fish". Casinos and gaming regions (Las Vegas, Reno, Atlantic City, etc.) initially responded to this competition primarily by augmenting and expanding their product lines (e.g. larger, more elaborate hotels and casinos) and launching ever more costly promotions. Casinos also responded to increasing competition by inaugurating player's club programs and/or promotions specially designed and targeted at loyalty club members.

Some form of a player's club program is now offered by almost every casino. The combination of promotions and comps aimed at loyalty club members now account for a significant portion of the marketing expenditures of many casinos. Although casino loyalty rewards programs have their own unique characteristics, they share common attributes with loyalty programs offered by other industries, specifically frequent flyer programs. For example, both casino player's club programs and frequent flyer programs are both service(s) oriented, consist of a bundle of attributes that are customer specific, and there are low switching costs. On the other hand, they differ in the sense that casino gaming is seen by some parts of society as a vice. These similarities and differences must be taken into account during the evaluation of these programs and is an area of interest that has yet to been explored.

Recently, a number of casino player's club programs have been redesigned in an effort to increase value/benefits to their members (Dowling and Uncles, 1997). As an example, *Mystic Lake Casino in Minnesota* (depicted in *Figure 2*) provides differential and increasing benefits to members based on their level of play over the previous year. This tiered/segmented approach enables casinos to reward and retain its most loyal customers through targeted incentives aimed at increasing play and providing an incentive for members to achieve higher reward levels. A review of these benefits shows a clear focus on providing members with rewards, promotions, and preferential service in order to increase both their attitudinal and behavioral loyalty. An advantage of these tier/segmented programs is that they take into account the inherent variability of player's club members and their subsequent usage behavior, thus rewarding loyal customers or those customers that maintain a relationship with an organization over a long period of time (O'Brien and Jones, 1995; Dowling and Uncles, 1997).

**Figure 2: Benefits Offered to Members of Harrah's Total Rewards Tiered System**

	Classic	Gold	Platinum
<b>The BENEFITS of Membership</b>			
Rewards & Offers	X	X	X
Restaurant Discounts*	10%	15%	20%
Gift Shop Discounts	5%	10%	15%
Participation in great Promotions	X	X	X
Invitations to Parties & Events		X	X
Special Hotel Rates		X	X
Free Valet Service**		X	X
Restaurant VIP Line Passes			X
Dakotah! Sport & Fitness			X
Membership***			X
Personalized Host Service			X
Free Playworks Child Care****			X
Suite Upgrade			X
Invitation to Platinum Events			

Source: (Little Six Incorporated, 2003)

While player's club programs have continued to evolve in response to the intense level of competition between casinos, it appears that some casinos are making changes to their programs without a scientific basis in marketing research, linkages with strategic priorities, or calculating the return-on-investment from various reward incentives. Sometimes the criteria for issuing rewards are subjective and left in the hands of casino floor managers leading to inconsistent practices. Poor implementation practices can reduce the return-on-investment from the loyalty rewards program. Furthermore, due to lack of research completed on loyalty rewards programs in general, and the fact that casino loyalty programs have only been developed over the last five to ten years, the



need to evaluate these programs is necessary for furthering the body of knowledge on loyalty and loyalty rewards programs.

### **Previous Empirical Studies of Loyalty Programs**

There have been two significant empirical studies that have examined the role and effectiveness of loyalty reward programs and how service organizations are using these programs as a key part of their overall marketing strategies (Bolton, Kannan, and Bramlett, 2000; Long and Schiffman, 2000). These two studies offered new ways for defining customer loyalty. Loyal customers were defined as those customers who (a) maintained a relationship with an organization over a period of time and (b) purchased products/services at regular intervals. This lack of attention on percentage of market share or commitment to organizations differentiates this categorization of loyalty from that of previous studies completed in the realms of relationship marketing and brand loyalty, and one that should be further explored.

Although work completed on loyalty programs and their effectiveness is very limited, there have been a number of key notable study findings. First, because of their high purchase and visitation levels and their longer relationships with businesses, loyalty rewards program members are comparatively more likely to have an unsatisfactory product or service experience. The study by Bolton et al. (2000) found that although members of loyalty rewards programs did in fact experience a higher rate of negative service experiences, they discounted these negative evaluations to a greater degree than nonloyalty reward program members.

Second, since these programs are based on principles of relationship marketing and value creation, loyalty reward program members can potentially be segmented based on their personal values and relationships with their respective loyalty programs. Also, there are multiple programs that a person can belong to in a specific industry, so it can be safe to assume that persons often belong to multiple programs within the same industry. Although the research completed by Long and Schiffman (2000) found support for these assumptions for members of airline frequent flyer programs, they also stated that the (revenue) performance of the loyalty reward program will vary by between and within segments to the point that the organization may choose not to market to certain segments since they are unprofitable.

### **Need and Importance of this Study**

Although the concept of loyalty has existed for decades, there is no consensus over what loyalty is or how it should be measured (Rundle-Thiele and Mackay, 2001). This lack of consensus may explain in part why research on loyalty remains so fragmented. On this same point, the impact that membership within casino player's club programs has on consumer behavior remains an area that has remained relatively unexplored by marketing academics. Given the significance of the investments in loyalty building efforts and the amount of research they have attracted recently, the lack of knowledge of whether relationship marketing and loyalty programs even create "loyal" customers or how a loyal customer is defined is somewhat of a surprise. Furthermore, there is a very active debate and growing concerns about what constructs and measures

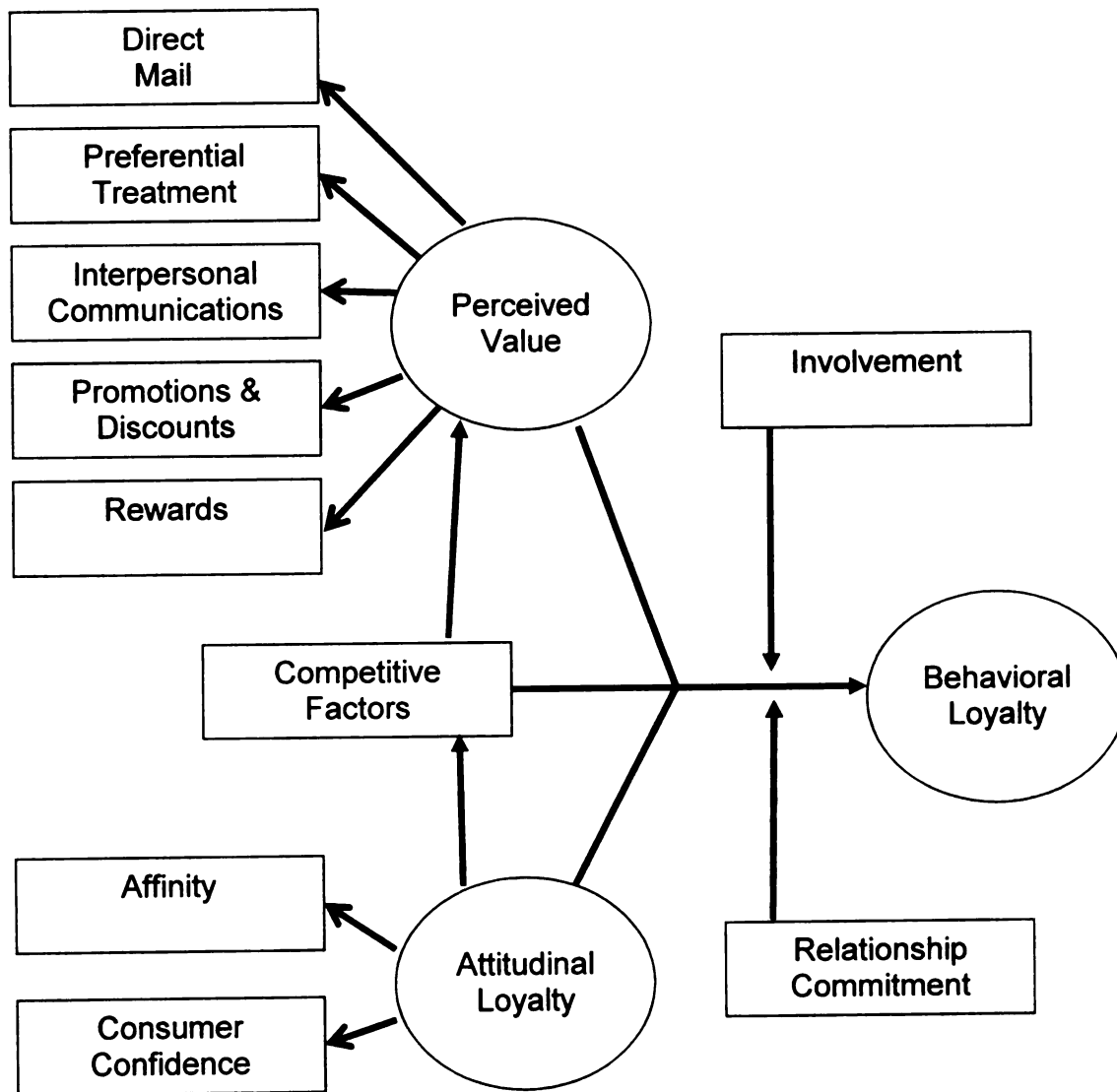
to use when studying loyalty. While the debate concerning loyalty measures and constructs is interesting, some believe that the failure to agree on and utilize consistent measures and constructs has not encouraged a field of research that builds substantially on previous studies. Although there are important exceptions, there is still a shroud of mystery surrounding the concept of loyalty and how it applies to consumer behavior

Developing a framework for validating the financial performance of these programs is an important step since the managerial justification for these programs is that they will have a positive influence on long-term financial performance of the organization (Anderson et al., 1994; Bolton et al., 2000; Dowling and Uncles, 1997; Fredericks et al., 2001; Long and Schiffman, 2000; Luxton, 2002; O'Brien and Jones, 1995; Reinartz and Kumar, 2000; Reinartz and Kumar, 2002). Although financial evaluations of loyalty programs have undoubtedly been undertaken by different businesses, no empirical studies have been published that explore the relationship between player's club programs and financial performance. Through understanding what segments of casino loyalty programs are profitable, it will allow for casinos to focus their limited resources on these segments and aid in the development of de-marketing strategies for unprofitable segments.

Both Bolton et al. (2000) and Long and Schiffman (2000) raised the idea of measuring the performance of loyalty program members. They argued for the importance of determining the affects of different components of loyalty programs (direct mail, rewards, customer service, etc.) on creating value or loyalty

(attitudinal and behavioral) in customers. Evaluating the different components of loyalty programs will create an understanding of whether and how player's club programs build attitudinal and behavioral loyalty in a gaming setting. The following *Integrated Casino Loyalty Model (Figure 3)* was formulated in order to provide a framework with which to address the aforementioned issues and to build our knowledge on the effects of casino player's club programs on the behavior of casino gamers. The components of this model are based on previous work completed on brand loyalty (Bennett and Rundle-Thiele, 2002; Chaudhuri and Holbrook, 2001; Rundle-Thiele and Mackay, 2001), relationship marketing (Bolton et al., 2000; De Wulf, Oderkerken-Shroder, and Iacobucci, 2001), and switching behaviors (Ganesh, Arnold, and Reynolds, 2000). This literature will be further discussed in Chapter 2.

**Figure 3: Integrated Casino Loyalty Model**



In order to address these issues and to achieve the objectives of this study, the major variables of interest are *behavioral loyalty*, *attitudinal loyalty*, and *perceived value*. *Behavior loyalty* was chosen as the outcome variable for this model because the goals of casino loyalty programs are to increase market share and revenues. Although *attitudinal loyalty* and *perceived value* are also important outcome variables as well, if loyalty programs fail to generate revenues or increase market share, very few organizations would continue to utilize these programs as part of their marketing efforts. In addition, through the inclusion of *behavioral loyalty*, *attitudinal loyalty*, and *perceived value* in a single model, it will allow for an exploration of the relationship between these constructs and to further explore antecedents of these constructs.

No empirical work has been completed that attempts to examine the affects that components of a loyalty program have on attitudinal and behavioral loyalty. In order to examine the impact(s) that specific elements of casino players club programs have on creating perceived value and attitudinal and behavioral loyalty, the major components of player's club programs are included in the model. From reviewing casino player's club programs across the United States, the major components that were identified include: *direct mail*, *preferential treatment*, *interpersonal communications*, *rewards*, and *promotions*. Through their inclusion, we can examine to what extent each component has on creating *attitudinal* and *behavioral* loyalty and to identify if any differences exists among segments identified in the player's club program. A direct result of this work will be the ability to utilize this information in identifying development and recruitment

strategies that can be utilized by casino's in improving the performance of their player's club programs.

The creation of attitudinal loyalty within customers is often quite complex and although it has been found that only very few customer exhibit high levels of attitudinal loyalty in traditional retail settings (Chaudhuri and Holbrook, 2001), long time loyal customers within loyalty programs should experience somewhat higher levels of attitudinal loyalty since they have been the focus of a relationship marketing strategy for many years. As persons feel more affiliation towards an organization and their confidence increases that their expectations will be met on a continually basis, this should ultimately lead to higher levels of attitudinal loyalty. Through further examining the impact that *consumer confidence* and *affiliation* have on creating *attitudinal loyalty* (as opposed to *perceived value*), it will allow for the determination of whether player's club programs are effective tools for creating *behavioral loyalty*. In addition, it will also provide an opportunity to further explore how segments within player's club programs differ in terms of their levels of trust and affiliation to their player's club program and how this impacts the creation of behavioral loyalty.

Although the ultimate purpose of these programs is to reward customers and to encourage their continuing relationship with a firm, often these programs have become defensive marketing strategies. For example, casinos are continually developing new promotions, rewards, and direct mail initiatives primarily as part of a competitive effort. They continually add benefits and offer special promotions aimed at loyalty program members in an effort to keep pace with or gain an

advantage over their competitors. Due to the fact that consumers have access to multiple programs and there are low barriers to switching, understanding how choice and competition affects the creation and maintenance of attitudinal and behavioral loyalty within these programs will provide an interesting insight into the potentially mediating role that competition plays on value and loyalty creation.

Dick and Basu (1994) contend that persons who experience higher levels of involvement with products should experience higher levels of loyalty. A common practice of casinos in recruiting new members for their player's club is by restricting access to discounts, special events or promotions to members only. A direct result of these practices is that low involved gamers are being recruited into the program and may represent a significant portion of the program. This is an important element since past studies have shown that for those persons who are not interested in the product category, lack of personal attention and relationship investment will not be as critical to them in their decision to continue purchasing a specific product or service (Solomon et al., 1985). Thus, understanding how level of involvement among casino player's club members moderates the development of behavioral loyalty is important and will aid in the identification of retention and development strategies.

The idea that all consumers want to have a relationship with firms has not been supported in past studies (Bendapudi and Berry, 1997; Christy, Oliver, and Penn, 1996). Furthermore, firms attempting to form relationships with customers who do not want relationships can actually be detrimental to the customer-firm relationship (Dowling and Uncles, 1997). Thus, persons who are more committed



to maintaining a relationship with an organization should experience higher levels of behavioral loyalty since they wish to maintain a relationship with a firm and are more receptive to loyalty based marketing initiatives. Through understanding the level of commitment for different segments within the player's club program, it will allow us to identify if any differences exist and how these differences impact the creation of behavioral loyalty.

As stated earlier, very few studies have been able to integrate both attitudinal and behavioral loyalty. Through our access to purchase history data, it provides an opportunity to further explore how these two constructs are related. Furthermore, it will also allow us to define loyalty program members using data collected from the loyalty program database and self-reported measures, and determine if any differences exist between these two methods. Additionally, it will also allow for the further refinement of measures and antecedents of attitudinal loyalty, behavioral loyalty, and perceived value.

### **Study Purposes and Objectives**

The primary purpose of this study is to determine whether and how various loyalty/players club member segments differ in their attitude and behavior toward a casino as a result of their involvement in a loyalty program. *Loyal Players Club Members* – persons who have been members for four years of the client casino's player's club program and have gamed at a relatively high and consistent rate at the client casino – will be compared to and contrasted with members of the client casinos player's club program and who have displayed high usage levels at the client casino but who have significantly decreased or stopped their visits to the

casino within the previous 12 months. This section segment is defined as *Disloyal Players Club Members*. This process will provide crucial insights for designing a more effective player's club including customer acquisition and retention strategies.

A second purpose of this study is to provide an estimate of the return on investment the casino realized from its player's club program. Hopefully, this will assist in creating a better understanding of the value of these programs and also provide suggestions for enhancing this return.

Studying a specific player's club provides a unique opportunity to empirically examine loyalty rewards programs in a noncontractual setting and in a highly competitive environment - the setting where the majority of these programs are currently being utilized. It will also allow for an in-depth analysis of the return on investments from operating loyalty rewards programs in a gaming environment. Furthermore, it will provide data and tools to a growing industry sector that has received relatively little academic attention.

The following objectives were developed in guide the design and conduct of this study:

1. To determine the revenues of player's club program members based on their lifetime visits during their membership in the program

The purpose of this objective is to determine the directionality and strength of the lifetime visits/ lifetime revenues relationship for player's club members of the client casino. Data (e.g. amount gamed, number of visits) collected on members of the client casino's player's club program from January 1999 to December 2002 will be used to assess and compare the purchase behavior (e.g., volume of gaming) of player's club members.

2. To formulate, profile and assess various segments within the client's player's club program

The purpose here is to identify substantial and exploitable segments within the client casino's players club. Socioeconomic characteristics (age, gender, geographic location) and purchase behavior (frequency of visits, net revenue) of segment members (*High frequency / High revenue, High frequency / Low revenue, Low frequency / High revenue, and Low frequency / Low revenue*) will be analyzed. Additional profiling may identify important marketing relevant sub-segments. For example, long-term loyalty reward program members who have not visited the casino lately or long-term loyalty reward program members whose purchase behavior has decreased significantly over their duration of their membership. Data collected on members of a casino loyalty rewards program from January 1999 to December 2002 will be used along with data collected through the mail surveys to develop these profiles.

3. Compare and contrast player's club segments identified by casino loyalty relevant segmentations bases (e.g. annual gaming budget, amount of total visits taken to primary casino) and determine the effectiveness of each segmentation base in identifying relevant and exploitable market segments

The purpose of this objective is to identify any differences that exist between market segments in order to evaluate the effectiveness of various loyalty relevant segmentation bases. Through the testing of multiple segmentation bases, it will provide more information on various segmentation methods and their use within loyalty program settings. Data collected through surveys sent to 3000 loyalty program members will be used to complete this objective.

4. Develop and test an integrated casino loyalty model to examine attitudes and behaviors of player's club members segments in order to determine the various effects of loyalty program memberships within a gaming setting

The behavioral and attitudinal characteristics of player's club members will be identified to assess possible methods for creating and increasing attitudinal and behavioral loyalty. This will allow for the further development of indicators and measures of both attitudinal and behavioral loyalty. Data collected through surveys sent to 3000 loyalty program members will be tested using a structural equation model.

5. To compare, contrast and profile segments derived using annual casino gaming budgets, proportions of trips to primary casinos, and the amount budgeted per casino trip

The purpose of this objective is to identify segments that exist within a player's club program and evaluate the effectiveness of loyalty programs in serving these segments. Through the identification of these segments, it will allow gaming organizations to identify both high revenue and low revenue segments. Data collected through surveys sent to 3000 loyalty program members will be used to complete this objective. When appropriate, Independent sample t-tests will be utilized to compare these segments.

### **Organization of the Dissertation**

The remainder of the dissertation will be organized in the following manner. Chapter 2 will provide an overview of relevant loyalty and loyalty program literature. Chapter 3 obtains a discussion of the methods used in conducting this study and the sources of data. Chapter 4 will present the results of this study. Chapter 5 will discuss these results and provide suggestions for future studies.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **Introduction**

This chapter examines the literature that provides a conceptual and theoretical framework for this study. It is divided into five sections and provides a review of the major areas of research related to customer loyalty. The first section focuses on customer loyalty and the various techniques that are utilized to study loyalty. The second section will focus on the theoretical foundations that this study has been built on and how it will add to the body of knowledge on customer loyalty. The third section reviews past studies of loyalty rewards programs and how this study builds on them by exploring customer loyalty rewards programs within the gaming industry. In the fourth section the focus is on integrated loyalty research and how its holistic approach to understanding customer loyalty will be used in the formation of the framework for this study. The emphasis of the fifth section is model-specific literature that will be integrated and tested in this study.

#### **Defining Customer Loyalty**

The past decade has seen many firms adopting a customer focus – often through the adoption of formal customer relationship management and/or relationship marketing strategies. Although these initiatives were developed with the hope of attracting new customers, often these programs attracted the ‘wrong’ type of customers (Lovelock and Wright, 2002).

Before understanding loyalty, the focus must first be on the process by which consumers and firms interact. The basis of this process is a transaction – or even a series of transactions. Unfortunately, this process may not represent a relationship unless there is mutual recognition and knowledge between the parties (Lovelock and Wright, 2002). Although this process seems somewhat straightforward, defining what a relationship is and loyalty still remains quite ambiguous.

Jacoby and Chestnut (1978) provide a review of 53 operational definitions of loyalty that have been utilized in past research. Three main types of customer loyalty are defined: (1) loyalty as repurchase behavior, (2) loyalty as a psychological commitment (attitude) towards a product or company and (3) loyalty as both of the above. Previous research focusing on loyalty as repurchase behavior uses the construct of behavioral loyalty. Frequently, behavioral loyalty is defined as the proportion of times a buyer purchases the same product or service in a specific product or service category as compared to that of the total purchases in that category (Neal, 2000). Attitudinal loyalty is often defined as being absolutely dedicated to a brand or product (Neal, 2000). Attitudinal loyalty as an attitudinal commitment has often been measured using the attitudinal loyalty construct. Although these different loyalty constructs have been studied extensively separately, seldom have they been analyzed in a single study. One reason for this is that studies have found that only a very few customers exhibit attitudinal loyalty (Bolton et al., 2000; Neal, 2000).

The inability of firms to create attitudinal loyalty has not gone unnoticed. Neal (2000) stated that the majority of customers exhibit convenience loyalty – or in other words, continue to buy the same brand that they usually buy until it fails to meet their basic needs. Although these persons exhibit high levels of behavioral loyalty, they discontinue the use of the product/service if they either have a bad service experience or have reason and/or incentives to reevaluate alternative products and services. By providing “extra value” to customers, businesses are attempting to provide incentives for customers to maintain their relationship with them even when they experience an occasional service failure. The added value is meant to act as a barrier to switching services. Although the work by Bolton et al. (2000) supports the idea that loyalty program members will discount negative service experiences to a greater degree than non-members, the lack of knowledge about why customers who exhibited high levels of loyalty left or quit using specific product/services is not well understood.

There are four primary service marketing-related customer loyalty paradigms: (1) *Integrated loyalty research*, (2) *Service quality research*, (3) *Customer lifetime value research*, and (4) *Loyalty rewards program research*. Empirical and theoretical research related to each of the four paradigms is summarized in *Table 1*. Selected works from each paradigm are reviewed in subsequent sections.



**Table 1: Selected Literature Completed on Customer Loyalty**

<b>THEORETICAL</b>				
	Satisfaction / Service Quality	Customer Lifetime Value	Integrated Loyalty	Loyalty Programs
	Satisfaction is Not Enough <i>Gale (1997)</i>	Customer Lifetime Valuation to Support Marketing Decision Making <i>Dwyer (1997)</i>	Connecting Customer Loyalty with Financial Results <i>Fredericks et al. (2001)</i>	Do Customer Loyalty Programs Really Work <i>Dowling &amp; Uncles (1997)</i>
	Learning from Customer Defections <i>Reichheld (1996)</i>	E-Loyalty: Your Secret Weapon on the Web <i>Reichheld &amp; Scheffer (2000)</i>	Customer Loyalty: Toward an Integrated Conceptual Framework <i>Dick &amp; Basu (1994)</i>	Behavior Learning Theory: Its Relevance to Marketing and Promotions <i>Rothschild &amp; Gaidis (1981)</i>
	Realize Your Customers' Full Profit Potential <i>Grant &amp; Schlesinger (1995)</i>	A Methodology for Linking Customer Acquisition to Customer Retention <i>Thomas (2001)</i>	Marketing Campaign Systems – The Secret to Life-Long Customer Loyalty <i>Luxton (2001)</i>	Do Rewards Really Create Loyalty? <i>O'Brien and Jones (1995)</i>
	A Generalized Utility Model of Disappointment and Regret Effects on Post-Choice Valuation <i>Inman, Dyer, &amp; Jia (1997)</i>	Customer Lifetime Value Research: A Review and Future Directions <i>Jain &amp; Singh (2002)</i>	Customer Referral Management: Optimal Reward Programs <i>Biyalogorsky et al. (2001)</i>	Do Your Customers Need a Loyalty Scheme? <i>Uncles (1994)</i>
	A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions <i>Boulding, Kalra, &amp; Staelin (1997)</i>	Customer Lifetime Value: Market Models and Applications <i>Berger &amp; Nasr (1998)</i>	Satisfaction is Nice: But Value Drives Loyalty <i>Neal (1999)</i>	Do Loyalty Clubs Really Make Sense? <i>Partch (1998)</i>
	Reflections on Gaining Competitive Advantage through Customer Value <i>Parasuraman (1997)</i>	Customer Profitability Analysis: Measurement, Concentration, and Research Directions <i>Mulhern (1999)</i>		Starwood, United Woo E-Travelers <i>Beime (2000)</i>
	The Impact of Technology on the Quality – Value – Loyalty Chain: A Research Agenda <i>Parasuraman &amp; Grewal (2000)</i>	How to Calculate the Value of a Customer: Measuring Customer Satisfaction <i>Gurau &amp; Ranchhod (2002)</i>		

**Table 1: Selected Literature Completed on Customer Loyalty (cont.)**

<b>THEORETICAL (cont.)</b>				
	Satisfaction / Service Quality	Customer Lifetime Value	Integrated Loyalty	Loyalty Programs
		Manage Marketing by the Customer Equity Test <i>Blattberg &amp; Deighton (1996)</i>		
		Modeling Customer Relationships as Markov Chains. <i>Pfeifer and Carraway (2000)</i>		
<b>EMPIRICAL</b>				
	Understanding the Customer Base of Service Providers: An Examination of the Difference between Switchers and Stayers <i>Ganesh et al. (2000)</i>	On the Profitability of Long-Life Customers in a Non-contractual Setting: An Empirical Investigation and Implications for Marketing <i>Reinartz &amp; Kumar (2000)</i>	Patterns of Buyer Behavior: Regularities, Models and Extensions <i>Uncles, Ehrenberg and Hammond (1995)</i>	How Hilton & Sheraton Increased Their Business with Frequent Buyer Programs <i>Anonymous (1995)</i>
	A Dynamic Model of the Duration of the Customer's Relationship with a Continuous Service Provider: The Role of Satisfaction <i>Bolton (1998)</i>	Customer Base Analysis: An Industrial Purchase Process Application <i>Schmittlein and Peterson (1994)</i>	Consumers say "No Thanks" to Relationships with Brands <i>Anonymous (2001)</i>	Customer Specific Marketing <i>Raphel (1996)</i>
	The Loyalty Effect <i>Reichheld &amp; Teal (1996)</i>		The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty <i>Chaudhuri &amp; Holbrook (2001)</i>	Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value <i>Bolton et al. (2000)</i>
	Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Insurance Industry <i>Crosby &amp; Stephens (1987)</i>		Why it is Customer Loyalty that Counts (and How to Measure it) <i>Gould (1995)</i>	Consumption Values and Relationships: Segmenting the Market for Frequency Programs <i>Long &amp; Schiffman (2000)</i>

**Table 1: Selected Literature Completed on Customer Loyalty (cont.)**

<b>EMPIRICAL (cont.)</b>				
	Satisfaction / Service Quality	Customer Lifetime Value	Integrated Loyalty	Loyalty Programs
	Why Improving Quality Doesn't Improve Quality (or Whatever Happened to Marketing?) <i>Kordupleski, Rust, &amp; Zahoric (1993)</i>		Disloyalty Becomes the Norm <i>Hiscock (2001)</i>	Loyalty Programs and their Impact on Repeat – Purchase Loyalty Patterns <i>Sharp and Sharp (1997)</i>
	Indirect Financial Benefits from Service Quality <i>Danahar and Rust (1996)</i>		Breaking Out <i>Wood (1998)</i>	
	Customer Satisfaction, Market Share, and Profitability: Findings from Sweden <i>Anderson et al. (1994)</i>		The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty <i>(Chaudhiru &amp; Holbrook (2001)</i>	
	Customer Satisfaction, Customer Retention, and Market Share <i>Rust and Zahoric (1993)</i>		Investments in Consumer Relationships: A Cross Country and Cross Industry Exploration <i>De Wulf et al. (2001)</i>	
	Does Service Failure Influence Customer Loyalty <i>Buttle &amp; Burton (2001)</i>		Diagnosing Customer Loyalty Drivers: Partial Least Squares vs. Regression <i>Ryan et al. (1999)</i>	
	Measuring and Managing the Satisfaction-Loyalty-Performance Links at Volvo <i>Gustafsson and Johnson (2002)</i>		Assessing the Performance of Brand Loyalty Measures <i>Rundle-Thiele and Mackay (2001)</i>	
	Customer Satisfaction with Services: Putting Perceived Value into the Equation <i>McDougall and Levesque (2000)</i>		A Comparison of Attitudinal Loyalty Measurement Approaches <i>Bennett and Rundle-Thiele (2002)</i>	

## **Satisfaction / Service Quality Research**

One of the most studied areas of customer loyalty (refer to *Table 1*) involves customer satisfaction and the link between satisfaction and loyalty formation (Bolton, 1998). While satisfaction (and perceived value) has been identified as an important ingredient in gaining competitive advantage and an important indicator of repurchase intentions (Parasuraman, 1997; Parasuraman and Grewal, 2000), very little research has been able to support how satisfaction and service quality lead to increased cost savings and/or increased revenues (Gustafsson and Johnson, 2002). Few studies have been conducted that validate the link between customer satisfaction and increased customer loyalty (Bolton, 1998). Also, the conflicting nature of how these constructs have been operationalized makes it unclear as to how satisfaction and service quality relate to building and retaining customer loyalty.

A number of researchers have suggested that there is a significant difference between satisfaction and loyalty. While satisfaction has been largely operationalized as a passive condition (Fredericks, 2001), loyalty has often been considered to be an active or even proactive relationship with the supplier (Bolton, 1998). Additionally, a number of researchers contend that focusing too much on satisfaction and customer loyalty (or duration of relationship with a service provider) may have actually hampered a more complete understanding of customer retention and lifetime purchases (Gale, 1997; Reichheld, 1996).

The majority of customer service and service quality studies focus on the measurement of purchase intentions as opposed to actual behavior. They must

be viewed with caution since the correlation between satisfaction and intention measures may be a result of measurement scales, time frame, and nature of the respondents (Morwitz and Schmittlein, 1992; Morwitz, 1997).

### **Customer Lifetime Value Research**

Because many companies are taking a more customer-centric approach to marketing as opposed to a product-centric approach, there is a greater need to understand and evaluate their relationships with customers (Jain and Singh, 2002). Customer Lifetime Value (CLV) modeling is one method for studying and measuring the value of these relationships.

Customer Lifetime Value models have been developed for different industries and different sized customer bases. Companies with smaller customer bases can utilize these models to calculate the lifetime value of specific customers in order to determine their value. At the same time, companies with a large customer bases can utilize CLV models in order to segment their customers on the basis of customer lifetime value (Jain and Singh, 2002; Reinartz and Kumar, 2000).

The development of CLV analytical models was stimulated by the recognition that not all loyal customers are profitable, and therefore not all customers should be retained (Blattberg and Thomas, 1997; Blattberg and Thomas, 2000; Jain and Singh, 2002; Reinartz and Kumar, 2000, Reinartz and Kumar, 2002). An example is the *Dynamic Pricing Model* proposed by Blattberg and Thomas (1997) that provides a framework for managers to maximize CLV. In this model, customer acquisition is defined as a customer's first purchase, whereas a retained customer is active in every time interval with no lapse periods. Because

of the model's ability to forecast revenues and costs derived from both current and future customers, it can be used to calculate revenue and costs for different market segments.

While this model shows promise, the computational and data requirements make its use extremely difficult. Furthermore, the model is not appropriate in situations where customers have different purchase frequencies (which often occur in non-contractual settings) and for periods of less than four years (Blattberg and Thomas, 1997). Also, it is quite complicated to calculate probabilities for individual customers when large customer bases are involved (Jain and Singh, 2002).

Customer base analysis involves the development of models to predict whether customers will be active or inactive purchasers, and also to estimate the length of a customer's relationship with a firm. One of the most recognized and frequently cited models is the *Pareto/NBD Model* proposed by Schmittlein, Morrison, and Colombo (1987). Unlike other models, this research has shown promise for the study of noncontractual service settings (Reinartz and Kumar, 2000). However, it relies on a number of assumptions that cannot be met in regards to this study.

The first of these assumptions is that every customer transaction must be recorded (Reinartz and Kumar, 2000; Schmittlein, Morrison, and Colombo, 1987). Although a proportion of customers may utilize their player's club card all of the time or frequently, there may be times when the cards are not used, and, as a result, some transactions may go unrecorded. A second assumption is that

the date of the first transaction with the firm is known (Reinartz and Kumar, 2000). In the case of casinos, data is only recorded on loyalty rewards program members after they join the program. Previous gaming at the casino is not tracked, which may pose a problem since one cannot distinguish first-time customers and those customers who have visited previously but are only joining the program after they have been customers of the casino for a period of time. Finally, the model requires a minimum of 3 years of information on the revenues and costs for each customer (Reinartz and Kumar, 2000; Schmittlein, Morrison, and Colombo, 1987). Unfortunately, the client casino only tracks player's club members and not the expenses associated with servicing and marketing to members.

The majority of CLV models suffer from the same weaknesses. The first weakness is that all models assume that the revenues for each person are constant, thus failing to take into account any increases or decreases that are common in non-contractual settings (Jain and Singh, 2002; Reinartz and Kumar, 2000). The second weakness is that only time periods of equal length can be utilized. Since both revenues and time between purchases tend not to be constant outside of a contractual setting (banking, cellular phone agreements), their use in non-contractual service settings challenges the applicability of their use in regards to this study (Reinartz and Kumar, 2000). In addition, the effect of loyalty reward program membership on these models is unknown and requires further exploration (Jain and Singh, 2000; Reinartz and Kumar, 2000). Although these models may not be applicable to this study, they should be helpful in

evaluating the cost-benefit ratio of the loyalty program and further understanding the lifetime purchase behavior of loyalty program members.

### **Loyalty Program Research**

Although these programs were initiated in the airline industry over 20 years ago, the benefits derived through the operation of these programs in terms of building customer loyalty have yet to be answered. The number of studies of loyalty programs is small compared to other types of customer loyalty studies (*Table 1*). While there is a balance between theoretical and empirical studies on loyalty programs, the majority of the empirical work has focused on credit card programs and airline frequent flyer programs.

As is the case with all loyalty based marketing strategies, the theory of reciprocity plays a key role in understanding their use and customer subsequent behavior. This theory postulates that people will feel obligated to exchange objects (i.e. money, products, and services) of similar value to that of which they received from the other transaction partner (De Wulf, et al., 2001). Both parties will feel need to maintain the relationship in order to reduce the level of guilt between the partners and/or to maintain the relationship (Bagozzi, 1995). Loyalty programs attempt to provide value to the consumer by rewarding them for their continued usage of a service provider and customers will subsequently reward service providers through continued usage of their products/services. In addition, these programs also provide a method of organizations of introducing switching costs in a less evasive manner.



