

2004

Culture and other market demand variables: An exploration with professional baseball in the USA and Taiwan

Chia-Ying (Doris) Lu

Brenda Pitts

Georgia State University, bpitts@gsu.edu

Follow this and additional works at: https://scholarworks.gsu.edu/kin_health_facpub



Part of the [Kinesiology Commons](#)

Recommended Citation

Lu, D. & Pitts, B. G. (2004). Culture and other market demand variables: An exploration with professional baseball in the USA and Taiwan. In B. G. Pitts (Ed.), *Sharing Best Practices in Sport Marketing: The Sport Marketing Association's Inaugural Book of Papers* (pp. 141 - 166). Morgantown, WV: Fitness Information Technology.

This Book Chapter is brought to you for free and open access by the Department of Kinesiology and Health at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Kinesiology Faculty Publications by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

Sharing Best Practices in Sport Marketing:

**The Sport Marketing Association's
Inaugural Book of Papers**

**Edited and Selected from the
Inaugural Conference,
November, 2003**

Brenda G. Pitts, Editor
Vice President for Academic Affairs
Sport Marketing Association, 2003-2006
Professor, Director, Sport Management Masters Program
Georgia State University

Fitness Information Technology
*A Division of the International
Center for Performance Excellence*

West Virginia University

Copyright ©2004 by Sport Marketing Association

ALL RIGHTS RESERVED

Reproduction or use of any portion of this publication by any mechanical, electronic, or other means is prohibited without the written permission of the publisher.

Library of Congress Card Catalog Number: 2004110849

ISBN: 1885693524

Cover design: 40 West Studios
Copyeditor: Geoff Fuller
Proofreader: Julie Burrell
Production Editor: Geoffrey C. Fuller
Typeset by 40 West Studios
Printed by Data Reproductions
Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

Fitness Information Technology
262 Coliseum, WVU-PE
P.O. Box 6116
Morgantown, WV 26506-6116

800.477.4348 (toll free)
304.293.6888 (phone)
304.293.6658 (fax)
Email: fit@fitinfotech.com
Web Site: www.fitinfotech.com

Culture and Other Market Demand Variables: An Exploration With Professional Baseball in the USA and Taiwan

CHIA-YING (DORIS) LU
BRENDA G. PITTS

Abstract

Even though the consumer of spectator sports in the United States has many choices, professional baseball is still one of the most popular sports. In Taiwan, however, the spectator has little choice—baseball is the only professional team sport. Unfortunately, there is very little research involving culture, other market demands, and baseball in America, and no research in Taiwan. Hence, the purpose of this study was to examine culture and other market demands in relation to factors that influence spectator attendance at professional baseball games in the Taiwan Major League (TML) and in minor league baseball (MiLB) in the United States. The findings revealed that fans in MiLB and TML have some different attendance factors. Especially, they have the most differences in the following factors: *offense of home team, offense on visiting team, defense of visiting team, official fan club member, special promotions, and going with family.*

In Taiwan the spectator has little choice—baseball is the only professional team sport.

Introduction and Review of Literature

Baseball is one of the most popular sports in America. It has long occupied a special place in the cultural and social life of the United States (Land, Davis, & Blau, 1994). For example, in 2001, over 72 million spectators attended major league baseball (MLB) regular season games and the average attendance per game was 30,073 with 64.6% of seating capacity (percentage of seats occupied at home games; Thomas, 2001a, 2001b). Over 1.6 million people attended the playoffs and average attendance per game was 48,107 with almost 100% (96.2%) of seating capacity (Thomas, 2001c).

Although most public attention has been paid to major league baseball, minor league baseball (MiLB) has experienced resurgence in popularity in recent years, resulting in ever-increasing numbers of fans at the ballparks (Branvold, Pan, & Gabert, 1997). For example, attendance at MiLB games has grown from 11 million fans in 1975 (Morgenson, 1992) to 38.8 million in 2001 ("Attendance Hits 38.8 Million, Second Highest Ever," 2001). In the 2001 regular season alone, an average of 3,736 people attended per game in the MiLB games ("Attendance Hits 38.8 Million, Second Highest Ever," 2001). It has been found that historically the franchises that were virtually given away or sold for a low price, whereas today franchises are attracting offers of several hundred thousand dollars for Class A franchises to several million dollars for AAA franchises (Branvold et al., 1997; Johnson, 1993). In the same study, Branvold et al. also identified the two salient conjectural contentions that might explain this dramatic attendance increase: (1) the higher cost of attending major league games has made MiLB games an attractive economic alternative, and (2) the huge salaries and greater mobility enjoyed by major league players have reduced the fans' ability to relate to major league players. For the sport marketers, analyzing what factors account for this current booming phenomenon in MiLB would be beneficial.

In Taiwan, baseball has become a major team sport partly because Taiwan teams have won consecutive Little League World Series Championships, Youth World Championships AA & AAA levels, as well as other amateur levels.

In Taiwan, baseball has become a major team sport partly because Taiwan teams have won consecutive Little League World Series Championships, Youth World Championships AA & AAA levels, as well as other amateur levels. Professional baseball as a form of entertainment in Taiwan has been rapidly growing, beginning with the Chinese Professional Baseball League (CPBL) in 1990.