*Table 2* lists past theoretical and empirical work related to loyalty programs. Upon reviewing the theoretical work completed on loyalty programs, the titles of the studies suggest a direction of research that questions the value of loyalty programs. For example, Dowling and Uncles (1997) paper is titled "*Do Customer Loyalty Programs Really Work*". O'Brien and Jones (1995) paper is titled "*Do Rewards Really Create Loyalty*". Partch (1998) paper is titled "*Do Loyalty Clubs Really Make Sense*". The titles of these articles provide some sense about the direction of this area of research.

**Table 2: Summary of Research Completed on Loyalty Programs**

<b>THEORETICAL</b>				
<b>Title / Author</b>	<b>Year</b>	<b>Industry</b>	<b>Results</b>	<b>Limitations / Future Research</b>
Behavior Learning Theory: Its Relevance to Marketing and Promotions  <i>Rothchild &amp; Gaidis</i>	1981	<ul style="list-style-type: none"> <li>• Consumer Packaged Goods</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate long-term behavior only occurs when the reinforcer meets some need</li> </ul>	<ul style="list-style-type: none"> <li>• Need for empirical validation</li> <li>• The marketing environment is not controlled, such that not all behavioral notions can be transferred.</li> <li>• Determining the balance between organizational goals and the consumer.</li> <li>• Identify the role of promotions</li> </ul>
Do Rewards Really Create Loyalty?  <i>O'Brien and Jones</i>	1995	<ul style="list-style-type: none"> <li>• Credit Cards</li> <li>• Telephone Companies</li> <li>• Airlines</li> </ul>	<ul style="list-style-type: none"> <li>• For the most profitable customers, higher rewards offered.</li> <li>• Firms should utilize partnerships in order to establish sustainable loyalty</li> </ul>	<ul style="list-style-type: none"> <li>• Need for empirical validation</li> <li>• Study of Tier system based on customer value.</li> </ul>
Do Your Customers Need a Loyalty Scheme?  <i>Uncles</i>	1995	<ul style="list-style-type: none"> <li>• Credit Cards</li> <li>• Airlines</li> </ul>	<ul style="list-style-type: none"> <li>• Programs need to be based on goals of organization</li> </ul>	<ul style="list-style-type: none"> <li>• Need for development of strategic orientation of loyalty programs</li> </ul>
Do Customer Loyalty Programs Really Work  <i>Dowling and Uncles</i>	1997	<ul style="list-style-type: none"> <li>• Credit Cards</li> <li>• Airlines</li> </ul>	<ul style="list-style-type: none"> <li>• Best reward programs are based on tiers</li> <li>• Design programs to take into account profitability differences between customers</li> </ul>	<ul style="list-style-type: none"> <li>• Need for a focus on the return on investment from programs</li> <li>• Empirically validate return on investment from different types of loyal customers</li> </ul>
Do Loyalty Clubs Really Make Sense?  <i>Partch</i>	1998	<ul style="list-style-type: none"> <li>• Supermarkets</li> </ul>	<ul style="list-style-type: none"> <li>• Loyalty programs often backfire if promotions are not supported</li> </ul>	<ul style="list-style-type: none"> <li>• Need to determine impact of members only promotions on non-members</li> </ul>

**Table 2: Summary of Research Completed on Loyalty Programs (cont.)**

<b>EMPIRICAL</b>				
<b>Title / Author</b>	<b>Year</b>	<b>Industry</b>	<b>Results</b>	<b>Limitations / Future Research</b>
How Hilton & Sheraton Increased Their Business with Frequent Buyer Programs  <i>Anonymous</i>	1995	<ul style="list-style-type: none"> <li>Hotels</li> </ul>	<ul style="list-style-type: none"> <li>Focus Loyalty Rewards on Top 15% of Program</li> <li>Effective programs will use Tier Systems</li> </ul>	<ul style="list-style-type: none"> <li>Need to determine why majority of members who responded from promotions came from only two countries</li> </ul>
Customer Specific Marketing  <i>Raphel</i>	1996	<ul style="list-style-type: none"> <li>Supermarkets</li> </ul>	<ul style="list-style-type: none"> <li>Focus on Top 20% of Program</li> <li>Spend less money on advertising and more on promotions directed at top tiers</li> </ul>	<ul style="list-style-type: none"> <li>Use of focus groups to determine other elements of program</li> </ul>
Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value  <i>Bolton et al.</i>	2000	<ul style="list-style-type: none"> <li>Credit Card</li> </ul>	<ul style="list-style-type: none"> <li>Members of a loyalty program will discount negative evaluations</li> </ul>	<ul style="list-style-type: none"> <li>Need to understand what features of a loyalty reward program modify members behavior</li> <li>Need to study the financial costs versus revenues</li> </ul>
Consumption Values and Relationships: Segmenting the Market for Frequency Programs  <i>Long &amp; Schiffman</i>	2000	<ul style="list-style-type: none"> <li>Airlines</li> </ul>	<ul style="list-style-type: none"> <li>Specific communication strategies must be utilized to target different segments within the club</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of Lifetime Value of loyalty program members is required.</li> <li>Identify promotions that will modify behavior of members</li> </ul>

The work completed by Dowling and Uncles (1997) acted as a catalyst for re-examining the profitability of loyal customers and loyalty rewards programs (Fredericks et al., 2001; Reinartz and Kumar, 2000). According to Dowling and Uncles (1997), the underlying assumptions that loyalty programs are built on include: (1) Many customers want an involving relationships with the brand they buy, (2) A proportion of buyers only purchase one brand, (3) Loyal customers are a profitable group since they represent a large part of the market and are heavy or frequent buyers, (4) Firms have the ability to reinforce customer's loyalty levels, and (5) With database technologies, marketers can establish personalized dialogue with customers. Although these are the underpinnings for many loyalty programs, with the exception of Reichheld and Teal (1996), little research has been completed to show that any of these assumptions hold true.

### **Customers Want Relationships with Companies**

Very little research has verified that consumers want a relationship with the brand they purchase, especially for lower involvement items (Dowling and Uncles, 1997). Although a primary intent of loyalty reward programs is to build relationships with customers by requiring that they belong to loyalty programs in order to be eligible for certain promotions and perks, often customers who do not want an on-going relationship are members. This incongruence could potentially be damaging and may lead to the consumer terminating his/her relationship with the firm (Dowling and Uncles, 1997).

Very little research has estimated to what extent (if any) loyalty programs actually aid in the formation of attitudinal and behavioral loyalty (Bolton et al.,

2000). By not understanding the loyalty creation process involved through the use of player's club programs by casinos, they lack the information needed to modify their respective programs and improve their marketing practices and strategies. Due to the fact that the majority of these programs were implemented in response to competitive offerings, as opposed to being part of an overall marketing strategy, evaluating these programs will allow firms to determine the value of operating these programs as opposed to alternative marketing approaches (i.e. price cuts, increased advertising, improving facilities, etc.) (Dowling and Uncles, 1997).

### **Loyal Customers are Profitable**

Only two empirical studies have been conducted that test the assumption that loyal customers are profitable. Their findings suggest only a weak support for this assumed relationship (Reichheld and Teal, 1996; Reinartz and Kumar, 2000). No published empirical research has examined the return on investment derived from loyalty programs. Although one must assume that applied research has been completed by businesses that have loyalty programs, the results of these studies are not available publicly.

There is also a question concerning the assumption that loyal customers are profitable because they are a large part of the market and are heavy/frequent buyers. The work completed by Long and Schiffman (2000) shows that the majority of loyalty rewards program members belong to multiple clubs. In highly competitive environments where firms have similar offerings and switching costs are low, one can assume that customers will belong to multiple clubs and/or have

limited loyalty to any particular business even though they are loyalty club members (Bolton et al., 2000; Dowling and Uncles, 1997).

### **Identification of Loyal Segments**

According to Fredericks et al. (2001) and Reinartz and Kumar (2002) , firms need to understand revenue and costs performance based on different segments in order to develop initiatives that will better serve each targeted segment in a cost-effective manner. In addition, they should also identify and stop servicing unprofitable segments (Raphel, 1996). Although these unprofitable segments can potentially be transformed into profitable customers, it is important to understand the required investment and time required to accomplish the transformation (O'Brien and Jones, 1995; Partch, 1995). Through the identification of these strategies and related costs, managers will be able to develop strategies based on data as apposed to anecdotal information or shotgun marketing approaches. As shown in *Figure 4*, only two of the four segments that Reinartz and Kumar (2002) identified are profitable segments and should be the focus of any marketing effort.

**Figure 4: Loyalty Segments Identified in Analysis of a Mail-Order Catalog Company**

<b>HIGH PROFITABILITY</b>	<b>BUTTERFLIES</b> <ul style="list-style-type: none"> <li>• Good fit between company's offerings and customer's needs</li> <li>• High profit potential</li> </ul>	<b>TRUE FRIENDS</b> <ul style="list-style-type: none"> <li>• Good fit between company's offerings and customer's needs</li> <li>• Highest profit potential</li> </ul>
	<b>STRANGERS</b> <ul style="list-style-type: none"> <li>• Little fit between company's offerings and customers needs</li> <li>• Lowest profit potential</li> </ul>	<b>BARNACLES</b> <ul style="list-style-type: none"> <li>• Limited fit between company's offerings and customers needs</li> <li>• Low profit potential</li> </ul>
<b>SHORT TERM CUSTOMERS</b>		<b>LONG TERM CUSTOMERS</b>

Source: (Reinartz and Kumar, 2002)

### **Integrated Loyalty Research**

The literature reviewed in this section provides a better understanding of methods by which 'loyal' and 'disloyal' customers have been defined in previous studies. The focus of four works will provide the basis for the development of this study's *Integrated Casino Loyalty Model*. The three studies include: Bennett and Rundle-Thiele (2001), Chaudhuri and Holbrook (2001), and De Wulf, Odekerken-Shroder, and Iacobucci (2001).

The Chaudhuri and Holbrook (2001) study focused on the relationship between the concepts of brand loyalty (both purchase loyalty and attitudinal loyalty) and firm level outcomes (market share and relative price). More specifically, the focus is on the chain of effects that brand trust and brand equity have on brand performance. Examining this chain of effects allows for a detailed analysis of how brand trust (ability of an organization to continually meet its obligations) and brand affect (brand's potential to elicit a positive emotional response) affects brand performance (market share and relative price). By testing a path model, they found a positive correlation between both brand trust and brand equity on brand performance. They also determined that brand trust and brand equity are two distinct constructs and that they are indicators for both attitudinal and brand loyalty. Furthermore, Chaudhuri and Holbrook (2001) also found that purchase and attitudinal loyalty were positively related to market share and relative price. Although the results of this study show the importance of trust and affect when studying loyalty, the testing of this model in a service setting may show divergent results that require further exploration (Chaudhuri and Holbrook, 2001).

Rundle-Thiele and MacKay (2001) examined the role of attitudinal loyalty by testing two distinct measures of attitudinal loyalty and determining whether they were two distinct constructs or measured the same phenomenon. The two measures tested were an individual's propensity to be brand loyal, and attitude towards the acts of purchasing a specific brand. Through testing these measures, marketing researchers will be able to utilize this information in order to



more accurately measure attitudinal loyalty within business service settings. Due to the inconsistency in measuring attitudinal loyalty in previous studies, this work provides a strong test for attitudinal measures and for their use in studying behavioral and brand loyalty. They found no significant relationship between the two measures and concluded that they are distinct constructs. Although not directly tested, their research supports the fact that multiple measures and indicators must be utilized when studying attitudinal and behavioral loyalty.

De Wulf, Oderkerken-Shroder, and Lacobucci (2001) investigated the role of perceived relationship investment and its role in developing behavioral loyalty in a relationship marketing setting. They proposed that as persons perceive higher levels of investment in customers on the part of businesses, consumers will exhibit higher levels of behavioral loyalty. As part of their study, they tested the impact of direct mail, preferential treatment, interpersonal communications, and tangible rewards on relationship quality. They found that interpersonal communications had the strongest effect on perceived relationship investment across all three countries, while the other elements had mixed results. Furthermore, they also found a positive relationship between perceived relationship investment and behavioral loyalty. Although the setting for this study was in retail environments, the elements included in this study are similar to those within a gaming environment. The phenomenon of reciprocity has been found to be present in a number of consumer-business relationships, but according to Bagozzi (1995), further research is needed to determine its role and function in every day consumer exchanges.

## **Definitions and Determinants of Loyalty**

The measures and indicators that are utilized in this study were predominantly formulated and tested in research focusing on brand loyalty.

For the purpose of this study, behavioral loyalty is defined as the probability that the person intends to maintain a continuing relationship with their primary casino. The indicators used to measure behavior loyalty include: "I will visit the casino on my next visit" and "I intend to remain a customer of the casino." This definition and similar indicators have been utilized in previous studies of behavioral loyalty in multiple settings (Chadhuri and Holbrook, 2001; Cunningham, 1957; Jacoby and Chestnut, 1978). Although elements of player's club programs are aimed at developing attitudinal loyalty as well, the goal of loyalty programs is the creation of behavioral loyalty. In addition, the three studies primarily used in developing the framework of this study identified behavioral loyalty as a major variable of interest in their studies (Bennett and Rundle-Thiele, 2001; Chaudhuri and Holbrook, 2001; De Wulf, Odekerken-Shroder and Iacobucci, 2001).

Past measures of attitudinal loyalty have focused on stated preferences and purchase intentions and operationalized attitudinal loyalty by using both personality trait and brand specific measures (Mellens et al., 1996). Studies by Chaudhuri and Holbrook (2001) and Bennett and Rundle-Thiele (2002) have found divergent results with the use of these measures, but both studies recommend the need to further study the relationship between behavioral and attitudinal loyalty and their antecedents. In this study, attitudinal loyalty is defined

using the following three measures: “I am committed to this casino,” “I would be willing to still visit this casino if it was more difficult to reach,” and “I tell others about the benefits of joining the players club.” These measures have been utilized in previous brand loyalty studies with success (Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994). These measures are modified for use in a gaming setting.

The creation of attitudinal loyalty within customers is often quite complex and, although it has been found that only very few customer exhibit high levels of attitudinal loyalty in traditional retail settings (Chaudhuri and Holbrook, 2001), long time loyal customers within loyalty programs should experience somewhat higher levels of attitudinal loyalty since they have been the focus of a relationship marketing strategy for many years (Bolton et al., 2000). Also, because loyalty programs are designed to build relationships with customers, past studies of attitudinal loyalty in similar settings have identified trust and affect as antecedents to attitudinal loyalty with some success (Chaudhuri and Holbrook, 2001).

According to Doney and Cannon (1997), trust is based on the belief that an organization can continue to meet the expectations and obligations of consumers. Due to the fact that persons within the gaming environment are not actually purchasing a product or service but rather opportunities to realize a high return on investment, the concept of trust is important to player’s club members. If player’s club members do not have confidence that the casino will provide a safe and fair gaming environment, no loyalty program, regardless of the perks

and incentives, will create attitudinal and behavioral loyalty. As the level of consumer confidence increases, this should be positively related to higher levels of attitudinal loyalty of player's club members. Trust is operationalized as consumer confidence and measured using the following indicators: "I trust this casino," "I believe that this casino is honest in its dealings with me," and "I rely on this casino for my gaming." These measures are based on previous market studies (Chaudhuri and Holbrook, 2001; Doney and Cannon, 1997).

Past studies have shown that brand affect and consumer attachment are predictors of attitudinal loyalty (Bennett and Rundle-Thiele, 2001; Chaudhuri and Holbrook, 2001). For the purpose of this model, brand affect and consumer attachment are modeled as affiliation. The indicators utilized to measure affiliation include: "I feel good when I visit this casino," "Being a member of this players club makes me want to visit this casino more often," and "Visiting this casino gives me pleasure." These measures are based on those utilized by Chaudhuri and Holbrook (2001) and modified for use in a gaming environment. In other words, as the pleasure of utilizing the services of an organization increase, the level of attitudinal loyalty experienced by player's club members should ultimately increase.

### **Player's Club Program Components**

In order to understand the impact of the specific elements of loyalty programs on creating both attitudinal and behavioral loyalty, these elements must be included in the model. The idea of value creation has received significant attention and value creation strategies have been perceived to have the greatest

potential for increasing customer loyalty (Reichheld and Teal 1996). While there are various methods for measuring perceived value, value has often been measured using three elements – price, tangible deliverables, and intangible attributes (Neal, 1999). Price is not a significant issue given the nature of the gaming product; the other two components form the backbone of loyalty programs. Measurements of relative value for a product or service will provide a good indicator of which service provider a customer would choose among a set of competing providers (Neal, 1999). Integrating relative value into the casino loyalty model being developed and tested in this study will provide a test of the value construct and its relationship on creating attitudinal and behavioral loyalty. The sum of the components of players club programs will be used as indicators for perceived value and perceived value will be modeled as a latent factor.

A review of promotional literature regarding various casino loyalty programs across the United States reveals that the major components of these programs include direct mail, preferential treatment, interpersonal communications, rewards, and promotions. Specific measures for these components were not available from the literature since this is the first empirical study to measure specific components of loyalty programs within a gaming environment. However, the work by De Wulf et al. (2001) provided guidance for the formation of these measures. Due to the fact that four of the five components included in this study were utilized in their study, building on their constructs seems appropriate due to the lack of available measures in the literature.

Due to the fact that direct mail costs represent a significant portion of casino marketing budgets and are the dominant method utilized by casinos for communicating with its player's club members, its inclusion is essential to fully understanding the impact of loyalty programs on creating attitudinal and behavioral loyalty. Therefore, one element of the model is a measurement of player's club members' (both *Loyal Player's Club* members and *Disloyal Player's Club* members) perceptions of the extent that the client casinos and other casinos keep them informed about the loyalty program, special events and promotions through direct mail.

A number of previous studies provided guidance on ways to assess perceptions of direct mail communications with customers (Anderson and Narus, 1990; De Wulf et al., 2001; Dwyer, Schurr, and Oh, 1987; Morgan and Hunt, 1994). The indicators that will measure player's club member awareness and perceptions of direct mail communication include: "I receive mailings about the loyalty program on regular basis," "I receive information about promotions through these mailings," and "I receive information about special events through these mailings." These indicators are similar to those utilized by De Wulf et al. (2001) and were modified for use in this study.

The majority of casino loyalty programs are now utilizing tier or segmented loyalty programs and top tier members receive preferential or special service. Although the study by De Wulf et al. (2002) found that preferential treatment had little effect on creating perceived value or attitudinal loyalty, this may have been due to the setting of their study. In a retail environment, preferential treatment is

often not experienced by individuals due to the longer time between purchases (De Wulf et al., 2001). Due to the fact that preferential treatment is a component of casino loyalty programs, one would presume that it would have a greater affect within the setting of this study. The indicators that will measure player's club members' perceptions of preferential treatment are "I receive special treatment because I am a member of the player's club" and "Casino staff offer me more personal service because I am a member of the players club."

Interpersonal communications is an important component of not only casino loyalty programs, but any relationship marketing strategy (Wood, 1998). Interestingly, in the study by De Wulf et al. (2001), they found that interpersonal communications had the greatest effect on predicting perceived relationship investment. Interpersonal communication refers to the frequency of personal exchanges that casino staff have with player's club members as opposed to non-player's club members, while preferential treatment emphasizes that players club members will receive a higher level of service as opposed to non-players club members (De Wulf et al., 2001). The indicators used to measure interpersonal communications are "Casino staff take the time to personally get to know me because I am a member of the players club" and "Casino staff offer me more personalized service because I am a member of the players club."

The use of promotions and discounts as part of casino marketing strategies is almost as old as casinos themselves. Recently, in order to gain access to special events or to participate in these promotions, casinos have restricted these offerings to only persons that are members of their respective player's club

program. As indicated by Dowling and Uncles (1997), this may result in customers defecting or decreasing their rate of visitation. In addition, the rampant use of promotions may actually create a bargain prone market that will base their product or service purchase decisions on the availability of promotions.

To test the importance of these promotions and events, the casino loyalty program model in this study includes measures of player's club members' perceptions of casino efforts to offer special events, promotions, and discounts available to player's club members. Building on the work of De Wulf et al. (2001), promotions and discounts are measured by using the following indicators: "I often receive discounts because I am a player's club member," "I often get invited to special events because I am a member of the player's club," and "I often participate in promotions that are only available to player's club members."

A consistent practice is the use of points or comp balances as a method for tracking players gambling usage and as a method for allowing player's club members to utilize these points to obtain rewards. These rewards can include show tickets, airline tickets, access to tournaments, clothing, and or cash back (transferring points back into cash). Although not tested within the framework of their study, De Wulf et al. (2001) suggests that rewards be included in future studies and that it may represent a significant tangible element of any relationship marketing strategy.

Although no indicators for rewards were found in the literature, building on the work De Wulf et al. (2001) and Woods (1998), rewards are defined as a tangible benefit that a casino provides to player's club members as part of the overall



player's club program. The indicators used to measure rewards include: "I often receive rewards/gifts because I am a member of the players club," "As my level of gaming increases, the more gifts/rewards that I receive from the casino," "I have used my points/comp balance to purchase gifts, tickets, or cash back," and "I often receive comps (free food, drinks) during my visits because I am a member of the players club."

### **Mediating and Moderating Variables**

The hypothesized casino loyalty model includes one mediating variable and two moderating variables. The mediating variable is competitive factors. Because of the competitive nature of casino loyalty programs, and the fact that past studies have shown that members of loyalty programs belong to multiple programs (Long and Schiffman, 2000), the current study includes a comparison of the perceived values of membership in a casino loyalty program compared to their perception of the value of programs offered by other casino loyalty programs. Interestingly, previous studies have failed to include competitive factors as a component of their models but have recommended that they be included in future studies (Bennett and Rundle-Thiele, 2001; Chaudhuri and Holbrook, 2001; De Wulf, Odekerken-Shroder and Iacobucci, 2001). The indicators that will measure competitive factors include: "Compared to other casinos, I receive good value for my money," "I feel that I receive more value for my money by being a member of the player's club," "Compared to other player's clubs, this program offers me more value for my money," and "I would remain a customer of this casino even if they stopped offering the player's club."

Involvement is one of the moderating variables. In theory, persons who experience higher levels of involvement with products and related businesses should experience higher levels of loyalty (Dick and Basu, 1994). Past studies have utilized product involvement as a distinct construct (De Wulf et al., 2001) or suggested that it be used in future studies (Chaudhuri and Holbrook, 2001). In this study, involvement is defined as the consumer's perceptions of the importance of the product category based on the consumer's needs, values, and interests. This method is identical to that utilized by De Wulf et al. (2001) and proposed by Mittal (1995). In other words, for those persons who are not interested in the product category, lack of personal attention and perceived relationship investment will not be as critical to them in their decision to continue purchasing a specific product or service (Solomon et al., 1985). In the study completed by De Wulf et al. (2001), they found that persons who exhibited lower levels of product involvement are less influenced by a retailer's investment in the relationship. This would suggest that less serious gamers are not as much influenced by components of the loyalty program compared to more active and serious gamblers. The indicators used to measure involvement are: "I am someone who finds it important about where I gamble," "I am someone who is interested in learning about gambling and different gambling opportunities," and "I am someone for whom it means a lot to gamble." These indicators were based on those proposed by De Wulf et al. (2001) and modified for use in a gaming environment.

The other moderating variable is relationship commitment. The idea that actions taken by one party will be reciprocated in kind by another party has been found to be a key variable in channel relationships and should also be present in consumer-firm relationships (Bagozzi, 1995). Unfortunately, the belief that all consumers want to have a relationship with firms has not been supported in past studies (Bendapudi and Berry, 1997; Christy, Oliver, and Penn, 1996). Again in theory, persons who are more committed to maintaining a relationship with a business, in this case a casino, should experience higher levels of behavioral loyalty since they wish to have a relationship with the business and are more receptive to loyalty based marketing initiatives and loyalty club incentives. Relationship commitment was measured using the following indicators: "I am someone who likes to be a regular customer of a casino," "I am someone who likes building relationships with companies," and "I am willing to go the extra mile to remain a customer of this casino." These indicators are based on the work of De Wulf et al. (2001).

### **Summary of Review of Literature**

Although a significant amount of research has been completed on customer loyalty, many gaps exist and important questions remained unanswered. One of the largest gaps is how loyalty is defined and measured. This proposed *Integrated Casino Loyalty Model* will explore how attitudinal and behavioral loyalty is created in a service setting. Furthermore, it will also present a strong test for the effectiveness of loyalty reward programs and their ability to create attitudinal and behavioral loyalty.

A second essentially unanswered question is whether loyal customers and/or loyalty programs lead to increased profits by firms. Although it is widely assumed that loyal customers are more profitable customers and increased loyalty leads to greater profit, very little research has been shown to support this assumption.

This study will aid in developing metrics that will allow for an evaluation of loyalty programs in a situation where these programs are predominantly organized, and fill a significant gap in the research on loyalty, relationship marketing, and loyalty program research (Anderson et al., 1994; Bolton et al., 2000; Dowling and Uncles, 1997; Fredericks et al., 2001; Jain and Singh, 2002; Long and Schiffman, 2000; Luxton, 2002; O'Brien and Jones, 1995; Reinartz and Kumar, 2000; Reinartz and Kumar 2002).

## **CHAPTER 3**

### **METHODS**

#### **Introduction to Methods**

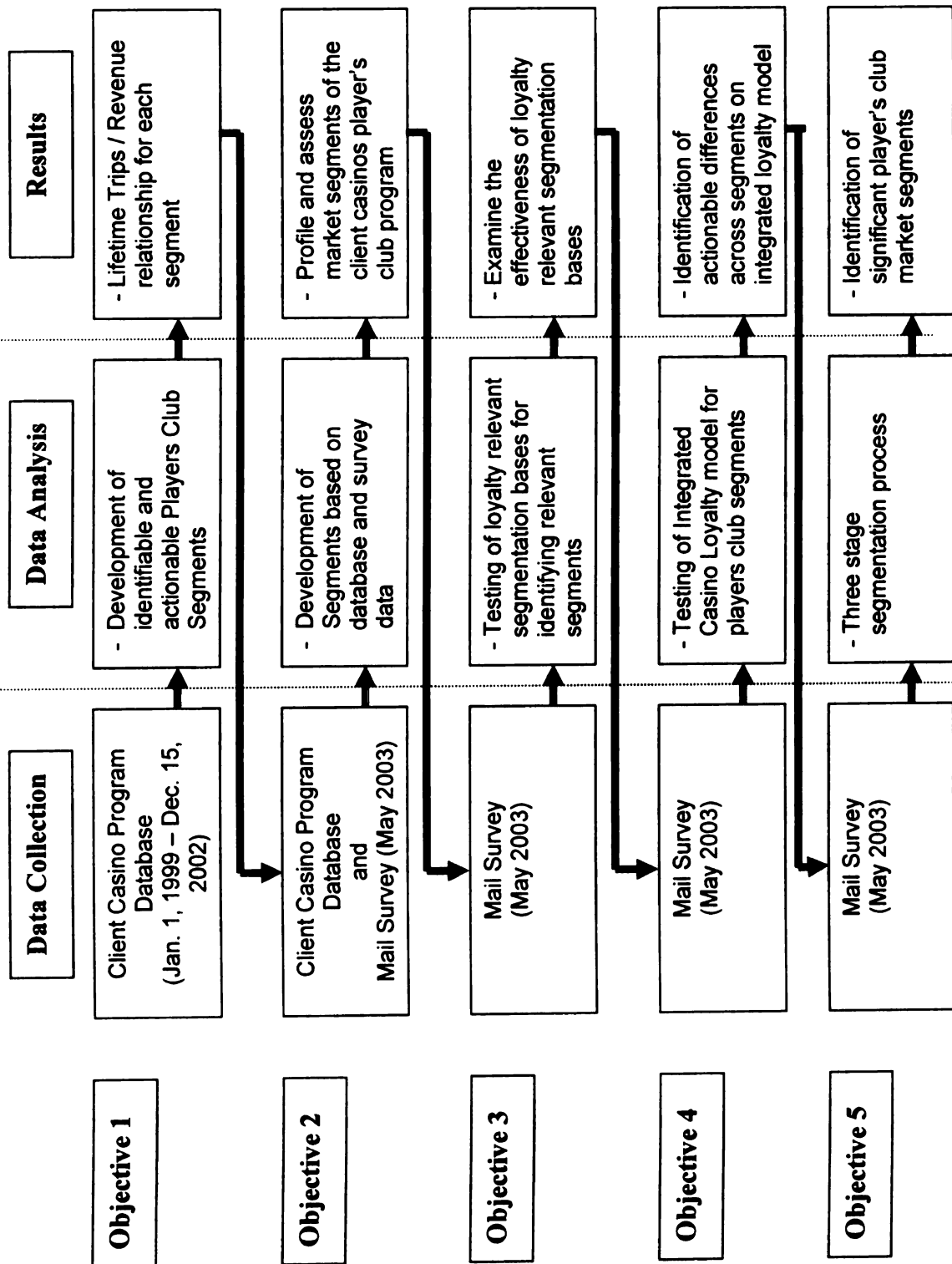
This chapter provides an overview of the data collection methods and analyses that were utilized in the completion of this study.

In terms of structure, the focus of the first section will discuss the study population and data that will be collected as part of this study. The framework of this study is depicted in *Figure 5*. The second section will discuss the analysis of the data included in the player's club database. The third section will focus on the mail survey instrument and the sampling procedures utilized to complete the mail survey. The fourth section will focus on how the mail survey data was prepared and analyzed. The final section will discuss structural equation modeling and the process by which the *Integrated Casino Loyalty Model* will be tested.

#### **Study Population and Study Data**

The study population for this study consists of members of a player's club of a large native casino in the Midwest United States. This player's club program was initiated in May 1998, but only data collected on members from January 1, 1999 to December 15, 2002 was utilized for the purpose of this study. To ensure anonymity of the client casino, the casino from which the data was drawn from will be referred to as the client casino. All members of the player's club for the client casino except for those players who were banned (the majority of these bans being self-imposed) were included in various study analyses.

**Figure 5: Study Framework**



## **Client Casino's Player's Club Database**

When casino patrons join the client casinos player's club program, a record is established for them in the casino's computer tracking system. At the time they join, they are required to provide a driver's license (or other acceptable ID) in order to ensure that they are over 21 years of age. They are also asked to provide some additional socioeconomic information. Members are then provided Point of Sales (POS) cards that they place into readers on slot machines or provide to dealers at table games in order to earn points and rewards. Obviously, this information is also used to monitor their gaming amounts and patterns over time and to focus promotions at certain types of gamers (e.g. slot tournaments, table game tournaments).

Data is collected on player's club members only on those occasions where they have inserted their card in the reader. If members fail to place their player's club cards into the reader or provide it to the dealer, no data will be collected for that transaction. Clearly not all players, including persons who are player's club members, utilize their cards all the time. In terms of the client casino, some of the largest gamers do not use the cards at all.

This study makes use of socioeconomic information on members and data on their gaming behavior at the casino including variables related to "how much" and "how frequently" they game at the casino. The player's club information that is utilized in various aspects of this study is described in *Table 3*.

**Table 3: Data Collected by the Client Casino's Players Club Tracking System**

<b>SOCIOECONOMIC CHARACTERISTICS</b> <ul style="list-style-type: none"> <li>• Name <sup>1</sup></li> <li>• Birth Date <sup>1</sup></li> <li>• Address (Street, City, State, Zip) <sup>1</sup></li> <li>• Gender <sup>1</sup></li> <li>• Marital Status <sup>2</sup></li> <li>• Wedding Anniversary Date (If Applicable) <sup>2</sup></li> <li>• Number of Children <sup>2</sup></li> <li>• Distance to Casino (Point to Point) <sup>3</sup></li> </ul>
<b>PURCHASE BEHAVIOR</b> <ul style="list-style-type: none"> <li>• Number of action days <sup>4</sup></li> <li>• Total theoretical win per action day <sup>5</sup></li> <li>• Number of minutes played <sup>6</sup></li> <li>• Total number of action days per month</li> <li>• Total theoretical win per month</li> <li>• Number of minutes played per month</li> <li>• Total number of action days per year</li> <li>• Total theoretical win per year</li> </ul>

1 – This information is mandatory and obtained at time of registration

2 – This information is not mandatory

3 – This information is calculated by Casino Marketplace and is calculated from the Zip Code provided at time of registration

4 – Action day is defined as all gambling activity in a 24 hour period

5 – Theoretical win is amount gambled x floor average (0.069) x time

6 – This is the amount of time that a player's club member has his/her card inserted into the machine over the course of an action day

All data collected on player's club members for the client casino is stored in multiple SQL databases using *Casino Marketplace* management software. There are two major suppliers of casino player's club management systems (*Casino Marketplace and Akers*). In terms of use and data storage, both systems are almost identical. The only difference between the two systems is their user interfaces.



Information is collected on player's club members commencing on the date they join. Obviously, no information is available on their gaming at the client casino prior to their membership in the club. As a result, there was no information on how long members have gamed at the client casino previous to joining. Only information on their gaming from the client casino was available, even though (as the survey indicates) the vast majorities visit multiple casinos and are members of multiple player's club programs.

At the time the study commenced there were 196,087 player's club members for the client casino. The growth of the client casinos player's club since its implementation in May 1998 is depicted in *Table 4*. One of the recruitment strategies of the client casino and other casinos is to make membership within the player's club mandatory in order to receive/participate in promotions or discounts, including promotions offered to bus tours. Because many of these bus tour gamers are not nearby residents and therefore often do not become regular visitors to the casino, over half of the members of the client casinos player's club had less than three action days. An action day is defined as all gambling activity in a 24-hour period at the client casino. Although persons who are inactive for a period of at least eighteen months are removed from the player's club, the data for these individuals is maintained within the client casinos player's club tracking database for research purposes.

**Table 4: Membership History for the Players Club for the Client Casino**

Time Period (As of)	Members Added	Total Members in the Client Casinos Player's Club Program	% Change from previous time period
January 1, 1999	25,789	25,789	-
July,1 1999	21,732	47,521	84 %
January 1, 2000	12,029	59,550	25%
July 1, 2000	10,858	70,408	18%
January 1, 2001	18,607	89,015	26%
July 1, 2001	32,331	121,346	36%
January 1, 2002	27,870	149,216	23%
July 1, 2002	21,407	170,623	14%
December 15, 2002	25,464	196,087	15%

Following an approach similar to that used by Reichheld and Teal (1996) and Reinartz and Kumar (2000), player's club members were first segmented into four groups based on their lifetime action days and lifetime revenues. A median split method of segmenting was utilized because this method has been found to be a better descriptor of the lifetime distribution as opposed to mean splits (Bearden, Rose and Teal, 1994; Collett, 1994; Schmittlein, Cooper, and Morrison, 1994). The four segments are shown in *Figure 6*.

**Figure 6: Loyalty Program Segments Based on Lifetime Action Days and Lifetime Revenues at the Client Casino**

LIFETIME ACTION DAYS	High	High Frequency / Low Revenue	High Frequency / High Revenue
	Low	Low Frequency / Low Revenue	Low Frequency / High Revenue
		Low	High
		LIFETIME REVENUES	

Lifetime Action Days was determined by calculating each member's number of (gaming) action days since they joined the client casinos player's club program. An action day is all gaming completed within a 24-hour period. Segmenting members based on lifetime duration was not appropriate given the fact that many persons included in the database visited the client casino only one time and were later removed from the program after 18 months of inactivity. Although this differs from the approach utilized by Reinartz and Kumar (2000), the correlation between lifetime duration and lifetime revenues was calculated and was not significantly different from zero- thus providing support for the use of a different measure.

Theoretical win is used as a measure of revenues by most casinos. Theoretical win is the amount gambled multiplied by the floor average. In the case of the client casino, the floor average is 6.9%. Thus, for every \$100 gambled at the client casino, the casino retains \$6.90. Casinos prefer theoretical win as opposed to amount of money gamed (e.g. the amount of money a person

places into the slot machine or places on the table) since often when persons win small amounts they do not cash the money out. Not removing this money from play means that the person is actually playing on the casino's money. Theoretical win also removes the effects of jackpot victories and large losses.

### **Mail Survey of Player's Club Members**

A mail survey was utilized to obtain data to test the *Integrated Casino Loyalty Model* that was not available from the client casinos players club tracking database. Respondents were not asked for their name and address unless they wished to be included in the incentive draw. The incentive utilized was an opportunity to win one of five prizes of \$100. Data was collected on these individuals from April 1, 2003 to June 1, 2003.

### **Mail Survey Instrument**

The six page survey instrument can be found in *Appendix 1*. All participation in the survey was voluntary. The majority of the survey questions collected information for segmentation purposes and tested the *Integrated Casino Loyalty Model* and related constructs. General socioeconomic information was also collected to assist in targeting marketing strategies formulated as a result of this study. The data collected as part of this study is described in *Table 5*.

**Table 5: Data Collected in Mail Survey**

<b>SOCIOECONOMIC CHARACTERISTICS</b>	
• Name	Incentive
• Address (Street, City, State, Zip)	Incentive
• Age	Q. 12
• Gender	Q. 13
• Number of adults residing in household	Q. 14
• Number of children residing in household	Q. 14
• Household Income	Q. 15
<b>GAMING BEHAVIOR</b>	
• Visitation to casinos previous 12 months	Q. 1
• Number of casinos visited in previous 12 months	Q. 2
• Number of trips taken to casinos in previous 12 months	Q. 3
• Amount budgeted per trip to casinos	Q. 4
• Visitation to all casinos	Q. 5
• Membership of players club programs for all casinos	Q. 5
• % of total trips to casinos made to each casino	Q. 5
• Changes in amount of visitation to each casino	Q. 6
• Reasons for joining (or not joining) players club program at Primary Casino	Q. 7, Q. 7a, Q. 7b
<b>MODEL CONSTRUCTS</b>	
• Direct Mail	Q. 8
• Preferential Treatment	Q. 8
• Interpersonal Communications	Q. 8
• Promotions and Discounts	Q. 8
• Rewards	Q. 8
• Affinity	Q. 8
• Consumer Confidence	Q. 8
• Perceived Value	Q. 8
• Competitive Factors	Q. 8
• Involvement	Q. 8, Q. 11
• Relationship Commitment	Q. 8, Q. 11
• Attitudinal Loyalty	Q. 8
• Behavioral Loyalty	Q. 8, Q. 11
• Satisfaction <sup>1</sup>	Q. 11
• Switching Costs <sup>1</sup>	Q. 8
• Value <sup>1</sup>	Q. 11

1 – Not tested in Model

**Table 5: Data Collected in Mail Survey (cont.)**

<b>LOYALTY PROGRAM INFORMATION</b>	
• Use of player's club program card	Q. 9
• Membership in other loyalty programs	Q. 10

The first section collects information relating to their casino visits during the previous 12 months. Persons who had not visited any casino in the previous 12 months were asked their reasons for not visiting. They had twelve possible reasons to select from. These twelve options were developed in conjunction with casino management. This section also collected data on the number of casinos visited over the previous 12 months, the number of visits to casinos over the previous 12 months, and the amount budgeted for casino visits. A visit was defined as a 24-hour period during which they visited a particular casino regardless of whether they left and came back again.

The second section asked about visits to various casinos. A list of ten casinos was selected based on the results of on-site and telephone surveys completed for the same casino in 2001. They include nine casinos located in Michigan and one in Ontario, Canada.

Respondents were asked (1) "whether they have ever visited that specific casino," (2) "whether they are a member of that casinos player's club," (3) "whether they had visited that casino in the previous 12 months," and (4) "what percentage of their total casino trips over the previous 12 months was made to that casino." These questions were asked for each casino. They were then

asked about changes in their visitation over the course of their gaming lifetime to these same casinos.

Respondents were asked whether they were visiting these casinos the same amount, more often, or less often than in the past. Due to space constraints, responses to *Turtle Creek Casino* and *Leelanau Sands* were combined since both properties are operated by *Traverse Bay Entertainment*. In addition, the four casinos located in the Detroit / Windsor area (*Windsor Casino*, *MGM Grand*, *Motorcity*, and *Greektown*) were also merged into one category. Respondents could also write in another casino they had visited but was not included in the list. For the casinos they were visiting more frequently, they were asked about possible reasons for this change including: "Satisfied with gaming experience," "Convenient," "Take advantage of player's club benefits," "Good Service," "Loose slots / Win Often," and "Other." They were asked to check all that apply. For the casinos they were visiting less frequently, they were asked about possible reasons for this change including: "Not satisfied with experience," "Poor service experience," "Poor players club benefits," "Lack of promotions," "Not convenient," "Tight slots / Did not win," and "Other."

The third section collects information about their primary casino. The primary casino is the casino that they had visited most frequently during the previous 12 months, not necessarily the one where they gambled the most money. They are first asked whether they are a member of the player's program and the reasons why they joined the program (or why they did not join the program). The second set of questions gathers data for model testing and is outlined in *Table 6*. Forty-

two separate questions were asked using a seven-point Likert scale (1 being strongly disagree and 7 being strongly agree). The final question asked about how frequently they use their player's club card while gambling.

**Table 6: Loyalty Factor Constructs Included in Mail Survey**

<b>Construct</b>	<b>Definition</b>	<b>Purpose</b>	<b>References</b>
<b>Direct Mail</b>	Perceptions of the extent that their primary casino keeps them informed about the loyalty program, special events and promotions through direct mail	Component of player's club program and an antecedent of perceived value	- Anderson and Narus (1990) - De Wulf et al. (2001) - Dwyer, Schurr, and Oh (1987) - Morgan and Hunt (1994)
<b>Preferential Communications</b>	Perception that, as players club members, they receive a higher level of service as opposed to non-players club members	Component of player's club program and an antecedent of perceived value	- De Wulf et al. (2001)
<b>Interpersonal Communications</b>	Frequency of personal exchanges that casino staff have with player's club members as opposed to non player's club members	Component of player's club program and an antecedent of perceived value	- De Wulf et al. (2001) - Wood (1998)
<b>Promotions and Discounts</b>	Perception of the frequency and participation in one-time events or promotions that are available only to player's club members	Component of player's club program and an antecedent of perceived value	- De Wulf et al. (2001) - Wood (1998)
<b>Rewards</b>	The perception of the value and frequency of gifts that are available to player's club members	Component of player's club program and an antecedent of perceived value	- De Wulf et al. (2001) - Wood (1998)



**Table 6: Loyalty Factor Constructs Included in Mail Survey (cont.)**

<b>Construct</b>	<b>Definition</b>	<b>Purpose</b>	<b>References</b>
<b>Affinity</b>	The intensity of positive (or negative) responses that player's club members perceive to have with their primary casino	To identify the intensity and frequency of positive affective responses which demonstrate higher levels of attitudinal loyalty. Modeled as an antecedent of attitudinal loyalty	- Chaudhuri and Holbrook (2001)
<b>Consumer Confidence</b>	The belief that their primary casino can continue to meet their expectations and obligations to player's club members	To identify the perceptions that casino player's club programs meet the expectations of members. Modeled as an antecedent of attitudinal loyalty	- Chaudhuri and Holbrook (2001)
<b>Competitive Factors</b>	Perceived value of being a member of their primary casino player's club compared to their perception(s) of the value of programs offered by other gaming organizations	Due to the lack of differentiation between programs, determining the quality of the player's club program of their primary casino compared to other programs will determine whether persons are loyal to only high quality programs	- Bennett & Rundle-Thiele (2001) - Chaudhuri and Holbrook (2001) - De Wulf, Odekerken-Shroder and Iacobucci (2001)
<b>Involvement</b>	Consumer's perceptions of the importance of the product category based on their needs, values, and interests	In previous studies, levels of involvement were found to moderate the influence of relationship marketing strategies	- Chaudhuri and Holbrook (2001) - De Wulf et al. (2001) - Dick & Basu (1994) - Mittal (1995) - Solomon et al. (1985)
<b>Relationship Commitment</b>	Their perceived level of commitment to maintaining a relationship with their primary casino	To determine the extent to which persons wish to have a relationship with businesses	- Bendapudi and Berry (1997) - Christy, Oliver, and Penn (1996)

**Table 6: Loyalty Factor Constructs Included in Mail Survey (cont.)**

<b>Construct</b>	<b>Definition</b>	<b>Purpose</b>	<b>References</b>
<b>Perceived Value</b>	Frequency and amount of tangible and intangible rewards they receive by being members of their primary casino player's club program	Customers feel obligated to reward companies that invest in maintaining relationships with loyal customers	- Bagozzi (1995) - De Wulf et al. (2001)
<b>Attitudinal Loyalty</b>	Absolute dedication or commitment to their primary casino	Although difficult to create by businesses as part of relationship marketing strategies, persons who exhibit higher levels of attitudinal loyalty are less prone to switch service providers	- Chaudhuri & Holbrook (2001) - Morgan and Hunt (1994)
<b>Behavioral Loyalty</b>	The probability that the person intends to maintain a continuing relationship with their primary casino	Outcome variable for this model because the goals of casino loyalty programs are to increase market share and revenues.	- Chaudhuri and Holbrook (2001) - Cunningham (1957) - Jacoby and Chestnut (1978)

The next section asked about their membership in other loyalty programs (operated by other industries) including seven questions that gathered information about the relationship commitment construct, satisfaction, and value constructs. The final section collects socioeconomic information (age, gender, number of persons residing in the household and household income).

## **Mail Survey Sampling Method**

In order to study a consumer's lifetime behavior, a minimum of four years of data is required to perform any statistical analysis (Reinartz and Kumar, 2000). A direct result of this requirement was that the *High frequency / High revenue* (N= 66,081) segment was the only segment which met these requirements, as median splits for the segments were three action days. Further, \$43.31 in lifetime theoretical win would be surpassed by any person having three years of continuous activity at the client casino. Additionally, the client casino requested that 218 preferred members be removed from the mail survey sample. As a result, the final sampling frame for the mail survey was 65,863 members of the client casinos player's club program.

*Loyal Player's Club* members were defined as those members who had visited the client casino at least once each of the four previous years. A total of 5,499 members of the *High frequency / High revenue* segment met this criterion. A random sample of 1,300 persons was selected for participation in the mail survey. Statistical analysis revealed no statistical differences between these 1,300 members and those not selected on the following variables: age, distance to casino, lifetime theoretical win, lifetime action days, and gender.

*Disloyal Player's Club* members were those members who had been a member of the client casino's player's club for over four years and either: (1) had no recorded activity from January 1, 2002 to December 15, 2002 or (2) had five percent or less of their total lifetime theoretical win at the client casino represented by gaming activity from January 1, 2002 to December 15, 2002. A

total of 3,281 members of the *High frequency / High revenue* segment met these criteria. A random sample of 1,700 persons was selected for participation in the mail survey. *Disloyal Player's Club* members were over-sampled due to the fact that this inactivity could be the result of change of address, death, and/or health reasons. Additionally, because members were not required to submit change of address information to the casino, the incidence of bad mailing addresses was significant. Again, no statistically significant differences were found between *Disloyal Player's Club* members included in the sample and those who were not chosen.

### **Mail Survey Administration**

On April 1, 2003, a cover letter, six-page questionnaire, and a business reply return envelope were mailed to 3,000 player's club members of the client casino. No identification marks were placed on the returned questionnaires in order to assure anonymity. A reminder post card was mailed to 2,640 persons on April 16, 2003. To ensure that there would be an acceptable number of cases to test the hypothesized model using structural equation modeling, on May 2, 2003, a follow-up (cover letter, survey questionnaire, business reply envelope) was mailed to 600 members included in the *Disloyal Player's Club* sample and 400 members included in the *Loyal Player's Club* sample who had not replied. These persons were randomly chosen from those persons who had not yet returned an identifiable survey. The surveys included in the second survey were identical to the first mailing, but identification marks were placed on the survey in order to differentiate these surveys from those sent in the first mailing.

The response rates for each mailing are indicated in *Table 7*. The number of surveys received by both groups remained quite consistent for each mailing.

**Table 7: Number of Surveys Received for Each Mailing**

	Number of Returned Surveys		
	First Mail Survey	Reminder Postcard	Second Mail Survey
Loyal Player's Club	258	120	126
Disloyal Player's Club	275	124	93
<b>TOTAL</b>	<b>533</b>	<b>244</b>	<b>219</b>

In terms of overall response rates, a respectable response rate of 39% was obtained (*Table 8*). As would be expected, the response rate was higher for the *Loyal Player's Club* segment (43%) as opposed to the *Disloyal Player's Club* segment (36%).

**Table 8: Overall Response Rate to Mail Survey**

	Completed surveys	Original sample	Undelivered mail	Delivered sample size <sup>1</sup>	Response rate <sup>2</sup>
Loyal Player's Club	504	1300	119	1181	43%
Disloyal Player's Club	492	1700	328	1372	36%
<b>TOTAL</b>	<b>996</b>	<b>3000</b>	<b>447</b>	<b>2553</b>	<b>39 %</b>

1- Delivered sample size = original sample – undelivered mail

2- Response rate = completed survey / delivered sample size

In terms of undelivered mail, a relatively high percentage of the mailings to the *Disloyal Player's Club* sample (19%) was returned as undeliverable. A large number (185) of surveys were returned with bad addresses, 14 were returned with a notice that the person was deceased, and 129 surveys were returned with a notice that the person had moved and left no forwarding address, or the forwarding order had expired.

Conversely, just 9% of the surveys sent to *Loyal Player's Club* members were returned as undeliverable. Of this total, 65 surveys were returned with bad addresses, 4 were returned with a notice that the person was deceased, and 50 surveys were returned with a notice that the person had moved and left no forwarding address, or the forwarding order had expired.

The high percentage of bad addresses and members who changed addresses or had died reveals some problems in terms of database management. It also supports the decision to oversample *Disloyal Player's Club* members.

### **Preparation of Data Collected Through Mail Survey**

All surveys were coded and entered into an Excel spreadsheet. The data was then transferred to the Statistical Package for Social Sciences, version 11.0 (SPSS). After the transfer, random checks of the data were performed in order to ensure no data was lost during the transfer and no mistakes occurred during the transfer.

Of the 996 completed surveys returned, 14 surveys were disregarded since either no information was provided or the majority (over 95%) of the questionnaire was unanswered.

Of the remaining 982 surveys, checks were conducted to identify any outliers. A total of five surveys were identified as being outliers in terms of annual amount gambled and amount of trips to casinos each year. In order to check their responses, a check was conducted using the client casinos player's club database, and their responses were found to be consistent with their gambling behavior, thus providing support for their inclusion in this study.

### **Preparation of Data Collected Through Mail Survey for Use in Structural Equation Modeling**

As outlined in *Table 5*, 48 questions gathered data to test the *Integrated Casino Loyalty Model*. These questions utilized a seven-point Likert scale (1 being very strongly disagree and 7 being very strongly agree).

In order to ensure that persons did not check the same answer for all (or the majority) of questions related to the constructs, a check was performed for each score. Of the 982 completed surveys, a total of 25 surveys were found to have shown a patterned response. A patterned response was defined as a person who chose the same value 95% or more of the time for the 48 questions. These responses were not included in the model-testing phase of the analysis, nor were they included for the confirmatory factor analysis.

In order to conduct model-testing using structural equation modeling, all construct measures were required to have a value (for tests using *EQS 5.7b*). No

cases could have a missing value for any construct. A total of 151 surveys were found to have a missing value for a construct and were thus excluded from the model-testing. As a result, 806 total surveys (32% of the total deliverable sample) were utilized for testing the *Integrated Casino Loyalty Model*.

### **Model-Testing Using Structural Equation Modeling**

The most common use of structural equation modeling is for model-generating (Joreskog, 1993). In terms of model generation, researchers test a hypothesized model and modify the model if necessary in order to improve its fit relative to the data being analyzed. The goal of this process is to discover a model that is theoretically grounded and corresponds to data reasonably well.

Common statistical procedures like multiple regression, canonical correlation, factor analysis, and ANOVA can be referred to as special cases of structural equation modeling (Kline, 1998). The major difference between these statistical procedures and structural equation modeling is its ability to evaluate entire models and its reduced reliance on significance tests. Structural equation modeling provides researchers with the ability to prove, reject, or modify parts of a model or the entire model.

The three most common software programs utilized for structural equation modeling (SEM) are *AMOS*, *LISREL*, and *EQS*. Although other software exist these three are most commonly used by academics and practitioners (Kline, 1998). Among these three, *LISREL* and *EQS* are most commonly used, in part, because of the significant amount of research and literature available in regards to these programs and their frequent use in structural equation modeling.



Although *AMOS* was one of the first SEM programs, published work on its use remains quite limited as opposed to *EQS* and *LISREL*.

In this study, *EQS 5.7b* was utilized to complete the analysis. *EQS 5.7b* was chosen because of its ability to handle raw data and because of its extensive capabilities for model generation, which allow it to be used for both data preparation and analysis. Furthermore, through its use of robust standard errors and multiple estimation methods, it provides more flexibility in use and managing data as opposed to *LISREL* and *AMOS*. The major disadvantage of utilizing *EQS* is its inability to estimate for incomplete data. In relation to the current study, this was not a limitation since the number of cases with complete data exceeded the minimum recommended threshold of 150 cases per group (Kline, 1998).

The first step in model-building is to conduct a confirmatory factor analysis. Once factors are identified, the measurement model is tested. The measurement model only models the relationships between the latent factors and their respective indicators. After the fit of the measurement model has reached an appropriate level for the entire sample, the full structural model is then tested. Modifications to the model are then made in order to improve the model fit in relation to the data. For testing multiple groups, the model is then tested for each group to determine if any differences exist between groups. If additional data is available, rival models can also be tested to determine their fit in relation to the hypothesized or revised models. The purpose of testing these rival models is to allow for alternative explanations and/or comparisons to be made using the same data sets.

## **Limitations of Data**

The client casino player's club database had several limitations in relation to this study. The first limitation was an absence of data for the period from December 16, 2002 to April 1, 2003. Some of the persons identified as *Loyal Player's Club* members could have stopped frequenting the casino during this period. They would therefore be incorrectly classified as *Loyal Player's Club* members.

The second limitation was that information was only obtained on player's club members from the client casino. As a result, this study was unable to identify persons who may be members of multiple player's club programs.

The final limitation was in regards to whether the persons who joined the client casinos player's club were new customers to the casino or were already existing customers. Without this information, the current study was unable to determine how effective the client casino loyalty program was at attracting new customers.

## **CHAPTER 4**

### **RESULTS**

#### **Introduction**

This chapter presents the results of the analyses that were conducted to achieve the study objectives. The first section is the results of the analyses for estimating the lifetime visits / lifetime revenues relationship of player's club members. The next section presents the mail survey results. The third section reports the results of the confirmatory factor analysis. The fourth section presents the tests of the *Integrated Casino Loyalty Model* for various segments. In the last section, segments based on data gathered from the mail survey will be identified and profiles provided.

#### **Lifetime Visits – Lifetime Revenues Relationship**

The first objective of this study was to explore the relationship between lifetime visits and lifetime revenues for members of the client casinos player's club. Median splits were utilized to divide the client casinos player's club tracking database into four groups based on lifetime action days and lifetime theoretical win. An action day was defined as all gaming completed at the client casino within a 24-hour period. Theoretical win was defined as the amount gambled at the client casino multiplied by the floor average of the client casino. These four groups are indicated in *Table 9* and are titled *High frequency / Low revenue*, *High frequency / High revenue*, *Low frequency / High revenue*, and *Low frequency / Low revenue*. Previous analyses using median splits, and as predicted by

relationship marketing, the two diagonal groups should represent the largest percentage since a perfect relationship between any two variables would result in both diagonals having a 50% share of the sample. If more of the player's club members reside in the off-diagonals, the relationship between the two variables is less strong. From the current analysis, the largest percentage of player's club members (*Low frequency / Low revenue* (39.2%) and *High frequency / High revenue* = (33.7%)) were found in the diagonals.

Of interest is that a significant portion of the player's club members resided in the off-diagonals (27%), thus showing that a significant portion of the market (*Low frequency / High revenue* (15.3%)) had high revenues although their number of lifetime action days was quite small. Furthermore, a portion of the market had below median revenues although they visited the casino frequently (*High frequency / Low revenue* (11.7%)). This suggests that even though these members visited the client casino frequently, the revenues derived from this group was quite small. The size of the off-diagonal groups suggests that lifetime action days by itself is not a strong predictor of lifetime revenues for members of the client casinos player's club.

Bivariate Pearson Correlations were calculated to test the strength of the lifetime visits / lifetime revenues relationship. The  $r$  was 0.08 for the *High frequency / Low revenue* group and 0.45 for the *High frequency / High revenue* group. This indicates only a moderate linear relationship between lifetime action days and lifetime revenues for the *High frequency / High revenue* group and a very weak relationship for the *High frequency / Low revenue* group. The

correlation for the *Low frequency / High revenue* group was not statistically significant from zero and the correlation for the *Low frequency / Low revenue* segment was 0.36, which suggests a moderate linear relationship. Thus, only the two diagonal groups exhibited a moderate linear relationship between lifetime action days and lifetime revenues, which suggests that lifetime action days is not an adequate predictor of lifetime revenues for the off-diagonal groups.

**Table 9: Segmentation of Client Casino's Player's Club Members Based on Lifetime Action Days<sup>1</sup> and Lifetime Theoretical Win at the Client Casino<sup>2</sup>**

	<b>High Frequency Low Revenue</b>	<b>High Frequency High Revenue</b>	<b>Low Frequency High Revenue</b>	<b>Low Frequency Low Revenue</b>	<b>All Player's Club Members</b>
% of player's club members	11.7%	33.7%	15.3%	39.2%	100%
<b>MEAN THEORETICAL WIN PER YEAR</b>					
1999	\$21.51	\$869.37	\$180.62	\$14.80	\$328.93
2000	\$21.62	\$1,000.26	\$141.17	\$14.05	\$366.72
2001	\$24.43	\$1,206.52	\$139.57	\$11.36	\$435.26
<b>MEAN THEORETICAL WIN PER ACTION DAY</b>					
1999	\$12.41	\$104.17	\$131.28	\$11.90	\$61.31
2000	\$ 9.05	\$ 50.85	\$ 90.01	\$11.51	\$36.48
2001	\$ 6.30	\$ 38.11	\$ 85.24	\$ 9.46	\$30.33
2002	\$ 5.01	\$ 24.10	\$ 65.48	\$ 7.29	\$21.58
<b>MEAN NUMBER OF ACTION DAYS PER YEAR</b>					
1999	2.5 Days	8.9 Days	1.6 Days	1.2 Days	4.0 Days
2000	3.3 Days	18.7 Days	1.7 Days	1.3 Days	7.4 Days
2001	5.8 Days	31.7 Days	1.8 Days	1.3 Days	12.1 Days
<b>SUMMARY</b>					
% change in Theor. Win (1999 – 2001)	<b>13.0 %</b>	<b>38.7 %</b>	<b>- 22.8 %</b>	<b>- 23.3 %</b>	<b>32.3 %</b>
% change in Theor. Win / Day (1999 – 2002)	<b>- 59.6 %</b>	<b>- 76.9 %</b>	<b>- 50.1 %</b>	<b>- 38.8 %</b>	<b>- 64.8 %</b>
% change in Action days (1999 – 2001)	<b>131.1 %</b>	<b>256.2 %</b>	<b>12.5 %</b>	<b>5.7 %</b>	<b>200.2%</b>

1- Theoretical win was defined as amount gambled x floor average (0.069) x time

2- Action day was defined as all gambling activity for a 24 hour period

In terms of the overall gambling behavior of the client casino's player's club members, as indicated in *Table 9*, the mean theoretical win per action year increased 32% from 1999 to 2001. While the amount gambled per year increased, the mean theoretical win per action day actually decreased 64.8% between 1999 to 2002. There was also a 200% increase in number of action days per year by player's club members of the client casino from 1999 to 2001. The combination of these analyses indicates that player's club members of the client casino were visiting more often but divided their annual amount of money gamed at the client casino over more trips. So while the client casino experienced an increase in annual gambling revenue from player's club members, the cost of securing this additional revenue was greater and as a result, average gaming per visit and margins were reduced. Although direct expenses were not obtained per gaming visit and were not available, one can assume that there was a service cost (estimates range from \$5 to \$50 for an average casino patron) for each visit to the client casino.

The next analysis focused on the four groups (*High frequency / Low revenue*, *High frequency / High revenue*, *Low frequency / High revenue*, and *Low frequency / Low revenue*) in order to explore their gambling behavior over the previous four years. In terms of revenues, the group with the most potential for profitability was the *High frequency / High revenue* group. Between 1999 and 2001, the mean theoretical win per year increased 38.7% while their number of action days per year increased 256%. Although these numbers showed a significant increase, the theoretical win per action day decreased 77% between

1999 and 2002 to just a meager \$24.10 per action day in 2002. This further demonstrates that the cost of securing this additional revenue was coming at an increased cost to casinos.

Of major interest is that the *Low frequency / Low revenue* represented the largest percentage of the client casino's database (39.2%). This group has a low rate of visitation (less than three lifetime action days) and low lifetime theoretical win (less than \$43.31). The few number of visits and the low amount gamed per trip exemplifies some of the disadvantages of forcing persons to join the player's club programs. This forced recruitment appears to add a significant number of less profitable members to the program, thereby increasing the cost of managing and maintaining the player's club program.

In relation to the off-diagonal groups, the *Low frequency / High revenue* group visited the casino less frequently (less than 3 lifetime action days) but gambled more during each visit compared to other groups. Since they had the highest mean theoretical win per action day as compared to the other three groups, these persons represented a high revenue group and the goal of any player's club program should be to increase visitation of this group. The *High frequency / Low revenue* group represented the least potentially profitable group since they gambled small amounts but visited the casino often. Although their theoretical win per year increased 13% between 1999 and 2002, their theoretical win per year in 2002 was only \$24.43, which suggests that the costs of marketing to these individuals is less likely to be recouped.

The *High frequency / High revenue* group of the client casino was further divided into four different sub-groups using a median split of 21 lifetime action days and \$145.45 lifetime theoretical win. This segmentation process was undertaken in order to further examine the highest revenue group of the client player's club program and to identify potential sub-groups. The results are shown in *Table 10*.

Sub-group 2 comprised over half (57.2%) of the *High frequency / High revenue* group. These player's club members had over 21 lifetime action days and more than \$145.45 in lifetime theoretical win. This sub-group of player's club members is obviously important to the casino since their theoretical win per action year (\$2,000.88 for 2001) was six times greater than the other three sub-groups and their mean number action days per year (47.2 days for 2001) was twice that of the other sub-groups.

Player's club members of the client casino comprising sub-group 3 had the highest theoretical win per action day (\$42.68) as compared to the other three segments. This shows that an important group of player's club members exist in the "off-diagonal" and that lifetime visits by itself is not effective at fully explaining lifetime revenues.



**Table 10: Sub-groups Comprising the High Frequency / High Revenue Group of Player's Club Members**

	Sub-group 1	Sub-group 2	Sub-group 3	Sub-group 4	All High frequency High Revenue Group
% of High frequency / High revenue group	15.0%	57.2%	8.0%	19.8%	100%
<b>MEAN THEORETICAL WIN PER YEAR</b>					
1999	\$64.89	\$1,418.21	\$455.39	\$60.57	\$869.37
2000	\$83.85	\$1,656.33	\$358.57	\$58.48	\$1,000.26
2001	\$124.31	\$2,000.88	\$369.45	\$69.78	\$1,206.52
<b>MEAN THEORETICAL WIN PER ACTION DAY</b>					
1999	\$19.06	\$134.52	\$212.96	\$37.03	\$104.17
2000	\$10.72	\$ 65.59	\$ 95.09	\$20.81	\$ 50.85
2001	\$ 7.71	\$ 47.40	\$ 79.55	\$17.57	\$ 38.11
2002	\$ 5.48	\$ 30.73	\$ 42.68	\$11.56	\$ 24.10
<b>MEAN NUMBER OF ACTION DAYS PER YEAR</b>					
1999	5.7 Days	12.9 Days	2.7 Days	2.1 Days	8.9 Days
2000	12.2 Days	27.9 Days	3.8 Days	3.0 Days	18.7 Days
2001	22.6 Days	47.2 Days	5.3 Days	4.6 Days	31.7 Days
<b>SUMMARY</b>					
% change in Theor. Win (1999 – 2001)	<b>91.6 %</b>	<b>41.1 %</b>	<b>- 23.3 %</b>	<b>15.2 %</b>	<b>38.7 %</b>
% change in Theor. Win / Day (1999 – 2002)	<b>- 71.2 %</b>	<b>- 77.2 %</b>	<b>- 80.0 %</b>	<b>- 68.8 %</b>	<b>- 76.9 %</b>
% change in # of Action days (1999 – 2001)	<b>296.5 %</b>	<b>266.6 %</b>	<b>96.3 %</b>	<b>119.6 %</b>	<b>256.2 %</b>

**Median Splits**

Lifetime Action Days  
= 21 Action Days  
Lifetime Theoretical Win  
= \$145.45

With the exception of sub-group 3, all the other sub-groups exhibited increases in theoretical win per year between 1999 and 2001. However, it is important to recognize that all sub-groups exhibited a significant decrease in theoretical win per action day ranging from 68.8% to 80% from 1999 to 2001. This, coupled with the significant increases (96% to 296%) in number of action days per year during the same time period, indicates that these members were also spreading their annual gaming over more trips.

### **Descriptive Profile of Player's Club Members who Completed the Mail Survey**

As previously discussed, a mail survey was utilized to gather information about player's club members' overall gambling behavior and to gather data required to test the *Integrated Casino Loyalty Model*. A descriptive profile of the respondents is shown in *Table 11*.

Only 2.9% of the persons who returned a completed survey stated that they had not visited a casino during the previous 12 months. The three most cited reasons for making no casino visits were: (1) they were not winning (50%), (2) they had lost too much money (32.1%), or (3) they lost interest in gambling (25%).

The 97.1% who had visited a casino in the previous 12 months visited, on average 6.9 casinos and made 22.5 trips to casinos during the previous 12 months. They planned to budget an average of \$129.81 per visit to a casino.

**Table 11: Descriptive Profile of Player's Club Members of the Client Casino that Returned a Completed Mail Survey**

	Frequency	Mean
<b>GAMBLING BEHAVIOR</b>		
Visited any casino the previous 12 months		
Yes	97.1%	-
No	2.9%	-
Reasons for not visiting a casino in the previous 12 months		
Lost interest in gambling	25.0% <sup>1</sup>	-
Lost too much money	32.1%	-
Lack of time	17.9%	-
Not winning	50.0%	-
Health declined	7.1%	-
Don't like atmosphere at casinos	17.9%	-
Number of casinos visited the previous 12 months	-	6.9 <sup>2</sup>
Number of visits to casinos the previous 12 months	-	22.5 trips <sup>2</sup>
Amount budgeted for each casino visit	-	\$129.81 <sup>2</sup>
<b>PLAYERS CLUB PROGRAM</b>		
Member of the player's club of the casino visited most often the previous 12 months		
Yes	98.1%	-
No	1.9%	-
Reasons for joining their primary casino's player's club		
Joined player's club to receive promotions	75.2% <sup>3</sup>	-
Joined player's club to receive comps or gifts	79.4%	-
Joined player's club to get more value for my money	48.1%	-
Joined player's club to receive specialized service	23.7%	-
Joined player's club card for social reasons	13.2%	-
Reasons for NOT joining their primary casino's player's club		
Do not want to be tracked	11.1% <sup>4</sup>	-
Don't want comps or gifts	5.6%	-
Don't go to any one casino enough	38.9%	-
The benefits of joining are not worth it	33.3%	-

1 - Percentage based on those respondents who did not visit a casino in previous 12 months

2- Percentage only based on those persons who visited a casino in previous 12 months

3 - Percentage based on those respondents who did join the players club of its primary casino

4- Percentage based on those respondents who did not join the players club of its primary casino

**Table 11: Descriptive Profile of Player's Club Members of the Client Casino that Returned a Completed Mail Survey (cont.)**

	Frequency	Mean
<b>PLAYER'S CLUB PROGRAM (cont.)</b>		
Overall use of player's club cards at all casinos	-	-
All the time	56.8%	-
Most of the time	33.3%	-
Sometimes	7.6%	-
Rarely	1.6%	-
Never	0.6%	-
<b>MEMBERSHIP IN OTHER TYPES OF LOYALTY PROGRAMS</b>		
Frequent Flyer Program(s)	29.7%	-
Grocery Store Program(s)	50.0%	-
Car Rental Program(s)	5.0%	-
Hotel Program(s)	15.3%	-
Retailer Frequent Buyer Program(s)	5.6%	-
Music and Book Club(s)	10.1%	-
Restaurant Program(s)	25.9%	-
<b>SOCIOECONOMIC CHARACTERISTICS</b>		
Age	-	63.3 years
21 – 30	0.6%	-
31 – 40	3.1%	-
41 – 50	10.3%	-
51 – 60	24.4%	-
61 – 70	33.8%	-
Over 70	27.7%	-
Gender		
Male	34.1%	-
Female	65.9%	-
Number of Adults residing in Household	-	1.91
Number of Homes with Children	7.6%	-
Household Income		
Under \$40,000	47.8%	-
\$40,001 - \$59,999	24.8%	-
\$60,000 - \$99,999	19.3%	-
\$100,000 - \$149,999	6.8%	-
\$150,000 - \$199,999	0.9%	-
Over \$200,000	0.3%	-

A number of survey questions focused on respondents' relationship with their primary casino, which is defined as the casino that they visited most frequently over the previous 12 months. Almost all (98.1%) respondents stated that they were a member of the player's club at their primary casino. The dominant reasons that they joined the player's club program at their primary casino were to receive comps and gifts and to have access to promotions, or in other words, forced recruitment. The very small percentage who were not members of the player's club program at their primary casino did not join because they did not believe they would make enough visits to any one casino to make joining worthwhile. In other words, they recognized that they would not be significant or loyal enough customers to benefit from being a player's club member. Also, they either visited the casino when there was not a player's club related promotion in progress, did not come on a bus tour, or did not consider the usual joining incentives (promotions) sufficient.

In terms of use of their player's club card, only 56.8% stated that they used it all the time. Since a number of customer lifetime value models require each transaction to be noted, their subsequent use in studying loyalty programs within a gaming setting is quite limited. This, in addition to some findings of this study that will be discussed later, indicates that although player's club tracking data is very useful for some analyses, additional information is needed to have a complete picture of their casino gaming behavior, including behavior at other casinos.

In terms of their propensity to participate in loyalty programs operated by other types of businesses (e.g. travel, retail, grocery stores), 50% were members of grocery store frequent buyer programs, 29.7% were members of frequent flyer programs, 25.9% were members of restaurant programs, and 15.3% were members of hotel programs. This suggests that there were some player's club members who were more prone to participate in loyalty building programs.

The mean age was 63.3 years and 65.9% of respondents were female. A significant portion of respondents (47.8%) had a household income of less than \$40,000 per year, which was likely an artifact of the sample being retired persons or senior citizens on fixed incomes.

**Description of Loyal Player's Club and Disloyal Player's Club Segments Based on Gaming Activity at the Client Casino During the Previous 12 months as Compared to their Lifetime Gambling Behavior at the Client Casino**

*Loyal Player's Club* segment members must have visited the client casino at least once during each of the last four years. *Disloyal Player's Club* members were identified as members who had participated in the client casino's program for over four years, but (1) had no recorded player's club card activity from January 1, 2002 to December 15, 2002 or (2) only five percent or less of their total lifetime theoretical win was attributable to gaming activity from January 1, 2002 to December 15, 2002. *Table 12* provides a summary of the descriptive statistics for both the *Loyal Player's Club* and *Disloyal Player's Club* segments.