In its modest beginnings in 1990, the CPBL had only four teams—Elephants, Lions, Dragons, and Tigers. However, fan attendance has increased gradually, with a tremendous surge of interest after Chinese Taipei won a silver medal in baseball in the Barcelona Olympic Games in 1992. More and more enterprises wanted to join the CPBL. Being wary of overexpansion, the CPBL decided to allow only two more teams—Bulls and Eagles—to join the league. Being unable to join the league, two companies, Sampo and ERA together formed a second professional baseball league, the Taiwan Major League (TML), in 1997 (Chen, 2000).

The China Trust Whales joined the CPBL in 1998. However, three teams—Eagles, Tigers and Dragons—were terminated during 1998 and 1999. In 1999, the remaining four teams in the CPBL—Elephants, Lions, Bulls, and Whales—averaged 1,786 spectators per game for a total of 496,433 spectators. The TML had four teams with an average of 3,296 spectators per game and a total attendance of 553,659 spectators.

However, in 1996, there was a bribery scandal in the CPBL. This scandal influenced the whole Taiwan society dreadfully. Professional baseball was not perceived as a pure and clean game anymore. The role model function of professional baseball players was in question. In addition, the launching of the TML and the transference of star CPBL players to the TML in 1997 heavily affected attendance in the CPBL in 1997 (Liu, 1999). In Table 1, it is obvious that attendance in the CPBL has decreased significantly since the 1997 season. In addition, after six years of splitting the market, the two leagues finally decided to merge into one in the beginning of 2003. Two TML teams (Gida & Agan) joined CPBL, and there are six teams playing in the new CPBL this

However, in 1996, there was a bribery scandal in the CPBL. Professional baseball was not perceived as a pure and clean game anymore.

season. Although according to CPBL, the attendance has shown little comeback since last year, and strategies for attracting more people to games is an important issue for teams and the league.

Live games and televised games are the main products of professional sport teams. Indeed, professional sports exist for the purpose of entertaining spectators. Hence, game attendance is critical. It has been shown that gate receipts (sales of tickets and admission fees to games) can be a major source

Table 1 Attendance of the Chinese Professional Baseball League and the Taiwan Major League

Year	CPBL Attendance	CPBL Per Game Average	TML Attendance	TML Per Game Average
1990	899,955	5,000	-----	-----
1991	1,238,063	6,878	-----	-----
1992	1,600,549	5,928	-----	-----
1993	1,607,677	5,954	-----	-----
1995	1,646,391	5,488	-----	-----
1996	1,364,424	4,548	-----	-----
1997	685,832	2,041	696,999	3,630
1998	690,089	2,191	695,936	3,222
1999	496,433	1,786	553,659	3,296
2000 (7/31/00)	207,403	1,673	397,494	3,936

of revenue for major and minor professional sports teams and leagues. Other revenue sources include public funds, private sector investment, sponsorship funding, and media broadcasting rights fees. For some professional sports, revenue from ticket sales can account for as much as 60% of total revenue (Howard & Crompton, 1995; Howard & Crompton, 2004; Saudohar & Mangan, 1991; Zhang, Pease, & Smith, 1998). Green (1995) determined that attracting fans to games is the major avenue for professional sports franchises to distinguish themselves from the rest of their league. He also indicated that in order to increase their profits, home teams need to effectively utilize various marketing strategies to increase attendance.

Consumer Behavior and Sport Business

The sport business industry has experienced phenomenal growth in a short period of time (Pitts & Stotlar, 2002). A successful marketing strategy can play a very important role in the sport business. Understanding sport event consumer behavior can help sport event managers and marketers to provided a more successful product. Therefore, consumer behavior theory is an important framework for study in sport event business.

Consumer behavior is an essential foundation for examining factors that might influence attendance at professional sports events. Consumer behavior literature shows that there are three categories of factors that affect consumer behavior: external influences, internal influences, and the consumer decision-making process (Louden & Della Brita, 1993; Miniard, Bhatla & Rose, 1990; Schiffman & Kanuk, 2000; Stahl, 1986).

Culture Shapes Different Lifestyles

Consumers are surrounded by a host of external influences during their decision-making process. The external environmental influences are made up of five specific influences: *culture and subculture, social class, gender, race/ethnicity, and significant others.*

In society's broader framework, there are many cultures, subcultures, and countercultures that may nurture different lifestyles (Mullin, Hardy, & Sutton, 2000). Loudon and Della Bitta (1993) defined the concept of culture as "that complex whole that includes knowledge, belief, art, morals, law custom, and any other capabilities and habits acquired by man as a member of society. . . . the distinctive way of life of a group of people, their complete design for living. (p. 84)".

The external environmental influences are made up of five specific influences: culture and subculture, social class, gender, race/ethnicity, and significant others.

Culture is one of the important components of consumer behavior. It can be seen as a characteristic of a society. Culture always changes because its dynamics interact with people who live within it and over time. Culture thus establishes its own vision of the world, with its own unique set of appropriate norms of beliefs and behavior (Schütte & Ciarlante, 1998). Therefore, Western culture is different from the Eastern culture; American culture is distinct from Hispanic culture, Asian culture, or European culture. Therefore, even on the same sport of baseball, the fan experience at the

ball game and the reasons that people attending ball game differ from country to country.