**Table 12: Survey Derived Profiles for Segments Based on Gaming Activity at the Client Casino During the Previous 12 months as Compared to their Lifetime Gambling Behavior at the Client Casino**

	<b>Loyal</b>	<b>Disloyal</b>	<b>ALL</b>
<b>GAMBLING BEHAVIOR</b>			
Visited any casino the previous 12 months			
Yes	98.2%	96.1%	97.1%
No	1.8%	3.9%	2.9%
Reasons for not visiting a casino in the previous 12 months			
Loss interest in gambling	0% <sup>1</sup>	77.7%	<b>25.0% <sup>1</sup></b>
Loss too much money	60%	66.6%	<b>32.1%</b>
Lack of time	20%	44.4%	<b>17.9%</b>
Not winning	100%	100%	<b>50.0%</b>
Change in family status	-	22.2%	<b>7.1%</b>
No casino's close by	20%	11.1%	<b>7.1%</b>
Health declined	-	22.2%	<b>7.1%</b>
Don't like atmosphere at casinos	60%	22.2%	<b>17.9%</b>
Number of casinos visited the previous 12 months <sup>2</sup>	7.46 casinos	6.31 casinos	6.9 casinos
Number of visits to casinos the previous 12 months <sup>2</sup>	23.85 trips	20.41 trips	22.2 trips
Amount budgeted for each casino visit <sup>2</sup>	\$120.32	\$139.39	\$129.81
Total amount budgeted for all casino visits the previous 12 months <sup>2</sup>	\$2,869.63	\$2,844.95	\$2,881.78
<b>PLAYERS CLUB PROGRAM</b>			
Membership in the player's club program of their primary casino (the casino they visited most often in the previous 12 months)			
Yes	98.3%	97.9%	<b>98.1</b>
Reasons for joining their primary casinos players club			
Joined players club to receive promotions <sup>3</sup>	72.3%	70.2%	<b>75.2%</b>
Joined players club to receive comps or gifts	74.3%	76.0%	<b>79.4%</b>
Joined players club to get more value for my money	46.3%	44.9%	<b>48.1%</b>
Joined players club to receive specialized service	20.4%	24.8%	<b>23.7%</b>
Joined players club card for social reasons	11.6%	13.5%	<b>13.2%</b>

1 - Percentage based of those respondents who did not visit a casino in previous 12 months

2- Percentage only based of those persons who visited a casino in previous 12 months

3 - Percentage based of those respondents who did join the players club of its primary casino

**Table 12: Survey Derived Profiles for Segments Based on Gaming Activity at the Client Casino During the Previous 12 months as Compared to their Lifetime Gambling Behavior at the Client Casino (cont.)**

	<b>Loyal</b>	<b>Disloyal</b>	<b>ALL</b>
<b>OVERALL USE OF PLAYERS CLUB CARD AT ALL CASINOS</b>			
All the time	58.0%	55.6%	56.8%
Most of the time	33.0%	33.7%	33.3%
Sometimes	7.6%	7.2%	7.6%
Rarely	0.6%	2.6%	1.6%
Never	0.4%	0.9%	0.6%
<b>MEMBERSHIP IN OTHER TYPES OF LOYALTY PROGRAMS</b>			
Frequent Flyer Program(s)	32.5%	26.9%	29.7%
Grocery Store Program(s)	48.3%	51.8%	50.0%
Car Rental Program(s)	6.0%	3.9%	5.0%
Hotel Program(s)	15.2%	15.3%	15.3%
Retailer Frequent Buyer Program(s)	5.6%	5.6%	5.6%
Music and Book Club(s)	9.2%	11.0%	10.1%
Restaurant Program(s)	26.3%	25.5%	25.9%
<b>SOCIOECONOMIC CHARACTERISTICS</b>			
<b>Age</b>	<b>64.1 years</b>	<b>62.4 years</b>	<b>63.3 years</b>
21 – 30	0.2%	1.1%	0.6%
31 – 40	1.3%	5.0%	3.1%
41 – 50	10.7%	9.9%	10.3%
51 – 60	23.6%	25.3%	24.4%
61 – 70	36.6%	30.9%	33.8%
Over 70	27.6%	27.9%	27.7%
<b>Gender</b>			
Male	31.1%	33.4%	34.1%
Female	68.9%	66.6%	65.9%
<b>Number of Adults in Household</b>	<b>1.95 adults</b>	<b>1.89 adults</b>	<b>1.91</b>
<b>Number of Homes with Children</b>	<b>7.4%</b>	<b>7.6%</b>	<b>7.6%</b>
<b>Household Income</b>			
Under \$40,000	45.1%	50.8%	47.8%
\$40,001 - \$59,999	26.6%	23.0%	24.8%
\$60,000 - \$99,999	20.6%	18.0%	19.3%
\$100,000 - \$149,999	7.0%	6.7%	6.8%
\$150,000 - \$199,999	0.5%	1.2%	0.9%
Over \$200,000	0.2%	0.2%	0.3%



Both *Loyal Player's Club* and *Disloyal Player's Club* segments were active visitors to casinos. Just a small percentage more of the *Loyal Player's Club* members (98.2%) had visited a casino during the previous 12 months compared to disloyal segment members (96.1%). For those persons who had not visited a casino in the previous 12 months, the dominant reasons for both segments were "they were not winning" and "they had lost too much money." For the *Disloyal Player's Club* segment, 77% stated that they became inactive as a result of losing interest in gambling, compared to 0% of inactive *Loyal Player's Club* segment members. Although there were slight differences between the responses of these two segments, due to the small size of the inactive *Loyal Player's Club* and *Disloyal Player's Club* segments, the validity of any statistical tests would be questionable.

The only significant difference ( $t = -2.54$ ,  $p = 0.01$ ) in gaming behavior was that *Loyal Player's Club* members had visited more casinos over the previous 12 months. No statistically significant ( $p < 0.05$ ) differences existed in relation to the number of trips to casinos or the amount budgeted per trip. Although on average *Loyal Player's Club* members visited more casinos and made more trips, the *Disloyal Player's Club* segment actually budgeted (set aside more money) per trip. So again, even those classified as *Loyal Player's Club* members were distributing the money allocated for gaming across more trips to casinos.

The vast majority of both *Loyal Player's Club* (98.3%) and *Disloyal Player's Club* (97.9%) segments were members of the player's club for their primary casino. There were no differences in the reasons why *Loyal Player's Club* and

*Disloyal Player's Club* members joined the player's club program for their primary casino since they both primarily joined in order to receive gifts and comps and to be included in various promotions.

In terms of their socioeconomic characteristics, two-thirds of both segments were female. The mean age of 64.1 for the *Loyal Player's Club* segment and 62.4 for the *Disloyal Player's Club* segment suggests that player's club members were predominantly seniors. In terms of household income, the largest percentage for both *Loyal Player's Club* and *Disloyal Player's Club* segments had household incomes of under \$40,000 per year, which is likely an artifact of having a large majority of the sample being senior citizens on pensions or fixed incomes.

It was interesting that there were no statistically significant differences ( $p < 0.05$ ) between *Loyal Player's Club* and *Disloyal Player's Club* members, which poses a particular problem when it comes to designing and targeting of marketing strategies including communications and promotions.

It is important to iterate that the client casino was frequently not the primary casino. The client casino was only the primary casino (casino visited most often in the previous 12 months) for 27.1% of the survey respondents. This is an issue when it comes to customer value modeling because even though a casino player's club member may have a relationship with a casino for many years and may be characterized as a 'loyal' member, they may actually do more of their gaming at another casino. Utilizing information from only one source (e.g. player's club tracking data) has the potential for misidentifying loyal and disloyal

members since it may, for some members, only track a small portion of their overall gaming. In other words, player's club members can be identified as loyal customers based on their relative (to other members of the same program) number of trips they make to a casino, but not be loyal in terms of their allocation of their total gaming dollars.

### **Testing of Alternative Loyalty Significant Segments**

The failure to identify significant differences between *Loyal Player's Club* and *Disloyal Player's Club* segments raises questions about its use as the basis for segmentation. Although it has been effectively used in studies of other product category loyalty programs, its validity in gaming environments had not been documented in previous studies. Further analysis was therefore directed at identifying a potentially more distinguishing and marketing exploitable base for segmenting casino player's club programs.

The first alternative segmentation base tested was the proportion of their total casino visits made to their primary casino. As indicated in Chapter 2, the most common method of defining behavioral loyalty is proportion of purchases. In other words, a person who purchases 100% of a certain product from one supplier is deemed to exhibit high levels of behavioral loyalty as opposed to a person who purchases a certain product from multiple suppliers.

Another segmentation base tested is the amount of money budgeted per year for visits to casinos. As stated in Chapter 1, a common strategy that a number of casinos utilize in designing their player's club programs is the use of a tier system. These tiers are based on the amount gamed each year and members

are placed in a tier based on their level of play and are evaluated on an annual basis in order to determine whether they are promoted to the next tier, remain in the same tier, or demoted.

### **Segmentation Based on Proportion of Total Visits to Casinos Taken to Primary Casino**

The descriptive profile of segments based on proportion of visits to their primary casino is reported in *Table 13*.

Three segments were formed based on their survey reported percentage of their casino visits over the previous 12 months to their primary casino. To ensure there were adequate cases to run structural models for each segment and accurate comparisons could be made, the cut-off points were selected to ensure that all three segments were of roughly equal size. Obviously, only persons who had visited a casino in the previous 12 months could be included in this analysis. Persons who made 40% or less of their total visits to casinos over the previous 12 months to their primary (most frequently visited) casino were defined as *Low (primary casino) Visitation* segment. Persons who directed 70% or more of their total visits to casinos over the previous twelve month visits to their primary casino were labeled as *High (primary casino) Visitation* segment. *Moderate (primary casino) Visitation* segment directed 41% to 69% of their total twelve month visits to casinos to their primary casino.

**Table 13: Descriptive Profile of Segments Based on the Proportion of Visits (During the Previous 12 Months) to their Primary Casino**

	<b>40% or less of visits to their primary casino  LOW VISITATION</b>	<b>41% to 69% of visits to their primary casino  MODERATE VISITATION</b>	<b>70% or more of visits to their primary casino  HIGH VISITATION</b>	<b>ALL</b>
<b>GAMBLING BEHAVIOR</b>				
Visited any casino the previous 12 months				
Yes	100%	100%	100%	97.1%
No	-	-	-	2.9%
Number of casinos visited the previous 12 months <sup>1</sup>	8.3 casinos	7.7 casinos	5.1 casinos	6.9 casinos
Number of visits to casinos the previous 12 months <sup>1</sup>	16.0 trips	22.1 trips	28.7 trips	22.2 trips
Amount budgeted for each casino visit <sup>1</sup>	\$138.02	\$138.46	\$112.41	\$129.81
Total amount budgeted for all casino visits the previous 12 months <sup>1</sup>	\$2,208.32	\$3,059.97	\$3,226.17	\$2,881.78
<b>PLAYERS CLUB PROGRAM FOR PRIMARY CASINO</b>				
Membership in the player's club program of their primary casino (the casino they visited most often in the previous 12 months)				
Yes	98.7%	98.8%	98.0%	<b>98.1</b>
No	1.3%	1.2%	2.0%	<b>1.9%</b>
Reasons for joining their primary casino's player's club				
Joined player's club to receive promos <sup>2</sup>	73.7%	76.1%	70.8%	<b>75.2%</b>
Joined player's club to receive comps	78.4%	80.7%	73.8%	<b>79.4%</b>
Joined player's club to get more value for my money	51.3%	49.7%	41.0%	<b>48.1%</b>
Joined player's club to receive specialized service	22.5%	22.7%	24.3%	<b>23.7%</b>
Joined player's club card for social reasons	11.9%	15.5%	11.5%	<b>13.2%</b>

1 – Mean based only of those respondents who had visited a casino in previous 12 months

2 – Percentage based of those respondents who were a member of players club for primary casino

**Table 13: Descriptive Profile of Segments Based on the Proportion of Visits  
(During the Previous 12 Months) to their Primary Casino (cont.)**

	<b>40% or less of visits to their primary casino  LOW VISITATION</b>	<b>41% to 69% of visits to their primary casino  MODERATE VISITATION</b>	<b>70% or more of visits to their primary casino  HIGH VISITATION</b>	<b>ALL</b>
<b>OVERALL USE OF PLAYERS CLUB CARD AT ALL CASINOS</b>				
All the time	57.6%	54.5%	55.7%	56.8%
Most of the time	34.7%	37.6%	30.7%	33.3%
Sometimes	5.2%	6.1%	11.5%	7.6%
Rarely	1.3%	1.6%	1.4%	1.6%
Never	-	0.3%	0.7%	0.6%
<b>MEMBERSHIP IN OTHER TYPES OF LOYALTY PROGRAMS</b>				
Frequent Flyer Program(s)	29.7%	30.7%	30.8%	29.7%
Grocery Store Program(s)	66.5%	51.9%	39.6%	50.0%
Car Rental Program(s)	7.6%	4.3%	3.9%	5.0%
Hotel Program(s)	17.4%	17.4%	14.1%	15.3%
Retailer Frequent Buyer Program(s)	6.4%	5.0%	7.2%	5.6%
Music and Book Club(s)	9.7%	13.4%	10.2%	10.1%
Restaurant Program(s)	31.4%	26.7%	22.3%	25.9%
<b>SOCIOECONOMIC CHARACTERISTICS</b>				
<b>Age</b>	<b>62.6 years</b>	<b>62.5 years</b>	<b>63.1 years</b>	<b>63.3</b>
21 – 30	0.9%	1.3%	-	0.6%
31 – 40	1.7%	2.2%	4.4%	3.1%
41 – 50	11.3%	11.1%	10.5%	10.3%
51 – 60	25.2%	25.7%	26.2%	24.4%
61 – 70	37.4%	36.5%	28.9%	33.8%
Over 70	23.5%	23.2%	29.9%	27.7%
<b>Gender</b>				
Male	32.5%	38.7%	33.4%	34.1%
Female	66.1%	61.3%	66.6%	65.9%
<b>Number of Adults in Household</b>	<b>1.93 adults</b>	<b>1.97 adults</b>	<b>2.01 adults</b>	<b>1.91</b>
<b>Number of Homes with Children</b>	<b>7.9%</b>	<b>7.1%</b>	<b>6.6%</b>	<b>7.6%</b>
<b>Household Income</b>				
Under \$40,000	49.5%	39.3%	51.6%	47.8%
\$40,001 - \$59,999	24.0%	26.0%	26.0%	24.8%
\$60,000 - \$99,999	18.6%	24.2%	15.5%	19.3%
\$100,000 - \$149,999	5.4%	9.8%	6.2%	6.8%
\$150,000 - \$199,999	2.0%	0.7%	-	0.9%
Over \$200,000	0.5%	-	0.4%	0.3%

In terms of casino gaming behavior, the *Low (primary casino) Visitation* segment visited more casinos on average during the previous 12 months (8.3 casinos) compared to the *High (primary casino) Visitation* segment (5.1 casinos). Members of the *High (primary casino) Visitation* segment completed almost twice as many visits to casinos during the previous 12 months (28.7 trips) in contrast to the *Low (primary casino) Visitation* segment (16.0 trips). Clearly, the *High (primary casino) Visitation* segment concentrated more trips to fewer casinos including their primary casino. This marketing attractiveness was offset partially because the *Low (primary casino) Visitation* segment budget \$26 more per casino trip (an average of \$138.02 per visit) than the *High (primary casino) Visitation* segment (an average of \$112.41 per visit). Because the *Low (primary casino) Visitation* segment made half as many trips, their annual casino gaming budget was over \$1,000 less than the *Moderate (primary casino) Visitation* segment and *High (primary casino) Visitation* segments. These results provide support for the findings of the database analysis completed as part of the first objective of this study which suggest that on a per-visit basis, loyal customers spend less as opposed to disloyal or infrequent visitors. Although more revenues were derived from “loyal” player’s club members over the course of a year, the cost of obtaining this revenue was higher for loyal members as opposed to disloyal members.

A very high percentage of all three of these segments – *Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino)*

*Visitation* – were members of their primary casinos player's club and they joined primarily to receive comps and gifts and access to promotions.

It was somewhat disappointing, but not unexpected given the results of the first segmentation analysis that there were few differences in terms of overall player's club card use, membership in loyalty programs operated in other industries and socioeconomic characteristics across all three segments. All three segments had moderate participation rates in other types of loyalty programs and only 0.6 years separated the mean age for all three segments. All three segments were roughly two-thirds female and the majority had a household income of less than \$40,000 per year. As a result of this lack of differences, it is more difficult to target specific recruiting strategies at members of the three segments.

So all in all, while it is relatively easy to segment based on proportion of casino visits made to their primary casino, the information produced is only moderately useful in terms of the design, targeting, recruitment and retention of player's club members.

### **Segmentation Based on Amount Budgeted for Gaming at Casinos per Year**

Members of the client casino who responded to the mail survey were segmented into three roughly equal segments based on what they reported they had budgeted for gaming at casinos over the previous 12 months. Again, only respondents (a) who had visited a casino in the previous 12 months, and (b) that provided both the amount budgeted per trip and the number of trips taken to casinos during the previous 12 months were included in this analysis. Of the total



982 cases, 813 respondents (83%) met these criteria and were included in the analysis. The descriptive statistics for these segments are presented in *Table 14*.

Player's club members who responded to the survey and budgeted \$20 to \$700 per year for casino gaming were identified as the *Low Casino Spending* segment. Conversely, those persons who budgeted over \$2100 per year for gaming at casinos were defined as the *High Casino Spending* segment. Persons who budgeted \$701 to \$2099 per year for visits to casinos were identified as the *Moderate Casino Spending* segment.

Unlike segments that resulted from the other two segmentation bases, there were statistically significant ( $p < 0.05$ ) differences across the segments including number of annual visits to casinos, amount budgeted for gaming per casino visit, and total amount budgeted for casino gaming per year. In terms of value (the amount budgeted per year for casino visits), one member of the *High Casino Spending* segment was equal to seventeen persons located in the *Low Casino Spending* segment. The *High Casino Spending* segment also visited twice as many casinos in a 12-month period than the *Low Casino Spending* segment.

Although all three segments were similar with regard to their high participation in the player's club program of their primary casino, almost all (99.3%) of the *High Casino Spending* segment are members of their primary casinos player's club and 87.3% joined in order to receive comps. Comps were a less important reason for joining a player's club for the *Low Casino Spending* and *Moderate Casino Spending* segments. In addition, maybe in order to receive more points

that can be utilized for comps, almost two-thirds (65.2%) of the *High Casino Spending* segment utilized their player's card all the time compared to 51.7% for the *Moderate Casino Spending* segment and 46.0% for the *Low Casino Spending* segment.

The *High Casino Spending* and *Moderate Casino Spending* segments generally had higher participation rates in other loyalty programs operated by other industries including frequent flyer programs, hotel programs, and restaurant programs. All three segments had a similarly high participation rate in grocery store programs.

Interestingly, the *High Casino Spending* segment had a more even proportion of men and women gamers in contrast to the other two segments. The most prominent and expected socioeconomic difference was that on average, the *High Casino Spending* segment had a higher household income as compared to the other two segments. The *High Casino Spending* segment also had the youngest mean age (61 years) and had fewer children residing in the household as compared to the other two segments. This suggests that they have the income and free-time to support their gaming expenditures and frequency of trips to casinos.

While there were only a few important behavioral and socioeconomic differences identified between the segments, differences in the mean loyalty factor scores provided further insight into the effectiveness of these segmentation bases for their use in studying gaming loyalty programs.

**Table 14: Profile of Segments Formed Based on Total amount Budgeted per Year for Casino Gaming**

	<b>\$20 to \$700 per year budgeted for casino gaming</b>	<b>\$701 to \$2099 per year budgeted for casino gaming</b>	<b>\$2100 or more per year budgeted for casino gaming</b>	<b>ALL</b>
	<b>LOW CASINO SPENDING</b>	<b>MODERATE CASINO SPENDING</b>	<b>HIGH CASINO SPENDING</b>	
<b>GAMBLING BEHAVIOR</b>				
Visited any casino in previous 12 months				
Yes	100%	100%	100%	97.1%
Number of casinos visited the previous 12 months <sup>1</sup>	4.26 casinos	6.69 casinos	9.78 casinos	6.9 casinos
Number of visits to casinos the previous 12 months <sup>1</sup>	8.23 trips	18.33 trips	39.84 trips	22.2 trips
Amount budgeted for each casino visit <sup>1</sup>	\$65.21	\$108.73	\$217.06	\$129.81
Total amount budgeted for all casino visits the previous 12 months <sup>1</sup>	\$536.38	\$1,993.02	\$8,647.67	\$2,881.78
<b>PLAYERS CLUB PROGRAM FOR PRIMARY CASINO</b>				
Membership in the player's club program of their primary casino (the casino they visited most often in the previous 12 months)				
Yes	96.6%	98.5%	99.3%	<b>98.1</b>
No	3.4%	1.5%	0.7%	<b>1.9%</b>
Reasons for joining their primary casino's player's club				
Joined player's club to receive promos <sup>2</sup>	67.6%	72.6%	76.4%	<b>75.2%</b>
Joined player's club to receive comps	62.5%	78.6%	87.3%	<b>79.4%</b>
Joined player's club to get more value for my money	36.4%	46.2%	54.9%	<b>48.1%</b>
Joined player's club to receive specialized service	15.4%	19.2%	33.1%	<b>23.7%</b>
Joined player's club card for social reasons	16.5%	13.2%	9.1%	<b>13.2%</b>

1 – Mean based only on those respondents who had visited a casino in previous 12 months

2 – Percentage based of those respondents who were a member of primary casinos players club

**Table 14: Descriptive Profile of Segments Formed Based on Total amount Budgeted per Year for Casino Gaming (cont.)**

	<b>\$20 to \$700 per year budgeted for casino gaming</b>	<b>\$701 to \$2099 per year budgeted for casino gaming</b>	<b>\$2100 or more per year budgeted for casino gaming</b>	<b>ALL</b>
	<b>LOW CASINO SPENDING</b>	<b>MODERATE CASINO SPENDING</b>	<b>HIGH CASINO SPENDING</b>	
<b>OVERALL USE OF PLAYERS CLUB CARD AT ALL CASINOS</b>				
All the time	46.0%	51.7%	65.2%	56.8%
Most of the time	41.8%	35.9%	29.3%	33.3%
Sometimes	9.1%	10.0%	4.8%	7.6%
Rarely	1.9%	1.9%	0.7%	1.6%
Never	1.1%	0.4%	-	0.6%
<b>MEMBERSHIP IN OTHER TYPES OF LOYALTY PROGRAMS</b>				
Frequent Flyer Program(s)	23.2%	31.2%	34.5%	29.7%
Grocery Store Program(s)	47.1%	57.9%	50.9%	50.0%
Car Rental Program(s)	2.6%	6.8%	6.2%	5.0%
Hotel Program(s)	9.9%	19.2%	18.9%	15.3%
Retailer Frequent Buyer Program(s)	4.8%	7.1%	4.4%	5.6%
Music and Book Club(s)	6.6%	12.4%	13.8%	10.1%
Restaurant Program(s)	25.7%	27.8%	26.5%	25.9%
<b>SOCIOECONOMIC CHARACTERISTICS</b>				
<b>Age</b>	<b>63.2 years</b>	<b>63.3 years</b>	<b>61.0 years</b>	<b>63.3</b>
21 – 30	0.8%	0.4%	1.1%	0.6%
31 – 40	5.7%	0.8%	3.0%	3.1%
41 – 50	12.5%	10.5%	11.9%	10.3%
51 – 60	17.9%	26.5%	31.9%	24.4%
61 – 70	31.2%	38.5%	33.0%	33.8%
Over 70	31.9%	23.3%	19.3%	27.7%
<b>Gender</b>				
Male	32.2%	35.3%	40.4%	34.1%
Female	67.8%	64.7%	59.6%	65.9%
<b>Number of Adults in Household</b>	<b>1.83 adults</b>	<b>1.95 adults</b>	<b>2.01 adults</b>	<b>1.91</b>
<b>Number of Homes with Children</b>	<b>11.9%</b>	<b>6.0%</b>	<b>6.6%</b>	<b>7.6%</b>
<b>Household Income</b>				
Under \$40,000	56.2%	43.2%	38.1%	47.8%
\$40,001 - \$59,999	23.0%	28.8%	24.2%	24.8%
\$60,000 - \$99,999	16.2%	23.1%	20.8%	19.3%
\$100,000 - \$149,999	4.7%	3.9%	14.0%	6.8%
\$150,000 - \$199,999	-	0.9%	2.1%	0.9%
Over \$200,000	-	-	0.4%	0.3%

## Confirmatory Factor Analysis

Before the *Integrated Casino Loyalty Model* was tested and before using the loyalty model constructs to distinguish between segments, the validity and reliability of these constructs first needed to be tested. Although validity and reliability measures for the majority of the constructs were available in literature, the measures had to be adapted for use in a gaming environment. Measures for the construct of *rewards* were not available in literature so they were based on previous studies completed by the client casino. Because there is support in the literature for the majority of the loyalty constructs, a confirmatory factor analysis was utilized to test the constructs. Confirmatory factor analysis has proven to be quite effective in the validation of constructs in previous studies utilizing structural equation modeling. The constructs that were tested as part of the confirmatory factor analysis included the components of the loyalty program (*direct mail, preferential treatment, interpersonal communications, promotions and discounts, rewards*), antecedents of attitudinal loyalty (*affinity, consumer confidence*), moderating and mediating factors (*competitive factors, involvement, relationship commitment*). Although modeled as latent constructs, *perceived value, attitudinal loyalty* and *behavioral loyalty* were also included in the analysis in order to identify how segments differed in terms of their mean summed scores.

Factors were derived through principal axis factoring and were rotated using the varimax method. The number of factors was determined using a 1.00 eigenvalue cut-off. Based on the results of the confirmatory factor analysis, none of the individual measures were removed from the analysis. In terms of Cronbach's

alpha scores, twelve of the thirteen constructs had scores above 0.70 and the one remaining construct (*Relationship Commitment*) had an acceptable score of 0.64. The results of the confirmatory factor analysis are included in *Table 15*.

Factors representing the components of casino loyalty programs (*Direct Mail, Preferential Treatment, Interpersonal Communications, Promotions and discounts, Rewards*) all had Cronbach's alpha scores greater than 0.80, suggesting a high degree of reliability. With only one exception (direct mail), the means of the summed loyalty factor scores were less than 4.00 for all constructs. This suggests that the player's club members viewed the components of player's club programs as having only a moderate effect, thus questioning the impact of loyalty programs on player's club members who participated in this study.

The two antecedents to perceived value (*Affinity and Consumer Confidence*) had high Cronbach's alpha scores. The score for *affinity* was 0.80 and 0.85 for *consumer confidence*. The mean scores for both of these loyalty factors were just above 4, which again suggests that respondents only show moderate levels of trust and confidence in their primary casino's player's club programs.

**Table 15: Results of Confirmatory Factor Analysis of Potential Loyalty Model Factors**

Construct	Mean	Standard Deviation	Factor Loadings
<b>V1 – Direct Mail (<math>\alpha=.96</math>)</b>			
I receive mailings about the loyalty program on a regular basis	4.68	2.27	.953
I receive information about promotions through these mailings	4.85	2.21	.981
I receive information about special events through these mailings	4.88	2.19	.976
<b>V2 – Preferential Treatment (<math>\alpha=.83</math>)</b>			
I receive special treatment because I am a member of the player's club	3.04	2.12	.924
Casino staff offers me more personalized service because I am a member of the player's club	2.40	1.90	.924
<b>V3 – Interpersonal Communications (<math>\alpha=.94</math>)</b>			
Casino staff takes the time to personally get to know me because I am a member of the player's club	2.40	1.87	.975
Casino staff often hold personal conversations with me because I am a member of the player's club	2.28	1.83	.975
<b>V4 – Promotions &amp; Discounts (<math>\alpha=.86</math>)</b>			
I often receive discounts because I am a member of the player's club	3.85	2.35	.888
I often get invited to special events because I am a member of the player's club	3.57	2.28	.897
I often participate in promotions that are only available to player's club members	3.36	2.26	.856
<b>V5 – Rewards (<math>\alpha=.82</math>)</b>			
I often receive rewards/gifts (clothing, hotel rooms, tickets) because I am a member of the player's club	3.31	2.40	.862
As my level of gaming increases, the more gifts/rewards I receive from the casino	3.52	2.32	.865
I have used my points or comp balance to purchase gifts, tickets, or cashback	4.61	2.38	.710
I often receive comps (free food, drinks) during my visits because I am a player's club member	4.11	2.49	.788
<b>V6 – Affinity (<math>\alpha=.80</math>)</b>			
I feel good when I visit this casino	4.54	1.80	.890
Being part of the player's club makes me want to visit this casino more often	3.62	2.08	.749
Visiting this casino gives me pleasure	4.65	1.78	.890

Scale (1 = Do not agree to 7 = Strongly agree)

**Table 15: Results of Confirmatory Factor Analysis of Potential Loyalty Model Factors (cont.)**

Construct	Mean	Standard Deviation	Factor Loadings
<b>V7 – Consumer Confidence (<math>\alpha=.85</math>)</b>			
I trust this casino	4.05	1.92	.925
I believe that the casino is honest in its business with me	4.27	1.90	.926
I rely on this casino for my gaming	4.10	1.89	.776
<b>V8 – Perceived Value (<math>\alpha=.93</math>)</b>			
The casino makes great efforts to retain its player's club members	3.55	2.09	.899
The casino makes great efforts to improve its ties with player's club members	3.32	2.00	.935
The casino really cares about keeping its player's club members happy	3.31	2.00	.935
The casino asks for input and ideas from player's club members	2.66	1.90	.787
The casino continually enhances the benefits of the player's club program	3.09	1.99	.876
<b>V9 – Competitive Factors (<math>\alpha=.77</math>)</b>			
Compared to other casinos, I receive good value for my money	4.17	1.94	.879
I feel that I receive more value for my money by being a member of the player's club	4.05	2.13	.877
Compared to other player's club, this program offers me more value for my money	3.85	2.08	.913
<b>V10 – Involvement (<math>\alpha=.70</math>)</b>			
I am someone who finds it important about where I gamble	3.89	2.07	.788
I am someone who is interested in learning about gambling and different gambling opportunities	3.38	2.08	.839
I am someone for whom it means a lot to gamble	2.80	1.81	.756
<b>V11 – Relationship Commitment (<math>\alpha=.64</math>)</b>			
I am someone who likes to be a regular customer for a casino	3.13	1.96	.846
I am someone who likes building relationships with companies	3.26	2.00	.775
I am willing to go "the extra mile" to remain a customer of this casino	3.55	2.01	.659

**Scale (1 = Do not agree to 7 = Strongly agree)**



**Table 15: Results of Confirmatory Factor Analysis of Potential Loyalty Model Factors (cont.)**

Construct	Mean	Standard Deviation	Factor Loadings
<b>V12- Attitudinal Loyalty (<math>\alpha=.74</math>)</b>			
I am committed to this casino	2.99	2.00	.844
I would be willing to still visit this casino if it was more difficult to reach	3.12	1.93	.816
I tell other's about the benefits of joining the player's club	3.68	2.30	.772
<b>V13 – Behavioral Loyalty (<math>\alpha=.81</math>)</b>			
I will visit this casino on my next trip	4.67	2.05	.916
I intend to continue to be a customer of this casino	5.09	1.83	.916

**Scale (1 = Do not agree to 7 = Strongly agree)**

In terms of the moderating and mediating factors (*Competitive factors, Involvement, Relationship commitment*), *competitive factors* and *involvement* had Cronbach's alpha scores greater than 0.7 and *relationship commitment* had a score of 0.64. The mean scores for all three of the constructs was below 4, suggesting that the player's club members (at least the ones that completed a mail survey) perceived that the player's club program of their primary casino was only moderately competitive as compared to alternative programs. The low mean scores for involvement and relationship commitment were likely due to the forced recruitment practices of gaming organizations and the inclusion of less "serious" gamers within casino player's club programs.

Three factors (*Perceived Value, Attitudinal Loyalty, and Behavioral Loyalty*) were modeled as latent factors. Although not directly measured in terms of the model, having information of the mean scores for these factors was useful for

evaluating the segmentation bases and how the segments differed in terms of these major factors of interest. All three had Cronbach's alpha scores greater than 0.70 (0.93, 0.74, and 0.81 respectively), which suggest a high level of validity. Using a seven-point Likert scale (1 being strongly disagree to 7 being strongly agree), the mean scores for respondents included in this study were similar to those found in previous loyalty studies. Both *perceived value* and *attitudinal loyalty* were quite low (less than 3.5) which suggests that very few player's club members exhibited attitudinal loyalty and they viewed the value derived through their membership in the loyalty program of their primary casino as being quite limited. These findings are not surprising given the low loyalty factor scores for loyalty program components and their subsequent use as antecedents of *attitudinal loyalty*. Of interest is that mean scores for the individual measures of *behavioral loyalty* were just below 5.0, which suggests that player's club members exhibited moderate levels of behavioral loyalty towards their primary casino.

In summation, the loyalty factors included in the *Integrated Casino Loyalty Model* exhibited high levels of validity. Of interest is that with the exception of *behavioral loyalty*, the mean loyalty factor scores for all of the indicators were centered on 4.00. Since a seven-point Likert scale was used, this suggests that the respondents perceived the factors included in this study only moderately. These low mean scores and the subsequent higher mean score for *behavioral loyalty* may suggest that additional factors (e.g. satisfaction, convenience loyalty)

may be involved in the development of behavioral loyalty but are not being directly tested within the hypothesized model.

### **Differences of Factor Scores for Loyalty Segments**

As discussed earlier in this chapter, there were few distinguishing behaviors or socioeconomic characteristic differences based on the proposed segmentation base and the first alternative segmentation base (proportion of total trips to casinos made to primary casino). While there were some important behavioral and socioeconomic differences identified between segments based on amount budgeted per year for casino gaming, more robust profiles would assist in designing more effective casino player's club programs. Furthermore, in order to further test the segmentation base proposed in this study, the mean loyalty factor scores for the two segments (*Loyal Player's Club* members and *Disloyal Player's Club* members) are presented in *Table 16*.

*Table 16* shows that there were a few important statistically significant differences between player's club segments formed based on the data collected as part of client casinos players club tracking system. The *Loyal Player's Club* segment (those members who had visited the client casino at least once each of the four previous years) and *Disloyal Player's Club* segment (those members who had been a member of the client casinos player's club for over four years and either had no recorded activity from January 1, 2002 to December 15, 2002 or only five percent or less of their total lifetime theoretical win was represented by gaming activity from January 1, 2002 to December 15, 2002 at the client casino) had statistically significant differences ( $p < 0.05$ ) for promotions and

discounts available to player's club members at their primary casino (*promotions and discounts*), perceived value of being a member of the player's club for their primary casino (*perceived value*), and their comparison of the player's club of their primary casino compared to other casino's players clubs (competitive factors). Of interest is that the mean loyalty factor scores for the *Disloyal Players Club* segment were actually higher than those for the *Loyal Player's Club* segment. Since one would assume the opposite to occur, this further provides support that this segmentation method actually leads to the misidentification of loyal customers and is not an effective segmentation method for use by gaming organizations.

Although the proposed segmentation base was able to delineate a number of significant differences between segments, the need to further test alternative segmentation bases could potentially highlight further differences between segments within casino player's club programs and aid casinos in their marketing efforts.