Subculture can be referred to as a distinct cultural group that exists as an identifiable segment within a larger, more complex society (Schiffman & Kanuk, 2000). In the same country, people might be homogeneous in many ways because they are educated by the same culture, grow up in the same society, and possess with the similar values. However, members in the specific subculture tend to have unique beliefs, values, and customs that set them apart from other members of the same society (Schiffman & Kahuk, 2000). Thus, the behavior of baby boomers is different from Generation X-ers. For marketers, analyzing and identifying culture and subculture is a basic step so they can select and concentrate on their own particular consumer market segments.

Even on the same sport of baseball, the fan experience at the ball game and the reasons that people attending ball game differ from country to country.

Sport marketing researchers (Green, 1995; Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang, Pease, Hui, & Michaud, 1995a; Zhang, Smith, Pease, & Jambor, 1997b; Zhang, Smith, Pease, & Lam, 1998) have generally concluded that the factors that affect spectator game attendance fall into the following four categories: (a) *game attractiveness* (e.g., individual skills, team records, league standing, record-breaking performance, closeness of competition, special events, and entertainment), (b) *economic* (e.g., ticket price, substitute forms of entertainment, television effect, and competition of other sport events), (c) *sociodemographic* (e.g., population, age, gender, ethnicity, occupation, education, and geography), and (d) *audience preference* (e.g., schedule, convenience, weather, stadium quality, and team history in a community). Figure 1 illustrates a model that we developed based on these categories and the many factors within each. Following is a brief description of each.

Sociodemographic factors include basic demographical and sociocultural characteristics including age, gender, ethnicity, occupation, education, income, and household status as well as geographical factors such as distance to the park and transportation type (Green, 1995; Hansen & Gauthier, 1989; Kasky, 1994). By collecting this type of information from spectators, the sport organizations should be able to develop a marketing plan and, ultimately, a product that is more customized to their consumers. For instance, driving distance and stadium location can influence an individual's intention to go to a game. It has been indicated that new stadiums located in the more densely populated areas have higher attendance (Hill, Madura, & Zuber, 1982). However, while population size has been found to have a positive effect on attendance (Hansen & Gauthier, 1989), the presence of ethnic groups has been identified as having a negative effect on game attendance (Schofield, 1983; Siegfried & Eisenberg, 1980; Zhang, Smith, Pease, & Mahar, 1996).

Figure 1 **The Lu & Pitts Model of Attendance Factors** (Developed From Previous Research)

Sociodemographic Factors	Economic Factors	Game Attractiveness Factors	Audience Preferences Factors
<ol style="list-style-type: none"> 1. Gender 2. Age 3. Marital/household status 4. Highest education level 5. Numbers of children (18 years old and under) 6. Annual household income 7. Ethnicity 8. Occupation 9. Games attend each year 10. Season ticket holder 11. Transportation type 12. Distance to the ballpark 	<ol style="list-style-type: none"> 1. Price of a ticket 2. Price of season ticket 3. Price of concessions 4. TV/Radio coverage of the home game in the local area 5. TV coverage of another sport event at time of the home game 6. Other sporting events in the area 7. Other activities taking place nearby 8. Other professional franchises in area 	<ol style="list-style-type: none"> 1. Record (won-loss) of home team 2. Record (won-loss) of visitor team 3. Number of star players on home team 4. Number of star players on visitor's team 5. Offensive performance of the home team 6. Defensive performance of the home team 7. Offensive performance of the visitor's team 8. Defensive performance of the visitor's team 9. Closeness of competition 10. Games with rival teams 11. A chance to see a record breaking performance by a team or athlete 12. Special promotion (hat day, poster day, etc.) 13. Home team's place in the division standings 14. Home team's place in the league standings 15. Home team's involvement in race for a playoff spot 16. Media advertising (TV, Radio, Newspaper, Internet, etc.) 	<ol style="list-style-type: none"> 1. Day games during the weekdays 2. Night games during the weekdays 3. Weekend day game 4. Weekend night game 5. Weather conditions 6. Cleanliness of the facility 7. Easy and/or multiple access to your facility 8. Availability of parking at or near facility 9. Size of the facility (seating capacity) 10. The crowd behavior at the game 11. New stadium or arena 12. Number of years the team has been in the area 13. The variety of concessions available 14. Violence in the game 15. The design and color of uniform 16. Going with family 17. Going with friends

Age matters. It has been shown that young to middle-aged white males are most likely to attend professional sporting events (Greenstein & Marcum, 1981; Noll, 1974; Scully, 1974; Siegfried & Eisenberg, 1980; Simmons Market Research Bureau, 1990; Whitney, 1988; Zhang et al., 1996). While promotions are perceived as one of the most important strategies to attract people to games, promotion was found to have a negative relationship with age (Zhang, Pease, & Safici, 1995b).

Economic factors include such factors as the costs of the tickets and other amenities, availability of substitute forms of

The low cost of living and warm climate make Tampa an attractive area for leagues to place franchises. However, those same advantages have also become detrimental, as there is heavy competition within a crowded sports marketplace.

entertainment or activities, television, and other sports events in the area. In general, most research reports show that these factors tend to have a more negative effect on sports event attendance (Hansen & Gauthier, 1989; Jones, 1984; Zhang et al., 1995a; Zhang et al., 1996). For instance, consumers may have a budget and, therefore, attending a sports event depends upon the many costs associated with the event (Green, 1995).

An area may contain several sport organizations that provide alternative sport entertainment choices for the consumer. For example, an article that examined the sport market in the Tampa Bay area reported that the low cost of living and warm climate make Tampa an attractive area for leagues to place franchises. However, those same advantages have also become detrimental, as there is heavy competition within a crowded sports marketplace. The sport marketers are not only competing with professional sports teams, they are also competing with such local attractions as Busch Gardens, Disney World, and the beach (Williams, 2001a, 2001b).