**Table 16: A Comparison of Mean Loyalty Factor Scores for Segments Based on Gaming Activity at the Client Casino During the Previous 12 months as Compared to their Lifetime Gambling Behavior at the Client Casino**

	Loyal Player's Club Members		Disloyal Player's Club Members			
	Mean	S.D.	Mean	S.D.	t	p
Direct Mail	4.68	2.18	4.96	2.12	1.93	0.054
Preferential Treatment	2.67	1.81	2.85	1.96	1.36	0.174
Interpersonal Communications	2.29	1.74	2.40	1.87	0.85	0.398
Promotions & Discounts	3.48	2.01	3.76	2.05	2.04	0.041*
Rewards	3.84	1.95	3.94	1.92	0.71	0.478
Affinity	4.18	1.56	4.38	1.63	1.81	0.070
Consumer Confidence	4.09	1.66	4.21	1.69	1.07	0.284
Perceived Value	3.07	1.76	3.34	1.79	2.15	0.032*
Competitive Factors	3.89	1.56	4.13	1.57	2.17	0.030*
Involvement	3.28	1.57	3.47	1.58	1.89	0.071
Relationship Commitment	3.26	1.52	3.31	1.53	0.55	0.581
Attitudinal Loyalty	3.19	1.67	3.32	1.71	1.15	0.250
Behavioral Loyalty	4.79	1.83	4.95	1.75	1.30	0.193

\* p < 0.05

Scale (1 = Do not agree to 7 = Strongly agree)

In regards to the first alternative segmentation base, the segments formed based on the proportion of total visits to their primary casino (most often visited) again identified very few differences based on the mean scores for the loyalty factors. The means scores for each loyalty factor for the three segments are provided in *Table 17*.

**Table 17: Comparing Mean Loyalty Factor Scores Between Segments  
Based on Percentage of Total Visits to Casinos taken to Primary  
Casino**

	Visit primary casino 40% or less		Visit primary casino 41% to 69%		Visit primary casino 70% or more	
	LOW		MODERATE		HIGH	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Direct Mail	4.98	1.93	4.96	2.12	4.58	2.31
Preferential Treatment	2.68	1.83	2.85	1.91	2.72	1.87
Interpersonal Communications	2.25	1.76	2.35	1.79	2.39	1.83
Promotions & Discounts	3.57	2.05	3.72	2.00	3.55	2.06
Rewards	3.95	1.83	3.99	1.90	3.71	2.05
Affinity	4.22	1.61	4.44	1.54	4.20	1.61
Consumer Confidence	3.97	1.64	4.25	1.64	4.20	1.74
Perceived Value	3.24	1.71	3.29	1.75	3.07	1.80
Competitive Factors	3.97	1.51	4.07	1.54	4.01	1.63
Involvement	3.37	1.43	3.50	1.53	3.22	1.63
Relationship Commitment	3.28	1.47	3.37	1.52	3.20	1.56
Attitudinal Loyalty	3.17	1.54	3.37	1.67	3.22	1.74
Behavioral Loyalty	4.52	1.82	4.97	1.71	5.05	1.83

**Scale (1 = Do not agree to 7 = Strongly agree)**

All three segments (*Low (primary casino) Visitation, Moderate (primary casino) Visitation, and High (primary casino) Visitation*) perceived the components of the loyalty program (*Direct mail, Preferential Treatment, Interpersonal Communications, Promotions and Discounts, and Rewards*) only

moderately since only *direct mail* had a mean score higher than 4.0 (based on a seven-point Likert scale with 1 being strongly disagree and 7 being strongly agree). Maybe as a direct result of these low scores, all three segments exhibited low levels of *attitudinal loyalty* (*Low (primary casino) Visitation* = 3.17, *Moderate (primary casino) Visitation* = 3.37, and *High (primary casino) Visitation* = 3.22) and perceived value (*Low (primary casino) Visitation* = 3.24, *Moderate (primary casino) Visitation* = 3.29, and *High (primary casino) Visitation* = 3.07). Surprisingly, the *Moderate (primary casino) Visitation* segment actually had the highest mean scores for the loyalty factors of *perceived value* and *attitudinal loyalty*.

Independent sample t-tests were used to identify statistically significant differences between the segments. In comparing *Low (primary casino) Visitation* and *High (primary casino) Visitation* segments, significant differences were found only for the perceived assessment of the amount of *direct mail* sent to player's club members ( $t = 2.15$ ,  $p < 0.03$ ) and their level of *behavior loyalty* ( $t = -3.14$ ,  $p < 0.002$ ). Of significant interest is that although the *Low (primary casino) Visitation* segment had higher mean scores for seven loyalty factors (including three of the five components of the loyalty program) as compared to the *High (primary casino) Visitation* segment, the *High (primary casino) Visitation* segment had higher perceived levels of *attitudinal loyalty* (3.22) and *behavioral loyalty* (5.05) as compared to the *Low (primary casino) Visitation* segment scores of 3.17 for *attitudinal loyalty* and 4.52 for *behavioral loyalty*. These findings suggest that

items not included in the loyalty model may have a role in the development of behavioral loyalty.

In comparing the *Low (primary casino) Visitation* and *Moderate (primary casino) Visitation* segments, the only significant difference was for *behavioral loyalty* ( $t = -2.81$ ,  $p < 0.001$ ). In comparing the *Moderate (primary casino) Visitation* and *High (primary casino) Visitation* segments, the only significant difference was the assessment of *direct mail* sent to player's club members by their primary casino ( $t = 2.10$ ,  $p < 0.04$ ). As a result of the lack of differences found between these segments, this further exemplifies that the traditional behavioral loyalty segmentation base (proportion of purchases) is ineffective at identifying segments of a casino player's club program.

The second alternative segmentation base tested as part of this study was based on the total amount budgeted for gaming at casinos per year. As indicated earlier, this segmentation base proved quite effective at identifying both behavioral and socioeconomic differences between segments. Through the use of independent sample t-tests, significant differences were found between the three segments. The mean scores for the *Low Casino Spending*, *Moderate Casino Spending*, and *High Casino Spending* segments are presented in Table 18.

In comparing the *Low Casino Spending* and *High Casino Spending* segments, significant differences were found for all factors ( $p < 0.05$ ) with the exception of the perceived level of *interpersonal communications* that staff of the primary casinos have with player's club members as opposed to non-members.



Furthermore, as one would expect, mean scores for the *High Casino Spending* segment were higher as compared to the mean scores for the *Low Casino Spending* segment.

In comparing the *Low Casino Spending* segment to the *Moderate Casino Spending* segment, significant differences were found for the perceived amount of *direct mail* ( $t = -2.76, p < 0.001$ ), the availability of *rewards* ( $t = -3.38, p < 0.001$ ), the level of *involvement* that player's club members had in regards to casino gaming ( $t = -2.49, p < 0.01$ ), and their perceived level of *behavior loyalty* ( $t = -2.76, p < 0.006$ ). The significant difference for *direct mail* and *rewards* is most likely due to the fact that *Low Casino Spending* segment do not often have access to rewards and special events due to their low level of gaming.

In comparing the *Moderate Casino Spending* and *High Casino Spending* segments, significant differences were found for four of the five components of the loyalty program. These four components included the assessment of *direct mail* ( $t = -3.23, p < 0.001$ ), level of *interpersonal communications* ( $t = -2.00, p < 0.04$ ), availability and frequency of *promotions and discounts* ( $t = -3.45, p < 0.001$ ), and the perception of the quality of the *rewards* made available to player's club members ( $t = -4.10, p < 0.001$ ). These findings show support that the current practice of casinos focusing on the *High Casino Spending* segment actually has an effect on the gaming behavior of these player's club members – albeit a moderate one. Statistically significant differences were also identified for these two segments for their perceived level of *relationship commitment* ( $t = -3.60, p < 0.001$ ) and their levels of *attitudinal loyalty* ( $t = -2.88, p < 0.004$ ).

Of significant interest is that all three segments again rated the components of the loyalty program quite low, especially *interpersonal communications*. This suggests that although gaming organizations are using these programs as a key component of their marketing strategy, player's club members included in this study perceived the impact of these programs only moderately. As a result of these low scores, alternative marketing strategies should be identified and tested to determine their potential in marketing to these segments.

**Table 18: A Comparison of Mean Loyal Factor Scores for Groups Based on Total Amount Budgeted for Casino Gaming per Year**

	\$20 to \$700 per year		\$701 to \$2099 per year		\$2100 or more per year	
	LOW		MODERATE		HIGH	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Direct Mail	4.19	2.15	4.47	2.14	5.33	1.99
Preferential Treatment	2.44	1.76	2.71	1.79	3.00	2.00
Interpersonal Communications	2.26	1.86	2.25	1.67	2.53	1.92
Promotions & Discounts	3.15	1.91	3.51	2.03	4.09	2.00
Rewards	3.21	1.78	3.80	1.84	4.46	1.94
Affinity	4.01	1.50	4.28	1.64	4.48	1.58
Consumer Confidence	3.89	1.60	4.15	1.71	4.28	1.65
Perceived Value	3.06	1.79	3.15	1.74	3.38	1.78
Competitive Factors	3.71	1.52	3.99	1.57	4.30	1.55
Involvement	2.95	1.54	3.31	1.46	3.80	1.54
Relationship Commitment	2.92	1.44	3.20	1.51	3.66	1.51
Attitudinal Loyalty	2.89	1.69	3.18	1.64	3.56	1.65
Behavioral Loyalty	4.50	1.82	4.95	1.75	5.14	1.68

**Scale (1 = Do not agree to 7 = Strongly agree)**

In summation, the most effective segmentation method (in terms of identification of market segments) is the method of segmentation that is based on the amount budgeted for casino visits per year. Although this may be a by-product of the current practices of gaming organizations and their use of tier systems, it could also be a result of the ineffectiveness of player's club programs in serving lower spending customers. Although the rate varies across casinos, it

is generally assumed that one should never provide more than 10% of players' theoretical win as part of a player's club program. In other words, for every \$100 gambled, the casino will put aside \$0.60 for that person in terms of player's club rewards or cash back. This is not a significant amount when compared to the amount of money needed to earn this comp balance.

### **Testing of Integrated Casino Loyalty Model**

Although very few differences (behavioral, socioeconomically, and loyalty factor scores) were identified between segments formed with the first two segmentation bases, there may be differences with regard to how behavioral and attitudinal loyalty is actually developed within these segments. Testing the *Integrated Casino Loyalty Model* allowed for a strong test of these segmentation bases as well as provided insight into how attitudinal and behavioral loyalty is developed in regards to these segments.

As stated previously, the proposed *Integrated Casino Loyalty Model* was used as the framework for this test. Building on past loyalty studies, the model was developed to take into account special aspects of casino gaming and player's club programs. The following components of player's club programs were included: *Direct mail, preferential treatment, interpersonal communications, promotions and discounts, and rewards*. Since loyalty programs have been identified as value-added programs, the components of the player's club were modeled as antecedents of *perceived value*. Through the inclusion of *affinity* and *consumer confidence* as part of this model, a detailed analysis of how attitudinal

loyalty is created and its subsequent relationship with perceived value and behavioral loyalty was possible. Finally, the use of *behavioral loyalty* as the outcome variable was supported by the fact that the majority of organizations utilize loyalty programs as a method for increasing usage and/or market share.

When testing latent structural models, the first step is to test the measurement model (no paths between latent variables). The purpose of the measurement model is to determine whether each indicator variable is loading onto their specified latent variables. Once the measurement model has reached an acceptable level of fit in regards to the data (structural equation modeling uses covariance matrixes), the full hypothesized structural model (paths between latent variables and the introduction of mediating and moderating variables) is tested to determine its fit relative to the data being tested. As is the case in most modeling efforts, the hypothesized model is often modified using the results of the Lagrange Multiplier test. The Lagrange Multiplier tests provide suggestions for model modifications to improve the chi-square/degrees of freedom ratio, thus attempting to improve the fit of the model relative to the data (mail survey respondents for whom mean scores could be calculated for all loyalty factors). When utilizing the results of the Lagrange Multiplier test, any modifications should be not only based on statistical results, but should also make sense theoretically.

Previous studies have raised questions related to the reliability of using chi-square tests as the sole indicator of model fit (Fan, Thompson and Wang, 1999). Recognizing the need for other measures of fit, a number of fit indices have been

developed and are now included in all structural equation modeling statistical programs. The most commonly accepted fit indices include the *Comparative Fit Index* (CFI; Bentler, 1990), *Incremental Fit Index* (IFI; Bollen, 1989), and *Standardized Root Mean Squared Residual* (SRMR). Cut-off values for CFI and IFI of these indices are set at 0.90 and SRMR is below 0.05 (Bentler, 1990; Hoyle and Panter, 1995).

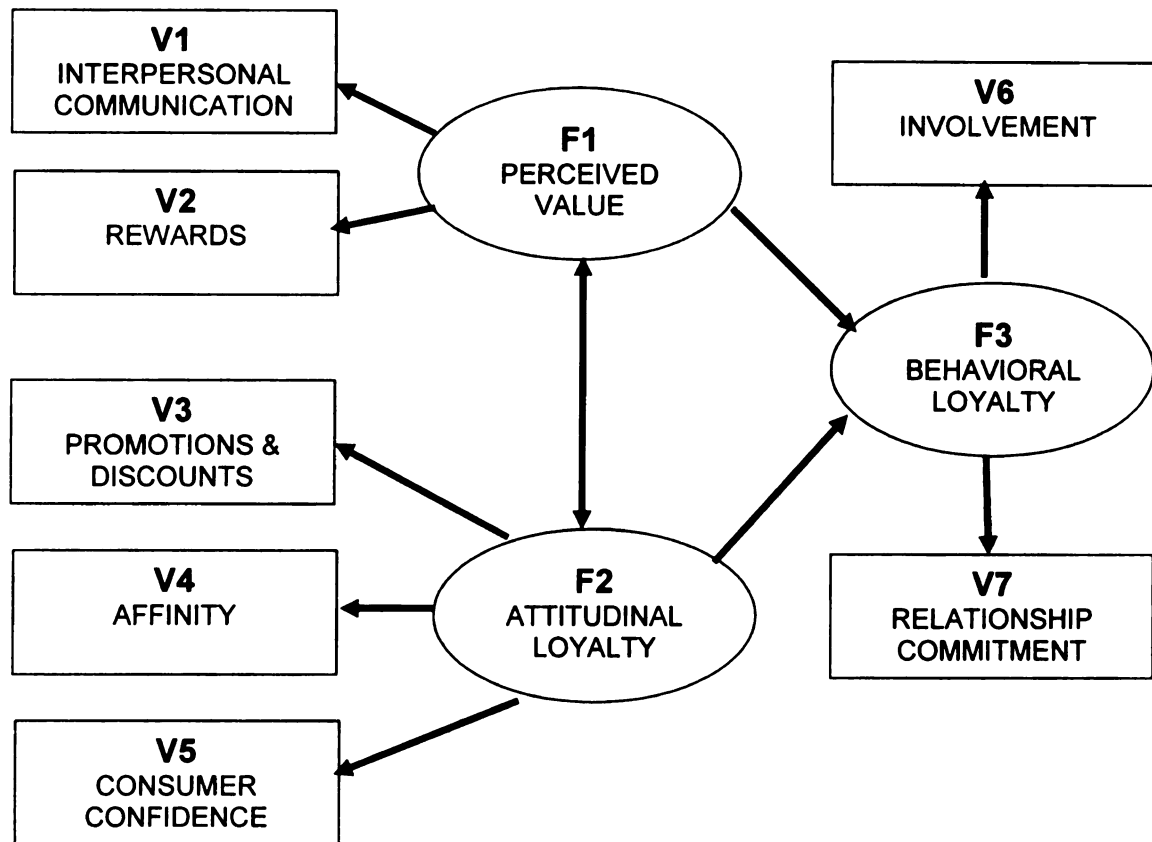
The most cited alternative fit index is the *Root Mean Square Error of Approximation* (RMSEA) which focuses on the degree of fit between the data being tested and the proposed model. According to MacCallum et al. (1996), the *RMSEA* value should be small (preferably in the area of 0.06 or lower), but a score of less than 0.08 has been generally accepted in literature (MacCallum et al., 1996).

As stated previously, the first step was the testing of the hypothesized *Integrated Casino Loyalty Model*. Testing showed that the fit of the hypothesized measurement model was acceptable based on the results of the fit indices (*Comparative Fit Index* = 0.97, *Incremental Fit Index* = 0.97, *Standardized Root Mean Squared Residual* = 0.03). The test also indicated that the  $\chi^2$  (111.03) divided by the degrees of freedom (9) resulted in a score of 12.3. This score suggests that the likelihood of finding these results in a general population is quite unlikely ( $p = 0.0001$ ), thus rejecting the model. In addition, the test of the full structural model resulted in a significant number of errors (error terms variances set to zero, linear dependence between variables, and disturbance terms set to correlate). These errors suggest that indicator variables were loading on multiple

factors, resulting in problems of multicollinearity. The culmination of these errors made the results un-interpretable.

As a result of these issues, an alternative model was developed based on the results of the Lagrange Multiplier test and from reviewing past literature. The results of the Lagrange Multiplier test suggested the removal of *direct mail*, *preferential treatment*, and *competitive factors* since these indicators loaded on multiple factors. Although of major interest, *competitive factor* loaded on multiple factors and was linearly dependant on multiple factors, thus reducing the reliability of the results of the model testing effort. The results also proposed placing *involvement* and *relationship commitment* as indicator variables for *behavioral loyalty* and removing the paths between these two variables and that of the two latent constructs of *perceived value* and *attitudinal loyalty*. Since these variables were modeled as moderator variables, these changes were completed by removing the paths between *involvement* and *relationship commitment* and both *perceived value* and *attitudinal loyalty*. As a result of these modifications, a proposed alternative model was developed and is presented in *Figure 7*.

**Figure 7: Elements of the Alternative Integrated Casino Loyalty Model**

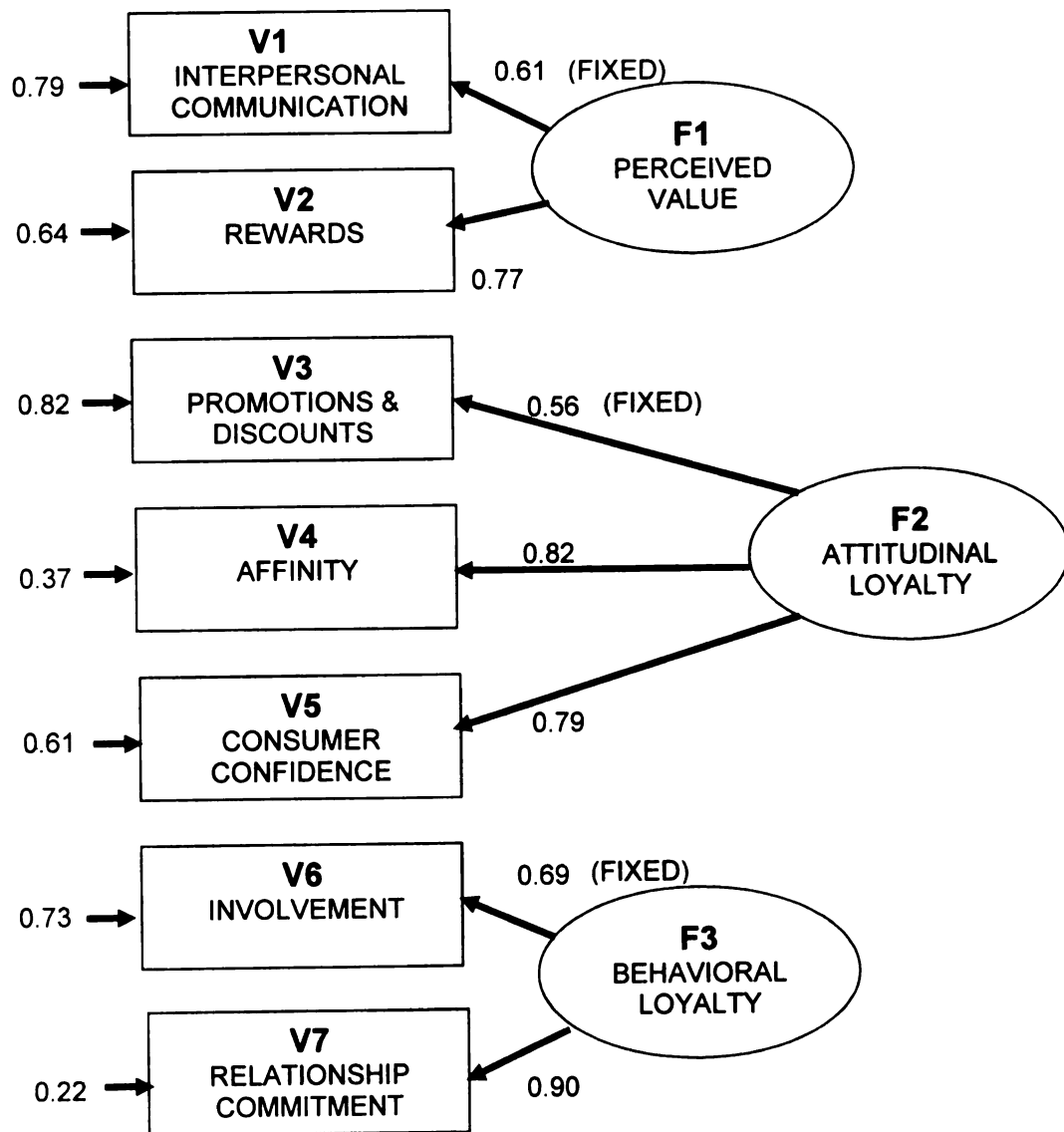


### **Model Refinements**

The results of the measurement model of the *Alternative Integrated Casino Loyalty Model* are presented in *Figure 8*. The test of the measurement model includes the estimation of the reliability coefficients of the constructs, as well as the determination of the convergent and discriminant validity of the instrument.



**Figure 8: Measurement Model For Alternative Integrated Casino Loyalty Model ( N = 806 Cases)**



MODEL FIT INDICES	
$\chi^2/df$	4.6
RMSEA	0.06
CFI	0.98
IFI	0.98
SRMR	0.03

Standardized coefficients, covariance, and error terms shown  
All paths are significant at  $p < 0.05$

Bagozzi and Yi (1991) suggested two methods for assessing convergent validity. Convergent validity is achieved if each indicator (e.g. *Direct Mail*, *Rewards and discounts*, *Affinity*, etc.) loads significantly on its respective latent factor. From reviewing the results of the measurement model test, all indicators loaded significantly on their respective latent variables, thus suggesting that convergent validity was achieved. A second and more stringent test of convergent validity should be utilized with sample sizes of 1,500 or more cases. With this test, convergent validity is achieved when the squared factor loading is greater than 0.5. Although the number of cases included in the testing of the measurement model was only 806 cases, of the seven variables included in the measurement model, five of the seven variables had squared factor loadings greater than 0.5 which suggests that convergent validity was achieved (Bagozzi and Yi, 1991).

Discriminant validity is the degree to which items differentiate among constructs or measure distinct concepts. To assess discriminant validity, it requires examining variables included in the models (both measurement and structural) to ensure that they are not perfectly correlated (correlation equal to 1). For the *Alternative Integrated Casino Loyalty Model*, all correlations between variables are significantly different ( $p < .05$ ) and no correlations are higher than the recommended 0.85 level. This suggests that discriminant validity was achieved and that all of the variables and factors being modeled are in fact distinct.

In order to assess the validity of the results of the Confirmatory Factor Analysis (CFA), multiple goodness-of-fit measures were utilized to determine how well the proposed alternative measurement model fit in relation to the data (Mail survey respondents' for whom mean scores could be calculated for all loyalty factors). Obviously, if the results of the fit indices are quite strong, this suggests that the model being tested is effective at explaining the data.

As indicated in *Figure 8*, the ratio of chi-square to degree of freedom is 4.6. As suggested by Bollen (1989), the ratio of chi-square to degrees of freedom should exceed 3. Since our ratio exceeds this threshold, the alternative measurement model was statistically significant from zero ( $p < 0.05$ ). Any ratio below 3 suggests that the model may not be statistically different from zero and that the model may be under-identified or not measuring all of the factors included in model (Kline, 1998). In relation to the fit indices, the measurement model showed that the model exceeds all of the cutoff values (*Confirmatory Factor Index*= 0.98, *Incremental Fit Index*= 0.98, and *Standardized Root Mean Squared Residual*= 0.003). In terms of the alternative fit index, the *Root Mean Square Error of Approximation* (RMSEA) was .06, which is below the acceptable cutoff. The results of these scores suggest that the measurement model of the *Alternative Integrated Casino Loyalty Model* fit the data quite well.

The results of the test of the full structural model for all 806 player's club members who responded to the survey and that were included in the model testing portion of this study are indicated in *Figure 9*. All model coefficients were significant at  $p < 0.05$ . Although both effects were moderate, *perceived value* had

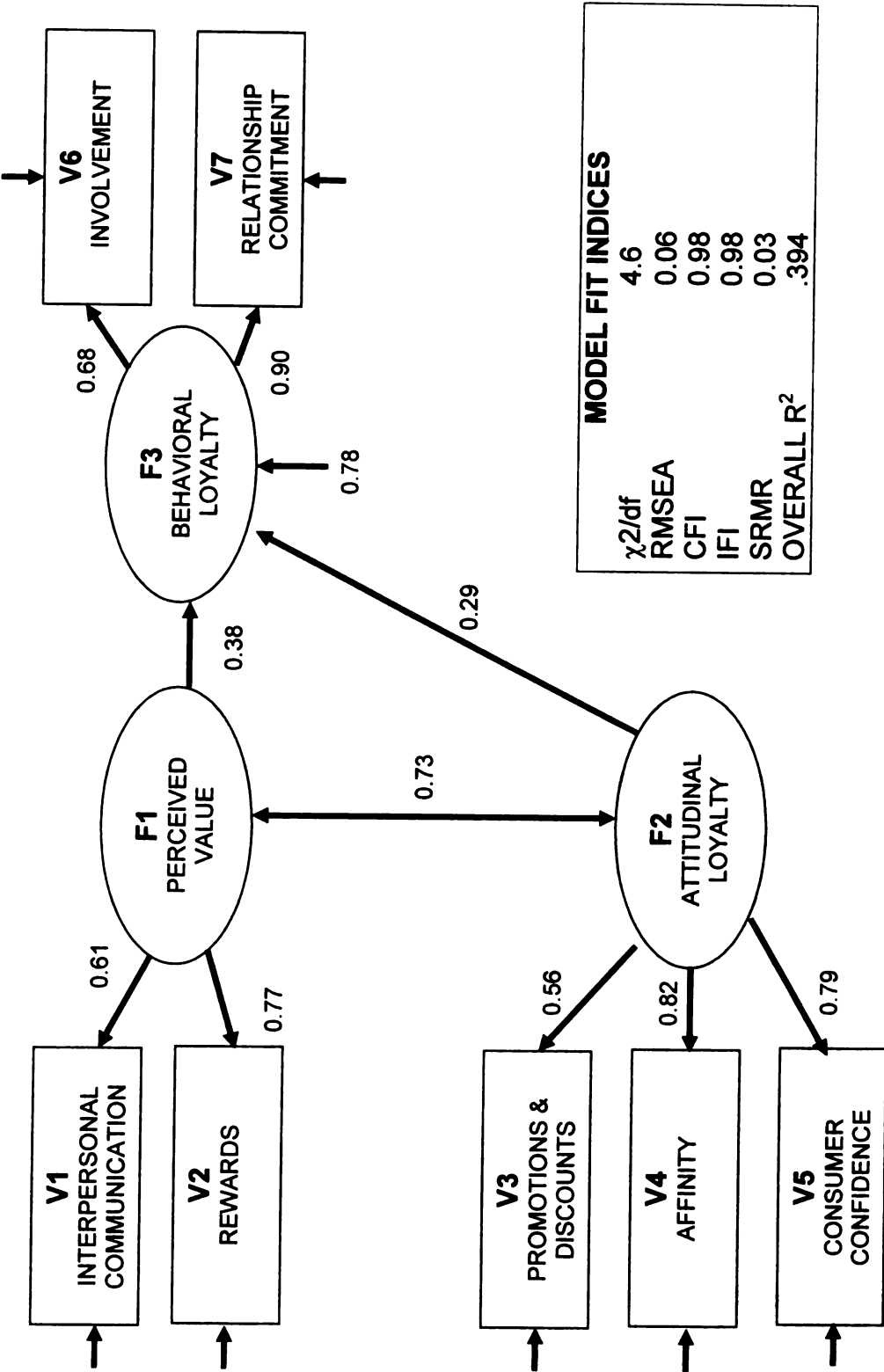
a greater effect (0.38) than *attitudinal loyalty* (0.29) in predicting *behavioral loyalty*. The correlation between *perceived value* and *attitudinal loyalty* is quite strong with a correlation coefficient of 0.73, which suggest that although these two latent constructs are distinct, they are highly correlated and may (in future cases) be non-distinct (if the correlation exceeds 0.90).

Each of the exogenous variables loaded significantly on its related latent variable. Both *interpersonal communications* and *rewards* had moderate effects on *perceived value* with path coefficients of 0.61 and 0.77 respectively. In relation to *attitudinal loyalty* and as found in previous studies, both *affinity* and *consumer confidence* were significant predictors of *attitudinal loyalty*. Although to a lesser degree, *promotions and discounts* had a moderate effect on *attitudinal loyalty*. As one would expect in a loyalty program setting, *relationship commitment* was a strong predictor of *behavioral loyalty*. In summation, with path coefficients ranging from 0.52 to 0.90, this suggests that the indicator variables are good predictors of the latent constructs. A supplementary W-test was performed to test for co-linearity because of the strength of the loading of *relationship commitment* on *behavior loyalty* and *affinity* on *attitudinal loyalty*. The w-test showed that all variables are in fact distinct and that discriminant validity was achieved.

In terms of model fit, the structural model had a relatively good fit with the data for the 806 player's club members who responded to the survey based and for whom scores for all of the loyalty factors could be calculated. This is clearly indicated by the results of the fit indices (*Comparative Fit Index*= 0.98, *Incremental Fit Index*= 0.98, *Standardized Root Mean Squared Residual*= 0.03,

and *Root Mean Square Error of Approximation*= 0.06). In terms of variance explained, the overall  $r^2$  for the full structural model for the entire sample was 0.39. This suggests that although the indicator variables are loading quite strongly onto their appropriate latent constructs, a significant amount of the variance is not being explained by the *Alternative Integrated Casino Loyalty Model*. This suggests that other factors may be involved in the development of *behavioral loyalty* and are not being directly tested as part of this model.

**Figure 9: Structural Model for All Members of the Client Casinos Player's Club that Returned a Completed Mail Survey (N = 806)**



Standardized coefficients, covariance, and error terms shown

### **Using the Structural Model for Identifying Differences Among Loyalty Segments Based on Respondents Gaming Activity at the Client Casino During the Previous 12 Months**

The *Alternative Integrated Casino Loyalty Model* was tested for both the *Loyal Player's Club* and *Disloyal Player's Club* segments (segments based on respondents gaming activity at the client casino during the previous 12 months) in an effort to identify distinguishing characteristics. Recall that the *Loyal Player's Club* segment had visited the client casino at least once each of the four previous years. The *Disloyal Player's Club* segment members have been members of the client casinos player's club for over four years and either had no recorded activity from January 1, 2002 to December 15, 2002 or only five percent or less of their total lifetime theoretical win was represented by gaming activity from January 1, 2002 to December 15, 2002 at the client casino. The structural model for 406 players that comprised the *Loyal Player's Club* segment is presented in *Figure 10*. The structural model run for 376 *Disloyal Player's Club* segment is presented in *Figure 11*. *Table 19* shows the path coefficients for these two segments compared to all 806 player's club members who completed a mail survey.

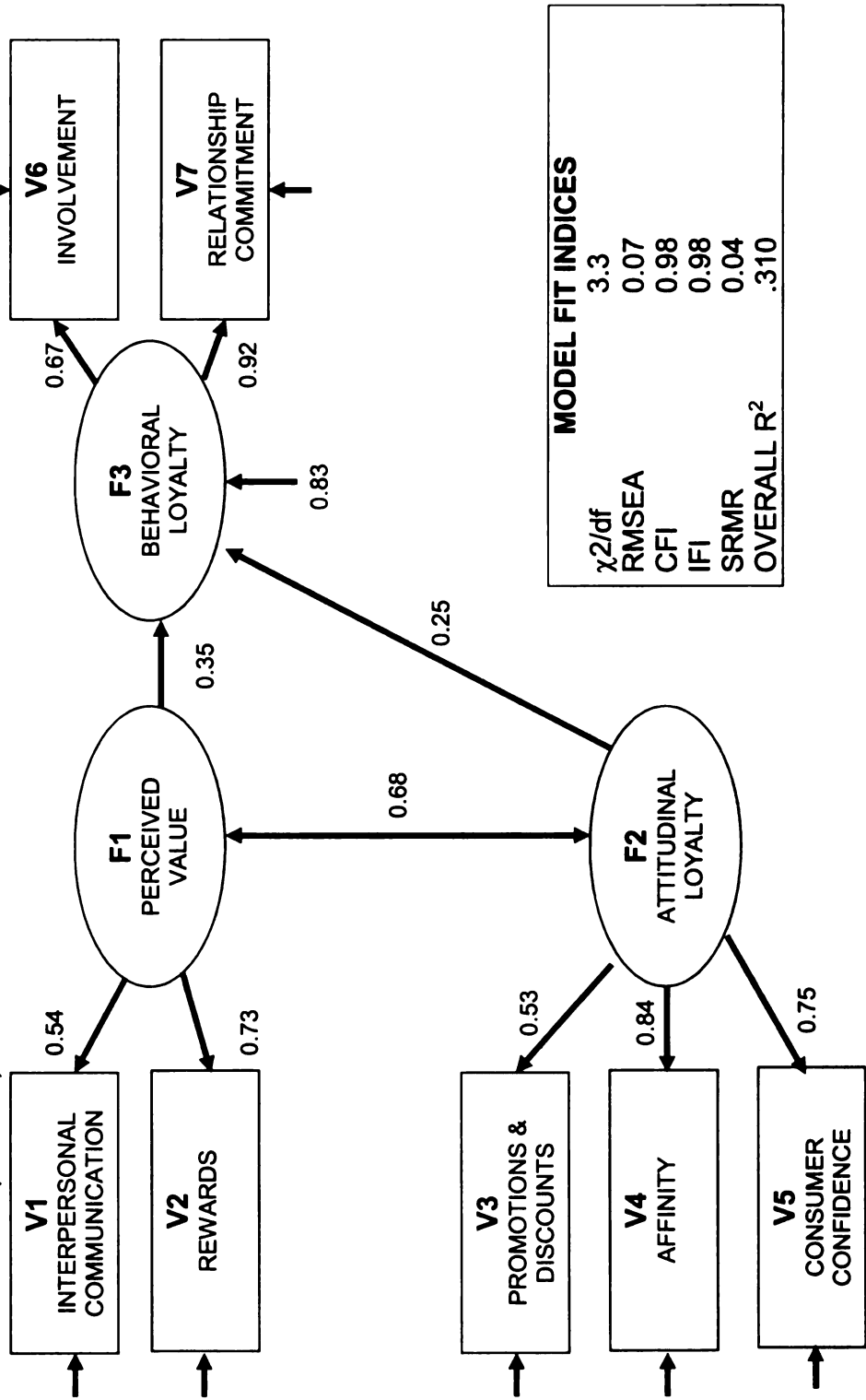
In comparing the models for both segments, the only statistically significant difference ( $p < 0.05$ ) was for the path coefficients between *involvement* and *behavioral loyalty*. Of interest is that the *Disloyal Player's Club* segment actually had a higher mean score for *involvement* (3.47) as compared to the *Loyal Player's Club* segment (3.24), but this higher level of *involvement* did not translate into an increase in *behavioral loyalty*. Although there are no other statistically significantly differences between the segments, for both segments,

*rewards* had a significantly large effect on *perceived value*. The effect between *affinity* and *attitudinal loyalty* and also between *relationship commitment* and *behavioral loyalty* is also quite large. For both segments, *perceived value* is a stronger predictor of *behavior loyalty* than *attitudinal loyalty*. However, the effect sizes for *attitudinal* and *perceived value* on *behavior loyalty* are larger for the *Disloyal Player's Club* segment. This adds additional support for the conclusion that this segmentation base may not effectively identify loyal customers since loyalty literature insists that loyal customers should have higher levels of attitudinal loyalty which should ultimately lead to higher levels of behavioral loyalty. The findings of this model test are contrary to that proposed by loyalty literature.