Zhang and Smith (1997a) indicated that “it is noteworthy that broadcasting of professional sports has become a central part of corporate planning of major league teams, broadcasters, and related organizations” (p. 23). However, studies related to professional sports found that televising a home game would negatively affect game attendance (Demmert, 1973; Noll, 1974; Zhang & Smith, 1997a). On the other hand, Zhang and Smith reported that “TV broadcasting of away games would increase attendance; cable TV access would not affect attendance; and radio broadcasting would increase attendance” (p. 23).

However, since winning is not everything, only 25% of fans attended sporting events because of the team’s winning record in another study.

Game attractiveness includes such factors as player skills, team records, league standing, record-breaking performance, closeness of competition, special events, promotions, and entertainment. Game attractiveness factors have been found to be positively related to game attendance (Zhang et al., 1996). In one study, it was found that when the outcome of the game is predictably in favor of the winning team, attendance remains

high (Demmert, 1973). However, since winning is not everything, only 25% of fans attended sporting events because of the team’s winning record in another study (Greenstein & Marcum, 1981).

Game day promotions or other forms of promotions can affect attendance. Game day promotions are one of many marketing strategies used by sport organizations to attract more fans. Sales promotions have traditionally been in the form of price or nonprice promotions in professional sport (Mullin, Hardy, & Sutton, 2000; Pitts & Stotlar, 2002). Price promotions occur when an individual spectator or a selected group is admitted to the game at less than the regular price (e.g., 2-for-1 night, senior’s night, kid’s night). Nonprice promotions are those strategies where an individual fan or a selected group of fans receive merchandise or when value-added entertainment (e.g. firework displays, San Diego Chicken Night) is provided (McDonald & Rascher, 2000).

In general, promotions have been found to have a positive impact on attendance (Hill et al., 1982; Marcum & Greenstein, 1985; McDonald & Rascher, 2000; Zhang et al., 1995a; Zhang et al., 1996). Specifically, it has been found that promotion and income level are highly positive (Hill et al., 1982; Marcum & Greenstein, 1985; Zhang et al., 1995a; Zhang et al., 1996). In a study by McDonald and Rascher (2000), results showed that promotions have a discernible 14% impact on single game attendance among 19 MLB teams.

Some fans perceive themselves as “part of history” if they are able to see a record broken during a game. It has been found that the opportunity to see a record-breaking performance appears to be the most important factor influencing attendance at sporting events (Green, 1995). Many fans believe it is important to be associated with a winner

It has been found that the opportunity to see a record-breaking performance appears to be the most important factor influencing attendance at sporting events.

and are more likely to follow the team if they are winning or have a chance of getting in the playoffs (Schofield, 1983).

Fillingham (1977) reported several factors that could affect attendance: a strong rivalry between teams, the record-breaking performances of athletes, and the presence of outstanding athletes. While some baseball franchises are spending vast amounts of money to sign with star players, a study conducted by Noll (1974) showed that the number of star players on the team would attract fans to see the game. Specifically, Green (1995) reported that star players seem to be more important to basketball fans than to fans of other sports.

Lastly, it has been reported that the competitive level of the game attracts spectators (Hill et al., 1982) and that "spectators do prefer games featuring their favorite team, but they prefer games featuring the most disliked team only when that team is seen as a threat to the spectator's favorite team" (Mahony & Howard, 1998, p. 96).

Audience preference factors include such factors as game schedule, convenience, accommodation availability, weather, stadium quality, and team history in a community. Those factors were labeled as "environmental factors" by Green (1995) and "residual preference" by Hansen and Gauthier (1989).

Consumers have certain expectations about their comfort level when attending games (Green, 1995). Fans may want to attend a game in a relatively clean facility, sit with controlled crowds, and have readily available concessions, an easy parking area at available times as well as acceptable weather conditions.

Audience preference variables have been found to be positively related to game attendance (Zhang et al., 1996). Schedule and facility convenience (game period, day of week, weather, and accessibility to go to the game) have been found to have a significantly positive relationship with attendance and Fillingham (1977) reported that cleanliness and accessibility of the facility, and the scheduling of games are significant factors. In a study examining game-by-game attendance, it was found that one of the major factors is day of the week (Marcum & Greenstein, 1985). In another study involving MLB, accessibility to the game, games on weekends and doubleheader games positively affected fan attendance (Hill et al., 1982).

Purpose of the Study

There is very little research involving culture, other market demands and baseball even though professional baseball is a popular spectator activity in the United States. In Taiwan, however, the spectator has little choice—baseball is the only professional team sport. Furthermore, we found no research involving consumer behavior and baseball in Taiwan. However, sport marketers need information that can help them with decisions to provide a more successful product. Information from sport marketing research can provide empirical support for marketing plans, management decisions, and marketing strategies to increase game attendance in both countries. Additionally, contributing to the small body of research involving consumer behavior in the sport marketing literature is needed. Furthering what we know about this area can greatly enhance our current understanding and add significantly to the current discourse in order to advance contemporary theory and research about culture and sport consumer behavior. Hence, the purpose of this study was to examine culture and other market demands in relation to factors that influence spectator attendance at professional baseball games in the TML and in minor league baseball in the United States. Based on the purpose of the study, we examined whether sociodemographic, economic, game attractiveness, and audience preferences factors as identified in previous research (refer to Figure 1) were influences on consumer behavior to attend games.

We found no research involving consumer behavior and baseball in Taiwan. However, sport marketers need information that can help them with decisions to provide a more successful product.

Subjects

Rea and Parker (1997) state that populations of less than one hundred thousand could be considered small; therefore, the population of ball game attendance in this study was viewed as a small sample size. A 95% level of confidence in a population size of 5,000, with a $\pm 5\%$ margin of error, was applied in this study. In 2000, the average attendance per game of the TML was 3,381 and of the Southern League was 3,619. Therefore, according to Rea and Parker, “357” was considered to be the minimum sample size. Because the purpose of this study was to compare the spectators in two professional baseball leagues in two countries, a total minimum number of 714 surveys would be needed. Assuming that some surveys would not be useable for a variety of reasons, a larger number, 800 (400 from each league) would be collected.

Data for this study were collected at four Southern League games and four TML games during the 2001 season. Minor league baseball was selected over major league baseball to compare to the TML because minor league baseball is much more comparable to TML baseball in most ways. As a result, 460 spectators from the Southern League and 402 spectators (total of 862) voluntarily completed the survey (refer to Table 2).

One to three trained study assistants assisted at each game to collect data in the ballparks. To enhance random selection, a *mall approach* was used. Using this sampling method, the researchers and the assistants walked around the stadium grounds and inside the stadium, approached attendees in a random manner and asked them to participate in the survey. Additionally, a cross-section of attendees was sought by approaching attendees in various sections of the stadium: behind home plate, left field, center field, and right field. This attempt was made based on the assumption that seats in those sections were priced at different levels, and therefore those attendees would represent different demographic groups. Fans were asked to participate in the survey 30 minutes prior to the game and throughout the game. Willing attendees then completed a survey and a consent form. A total of 862 people participated in the study by completing the survey.

Data for this study were collected at four Southern League games and four TML games during the 2001 season. Minor league baseball was selected over major league baseball to compare to the TML because minor league baseball is much more comparable to TML baseball in most ways.

Table 2 Number of Surveys Collected From Eight Ballparks

Leagues	Ballparks	N	%
U.S. Minor League	Mobile	92	20.0
	Jacksonville	115	25.0
	Birmingham	123	26.7
	Greenville	130	28.3
	Total	460	100.0
Taiwan Major League	Taichung	93	23.1
	Chiayi	53	13.2
	Kaohsiung	102	25.4
	Taipei	154	38.3
Total		402	100.0

Instrument

The questions in the survey used in this study were developed from those surveys used in the previous studies of Green (1995), Hansen and Gauthier (1989), Kasky (1994), Schofield (1983), and Zhang et al. (1995a). An English version for American fans and a Chinese version for Taiwanese fans were used. The first part of the survey examined 41 factors that affect attendance, while a second part of the questionnaire contained 13 questions concerning demographic data. A 5-point Likert Scale was used for scoring the survey instrument. The 5 points influencing rate were translated as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Reliability and Validity

Using Cronbach's alpha to test the reliability of the factors in the economic category, game attractiveness category, and audience preferences category and found reliability scores of .68, .87 and .71, respectively. The alpha coefficient for the total scale except the sociodemographic category was a .85 reliability coefficient. Because .85 is close to a perfect score, which is 1.00, overall, the instrument had an acceptable level reliability.

"The validity of a measurement instrument is the degree to which the instrument actually measures what it is supposed to measure" (Cicciarella, 1997, p. 79). Previous researchers all conducted studies relating to spectator attendance at sporting events (Green, 1995; Hansen & Gauthier, 1989; Kasky, 1994; Schofield, 1983; Zhang et al., 1995a). From the results of the previous studies, certain content areas are considered well represented. Although those researchers labeled attendance factors slightly differently, all researchers grouped factors according to a specific content area. The categorizations of factors indicate content validity for this study.

Analysis of Data

First, descriptive statistics of the composite scores were calculated for each sociodemographic factor. Second, the data were analyzed by using univariate analysis of variance (ANOVA) to test for the differences between two leagues. Significance was set at .05. Procedure from the Statistical Package for Social Science (SPSS 10.0 version) was used to conduct the statistical analysis.

Results, Conclusions, and Discussion

Sociodemographic Factors

Gender. The results of this study indicated that both leagues had similar gender distribution in their attendances (refer to Tables 3a, 3b, 4, 5a, 5b, and 6). When examining female attendance to TML games, they composed 43.1% while males composed 56.9% of the total attendance. The percentage of female attendance in the 2001 season was 50.8%. In the MiLB, females composed 44.6% of the fans while males composed 55.4% of the total attendance. These findings are similar to previous studies of spectator attendance in which females composed at least 35% of the fans attending professional baseball games (Hansen & Gauthier, 1993; Liu, 1999; Green, 1995; Professional Baseball Promotion Corp., 2001).

Age

In regard to age as a factor affecting game attendance, the typical TML fan was 24.2 years old (± 8.5) while the average age in the MiLB was 40.1 years old (± 13.6). Furthermore, TML fans in the 13-24 age group accounted for more than half of the total fans (58.5%), while this same age group attending MiLB accounted for only 13.0% of the fans. Composition of that age segment was found to be 47.8% students, and 81.5% singles in the TML, compared to the MiLB fans in which 9.0% were students and 21.9% were single.