The model fit for both the *Loyal Player's Club* segment (*Comparative Fit Index* = 0.98, *Incremental Fit Index* = 0.98, *Standardized Root Mean Squared Residual* = 0.03, *Root Mean Square Error of Approximation* = 0.07) and *Disloyal Player's Club* segment (*Comparative Fit Index* = 0.98, *Incremental Fit Index* = 0.98, *Standardized Root Mean Squared Residual* = 0.03, *Root Mean Square Error of Approximation* = 0.07) were acceptable. In terms of the overall variance explained, the *Alternative Integrated Casino Loyalty Model* explained more of the variance for the *Disloyal Player's Club* segment (0.40) as opposed to the *Loyal Player's Club* segment (0.31), which suggests that although very few significant differences were identified, the model is much better at explaining the behavior of the *Disloyal Player's Club* segment as compared to the *Loyal Player's Club* segment.

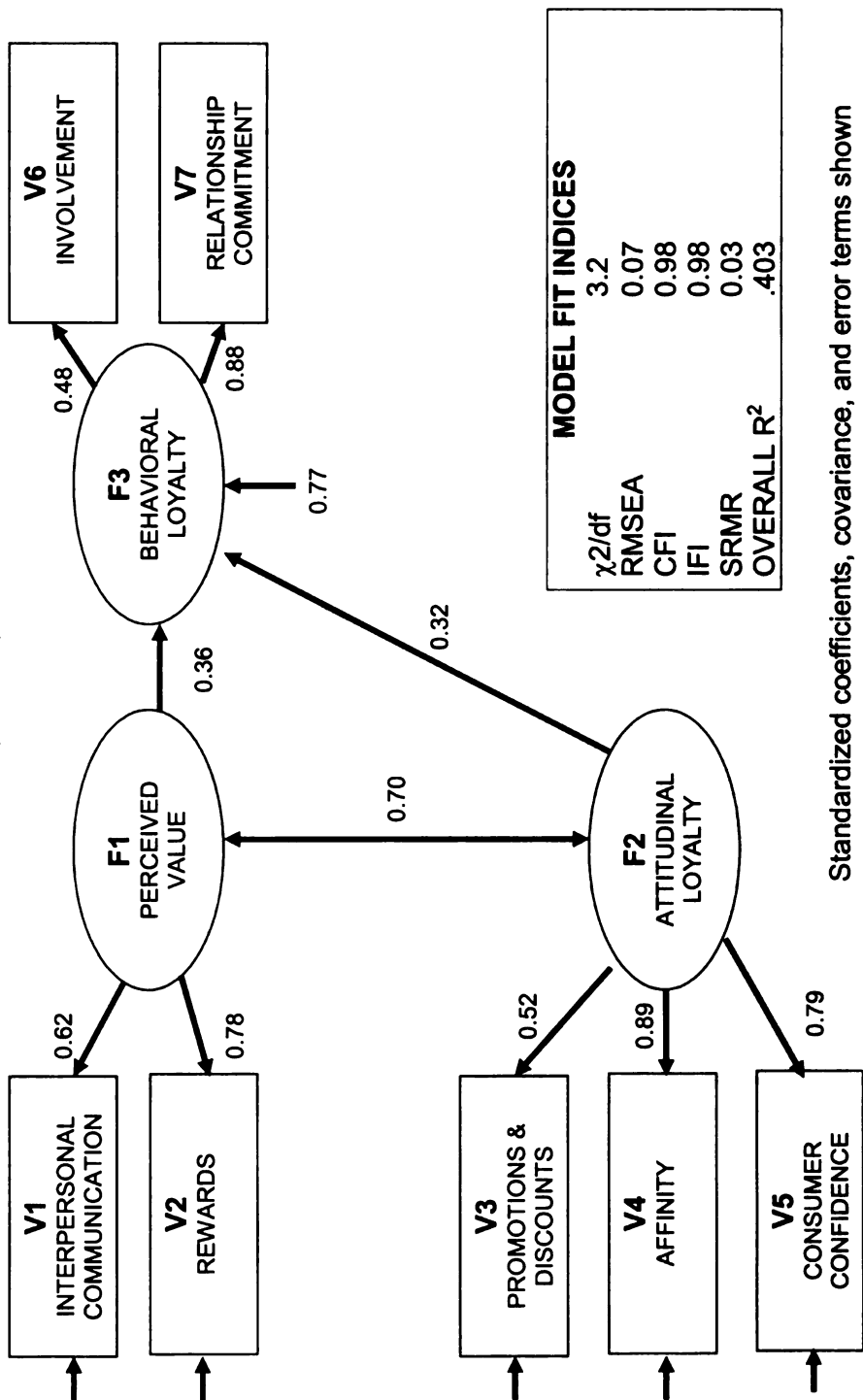


**Figure 10: Results of the Testing of the Alternative Integrated Casino Loyalty Model for those Respondents (Loyal Player's Club segment) who had Visited the Client Casino at Least Once Each of the Four Previous Years (N = 406)**



Standardized coefficients, covariance, and error terms shown

**Figure 11:** Testing of the Alternative Integrated Casino Loyalty Model for those Respondents (*Disloyal Player's Club* segment) who have been a Member of the Client Casinos Player's Club for Over Four Years and Either had no Recorded Activity from January 1, 2002 to December 15, 2002 or Only Five Percent or Less of their Total Lifetime Theoretical Win was Represented by Gaming Activity from January 1, 2002 to December 15, 2002 at the Client Casino (N = 376)



Standardized coefficients, covariance, and error terms shown

**Table 19: Summary of Path Coefficients for Segments Based on Gaming Activity at the Client Casino During the Previous 12 months as Compared to their Lifetime Gambling Behavior at the Client Casino**

	PATH COEFFICIENTS		
	Loyal Player's Club	Disloyal Player's Club	ALL
Interpersonal Communications → Perceived Value	0.54	0.62	0.61
Rewards → Perceived Value	0.73	0.78	0.77
Promotions → Attitudinal Loyalty	0.53	0.52	0.56
Affinity → Attitudinal Loyalty	0.84	0.89	0.82
Consumer Confidence → Attitudinal Loyalty	0.75	0.79	0.79
Involvement → Behavioral Loyalty	0.67	0.48	0.68
Relationship Commitment → Behavioral Loyalty	0.92	0.88	0.90
Perceived Value ↔ Attitudinal Loyalty	0.68	0.70	0.73
Perceived Value → Behavioral Loyalty	0.35	0.36	0.38
Attitudinal Loyalty → Behavioral Loyalty	0.25	0.32	0.29

All paths are statistically significant at  $p < 0.05$

## Testing of Structural Model for Identifying Differences Among Loyalty Segments Based on Alternative Segmentation Bases

The next segments that the *Alternative Integrated Casino Loyalty Model* was tested on were formed using the first alternative segmentation base of percentage of total visits to casinos that were made to their primary casino (the casino they visited most frequently over the previous 12 months). The results of the test of the structural model for the *Low (primary casino) Visitation* segment (those who made 40% or less of their annual visits to their primary casino) are presented in *Figure 12*. The results of the structural model for the *Moderate (primary casino) Visitation* segment (those who visited their primary casino 41% to 69% of their total visits) and the *High (primary casino) Visitation* segment (those who visited their primary casino 70% or more of their total visits) are presented in *Figure 13* and *Figure 14*. A summary of the path coefficients for all three segments (*Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino) Visitation*) compared to that of the 806 total respondents included in the testing of the *Alternative Integrated Casino Loyalty Model* are included in *Table 20*.

In terms of the relationship between *perceived value* and *attitudinal loyalty* on *behavior loyalty*, no pattern could be discerned from the results. From past studies (Chaudhuri and Holbrook, 2001; De Wulf et al., 2001, Reichheld and Teal, 1997), one would assume that *attitudinal loyalty* and *perceived value* would be positively related to *behavioral loyalty* (or in this case, the proportion of total trips made to their primary casino). As indicated by the results, the *Low (primary casino) Visitation* segment actually had a larger *attitudinal loyalty - behavior*

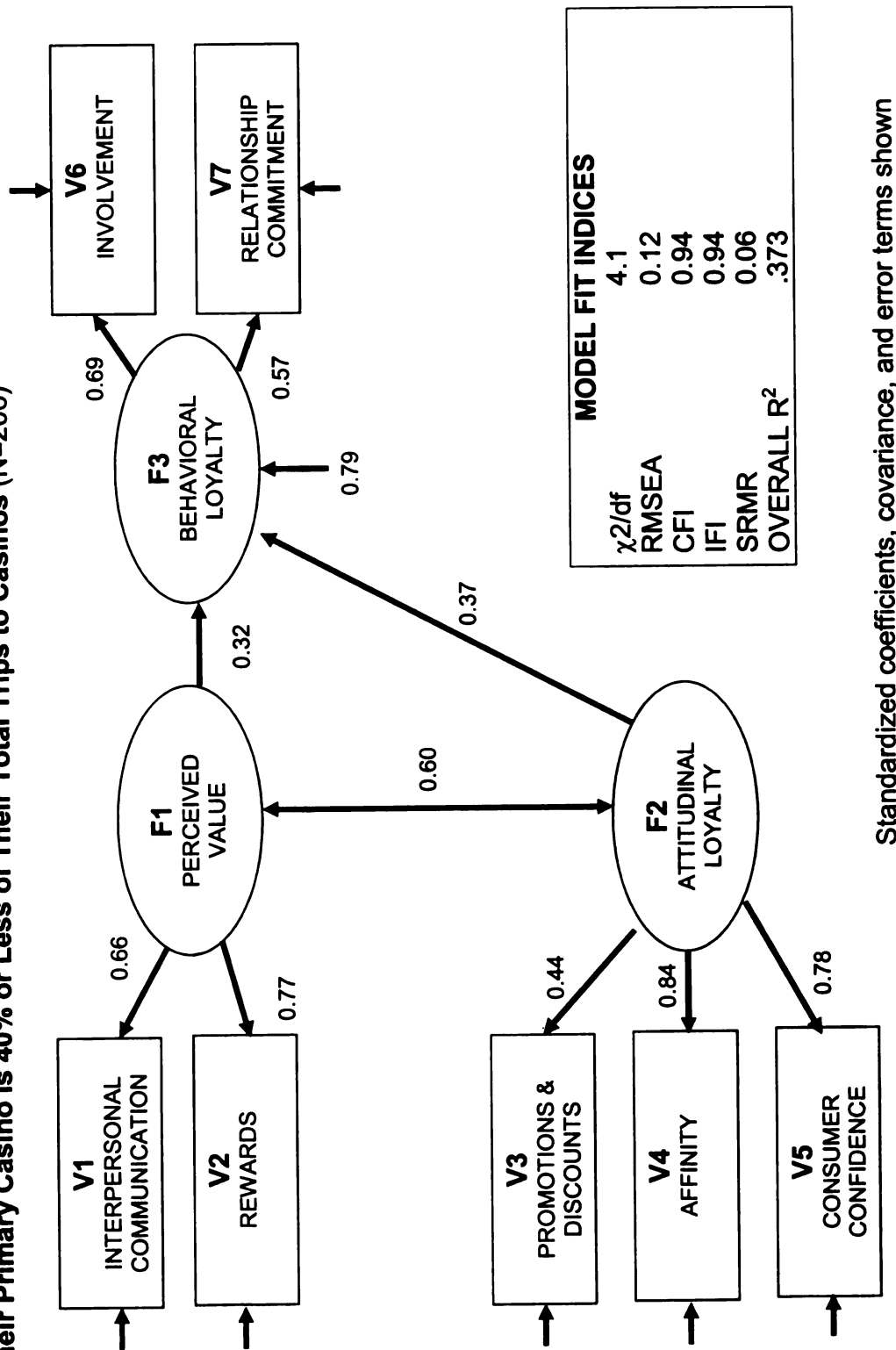
*loyalty* path coefficient than either of the other two segments. The effects between *promotions - attitudinal loyalty* and also *relationship commitment - behavioral loyalty* are the only paths that show a consistent pattern between segments. Although no pattern could be discerned, the correlation between *perceived value* and *attitudinal loyalty* was quite significant with correlations of 0.60, 0.72, and 0.65 respectively for the *Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino) Visitation* segments, which suggests that for all three segments, the correlation between these two factors is constant.

In terms of *perceived value*, the *Moderate (primary casino) Visitation* segment had a larger effect (0.45) as compared to the *Low (primary casino) Visitation* segment (0.32) and *High (primary casino) Visitation* segment (0.33). For the *Low (primary casino) Visitation* segment, *relationship commitment* had a more moderate effect (0.57) as compared to the effects for the entire sample (0.90) and the *Moderate (primary casino) Visitation* (0.83) and *High (primary casino) Visitation* (0.86) segments.

In terms of model fit, with the exception of the *Root Mean Square Error of Approximation* for both the *Low (primary casino) Visitation* and *Moderate (primary casino) Visitation* segments and the *Standardized Root Mean Squared Residual* for the *High (primary casino) Visitation* segment, all of the remaining fit indices were above acceptable limits. Since multiple indices are utilized to ascertain the fit of models to their respective data sets, having one or two indices fail to achieve acceptable limits does not equate to the models being rejected

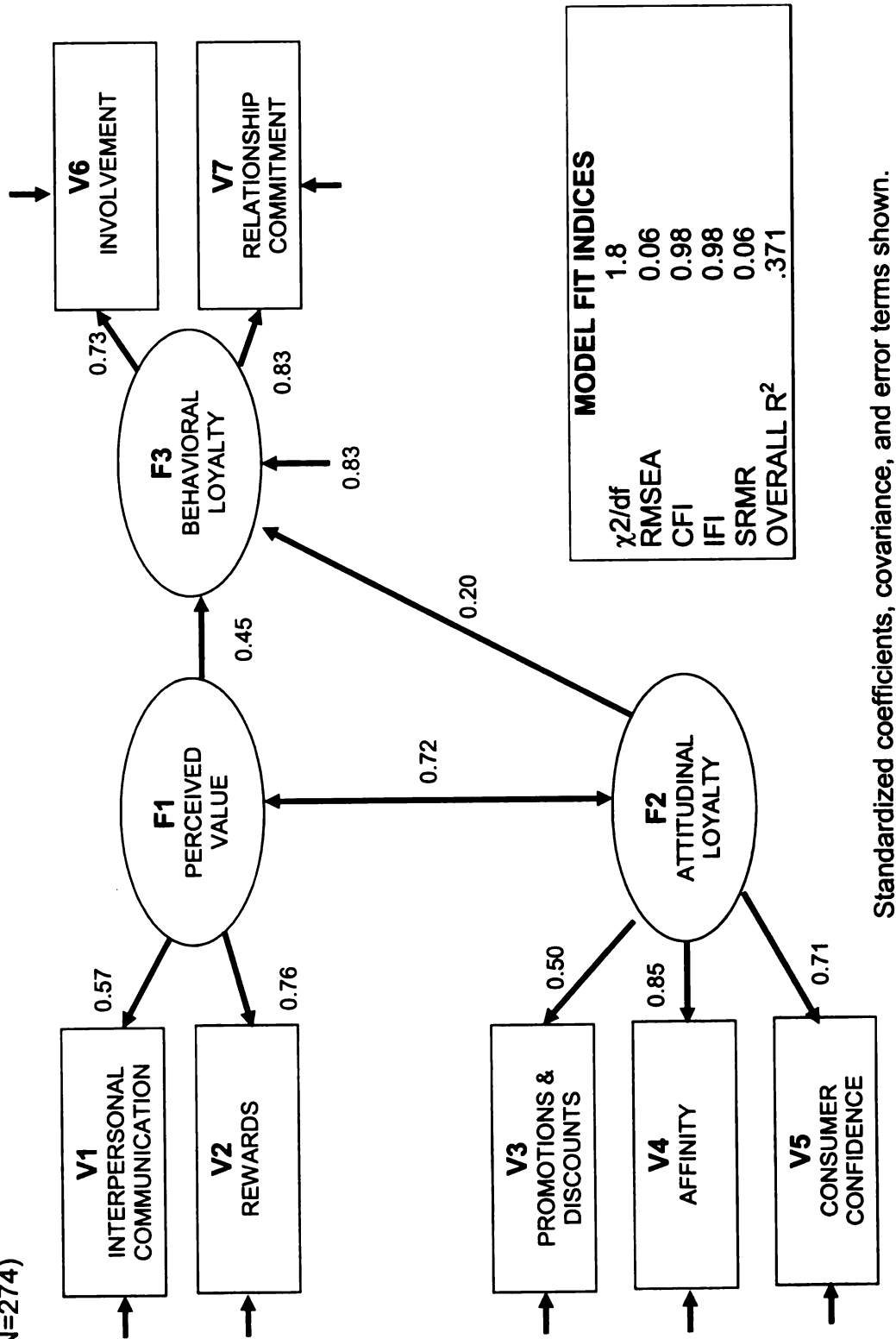
(Kline, 1998). As a result, the structural models for all three segments are accepted. In terms of overall variation explained, the overall variance explained for the *Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino) Visitation* segments are 0.37, 0.37, and 0.39 respectively. This suggests that although the model fits the data (the mean loyalty factor scores for all three segments), a sizeable portion of the variance remains unexplained. This suggests that alternative factors may have an influence on the development of behavioral loyalty and that are not included as part of the *Alternative Integrated Loyalty Model* being tested as part of this phase of the study.

**Figure 12: Path Coefficients for the Low (primary casino) Visitation Segment Whose Percentage of Total Visits to their Primary Casino is 40% or Less of Their Total Trips to Casinos (N=206)**



Standardized coefficients, covariance, and error terms shown

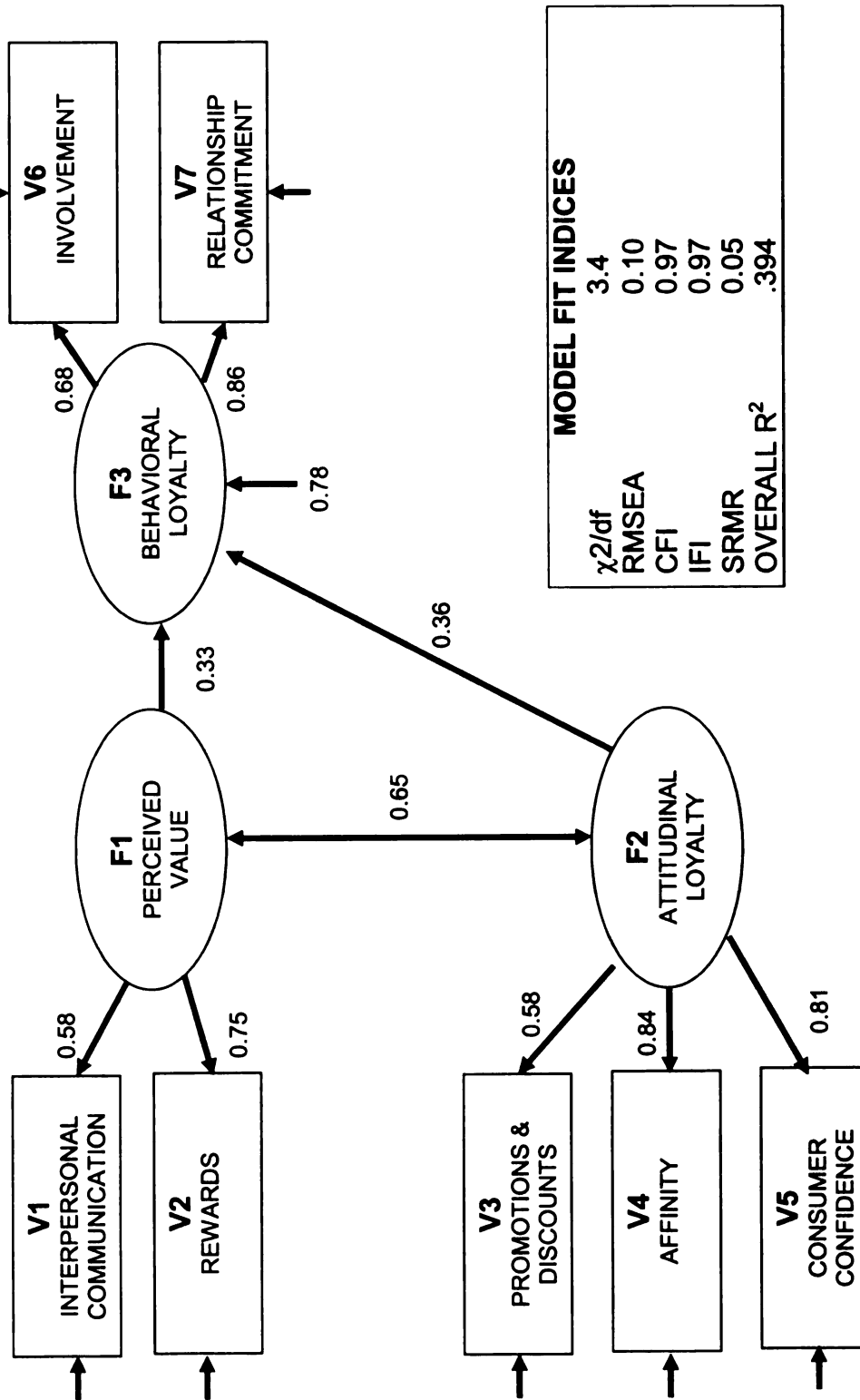
**Figure 13: Testing of the Structural Model for Persons Moderate (primary casino) Visitation Segment Whose Percentage of Total Visits to Their Primary Casino is 41% to 69% of Their Total Trips to Casinos (N=274)**



Standardized coefficients, covariance, and error terms shown.



**Figure 14: Full Structural Model Results for the High (primary casino) Visitation Segment Whose Percentage of Total Visits to their Primary Casino is 70% or More of Their Total Trips to Casinos (N=248)**



Standardized coefficients, covariance, and error terms shown

**Table 20: Summary of Path Coefficients for Segments Based on Percentage of Total Visits to Casinos made to Their Primary Casino**

	PATH COEFFICIENTS			
	Low (primary casino) Visitation	Moderate (primary casino) Visitation	High (primary casino) Visitation	ALL
Interpersonal Communications → Perceived Value	0.66	0.57	0.58	0.61
Rewards → Perceived Value	0.77	0.76	0.75	0.77
Promotions → Attitudinal Loyalty	0.44	0.50	0.58	0.56
Affinity → Attitudinal Loyalty	0.84	0.85	0.84	0.82
Consumer Confidence → Attitudinal Loyalty	0.78	0.71	0.81	0.79
Involvement → Behavioral Loyalty	0.69	0.73	0.68	0.68
Relationship Commitment → Behavioral Loyalty	0.57	0.83	0.86	0.90
Perceived Value ↔ Attitudinal Loyalty	0.60	0.72	0.65	0.73
Perceived Value → Behavioral Loyalty	0.32	0.45	0.33	0.38
Attitudinal Loyalty → Behavioral Loyalty	0.37	0.20	0.36	0.29

All paths statistically significant at  $p < 0.05$

The second alternative segmentation base tested used the annual amount budgeted for gaming at casinos as its criteria. As in previous analyses, three segments were formed to ensure that each segment had adequate cases to test the *Alternative Integrated Casino Loyalty Model*. The three segments analyzed were the *Low Casino Spending* segment (those who budgeted \$20 to \$700 per year), *Moderate Casino Spending* segment (budgeted \$701 to \$2099 per year), and *High Casino Spending* segment (budgeted \$2100 or more per year). The results for the testing of the structural models are presented in *Figures 15, 16, and 17* for the *Low Casino Spending*, *Moderate Casino Spending*, and *High Casino Spending* segments respectively. A summary of the path coefficients for all three segments based on annual amount budgeted for gaming compared to that of the 806 player's club members who returned a completed survey and included in the model testing component of this study are presented in *Table 21*. All paths for the models for all three segments were significant at  $p < 0.05$  level.

While the effect size between *interpersonal communications* and *perceived value* was much greater for the *Low Casino Spending* segment (0.71) as compared to the *Moderate Casino Spending* segment (0.59) and *High Casino Spending* segment (0.62), the inverse was true in regards to the effect size between *rewards* and *perceived value*. This suggests that as player's club members increase their rate of casino gaming, rewards appear to play a stronger role in predicting the development of perceived value. This is likely due to the fact that persons in the *Low Casino Spending* segment often do not have access to rewards as a result of their low level of play. In relation to *attitudinal loyalty*,

*affinity* was the most significant predictor with loadings of 0.89, 0.90, and 0.90 for the *Low Casino Spending*, *Moderate Casino Spending*, and *High Casino Spending* segments respectively.

In relation to the latent factors, *attitudinal loyalty* had a much smaller effect (0.15) on *behavioral loyalty* for the *Low Casino Spending* segment and is lower as compared to the path coefficient between *attitudinal loyalty* and *behavioral loyalty* for the *Moderate Casino Spending* segment (0.32) and the *High Casino Spending* segment (0.40). These findings suggests that *attitudinal loyalty* is almost non-existent among members in the *Low Casino Spending* segment and as the amount of gaming increases, the effect of *attitudinal loyalty* increases, but only moderately so.

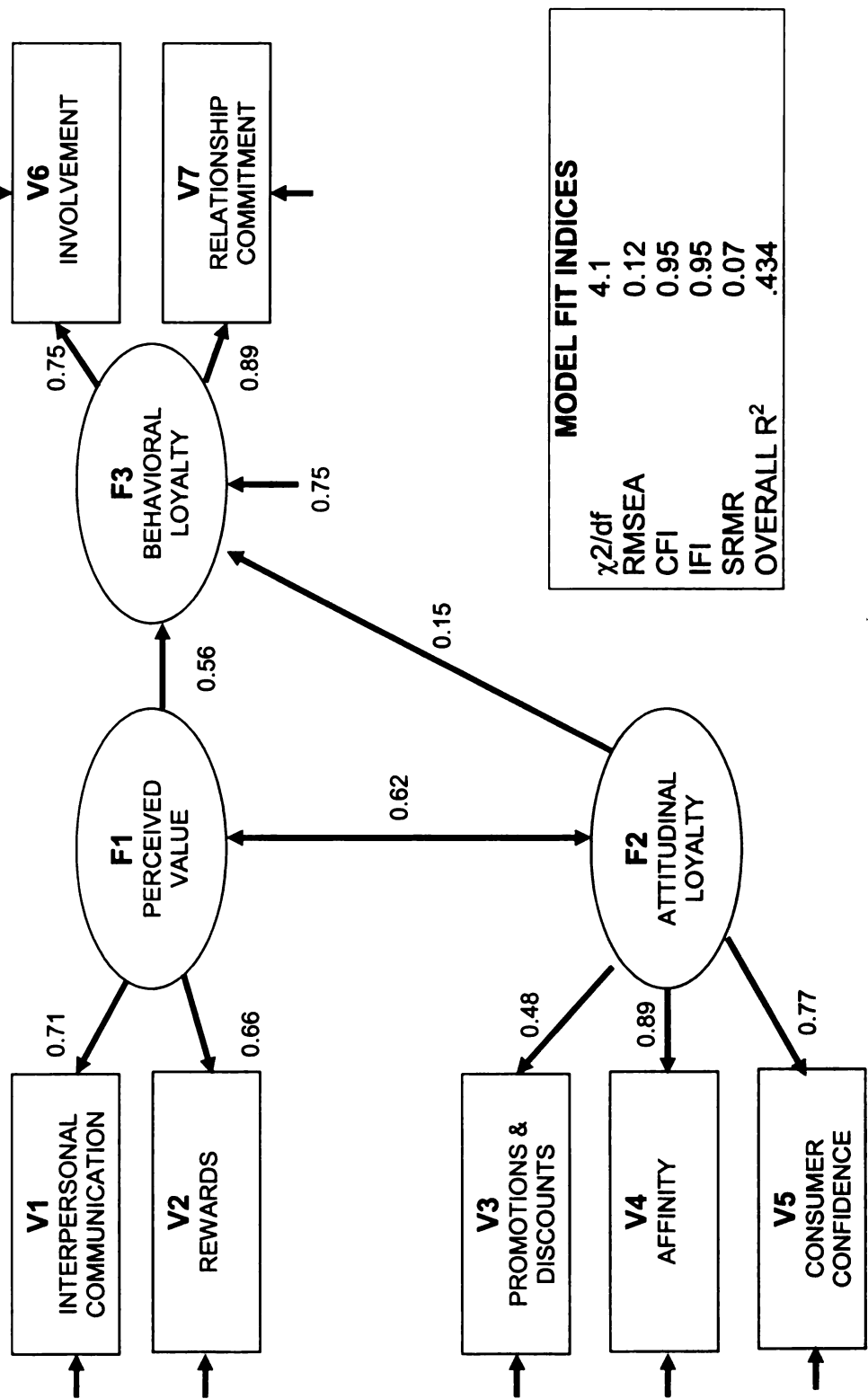
In terms of *perceived value*, although no pattern could be discerned, the strength of the path coefficient between *perceived value* and *behavioral loyalty* for the *Low Casino Spending* segment suggest that at the lower gaming levels, *perceived value* has a greater impact on creating *behavioral loyalty*. This is likely due to the fact that the *Low Casino Spending* segment exhibits relatively low levels of *attitudinal loyalty*.

Of interest is that in regards to the *High Casino Spending* segment, both *perceived value* and *attitudinal loyalty* moderately effects *behavior loyalty* with respective path coefficients of 0.40 and 0.39. This suggests that *behavioral loyalty* is affected equally by both *perceived value* and *attitudinal loyalty* and that the loyalty programs (as hypothesized) is effective in developing *perceived value*, *attitudinal loyalty*, and *behavioral loyalty*, albeit for this one segment.

In terms of model fit, with a few exceptions (*Root Mean Square Error of Approximation* for both the *Low Casino Spenders* and *High Casino Spenders* segments and the *Standardized Root Mean Squared Residual* for the low spending segment), all of the remaining fit indices were above acceptable limits.

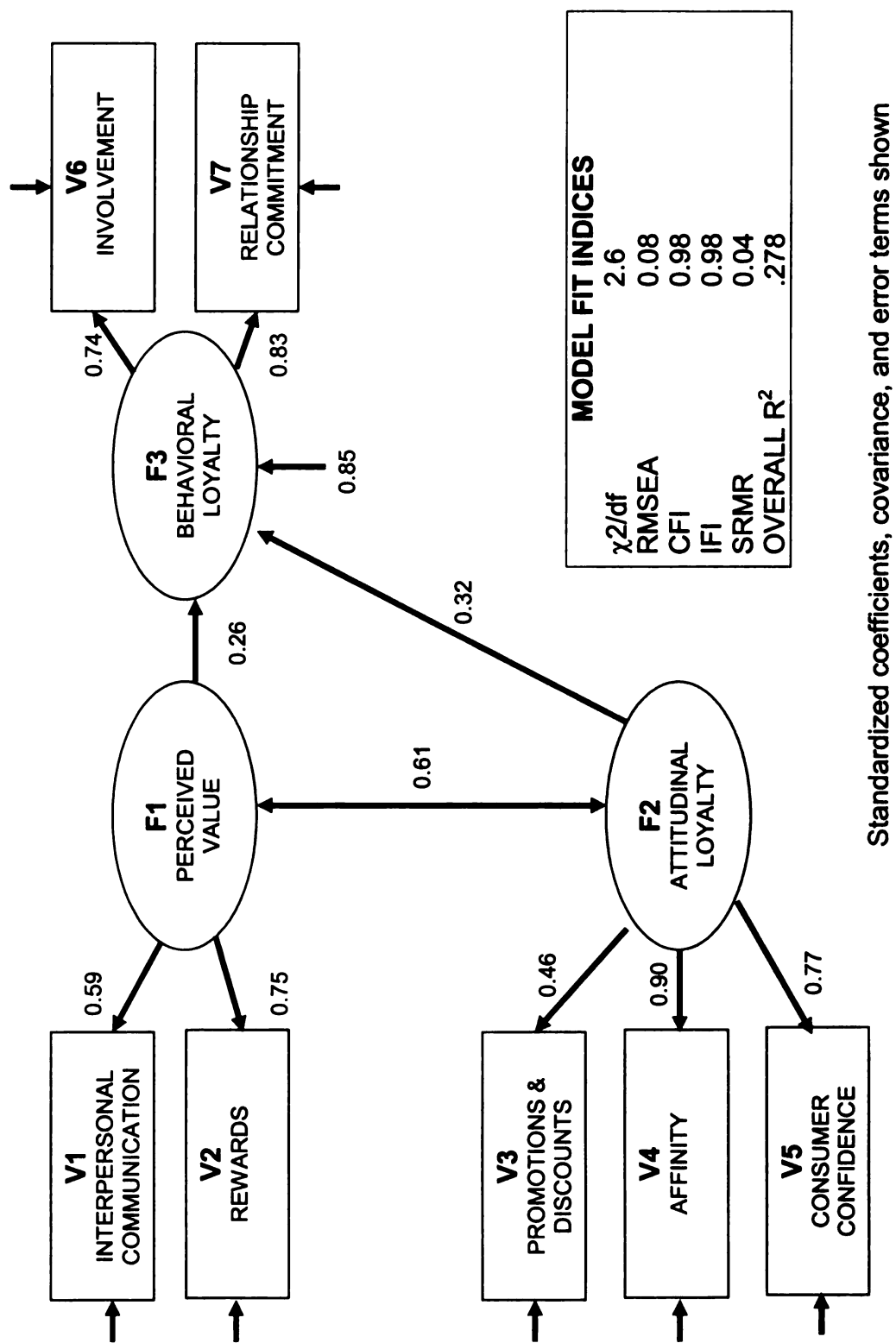
In terms of variance explained, the *Alternative Integrated Casino Loyalty Model* explained more of the variance for the *Low Casino Spenders* segment (0.43) and *High Casino Spenders* segment (0.53) as compared to that of the *Moderate Casino Spenders* segment (0.27). Although the differences in variance explained by the *Alternative Integrated Casino Loyalty Model* are quite significant, the low rate of variance explained for the *Moderate Casino Spenders* segment is potentially due to members of this segment exhibiting patterns closer to that of the *Low Casino Spenders* and *High Casino Spenders* segments.