Highest Education Level

Focusing on Americans aged 25 years or older, according to U.S. Census 2000, 82% were high school educated, 31% have an associate's degree or higher, 16% an undergraduate level degree or higher, and 9% a graduate or professional degree (U.S. Census Bureau, 2002a).

Table 3a Descriptive Statistics for the Demographic Variables in U.S. ($n=460$)

Variables	Category	<i>n</i>	%	Cumulative %
Gender	Female	205	44.6	44.6
	Male	255	55.4	100.0
Age	13-18	31	7.1	7.1
	19-24	26	6.0	13.0
	25-29	34	7.7	20.8
	30-34	53	12.1	33.1
	35-39	60	13.7	46.8
	40-44	79	18.1	64.8
	45-49	50	11.4	76.3
	50-54	39	8.9	85.2
	55-59	29	6.7	91.8
	60-64	19	4.4	96.1
	65-69	7	1.6	97.7
	70-74	4	0.9	98.6
75-79	4	0.8	99.8	
80-84	1	0.2	100.0	
Marital/ household Status	Single	100	21.9	21.9
	Married/Partner	309	67.8	89.7
	Divorced	39	8.6	98.2
	Widowed	8	1.8	100.0
Highest Education Level	Junior High	8	1.8	1.8
	High School	139	31.1	32.9
	Undergraduate	196	43.8	76.7
	Graduate school	104	23.3	100.0

In comparison, 98.2% of MiLB fans have a high school diploma and above degree, 43.8% of fans received bachelor's degrees and 23.3% of fans have achieved a masters and above degree level. The education levels of minor league fans are higher than the average American.

In Taiwan, according to the 2000 Population and Housing Census, 68.4% of Taiwanese had at least graduated from high school, and 24.8% of Taiwanese received an associate degree or higher (Directorate General of Budget Accounting and Statistics Executive Yuan, R. O. C., 2002a).

Table 3b Descriptive Statistics for the Demographic Variables in U.S. (n=460) (continued)

Variables	Category	n	%	Cumulative %
Annual Household Income	>\$19,999	15	3.9	3.9
	\$20,000-\$29,999	23	6.0	9.9
	\$30,000-\$39,999	44	11.4	21.3
	\$40,000-\$49,999	37	9.6	30.9
	\$50,000-\$59,999	55	14.3	45.2
	\$60,000-\$69,999	36	9.4	54.5
	\$70,000-\$79,999	34	8.8	63.4
	\$80,000-\$89,999	41	10.6	74.0
	\$90,000-\$99,999	21	5.5	79.5
	\$100,000-\$109,999	21	5.5	84.9
	\$110,000-\$119,999	9	2.3	87.3
	\$120,000+	49	12.7	100.0
Ethnicity	American Indian	2	0.4	0.4
	African American	11	2.4	2.8
	Asian	6	1.3	4.1
	Caucasian	417	92.7	96.8
	Hispanic	5	1.1	97.9
	Multi	4	0.9	98.8
	Others	5	1.1	100.0
Occupation	Blue Collar	29	6.5	6.5
	Clerk	14	3.2	9.7
	Education	43	9.7	19.4
	Housewife/husband	24	5.4	24.8
	Management	79	17.8	42.7
	Military	12	2.7	45.4
	Professional	120	27.1	72.5
	Retired	19	4.3	76.8
	Sales	21	4.7	81.5
	Self-employed	5	1.1	82.6
	Student	40	9.0	91.6
	Technical	19	4.3	95.9
	Others	19	4.9	100.0

In comparison, 86.3% of Taiwanese baseball fans have a high school diploma and above education level, and 43.0% have bachelor's degree. Results showed the TML spectators are more educated than Taiwan's average.

However, when university education is examined and compared between both countries, the percentage of people with an undergraduate degree is similar between the TML and the MiLB (43.0% and 43.8%, respectively). Furthermore, 23.3% of minor league spectators have a graduate degree and only 0.8% of TML spectators.

Graduate Level Education

Looking beyond the statistical data, there are two possible explanations for such a difference in the percentage of American and Taiwanese fans with graduate-level education.

First, in Taiwan, people need to pass a national high school entrance exam (this requirement was abolished two years ago, entrance is now based on academic grades and merit). In addition, a college entrance exam was required for individuals to obtain higher education. Furthermore, unlike the United States where there is compulsory K-12 education; mandatory education in Taiwan is 1-9 only. Naturally, therefore, the number of Taiwanese fans who are high school educated or above is lower

Table 4 Descriptive Statistics for the Advanced Demographic Variables in U.S. (n=460)

Variables	Category	n	%	Cumulative%
Season Ticket Holder	Yes	44	9.6	9.6
	No	410	89.9	100.0
Fan Club Member	Yes	6	1.3	1.3
	No	448	98.7	100.0
Games Attended Per Year	1-10	356	78.4	78.4
	11-20	50	11.0	89.4
	21-30	13	2.9	92.3
	31-40	11	2.4	94.7
	41-50	5	1.1	95.8
	51-60	4	0.9	96.7
	60+	15	3.3	100.0
	Transportation	Driving Cars	446	97.8
	Bus	5	1.1	98.9
	Subway	2	0.4	99.3
	Taxi	1	0.2	99.6
	Motorcycle	2	0.4	100.0
Miles Traveled	0-10	140	30.8	30.8
	11-24	129	28.4	59.1
	25-49	95	20.9	80.0
	50-74	49	10.8	90.8
	75-100	18	4.0	94.7
	100+	24	5.3	100.0

than that of the United States Minor League, as there are 11.9% less graduates.

Secondly, a large portion of the fan base of Taiwanese baseball (30.6%) is composed of high school students aged 13 to 18 (Lu, 2001) who have yet to start their university education.

Income Status

According to the definition of The World Bank Group (2002), the gross national product (GNP) per capita is the dollar value of a country's final output of goods and services in a year divided by its population. It reflects the average income of a country's citizens. Knowing a country's GNP per capita is the first step toward understanding its economic strengths and needs. In 2001, according to Bureau of Economic Analysis (as cited in White House, 2002), the GNP per capita of U.S. was \$23,639 compared to \$12,941 in Taiwan (Directorate General of Budget Accounting and Statistics Executive Yuan, R. O. C., 2002b). In 2000, according to U.S. Bureau of the Census (as cited in White House, 2002), the average household income

In comparing the average annual household incomes of fans in both countries we see substantial difference. In the Taiwan Major League, the mean of the annual household income was in the \$50,000-\$59,999 level while it was in the \$60,000-\$69,999 level in the Southern League.

Table 5a **Descriptive Statistics for Demographic Variables in Taiwan (n=402)**

Variables	Category	n	%	Cumulative %
Gender	Female	174	43.1	43.1
	Male	228	56.9	100.0
Age	13-18	121	30.6	30.6
	19-24	110	27.9	58.5
	25-29	71	18.0	76.5
	30-34	41	10.3	86.8
	35-39	28	8.1	93.9
	40-44	15	3.8	97.7
	45-49	4	1.0	98.7
	50-54	3	0.8	99.5
	55-59	0	0.0	99.5
	60-64	2	0.5	100.0
Marital/Household Status	Single	325	81.5	81.5
	Married/Partner	71	17.8	99.2
	Divorced	3	0.8	100.0
Highest Education Level	Elementary	1	0.3	0.3
	Junior High	53	13.4	13.7
	High School	168	42.5	56.2
	Undergraduate	170	43.0	99.2
	Graduate school	3	0.8	100.0

of the U.S. was \$42,148 compared to \$22,601 in Taiwan (Directorate General of Budget Accounting and Statistics Executive Yuan, R. O.C., 2002c).

In comparing the average annual household incomes of fans in both countries we see substantial difference. In the Taiwan Major League, the mean of the annual household income was in the \$50,000-\$59,999 level while it was in the \$60,000-\$69,999 level in the Southern League.

Ethnicity

For obvious reasons, the fans of Taiwanese baseball are Asian; however, several Caucasian students were observed attending the game in Taipei-students from America, Britain, and other countries who came to Taiwan to learn Chinese. For many it was their first time attending a game. TML may like to introduce international students to the game. They can have group ticket sales with those Chinese schools that offer classes to international students. Additionally, they can offer tickets give-a-way on local Chinese or English radio stations to promote the TML games.

Table 5b Descriptive Statistics for Demographic Variables in Taiwan (n=402) (continued)

Variables	Category	n	%	Cumulative %
Annual Household Income	>\$19,999	15	3.9	3.9
	\$20,000-\$29,999	23	6.0	9.9
	\$30,000-\$39,999	44	11.4	21.3
	\$40,000-\$49,999	37	9.6	30.9
	\$50,000-\$59,999	55	14.3	45.2
	\$60,000-\$69,999	36	9.4	54.5
	\$70,000-\$79,999	34	8.8	63.4
	\$80,000-\$89,999	41	10.6	74.0
	\$90,000-\$99,999	21	5.5	79.5
	\$100,000-\$109,999	21	5.5	84.9
	\$110,000-\$119,999	9	2.3	87.3
	\$120,000+	49	12.7	100.0
	Ethnicity	Asian	402	100.0
Occupation	Blue Collar	34	8.7	8.7
	Clerk	12	3.1	11.8
	Education	6	1.5	13.3
	Housewife/husband	8	2.0	15.3
	Management	22	5.6	21.0
	Military	7	1.8	22.8
	Professional	64	16.4	39.1
	Retired	0	0.0	39.1
	Sales	27	6.9	46.0
	Self-employed	0	0.0	46.0
	Student	187	47.8	93.9
	Technical	5	1.3	95.1
	Others	19	4.9	100.0

According to the U.S. Census 2000 (U.S. Census Bureau, 2002b), 75.1% of the people in the U.S. were Caucasian, 12.5% were Hispanic or Latino, 12.3% were Black or African American, and 3.6% were Asian.

By averaging the racial percentage of counties within the 50-mile radius of four ballparks, 77.37% are Caucasians, 19.43% are African Americans, 2.25% are Hispanics, 0.68% are Asians. However, with data collection in ballparks, Caucasians (92.7%) composed the largest proportion in the fan base in the minor league baseball while only 2.4% of the fans were African American, 1.3% were Asian, and 1.1% were Hispanic.

Comparing the demographic results in this study to the Census 2000 data, there is a potential market in the local African-American residents and the Hispanic community as well. There is still great opportunity to increase the involvement of fans from Asian backgrounds.