**Figure 15: Results of the Testing of the Alternative Integrated Casino Loyalty Model for the Player's Club Segment that Budget \$20 to \$700 per year (Low Casino Spenders) for Casino Gaming (N = 210)**



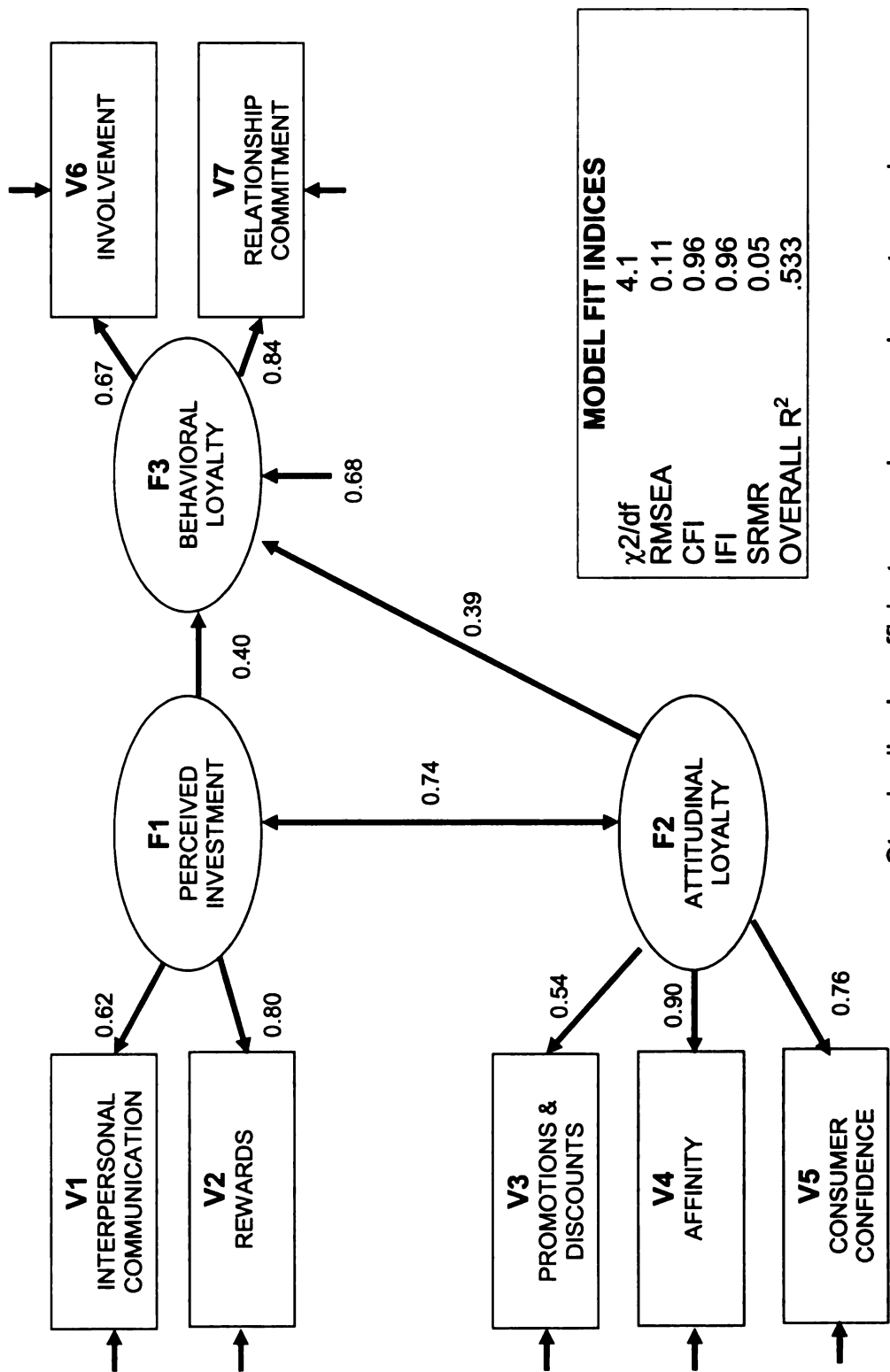
Standardized coefficients, covariance, and error terms shown

**Figure 16: Alternative Integrated Casino Loyalty Model Results for the Player's Club Segment that Budget \$701 to \$2099 per year (Moderate Casino Spenders) for Casino Gaming (N = 222)**



Standardized coefficients, covariance, and error terms shown

**Figure 17: Structural Model Results for the Alternative Integrated Casino Loyalty Model for the Player's Club Segment that Budget \$2100 or More per year (High Casino Spenders) for Casino Gaming (N = 246)**



Standardized coefficients, covariance, and error terms shown



**Table 21: Summary of Path Coefficients For Segments Based on Total Amount Budgeted per year for Trips to Casinos per Year**

	PATH COEFFICIENTS			
	Low Casino Spenders	Moderate Casino Spenders	High Casino Spenders	ALL
Interpersonal Communications → Perceived Value	0.71	0.59	0.62	0.61
Rewards → Perceived Value	0.66	0.75	0.80	0.77
Promotions → Attitudinal Loyalty	0.48	0.46	0.54	0.56
Affinity → Attitudinal Loyalty	0.89	0.90	0.90	0.92
Consumer Confidence → Attitudinal Loyalty	0.77	0.77	0.76	0.79
Involvement → Behavioral Loyalty	0.75	0.74	0.67	0.68
Relationship Commitment → Behavioral Loyalty	0.89	0.83	0.84	0.90
Perceived Value ↔ Attitudinal Loyalty	0.62	0.61	0.70	0.38
Perceived Value → Behavioral Loyalty	0.56	0.26	0.40	0.73
Attitudinal Loyalty → Behavioral Loyalty	0.15	0.32	0.39	0.29

All paths are statistically significant at  $p < 0.05$

## **Testing of Rival Model**

As stated in Chapters 1 and 2, a significant amount of effort has focused on exploring satisfaction within a marketing context. Although both loyalty and satisfaction have individually received much attention from academics, very little research has empirically examined the relationship between these two constructs. Although a few studies have explored the link between customer satisfaction and increased customer loyalty, more work is needed to investigate the relationship between two of the most widely studied constructs in consumer behavior (Bolton, 1998). Given the conflicting nature of how these constructs have been operationalized, it is important to first discuss how satisfaction and service quality are related to building and retaining customer loyalty.

A number of researchers have suggested that there is a significant difference between satisfaction and loyalty. While satisfaction has been largely operationalized as a passive condition (Fredericks, 2001), loyalty has often been considered to be an active or even proactive relationship with the supplier (Bolton, 1998). In addition, studies suggest that 65-70% of encounters that meet or exceed the expected threshold of customer satisfaction usually only involve hygiene factors, thus having no impact on customer loyalty (Buttle & Burton, 2001; Romano, 1995).

A number of key findings were revealed from the tests of the full structural model (Figure 18) for the entire sample. First, all of the indicators were significant with loadings ranging from 0.71 to 0.95. In terms of path coefficients, the results suggest that satisfaction is a better predictor of behavioral loyalty (0.62) than

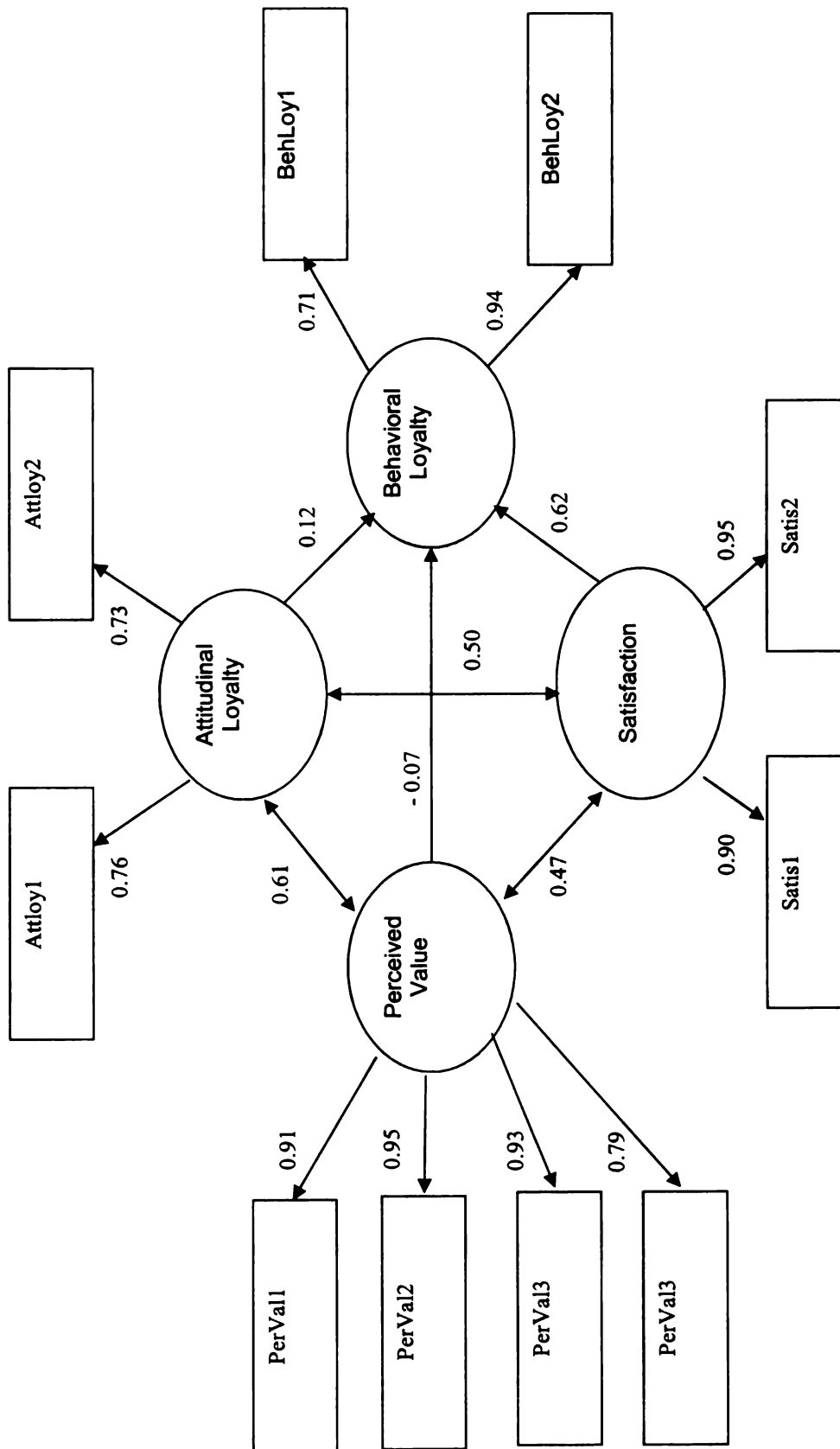
attitudinal loyalty (0.12). These findings provide support for previous satisfaction literature that suggests that satisfaction is a strong predictor of behavioral loyalty. Furthermore, the strength of the relationship between attitudinal loyalty and satisfaction (.50) suggests that these two constructs are related to a moderate degree, thus providing support that it is also a moderate predictor of attitudinal loyalty. As depicted in the model, there is a moderately significant relationship between perceived value and both attitudinal loyalty (0.61) and satisfaction (0.47); while having a very weak negative effect on behavioral loyalty. These findings which are consistent with literature that was reviewed suggest that perceived value is an important construct and is significantly related to both attitudinal loyalty and satisfaction. The low negative path coefficient between perceived value and behavioral loyalty is likely due to the fact that the effects of perceived value are mediated by both attitudinal loyalty and satisfaction.

In terms of fit indices for the alternative structural model, all of the fit indices were above acceptable levels (*Comparative Fit Index* = 0.99, *Incremental Fit Index* = 0.99, *Standardized Root Mean Squared Residual* = 0.03, *Root Mean Square Error of Approximation* = 0.06). The strength of the paths coefficients between the indicator variables and the latent constructs, coupled with the high level of model fit suggests that the rival model is quite efficient at predicting behavioral loyalty of casino players club members.

These findings indicate that behavioral loyalty is only created in persons who are highly satisfied. In addition, those persons who exhibit attitudinal loyalty are most likely highly satisfied with their service experiences.

In terms of comparing the alternative casino loyalty program model and the proposed hypothesized model, a number of similarities and differences were uncovered. The first similarity is the strength of the relationship between perceived value and attitudinal loyalty for both models. This suggests that although satisfaction was included in the rival model, its impact on the strength of the relationship between these two variables suggest that the relationship is quite robust. In terms of key differences, the strength of satisfaction in predicting behavioral loyalty suggest that satisfaction is a strong predictor of behavioral loyalty. This provides support that with the absence of satisfaction, attitudinal loyalty and behavioral loyalty will not likely be developed in customers of casino loyalty programs.

**Figure 18: Results of the Testing of the Full Structural Rival Model for all Respondents (N = 782)**



## **Identification of Market Segments**

The final section will focus on the identification of actionable player's club market segments. A three stage sequential segmentation approach shown in *Figure 18* was utilized in an effort to identify exploitable market segments. The first step was to segment client casino player's club members that responded to the mail survey based on the amount they budget annually for casino gaming. The decision to use this segmentation base was based on its performance compared to the two other segmentation bases tested in identifying distinguishable market segments and its current use by a number of casinos for marketing purposes. Three segments were identified: (1) \$20 to \$700, (2) \$701 to \$2099, and (3) \$2100 or more per year. As stated previously, these cut-offs were chosen to ensure that adequate cases were available to run structural models for each segment and that all three segments are roughly equal size.

The first stage segments were then further segmented based on their proportion of visits to their primary casino. Again, the primary casino may or not be the study's client casino. Since an objective of casino's players club programs are to increase market share, understanding how player's club members allocate their gaming visits/purchases is important. Only the \$20 to \$701 and \$2100+ segments were segmented based on their proportion of visits to casinos since these groups had significantly different results in regards to their gambling behavior, socioeconomic characteristics, and loyalty factor scores. If the third segment was included (\$701 to \$2099 segment), the segments identified by these process may overlap to a greater degree and impair the ability of

identifying specific market segments. Four segments were identified: (1) player's club members who budget \$20 to \$70 annually for casino gaming and visit their primary casino (the casino they visited most frequently over the previous 12 months) 40% or less of their total visits to casinos over the previous 12 months (3.7%), (2) player's club members who budget \$20 to \$70 annually for casino gaming and visit their primary casino 70% or more of their total visits to casinos over the previous 12 months (8.8%), (3) player's club members who budget over \$2100 annually for casino gaming and visit their primary casino 40% or less of their total visits to casinos over the previous 12 months (4.0%), and (4) player's club members who budget over \$2100 annually for casino gaming and visit their primary casino 70% or more of their total visits to casinos over the previous 12 months (9.0%).

The last stage involved segmenting the four second stage segments based on the amount they budget for gaming per casino visit. They were divided into segments that budget \$1 to \$60 per visit and more than \$120 per visit. Again, the middle segment (\$61 to \$120 per visit) was not selected since their behavior and socioeconomic characteristics were not significantly different from both segments. This segmentation base was selected in order to identify the most profitable player's club segments (in terms of amount budgeted per casino visit).

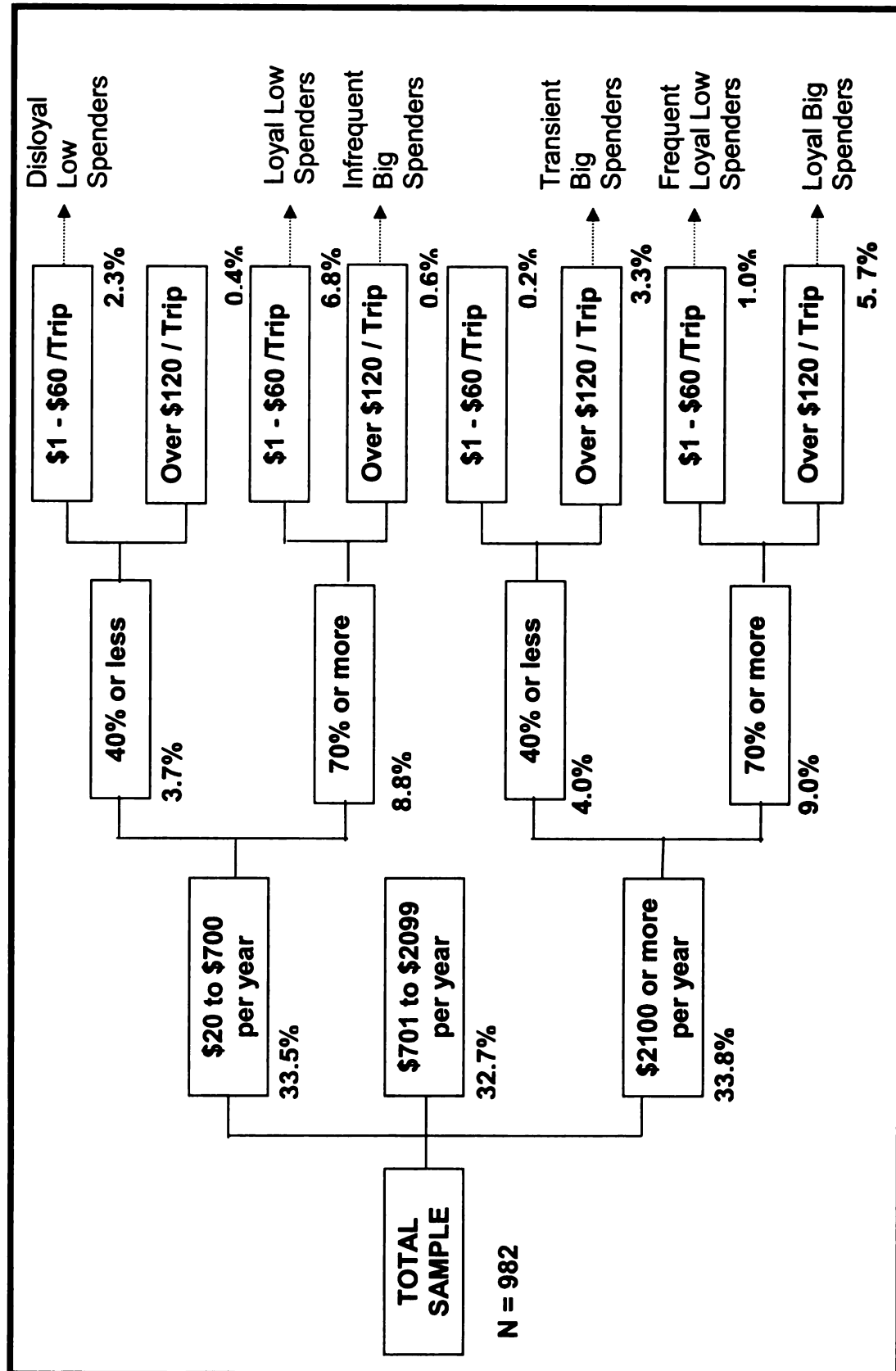
The end result of this process was the identification of eight market segments. Two segments only contained 0.4% and 0.2% of total respondents who returned a mail survey and were eliminated from further analysis based on the minute size of the segment does not justify a targeted marketing strategy. Although the

*Infrequent Big Spenders* segment is quite small (0.6%), it has significant revenue potential and was retained in the analysis. The five additional segments that were identified and profiled in the next section include: (1) *Disloyal low spenders* (2.3%), (2) *Loyal low spenders* (6.8%), (3) *Transient big spenders* (3.3%), (4) *Frequent loyal low spenders* (1.0%), and (5) *Loyal big spenders* (5.7%).

The socioeconomic characteristics, behavioral characteristics, and loyalty factor mean scores of the six market segments identified through this process are presented in *Table 22*, *Table 23*, and *Table 24*. The mean scores for the individual survey items are included in *Appendix 4*. Testing of the *Alternative Integrated Casino Loyalty Model* for these segments was not undertaken do to the lack of sufficient cases for each segment.



**Figure 19: Three Stage Process for Identifying Player's Club Marketing Segments**



**Table 22: The Six Player's Club Market Segments**

	Amount Budgeted Per Year	Percentage of Trips To Casinos	Amount Budgeted Per Trip
Disloyal Low Spenders	\$20 to \$700	40% or less of total trips to any casino	\$1.00 to \$60.00
Loyal Low Spenders	\$20 to \$700	70% or more of total trips to one casino	\$1.00 to \$60.00
Infrequent Big Spenders	\$20 to \$700	70% or more of total trips to one casino	Over \$120
Transient Big Spenders	\$2100 or More	40% or less of total trips to any casino	Over \$120
Frequent Loyal Low Spenders	\$2100 or More	70% or more of total trips to one casino	\$1.00 to \$60.00
Loyal Big Spenders	\$2100 or More	70% or more of total trips to one casino	Over \$120

**Table 23: Behavioral and Socioeconomic Characteristics of the Six Player's Club Marketing Segments**

<b>SAMPLE CHARACTERISTICS</b>						
	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
Percentage of Total Sample	2.3%	6.8%	0.6%	3.3%	1.0%	5.8%
Percentage of Total Gaming	0.7%	4.7%	1.2%	6.8%	0.5%	13.1%
Percentage of Total Trips	1.1%	1.9%	0.04%	3.6%	4.7%	11.7%
<b>GAMING BEHAVIOR</b>						
Average Gaming \$ Per Year	\$314.38	\$318.39	\$277.50	\$5153.75	\$3842.00	\$8785.00
Average Gaming \$ Per Trip	\$36.52	\$32.22	\$224.17	\$240.00	\$45.00	\$258.16
Average Trips Per Year	8.8 trips	13.1 trips	1.3 trips	21.5 trips	88.5 trips	38.7 trips
Number of Casinos Visited Per year	8.6 casinos	3.7 casinos	1.2 casinos	8.9 casinos	10.6 Casinos	5.7 casinos
<b>PRIMARY CASINO</b>						
Rate of Visitation for Primary Casinos						
Visit primary casino the <b>SAME</b> amount	31.6%	21.0%	20.0%	28.6%	33.3%	16.3%
Visit primary casino <b>MORE</b> often	36.8%	53.2%	40.0%	50.0%	55.6%	71.4%
Visit primary casino <b>LESS</b> often	31.6%	25.8%	40.0%	21.4%	11.1%	12.2%

**Table 23: Behavioral and Socioeconomic Characteristics of the Six Player's Club Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>REASONS FOR JOINING PLAYERS CLUB</b>						
Joined players club to receive promotions	83%	70%	33%	81%	70%	68%
Joined players club to receive comps or gifts	57%	53%	66%	84%	100%	88%
Joined players club to get more value for my money	30%	30%	33%	52%	40%	54%
Joined players club to receive specialized service	-	11%	17%	29%	20%	37%
Joined players club card for social reasons	9%	16%	-	3%	10%	9%
<b>MEMBERSHIP IN OTHER LOYALTY PROGRAMS</b>						
Frequent Flyer Program(s)	35%	31%	33%	32%	30%	46%
Grocery Store Program(s)	65%	33%	33%	77%	10%	37%
Car Rental Program(s)	-	2%	-	7%	10%	9%
Hotel Program(s)	4%	8%	-	23%	20%	25%
Retailer Frequent Buyer Program(s)	4%	6%	17%	-	10%	8%
Music and Book Club(s)	4%	3%	-	7%	20%	15%
Restaurant Program(s)	13%	23%	33%	36%	20%	25%

**Table 23: Behavioral and Socioeconomic Characteristics of the Six Player's Club Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>SOCIOECONOMIC CHARACTERISTICS</b>						
Age	65 years	65 years	46 years	60 years	66 years	58 years
Gender	17% Male 83 Female	31% Male 69% Female	33% Male 67% Female	42% Male 58% Female	20% Male 80% Female	39% Male 61% Female
Number of Adults living in Household	1.9 adults	1.8 adults	2.0 adults	2.1 adults	1.7 adults	2.0 adults
Household Income	1.4 <sup>1</sup>	1.7	2.5	2.3	2.1	4.4

1- Represents mean categorical score for each segment. Categories for household income are 1 (under \$40,000), 2 (\$40,000 – 59,999), 3 (\$60,000 – 99,999), 4 (100,000 – 149,999), 5 (\$150,000 - \$199,999), and 6 (Over \$200,000)

**Table 24: Mean Loyalty Factor Scores for the Six Player's Club Marketing Segments**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>MEAN LOYALTY FACTOR SCORES</b>						
Direct Mail	4.9[3]	3.6[6]	4.3[4]	5.1[2]	3.9[5]	5.7[1]
Preferential Treatment	2.3[4]	2.0[6]	2.3[4]	2.6[3]	2.9[2]	3.8[1]
Interpersonal Communications	2.0[4]	1.9[5]	2.2[3]	1.9[5]	2.3[2]	3.4[1]
Promotions & Discounts	3.6[3]	2.5[6]	3.3[4]	3.9[2]	3.0[5]	4.8[1]
Rewards	3.7[3]	2.6[6]	2.9[5]	4.3[2]	3.0[4]	4.9[1]
Affinity	4.0[5]	3.6[6]	4.3[3]	4.1[4]	4.5[2]	4.6[1]
Consumer Confidence	3.7[5]	3.7[5]	4.6[1]	4.0[4]	4.4[2]	4.4[2]
Perceived Value	3.0[5]	2.6[6]	3.1[4]	3.2[3]	3.6[2]	3.7[1]
Competitive Factors	3.6[5]	3.3[6]	3.8[4]	3.9[3]	4.5[2]	4.7[1]
Involvement	2.9[4]	2.6[6]	2.8[5]	3.7[3]	3.9[2]	4.1[1]
Relationship Commitment	3.0[5]	2.6[6]	3.7[2]	3.3[4]	3.7[2]	3.8[1]
Attitudinal Loyalty	2.9[4]	2.5[6]	2.8[5]	3.1[3]	3.7[2]	3.5[1]
Behavioral Loyalty	4.1[6]	4.3[4]	5.3[2]	4.2[5]	5.3[2]	5.4[1]

**Scale (1 = Do not agree to 7 = Strongly agree)**

The following segment profiles were based on the results of the mail survey. It is estimated that the 196,087 members of the client casinos player's club made a total of 4,411,957 trips to casinos, budgeted a total of \$572,716,203.08 for gaming, and visited on average 6.9 casinos over the previous 12 months.

### **Disloyal Low Spenders Segment**

The *Disloyal Low Spender* segment make on average 8.8 trips to 8.6 casinos, an average of just over one trip to each casino they visit per year. This indicated that they are not loyal to any one casino. Another sign of their lack of loyalty is that only 34.7% of this segment stated that the client casino was their primary casino. This segment has relatively low market value since they have the second lowest average amount budgeted for casino gaming per trip (\$36.52) and total annual casino gaming (\$314.38). They are one of the oldest segments (65 years) and have the lowest average household income.

Although they represent 2.3% of the client casinos player's club members (or 4510 players), they only account for 0.7% of the total annual casino gaming (or \$4,009,013.42). It would appear that many members of this segment were compelled to join the player's club program in order to receive promotions (83%), suggesting that they are not very interested in being a member of any specific player's club program. Although they rank different components of their primary casinos player's club quite highly, they exhibited very low levels of perceived value, attitudinal loyalty, and behavioral loyalty. The benefits of directing more marketing attention at this segment is questionable given the low number of visits they make to casinos and the relatively low amounts they budget annually for casino gaming.

## **Loyal Low Spenders Segment**

Although the *Loyal Low Casino Gaming* segment comprise 6.8% (or an estimated 13,333 members of the client casino's players club), they only represent 4.7% (or \$26,917,661.54) of the total annual casino gaming by player's club members. Although a significant portion joined the players club program of their primary casino in order to receive/participate in promotions, they rate the components of their primary casinos player's club lower than the other five segments. This relatively low content may be in part due to the fact this segment had the lowest average budgeted amount for gaming on a per trip basis (\$32.22), the second lowest amount budgeted for gaming on an annual basis (\$318.39), and the fact that many casinos have stopped marketing to and offering player's club perks to these lower spending segments.

The client casino is the primary casino of more than half (58.2%) of this segment, thus demonstrating a moderate degree of loyalty. This segment makes an average of 13.3 visits to casino's annually and assigns a relatively low amount of importance to casino gaming. This suggests that members of this segment are not "serious" casino gamers and likely view gambling as more of a social activity. Because of their relatively low amount that they spend in casinos, coupled with the relatively few visits they make to casinos suggests that marketing directed at this segment should focus on non-gaming related activities (free trips, food festivals, etc).

## **Infrequent Big Spenders**

Although *Infrequent Big Spenders* represent only 0.6% of the client casino's player's club (or an estimated 1176 members), they spend on average \$224.17 per trip and represent 1.7% (or an estimated \$9,736,175.45 per year in casino gaming revenues). In comparison, although this segment is 1/16 the size of the *Disloyal Low Spending* segment, they game almost twice as much at casinos each year than the *Disloyal Low Spending* segment. This segment makes on average 1.3 trips to casinos annually which suggest that they are loyal to a specific casino, although only 25.1% stated that the client casino was their primary casino.



The dominant reason why this segment joined the player's club program at their primary casino is to receive comps or gifts (66%), which suggest that this segment is interested in receiving comps (Free drinks, foods, etc.) during their visits. Since this segment has an average age of 46 years (almost 20 years younger as compared to the other segments) and an above average household income, there is potential to develop this segment into *Loyal Big Spenders*. Although this segment are less involved gamers, targeted marketing strategies might be focused on this segment in order to build loyalty and to increase their awareness of gaming opportunities at casinos.

### **Transient Big Spenders**

*Transient Big Spenders* represent 3.3% (or an estimated 6470 members) and 1.2% of the total gaming (or \$6,872,594.44 per year in annual casino gaming) of the client casinos player's club program. Of interest is that although *Transient Big Spenders* perceive the components of the player's club program for their primary casinos quite highly, this level of content has not led this segment to exhibit high levels of behavioral loyalty (ranked fifth out of six segments). This segment has the second highest mean (4.3) for the importance of where they gamble and interest for learning about new gambling activities, which suggests that this segment enjoys visiting different gaming establishments.

These results coupled with the fact that this segment had one of the lowest mean scores (3.8) in terms of whether they would remain a customer of their primary casino if they stopped offering the player's club program suggests that membership (or the loss of benefits) derived through their membership in the player's club program would not result in a change of their gambling behavior. Since this segment completes an average of 21.5 trips to casinos per year, any marketing strategy should focus on the excitement of gambling as opposed to the value derived through the membership in the player's club. Possible promotions include free trips to exotic gaming locations and gaming tournaments.

## **Frequent Loyal Low Spenders**

*Frequent Loyal Low Spenders* made on average 88.5 trips to 10.6 different casinos over the previous 12 months which is much greater than the other five segments. Although this segment only represents 1.0% of the client casino's player's club, they account for almost 4.7% of total casino trips by player's club members. While they make many visits to casinos annually, they budget \$45.00 per trip which suggests that this segment spreads their annual gaming expenditures across more trips. Although this segment takes four times as many trips compared to the *Transient Big Spenders* segment, they budget almost \$1300 less per year for casino gaming.

Although 100% of this segment stated that they joined the casino to receive comps and 70% to receive promotions, they ranked the components of the player's club program quite low. Interestingly, this segment exhibited higher levels of perceived value, attitudinal loyalty, and behavioral loyalty as compared to the other five segments. This indicates that the player's club program may have little effect on building behavioral loyalty within this segment. Since a major reason why they joined the player's club program at their primary casino is to receive comps, less structured promotions and rewards should be utilized in marketing to this segment. Examples of these promotions can include frequent buyer meal cards and or offering bonus points during off-peak hours to increase visitation during slow periods. As a result of the average age of this segment being the oldest of any segment (66 years) and their low household income, the potential of increasing their level of casino gaming is questionable.

## **Loyal Big Spenders**

Although the *Loyal Big Spenders* segment only represents 5.8% (or 11,373 members of the client casinos player's club), they represent 13.1% of the total annual casino gaming (\$75,025,822.60) and 11.7% of annual visits to casinos (or an estimated 516,198 visits annually). These results, coupled with their average per trip budget of \$258.16 makes this segment an obvious candidate for targeted marketing initiatives since they have a high household income (significantly higher as compared to the other five

segments) which suggests that they likely can maintain this level of gaming.

This segment had the highest mean scores for all the loyalty factors included in this study with the exception of *consumer confidence*. Obviously, this segment is a desirable market but the client casino has not been very successful in winning the majority of their gaming as indicated by the fact that only 14.1% of this segment stated that the client casino was their primary casino. Although this segment ranked the components of their primary casinos player's club program quite high and exhibited high levels of both attitudinal and behavioral loyalty, they also reported that they would remain a customer of their primary casino if the player's club program was not offered. This suggests that this segment would be open to new customer incentive plans.

In summation, although each of these six segments represent a significant share of the player's club program of the client casino, the need to determine to what extent the behavior of each segment can be modified through the use of targeted marketing strategies must be better understood. Although the *Disloyal Low Spenders* segment should probably not be the focus of any additional marketing effort, the findings suggest that with certain targeted enhancements, player's club programs could further solidify the casino's relationships with *Infrequent Big Spenders* and *Transient Big Spenders* segments. This would require additional marketing strategies (e.g. full service vacation packages with the primary focus not being casino gaming, concerts, etc.) that are often offered in practice outside the scopes of the loyalty programs.

## **CHAPTER 5**

### **SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

The first chapter of this dissertation provided an overview of the setting of this study, the need for this study, and the proposed objectives that framed the study. The second chapter focused on studies with an emphasis on loyalty programs, and also other research that contributed to the development of the theoretical framework for this study. This same literature was also used in the development of an *Alternative Integrated Casino Loyalty Model* that was used to examine the development of attitudinal and behavioral loyalty by player's club members. The third chapter focused on the methods utilized to conduct the mail survey of members of the client casino's player's club and how these members were chosen from the client casino's player's club tracking database. The fourth chapter presented the findings of this study and how they related to each of the five research objectives.

This final chapter will briefly summarize important findings of this study and discuss how they relate to the study objectives. The findings of this study will also be compared to previous loyalty research in order to identify any similarities and/or differences. The practical implications of this study are especially how the client casino and other casinos might use the findings to enhance their player's club programs and marketing practices. The last section provides recommendations for future loyalty and loyalty programs research.

## Summary

As the use of loyalty programs continues to grow in a variety of industries, including gaming and tourism, it is essential to better understand their role, importance, and effectiveness in creating and building loyalty. This research has verified that understanding customer expectations and response to casino loyalty programs and the importance they place on various features (e.g. incentives, specialized promotions) will better enable casinos to maximize their return on their player's club. Understanding degrees of loyalty and what is effective in building loyalty among different player's club segments is also important in the design of casino player's clubs.

Although more research is necessary to more fully understanding loyalty development and its antecedents in the context of casino gaming, this research sheds important light on loyalty creation, the impact(s) of casino's player's club programs, and it contributes to building literature on the topic. No previous published research is available that empirically examines revenues of casino loyalty programs, but the findings of this study support research completed in other industries by Bolton et al. (2000), Dowling and Uncles (1997), and Reinartz and Kumar (2000) that suggest that not all members/segments of a loyalty program are profitable. It is also the first empirical study that documents that costs associated with serving casino player's club members actually increase over the course of their membership. Including individual components (*Direct mail, interpersonal communications, preferential treatment, promotions and discounts, and rewards*) of a casino player's club program as part of the

structural model provided information on how each component contributes to the development of perceived value, attitudinal loyalty, and behavioral loyalty.

This study also provides additional evidence of the robustness and relevance of a number of loyalty constructs and measures identified and assessed in previous loyalty studies. The results suggest that loyalty constructs can be modified to make them more applicable across different products/industries and that loyalty studies completed for use in different settings and studies completed across multiple settings can be compared to a certain degree. Although much more work is needed to expand and validate loyalty constructs and measures for different products, industries, and loyalty building programs, the results demonstrate that they can be used to study loyalty programs in a noncontractual service setting. Also, because this study included perceived value, attitudinal loyalty, and behavioral loyalty in a single model, it allowed for an empirical examination of the relationship between different loyalty constructs.

The first study objective was to examine the revenues of the client's player's club members in relation to number of lifetime visits they had made since they first joined. The findings reveal that there is only a moderate relationship between number of lifetime visits and lifetime revenues. This suggests that total lifetime visits are not a strong predictor of lifetime revenues, at least in relation to the client casino's current player's club members. Although the approach utilized in this study differs from that utilized by Reichheld and Teal (1996) and Reinartz and Kumar (2000), their approach resulted in finding a correlation near zero between lifetime duration and lifetime revenues. A moderate correlation between

lifetime visits and lifetime revenues suggests that revenues do not increase significantly over their tenure in the player's club.

The focus of the second objective was to identify and profile segments within the client casino's player's club tracking system based on their lifetime action days and lifetime revenues. The analysis showed that a significant portion of the client casino's player's club program members including the *Low revenue/Low frequency* and *Low revenue/High frequency* segments are potentially less profitable due to their low amount gamed per visit. Also, the player's club segments identified as being potentially profitable including the *High revenue/High frequency* and *High revenue/low frequency*, the revenues derived through these segments were decreasing on a per trip basis. While they were taking more trips to casinos a year, they distributed their annual casino gaming budgets over more trips, thus reducing the profitability per trip. These findings need to be verified for other casino player's clubs.

The third research objective was to compare and contrast segments formed by casino loyalty relevant segmentation bases in order to determine their effectiveness in identifying relevant and exploitable market segments. Segments formed based on their gaming activity at the client casino during the previous 12 months as compared to their lifetime gambling behavior at the client casino showed no significant differences in regards to gaming behavior (number of trips to casinos over previous 12 months, amount budgeted per casino visit, and annual amount budgeted for casino gaming), socioeconomic characteristics (age, household income), or loyalty factor scores (e.g. *perceived value*, *attitudinal*

*loyalty, and behavioral loyalty*). This segmentation base was ineffective at identifying market segments of the client casino's player's club program.

Because no differences were found between *Loyal Player's Club* and *Disloyal Player's Club* segments, two alternative segmentation bases were tested. One of the most commonly used behavioral loyalty measures - proportion of total visits to the most frequented casino (primary casino) – proved not to be an effective way to segment loyalty program members. Very few marketing relevant and exploitable differences were identified between the *Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino) Visitation* segments. The second alternative segmentation base was the total amount budgeted annually for casino gaming that was obtained from the mail survey. Significant differences, including casino gaming behavior (number of visits to casinos over previous 12 months, amount budgeted per visit to casinos), socioeconomic characteristics (household income), and loyalty factor scores (with the exception of *interpersonal communications*) were found between the *Low Casino Spenders*, *Moderate Casino Spenders*, and *High Casino Spenders*.

In order to determine if and how attitudinal and behavioral loyalty is created in a casino player's club program setting, the fourth objective utilized the *Alternative Integrated Casino Loyalty Model* to further examine this process. The alternative model was developed because the hypothesized model developed using the findings of previous loyalty studies was rejected due to a high chi-square / degrees of freedom ratio. The major differences between the hypothesized and alternative models were the exclusion of *direct mail*, *preferential treatment*, and



*competitive factors*, as well as removing the paths between *involvement* and *perceived value*, *involvement* and *attitudinal loyalty*, *relationship commitment* and *perceived value*, and *relationship commitment* and *attitudinal loyalty*. Subsequent tests of the proposed *Alternative Integrate Casino Loyalty Model* determined that overall, *perceived value* has a greater influence on predicting casino *behavioral loyalty*, but only moderately so.

In order to further test the segmentation bases applied in this study, differences across segments in terms of how they developed attitudinal and behavioral loyalty were examined using the *Alternative Integrated Casino Loyalty Model*. As a result of testing of the segments formed using the proposed segmentation base (segments based on player's club gambling behavior at the client casino during the previous 12 months), no significant differences were found between the *Loyal Player's Club* segment and the *Disloyal Player's Club* segment in terms of their path coefficients for the *Alternative Integrated Casino Loyalty Model*. Of interest is that attitudinal loyalty was a stronger predictor of behavioral loyalty for the *Disloyal Player's Club* segment compared to the path coefficient for the *Loyal Player's Club* segment. One would also assume that disloyal customers would exhibit lower levels of attitudinal loyalty since previous studies have assumed that higher levels of attitudinal loyalty lead to an increase in behavioral loyalty (Bolton et al., 2000; Long and Schiffman, 2000). For both segments, perceived value was a stronger predictor of behavioral loyalty as opposed to attitudinal loyalty.

The three segments (*Low (primary casino) Visitation*, *Moderate (primary casino) Visitation*, and *High (primary casino) visitation*) identified by the first alternative segmentation base (segments based on proportion of total visits to casinos taken to the primary casino over the previous 12 months) again proved ineffective at identifying significant differences among segments. Although this segmentation base has been used extensively in previous loyalty studies, no pattern could be discerned from the subsequent path coefficients for each segment for the alternative casino loyalty model. Of interest is that the *Low (primary casino) Visitation* segment had the largest path coefficient between attitudinal loyalty and behavioral loyalty. This finding is contrary to arguments put forth in the literature that suggest that as a customer becomes more dependent on a service provider, their level of attitudinal loyalty should increase (Chaudhuri and Holbrook, 2001).

Segments derived through the second alternative segmentation base (segments based on annual budget for casino gaming) showed significant differences in terms of their path coefficients derived through the testing of the *Alternative Integrated Casino Loyalty Model*. These differences are similar in ways to the findings of some previous loyalty studies in terms of direction and strength of differences between segments. This segmentation base was effective at identifying segments of a casino player's club program based on how behavioral loyalty was developed. Furthermore, this segmentation base was also successful in identifying segments that differed in terms of their gaming behavior, socioeconomic characteristics, and loyalty factor scores.

The final research objective was explored by the identification of eight exploitable market segments using data collected from the mail survey. Although two of these segments were dropped due to having insufficient sample sizes, the other six segments identified were further analyzed in order to identify differences for their gaming behavior, socioeconomic characteristics, and loyalty factor scores. The *Alternative Integrated Casino Loyalty Model* was not tested for these segments due to insufficient sample sizes. Two of the six remaining segments (representing 10% of the client casino's player's club program) were determined to be potentially unprofitable, as the *Disloyal Low Spenders* segment budgeted very little for gaming per casino visit and rarely visited the same casino more than once a year and the likelihood of recouping marketing costs is quite unlikely. Although *Loyal Low Spenders* tended to frequent their primary casino quite often, they budgeted relatively little for each casino visit and as a result, the costs of marketing to these individuals (as well as servicing them during their visits) would likely not be realized. Furthermore, two of the remaining four segments (*Infrequent Big Spenders*, *Frequent Loyal Low Spenders*) did not derive much benefit from their membership in the loyalty program due to their low rate of play and their low rate of visitation to their primary casino. This low rate of contentment with the player's club program was based on the mean scores calculated for each segment using data collected as part of the mail survey that focused on the components of their primary casino's player's club program.

## Discussion

A major purpose of this study was the development and testing of a hypothesized *Integrated Casino Loyalty* structural model. As mentioned above, this model was ultimately rejected but the process yielded a number of findings being uncovered. As hypothesized, the model had relatively few errors and fit the data relatively well, at least until the mediating variable (*competitive factors*) and the moderating variables of *involvement* and *relationship commitment* were added to the model. It is likely that the problem of including these variables related to the measurement indicators used for competitive factors. As suggested by Chaudhuri and Holbrook (2001) and De Wulf et al. (2000), current measures for competitive factors overlap somewhat with current measures of perceived value and attitudinal loyalty, thus causing discriminant and convergent validity issues. Although competitive factors are important elements that should be taken into account by loyalty studies, issues still remain in terms of their application and use in modeling customer loyalty.

Testing the *Alternative Integrated Casino Loyalty Model* produced a number of key results. As predicted by loyalty literature (Chaudhuri and Holbrook, 2001; De Wulf et al., 2000; Neal, 1998), market segments differed in terms of their levels of perceived value and attitudinal loyalty and the influence of these two factors on the development of behavioral loyalty. In relation to past value research (Reichheld and Teal, 1996, Reinartz and Kumar, 2000), the strength of the correlation between *perceived value* and *attitudinal loyalty* suggest that these two constructs, although highly correlated, are in fact distinct. By including

*perceived value, attitudinal loyalty, and behavioral loyalty* as part of the *Alternative Integrated Casino Loyalty Model*, it was ascertained in this context that perceived value had a greater effect on behavioral loyalty as compared to attitudinal loyalty. Although these findings could be due to the fact that player's club members included in this study exhibited low levels of attitudinal loyalty, it may also be a result of these members viewing player's club programs more as a value-added service rather than a relationship-building process.

Finally, a large amount of the variance remained unexplained by the *Alternative Integrated Casino Loyalty Model*, which suggests that additional factors not included in this model may play a significant role in the development of behavioral loyalty within a casino player's club setting. These factors may potentially include perceived service quality and switching costs. Based on the findings of the rival model, satisfaction has shown to be an extremely important mediating variable and one that needs to be further studied in relation to other loyalty constructs.

In terms of the performance of the segmentation bases, the segmentation base proposed by Bolton et al. (2000) and Long and Schiffman (2000), which is based on their gaming activity at the client casino during the previous 12 months as compared to their lifetime gambling behavior at the client casino, did not effectively identify significant market segments within the client casino's player's club program. Although this base proved somewhat effective at identifying segments within frequent flyer programs and credit card programs, the poor performance of this segmentation base in identifying statistically different

segments may be due to the source of secondary data (client casino) for the current investigation. Only 27.1% of player's club members who returned a completed mail survey stated that the client casino was their primary casino. Player's club members whose primary casino was also the client casino ranked the client casino lowest in terms of mean loyalty factor scores as compared to the other nine casinos included in the study. These findings suggest that the client casino is not a market leader and is not maintaining its player's club members and/or their market share. The poor performance of the client casino and erosion of their market share may have contributed to the misidentification of *Loyal Player's Club* and *Disloyal Player's Club* members since members may have transferred their gaming from the client casino as a result of poor service experiences, lack of promotions and discounts, lack of personal attention, and the prospect of better reward programs offered by competitive casinos.

As mentioned previously, although the first alternative segmentation base (proportion of total visits to casinos taken to primary casino over the previous 12 months) has been used for decades in studying loyalty, its application in studying casino player's club programs is quite limited due to the sparse differences identified between market segments in terms of their gaming behavior, socioeconomic characteristics, and loyalty factors. Potential reasons for its failure to identify significant market segments may be due to the extensive level of competition between casinos that is being currently experienced in Michigan. As a result of new casinos being built and renovations and expansions being completed on current casinos, numerous casinos are using extensive player's

club promotions to boost awareness of these new initiatives. Although quite costly, these promotions do increase awareness of new gaming opportunities and could potentially draw current (and new) casino gamers into their establishments. As a result, although persons may frequent their primary casino less often, the abundance of promotions may induce player's club members to roam from casino to casino in order to take advantage of promotions.

Total annual amount budgeted for casino gaming proved to be the most effective of the three segmentation bases in identifying marketing relevant and exploitable player's club segments. Further research should be directed at determining if similar results are produced for other player's clubs and also its potential application for other industries/products. The results of applying this segmentation base offers support for casinos, including the client casino, which are exploring the potential benefits of tiered player's club programs. Tiered player's club programs provide incentives for player's club members not only to increase their gaming (e.g., comp balances are earned faster, access to VIP areas, etc.), but also offer incentives for them to maintain their level of gaming in order get promoted to the next tier or to maintain their current level since they are re-evaluated on an annual basis. In addition, it allows casinos to focus their marketing and staff resources on servicing higher revenue customers as opposed to spreading their resources across the entire program. However, additional studies are needed to determine effectiveness and costs associated with tiered player's club programs.

## **Conclusions**

This study resulted in a number of findings that shed light on loyalty and how it relates to casino gamers, the design of player's club programs, and even casino management. Although there has been considerable published research on loyalty in other product industries, there is not much scientific literature related to loyalty and loyalty creation with respect to casino gaming. It appears that many of the loyalty building programs implemented by casinos are based more on a 'follow the leader' design rather than analytical studies of the effectiveness and return-on-investment from different elements of casino player's club programs. Although the player's club tracking mechanisms (e.g. player's club cards provide a means of assessing levels of play) are available to the client casino and other casinos, very little effort has been taken to design experiments aimed at determining the effectiveness of various player's club promotions and incentives.

Casino gamers usually have a variety of product choices available to them and they appear to be taking advantage of this situation. In line with the findings of Long and Schiffman (2000), due to the low cost of switching, the growing number of casinos to choose among, and marketing efforts aimed at attracting new customers, casino gamers have opportunities and reasons to visit multiple casinos and to be members of multiple players' club programs. In part, this is because memberships are often mandatory to participate in promotions, including casino bus tour incentives. As indicated by our findings, the majority of the client casino's members are members of multiple casino player's club programs and many only visit the casino that one time. Clearly, casinos are not



trying or willing to take the time to distinguish between members that exhibit potential for loyalty development when recruiting player's club members.

Very little correlation was found between perceived quality of the player's club programs and their behavioral loyalty. Some segments, including the *Loyal Low Spending* segment and *Infrequent Big Spenders* segment actually exhibited higher than expected levels of both attitudinal and behavioral loyalty than one would expect based on their ratings of the components of their primary casino's player's club programs. Similar to the findings of Bolton et al. (2000), player's club members appear to maintain relationships with casinos even if they are dissatisfied with the service features (e.g. player's club incentives and benefits). The extent to which a player's club program can mediate poor service experiences was not measured in this study, but presents an interesting area for future research.

In line with previous loyalty modeling efforts (Bolton et al., 2000; Chaudhuri and Holbrook, 2001; De Wulf et al., 2000), a significant portion of the variance was not explained by the *Alternative Integrated Casino Loyalty Model*. This low amount of variance explained may be in part attributable to the complex nature of loyalty and the exclusion of factors that may have a greater effect on creating attitudinal and behavioral loyalty.

In line with conclusions made by Bolton et al. (2000), Dowling and Uncles (1997), Reichheld and Teal (1996), Reinartz and Kumar (2000), loyalty club programs offer a unique setting for loyalty studies and the results of these studies may differ greatly from that of other loyalty research. As proposed in other loyalty

studies (Chaudhuri and Holbrook, 2001; Wood, 1998), very few player's club members exhibited high levels of attitudinal loyalty. This suggests that either casino loyalty programs fail to create attitudinal loyalty or the creation of attitudinal loyalty is quite complex and very rarely occurs in practice.

### **Managerial Implications**

While the primary purposes of this study were to develop and test a casino loyalty model and the effectiveness of alternative loyalty related segmentation bases, it provides some practical information for casinos and suggests that they need to develop more effective marketing and loyalty building strategies, and programs. This study raises some major questions about how the client casino (and presumably other casinos) is designing and managing their loyalty building programs including forced recruitment, infrequent contacts, and the quality of service delivery. Casinos should re-assess as an industry, the purpose and utilization of player's club programs as part of their overall integrated marketing strategies. In addition to evaluating and enhancing loyalty building effectiveness of the components of their player's club, the client casino also needs to identify alternative solutions (e.g. improve customer service, restrict access to player's club to high end members, integrated marketing campaigns with loyalty programs in other industries) in order to build customer loyalty. Although the results of this study show that "loyal" (or frequent visitors) members may have lower revenues per trip compared to "disloyal" (or infrequent visitors) members, further work is needed to extend these findings to other gaming organizations.

It is evident that casinos need much work to improve interpersonal communications between player's club members and the casino and its staff/management. Interpersonal communications was determined to be a significant predictor of perceived value. The cost of improved interpersonal communications is less than other components including *direct mail, discounts and promotions*, and *rewards*. In addition, improved communication between staff and player's club members will allow feedback and expectations to be obtained from player's club members on a regular basis.

While the customer tracking feature of the players club is potentially very useful, the maintenance of the player's club tracking system lists needs to be improved. Due to forced recruitment, not dropping persons who are inactive for several years, or checking for bad addresses and deceased members, the size of these databases is very large. Because casinos rely heavily on direct mail for their primary communication with their player's club members, having a significant number of bad addresses for members significantly increases the costs associated with these mailings and reduces the return on investment from direct mail campaigns. In relation to the client casino, having so many persons included who are not living in Michigan, who have stopped gaming, or who have decided not to gamble at the client casino any longer, complicates the task of analyzing the data to guide marketing and player's club decisions.

This study also raises questions as to whether casinos should continue to rely on loyalty programs as their primary marketing tool. Low terms of perceived value, attitudinal loyalty, and behavioral loyalty raise concerns about the

effectiveness of the players club relative to the investment. Gaming organizations should study the use of alternative marketing and promotion strategies (e.g. price discounts, increased advertising, improving service, improving facilities) in order to determine their acceptance by player's club members and/or specific segments within the player's club program. Additional work is also needed on identifying strategies and the associated costs for the conversion of unprofitable segments to profitable.

The focus of any casino loyalty program should focus on retaining and further developing persons comprising the top spending tiers or those having a minimum theoretical win of at least \$300 per year. As indicated by management of the client casino, a casino should not re-invest more than 10% of a player's club member's theoretical win to market/reward/service that customer. So, for a person who has a theoretical win of \$300, the maximum amount that the casino should spend to reward this individual is \$30.00, which is not a significant amount to reward a loyal customer. Although loyalty programs work well for airlines, the cost of rewarding customers is minimal since reward redemption seats on each flight are limited and partner businesses actually pay the airline for each point they reward as part of joint marketing agreements. It must also be noted that loyalty programs were initially designed for frequent customers and not as a means for rewarding all customers (Wood, 1998).

Finally, there is an obvious need to develop a structured research program that collects both purchase (database) and behavioral (surveys, focus groups) data from and about player's club members. Although there is great potential

value from analyzing player's club tracking data and numerous advances have been made in database analyses and software, this information does not include customer expectations and perceptions, visits to other casinos, or how they would react to new player's club features and benefits.

### **Research Implications**

There are very few empirical investigations of loyalty programs, which are a major element of marketing in the casino gaming industry. The results from this study suggest a need for additional research.

First, additional research should be undertaken to extend this model for the study of loyalty programs operated by other industries to further test these indicators. Although similarities exist between loyalty programs operated by casinos compared to those operated in other industries, especially service sectors, further empirical work is needed in the study of loyalty programs in other noncontractual service settings.

Further work is also needed to improve on the *Alternative Integrated Casino Loyalty Model* that developed and tested in this study. Since a significant portion of the overall variance was left unexplained as modeled, additional factors may need to be examined to enhance understanding of how attitudinal and behavioral loyalty are created. Further work is also needed on developing measures for competitive factors.

It would also be beneficial to test the model and the segmentation bases using data obtained from a gaming organizations that operate multiple casinos (e.g. Harrahs, MGM) to extend the use of this model for larger gaming

organizations. Also, obtaining data for a longer time period (i.e., over six years) could potentially identify true casino dropouts and determine whether they stopped gambling or switched service providers. The work by Ganesh et al. (2000) demonstrates the value of studying the differences that exist between switchers and stayers.

Additional statistical analyses are needed in order to examine the relationship between lifetime duration and lifetime revenues. Through the use of hierarchical linear modeling, the revenues for each member (or segment) can be potentially calculated for each time period (e.g. six months, twelve months) in order to identify whether any patterns exist. This is an important step since the majority of customer lifetime value models assume that a linear relationship exists between these two variables, which may not be the case.

Finally, an area of inquiry that would be of interest is to test how various loyalty program initiatives (promotions, rewards) affect members of a loyalty program. Although this type of experimental research would be complex, it would put the concept of relationship marketing to the test and truly determine the extent to which casino player's club programs can modify casino gamers' behavior.

## Appendix 1 – Mail Survey Instrument

Researchers at Michigan State University are conducting a study of casino loyalty program members with a special focus on the impacts of these programs on your gaming behavior. You have been randomly selected from a list of casino patrons. Your response is very important because we are only sending 3000 questionnaires for all of Michigan. The information that you provide to us will be used as part of a larger research project on how frequent buyer programs in multiple industries affect consumers purchasing behavior. We are not completing this survey for any casino or gaming organization.

To do this, we need your help. Your participation in this survey is completely voluntary. You can refuse to participate at anytime and choose not to answer any of the questions. By completing and returning this survey, you indicate your consent to participate in this voluntary study. Your responses will remain confidential. The data and results will be reported in summary fashion in order for no person to be identifiable. We will not have a record of your name on the completed survey unless you wish to participate in our appreciation drawing for one of five prizes of \$100.00. All of your data will be held in the strictest confidence and will be protected to the maximum extent allowed by law. Your name and any information that you provide will not be released to any person, casino, or gaming organization.

If you have any questions regarding the importance of this survey, contact Dr. Edward Mahoney by phone at 517.353.5190 x113 or e-mail [mahoneye@msu.edu](mailto:mahoneye@msu.edu). If you have any questions regarding your rights as a study participant, or are dissatisfied at any time with any aspects of this study, you may contact – anonymously – if you wish, Dr. Ashir Kumar, MD, Chair of the University Committee on Research Involving Human Subjects at 517.355.2180, 202 Olds Hall Michigan State University, East Lansing MI 48823 or e-mail [ucrihs@msu.edu](mailto:ucrihs@msu.edu).

Please take five to ten minutes to complete and return this important survey. Thank you.

**Dr. Edward Mahoney**  
Associate Professor – MSU

**Robert Palmer**  
Ph.D. Candidate – MSU

**A visit is defined as all visits to one casino within a 24 hour period.**

1. In the past 12 months, have you visited a casino?

☐ Yes

☐ No →

1a. Why did you not visit a casino in the last 12 months? (Check all that apply)		
<input type="checkbox"/> Loss interest in gambling	<input type="checkbox"/> Lost too much money	<input type="checkbox"/> Lack of time
<input type="checkbox"/> I became unemployed	<input type="checkbox"/> Change in family status	<input type="checkbox"/> No casino(s) close by
<input type="checkbox"/> Bad service experience at casino(s)	<input type="checkbox"/> Switched to other forms of gambling	<input type="checkbox"/> Don't like atmosphere at casinos
<input type="checkbox"/> Not winning	<input type="checkbox"/> My health declined	<input type="checkbox"/> Other: _____

2. How many casinos have you visited in the last 12 months? \_\_\_\_\_
3. How many visits did you take to casinos in the last 12 months? \_\_\_\_\_
4. Approximately, how much do you budget to spend on each visit to a casino? \$ \_\_\_\_\_
5. Please complete the following table. **(Check all that apply)**

	Indicate which casinos you have ever visited?	Indicate which casinos that you are member of its players club/slots program?	Indicate which casinos you have visited in the last 12 months?	For the last 12 months, indicate what percentage of your total visits were to each casino?
Turtle Creek – Traverse City	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Leelanau Sands – Suttons Bay	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Kewadin – Upper Peninsula	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Little River – Manistee	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Victories – Petoskey	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Windsor Casino – Windsor	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Greektown – Detroit	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
MGM Grand – Detroit	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Motor City – Detroit	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Soaring Eagle – Mt. Pleasant	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %
Other: _____	<input type="checkbox"/> Yes	<input type="checkbox"/>	<input type="checkbox"/>	_____ %



6. For the casino(s) that you have visited, please state whether you are visiting the casino the same amount, more often, or less often and the reasons why you changed your amount of visits? **(Check all that apply)**

	Turtle Creek / Leelanau Sands	Keewadin Casinos	Little River	Victories Casino	Detroit/ Windsor	Soaring Eagle	Other: _____ _____ _____
<b>SAME</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MORE</b>							
Satisfied with gaming Experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Take advantage of promotions /special events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Take advantage of players club benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loose slots / Win often	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>LESS</b>							
Not satisfied with experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor service experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor players club benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of promotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tight slots / Did not win	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For the next set of questions, please use the casino that you indicated in QUESTION 5 as being the casino that you completed the greatest percentage of your visits**

7. Are you currently a member of its players club/slots club?

—————→ **Go to Question 7a**

☐ Yes

—————→ **Go to Question 7b**

☐ No

**7a. Why did you join its players club/slots program? (Check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Needed to join in order to receive promotions / special invitations | <input type="checkbox"/> Wanted to receive comps or gifts      |
| <input type="checkbox"/> Get more value for my money   | <input type="checkbox"/> Wanted to receive specialized service |
| <input type="checkbox"/> Social (Friends / Family are members)                               | <input type="checkbox"/> Other:                                |

**7b. Why are you not a member of its players club/slots program? (Check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Do not want to be tracked   | <input type="checkbox"/> Do not want to receive comps or gifts                           |
| <input type="checkbox"/> Do not visit one casino enough to make joining the program worthwhile | <input type="checkbox"/> The value of the rewards offered does not make it worth joining |
| <input type="checkbox"/> Had a poor service experience   | <input type="checkbox"/> Other:  |

8. For the casino that you indicated in **QUESTION 5** as being the casino that you completed the greatest percentage of your visits, for each statement, please indicate how strongly you agree or disagree.

**(1 = Very Strongly Disagree, 7 = Very Strongly Agree)**

**Note: If you are not a member of its players club, please still answer all of the relevant statements in question 8.**

**WRITE THE NAME OF THE CASINO THAT YOU COMPLETED THE GREATEST PERCENTAGE OF YOUR VISITS: \_\_\_\_\_**

<b>COMMUNICATIONS</b>							
I receive mailings about the loyalty program on a regular basis	1	2	3	4	5	6	7
I receive information about promotions through these mailings	1	2	3	4	5	6	7
I receive information about special events through these mailings	1	2	3	4	5	6	7
<b>SERVICE</b>							
I receive special treatment because I am a member of the players club	1	2	3	4	5	6	7
Casino staff takes the time to personally get to know me because I am a member of the players club	1	2	3	4	5	6	7
Casino staff often hold personal conversations with me because I am a member of the players club	1	2	3	4	5	6	7
Casino staff offers me more personalized service because I am a member of the players club	1	2	3	4	5	6	7
<b>PROMOTIONS</b>							
I often receive discounts because I am a member of the players club	1	2	3	4	5	6	7
I often get invited to special events because I am a member of the players club	1	2	3	4	5	6	7
I often participate in promotions that are only available to players club members	1	2	3	4	5	6	7
<b>REWARDS</b>							
I often receive rewards/gifts (clothing, hotel rooms, tickets) because I am a member of the players club	1	2	3	4	5	6	7
As my level of gaming increases, the more gifts/rewards I receive from the casino	1	2	3	4	5	6	7
I have used my points or comp balance to purchase gifts, tickets, or cashback	1	2	3	4	5	6	7

I often receive comps (free food, drinks) during my visits because I am a players club member	1	2	3	4	5	6	7
<b>RELATIONSHIP WITH PLAYERS CLUB MEMBERS</b>							
The casino makes great efforts to retain its players club members	1	2	3	4	5	6	7
The casino makes great efforts to improve its ties with players club members	1	2	3	4	5	6	7
The casino really cares about keeping its players club members happy	1	2	3	4	5	6	7
The casino asks for input and ideas from players club members	1	2	3	4	5	6	7
The casino continually enhances the benefits of the players club program	1	2	3	4	5	6	7
<b>EXPERIENCE</b>							
I trust this casino	1	2	3	4	5	6	7
I believe that the casino is honest in its business with me	1	2	3	4	5	6	7
I rely on this casino for my gaming	1	2	3	4	5	6	7
I feel good when I visit this casino	1	2	3	4	5	6	7
Being part of the players club makes me want to visit this casino more often	1	2	3	4	5	6	7
Visiting this casino gives me pleasure	1	2	3	4	5	6	7
I am usually satisfied with my visits to this casino	1	2	3	4	5	6	7
Overall and overtime, I am satisfied with this casino	1	2	3	4	5	6	7
<b>RELATIVE VALUE</b>							
Compared to other casinos, I receive good value for my money	1	2	3	4	5	6	7
I feel that I receive more value for my money by being a member of the players club	1	2	3	4	5	6	7
Compared to other players club, this program offers me more value for my money	1	2	3	4	5	6	7
I would remain a customer of this casino even if they stopped offering the players club	1	2	3	4	5	6	7
<b>SWITCHING COSTS</b>							
Visiting this casino more often accelerates the amount of points that I accumulate (e.g. bonus points)	1	2	3	4	5	6	7
I visit this casino more often in order to concentrate my points / comp balance at one casino	1	2	3	4	5	6	7
Because of the points and benefits of the players club, I find it difficult to visit other casinos	1	2	3	4	5	6	7
<b>LOYALTY</b>							
I am committed to this casino	1	2	3	4	5	6	7

I would be willing to still visit this casino if it was more difficult to reach	1	2	3	4	5	6	7
I will visit this casino on my next trip	1	2	3	4	5	6	7
I intend to continue to be a customer of this casino	1	2	3	4	5	6	7
I am willing to go "the extra mile" to remain a customer of this casino	1	2	3	4	5	6	7
I tell other's about the benefits of joining the players club	1	2	3	4	5	6	7
I am loyal to this casino	1	2	3	4	5	6	7

9. How often do you use your players club card when gambling at a casino?

<input type="checkbox"/> All the time	<input type="checkbox"/> Most of the time	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Rarely	<input type="checkbox"/> Never
---------------------------------------	---	------------------------------------	---------------------------------	--------------------------------

**The purpose of the next set of questions is to obtain some general information on your purchase behavior. Any information you provide will NOT be released to any individuals or organizations.**

10. Which of the following loyalty or frequent buyer programs are you a member? **(Check all that apply)**

<input type="checkbox"/> Frequent Flyer Programs (Worldperks, etc.)	<input type="checkbox"/> Grocery Store Programs (Kroger's, Rite Aid, etc.)
<input type="checkbox"/> Retailer Frequent Buyer Programs (L.L. Bean, REI, etc.)	<input type="checkbox"/> Music and Book Clubs (Barnes and Noble, BMG, etc.)
<input type="checkbox"/> Car Rental Programs (Hertz Gold, etc.)	<input type="checkbox"/> Hotel Programs (Hilton Honors, etc.)
<input type="checkbox"/> Restaurant Programs (Subway, etc.)	<input type="checkbox"/> Other: _____

11. The next set of questions is to obtain some general information on your purchase behavior. For each statement, please indicate how strongly you agree or disagree. **(1 = Very Strongly Disagree, 7 = Very Strongly Agree)**

I am someone who finds it important about where I gamble	1	2	3	4	5	6	7
I am someone who is interested in learning about gambling and different gambling opportunities	1	2	3	4	5	6	7
I often use my players club card when I gamble	1	2	3	4	5	6	7
I am someone for whom it means a lot to gamble	1	2	3	4	5	6	7
I am someone who likes to be a regular customer for a casino	1	2	3	4	5	6	7
I am someone who likes building relationships with companies	1	2	3	4	5	6	7
I always try to get the best value for my money	1	2	3	4	5	6	7

12. Your Age: \_\_\_\_ years

13. Your Gender: ☐ Male ☐ Female

14. How many people, including yourself, reside in your household?

\_\_\_\_ Adults \_\_\_\_ Children (under 18)

15. What was your annual gross household income in 2002?

<input type="checkbox"/> Under \$40,000	<input type="checkbox"/> \$40,000 - \$59,999	<input type="checkbox"/> \$60,000 - \$99,999
<input type="checkbox"/> \$100,000 - \$149,999	<input type="checkbox"/> \$150,000 - \$199,999	<input type="checkbox"/> Over \$200,000

**THANK YOU FOR PARTICIPATING IN THIS IMPORTANT STUDY**  
**Please return your completed survey as soon as possible in the postage paid envelope provided**

As a thank you for completing this survey, please fill out the following information to have your name included in the drawing for 5 prizes of \$100.00 each. Please remember that all information is strictly confidential and that your name or information provided will not be released to any person or organization.

<b>Name</b>	
<b>Address</b>	
<b>E-mail Address</b>	

**Appendix 2: Individual Item Mean Scores for Marketing Segments**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Direct Mail</b>						
I receive mailings about the loyalty program on a regular basis	4.9	3.7	3.8	4.9	3.9	5.6
I receive information about promotions through mailings	4.9	3.8	4.6	5.0	3.9	5.6
I receive information about special events through mailings	4.9	3.7	4.6	5.2	4.0	5.7
<b>Preferential Treatment</b>						
I receive special treatment because I am a member of the players club	2.6	2.2	2.4	3.0	3.0	4.1
Casino staff offers me more personalized service because I am a member of players club	2.0	1.9	2.2	1.8	2.7	3.4
<b>Interpersonal Communications</b>						
Casino staff takes the time to personally get to know me because I am a member of the players club	2.1	1.8	2.2	1.7	2.3	3.4
Casino staff often hold personal conversations with me because I am a member of the players club	1.9	2.0	2.2	1.7	2.3	3.3

**Scale (1 = Do not agree to 7 = Strongly agree)**

**Appendix 2: Individual Item Mean Scores for Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Promotions &amp; Discounts</b>						
I often receive discounts because I am a member of the players club	3.8	2.8	3.8	4.0	2.9	4.9
I often get invited to special events because I am a member of the players club	2.6	2.6	3.6	3.7	2.5	5.0
I often participate in promotions that are only available to players club members	3.5	2.6	2.6	3.7	3.6	4.5
<b>Rewards</b>						
I often receive rewards/gifts (clothing, hotel rooms, tickets) because I am a member of the players club	3.3	2.4	2.6	3.2	2.4	4.6
As my level of gaming increases, the more gifts/rewards I receive from the casino	3.5	2.3	2.4	3.9	2.2	4.7
I have used my points or comp balance to purchase gifts, tickets, or cashback	4.1	3.1	3.4	5.3	4.6	5.3
I often receive comps (free food, drinks) during my visits because I am a players club member	4.1	3.0	3.2	4.4	2.9	5.1

**Scale (1 = Do not agree to 7 = Strongly agree)**



**Appendix 2: Individual Item Mean Scores for Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Affinity</b>						
I feel good when I visit this casino	4.0	4.0	5.2	4.2	4.4	5.0
Being part of the players club makes me want to visit this casino more often	3.6	2.9	2.2	3.3	3.5	3.9
Visiting this casino gives me pleasure	4.4	4.2	5.2	4.5	4.1	5.0
<b>Consumer Confidence</b>						
I trust this casino	3.7	3.7	4.6	4.1	4.4	4.1
I believe that the casino is honest in its business with me	4.0	3.8	5.0	4.1	4.5	4.4
I rely on this casino for my gaming	3.3	4.0	4.3	3.5	4.0	4.8

Scale (1 = Do not agree to 7 = Strongly agree)

**Appendix 2: Individual Item Mean Scores for Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Perceived Value</b>						
The casino makes great efforts to retain its club members	3.1	2.8	3.2	3.6	3.1	4.2
The casino makes great efforts to improve its ties with players club members	3.1	2.7	3.2	3.3	2.9	4.1
The casino really cares about keeping its players club members happy	3.3	2.6	3.0	3.2	3.1	3.9
The casino asks for input and ideas from club members	2.7	2.4	3.2	2.4	2.0	3.0
The casino continually enhances the benefits of club	3.1	2.5	3.0	2.8	2.4	3.4
<b>Competitive Factors</b>						
Compared to other casinos, I get good value for my money	3.7	3.7	4.0	4.0	3.5	4.9
I feel that I receive more value for my money by being a member of the players club	3.6	3.2	3.2	3.8	3.7	4.9
Compared to other players club, this program offers me more value for my money	3.6	3.2	3.4	3.5	3.3	4.7
I would remain a customer of this casino even if they stopped offering the players club	3.7	3.6	4.8	3.8	3.7	4.4

Scale (1 = Do not agree to 7 = Strongly agree)

**Appendix 2: Individual Item Mean Scores for Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Involvement</b>						
I am someone who finds it important about where I gamble	3.2	3.2	2.5	4.3	3.4	4.5
I am someone who is interested in learning about gambling and different gambling opportunities	2.8	2.8	3.3	3.8	2.6	3.9
I am someone for whom it means a lot to gamble	2.8	1.8	2.7	3.1	3.0	3.6
<b>Relationship Commitment</b>						
I am someone who likes to be a regular customer for a casino	2.8	2.3	3.5	3.5	2.9	3.9
I am someone who likes building relationships with companies	3.0	2.8	4.2	3.2	3.0	3.6
I am willing to go "the extra mile" to remain a customer of this casino	3.2	3.0	3.3	3.2	3.2	3.9
<b>Attitudinal Loyalty</b>						
I am committed to this casino	2.4	2.3	3.0	2.6	3.5	3.5
I would be willing to still visit this casino if it was more difficult to reach	3.3	2.6	3.0	2.6	2.4	3.7
I tell other's about the benefits of joining the players club	2.8	2.9	2.2	3.9	2.9	4.2

**Scale (1 = Do not agree to 7 = Strongly agree)**

**Appendix 2: Individual Item Mean Scores for Marketing Segments (cont.)**

	Disloyal Low Spenders	Loyal Low Spenders	Infrequent Big Spenders	Transient Big Spenders	Frequent Loyal Low Spenders	Loyal Big Spenders
<b>Behavioral Loyalty</b>						
I will visit this casino on my next trip	4.2	4.3	5.2	3.6	4.4	5.3
I intend to continue to be a customer of this casino	4.2	4.6	5.5	4.5	4.4	5.7

Scale (1 = Do not agree to 7 = Strongly agree)

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