The Street & Smith's *SportsBusiness Journal* reported that the Hispanic population increased by at least 100,000 in all but eight of the 24 U.S. baseball markets from 1990 to 2000. During that same 10-year span, the Asian population in seven MLB markets increased by 100,000 or more and by 45,000 or more in all but nine markets (King, 2002a).

Table 6 Descriptive Statistics for Advanced Demographic Variables in Taiwan (n=402)

Variables	Category	n	%	Cumulative %
Season Ticket Holder	Yes	77	19.7	19.7
	No	314	80.3	100.0
Fan Club Member	Yes	62	15.7	15.7
	No	333	84.3	100.0
Games Attended Per Year	1-10	186	47.2	47.2
	11-20	100	25.4	72.6
	21-30	55	14.0	86.5
	31-40	28	7.1	93.7
	41-50	25	6.3	100.0
Transportation	Driving Cars	128	32.1	32.1
	Bus	50	12.5	44.6
	Subway	6	1.5	46.1
	Taxi	18	4.5	50.6
	Motorcycle	180	45.1	95.7
	Walk	13	3.3	99.0
	Others	1	0.3	99.3
	Bus & Subway	3	0.8	100.0
Miles Traveled	0-10	217	55.4	55.4
	11-24	114	29.1	84.4
	25-49	47	12.0	96.4
	50-74	5	1.3	97.7
	75-100	3	0.8	98.5
	100+	6	1.5	100.0

With the American population more diverse than ever, this is evident in the composition of players in the professional baseball. In 2002, almost half of the players who are under contract with either MLB or MiLB were foreigners, and more than 80% of foreign-born major league players come from countries such as Japan, Korea, Puerto Rico, Mexico, Venezuela, and the Dominican Republic (King, 2002b). People like to see players from their own country. With more resources, MLB teams use different promotional methods to reach their fans and tailor specific marketing strategy to access different demographics. For example, due to a large Hispanic population in Houston, the Houston Astros have a Spanish version of the official team website, and Spanish-speaking channels carry the radio broadcasts. In addition, the Seattle Mariners and the LA Dodgers have a linkage on the website to MLB.com in Japanese because it features all the Japanese major leaguers.

However, there are still many marketing avenues open to a MiLB ball club to reach the African American and Hispanic communities.

Executive VP and Chief Marketing Officer of the LA Dodgers, Kris Rone, declared that about one-third of MLB franchises will broadcast at least a portion of their schedule on Spanish-language radio this 2002 season. These special efforts to recognize and accommodate various ethnic groups will surely broaden the fan base of teams and leagues; sport websites and often sponsors are now demanding that the franchise have an ethnic component as part of their program to increase their

share in these ethnic markets. However, regardless of the opportunities of the ethnic market, few baseball clubs, though aware, have found efficient ways to capitalize on them (Rone, 2002).

Due to the limited resources and budgets of minor league teams, they often cannot utilize the same promotional methods as their MLB counterparts. However, there are still many marketing avenues open to a MiLB ball club to reach the African American and Hispanic communities. Marketing practitioners can reach potential costumers/fans by placing advertisements in local African American, Hispanic, or Asian newspapers, radio, and television channels. Promoting through the school systems by rewarding game tickets to students or offering ticket sweepstakes to teams who play in local parks and recreation baseball or softball leagues is also an option. For instance, the Dodgers provide sponsorship packages to those sponsors who are looking for different ethnicity markets; the MiLB teams can also provide a vehicle to those local sponsors who want to seek ways to reach Hispanic or Asian markets.

Available Transportation and Miles Traveled

When comparing the available modes of transportation available to fans in Taiwan and America (see Tables 4 and 6), the major difference appears to be that while 97.8% of Americans selected the automobile as their preferred method, fans in the TML used various transportation to get to the ballpark.

Parking availability is also a critical factor that will influenced how people travel to watch a game. Fans in both leagues all agree that if there were more available parking spaces, they would like to attend more games.

In Taiwan and Japan, fan clubs have a very special place in professional sports. Sports players, entertainers, and celebrities have fan clubs, and all professional baseball teams have them.

While the researchers and assistants visited these four Southern League ballparks and found that the parking conditions were very good, ballparks charged people two to four dollars for parking and there was sufficient parking for all the fans. However, in Taiwan, two of the four TML ballparks (Chiayi and Kaohsiung) are located in suburbs, and people claim it is easy to find parking spaces. The Kaohsiung ballpark even has a huge underground parking lot. The problem exists with the other two ballparks, Taipei and Taichung, which are located in the urban area or downtown. Although people use mass transportation methods to attend the games, parking is still a serious problem, especially

in Taipei. The Taipei ballpark is in an urban mixed area where many residents and businesses are located; therefore, parking in that area is very limited. Fans traveling to the Taipei ballpark complain that they need more parking spaces. If the TML can solve the parking problem or offer easier transferring to public transit, fans would be more willing to come to the game.

Number of Games Attended

Although in both the American minor league and the TML the average number of games attended fell to 11-20 games per year. Overall, MiLB fans averaged 15.3 games per person, while the TML fans averaged 20.0 games.

Fan Clubs

In Taiwan and Japan, fan clubs have a very special place in professional sports. Sports players, entertainers, and celebrities have fan clubs, and all professional baseball teams have them. Fan clubs are interactive organizations between fans and the ball clubs, and they are run voluntarily by enthusiastic and loyal fans. Cultural differences in Taiwan and the United States also translate into different consumer behavior; therefore, the type of fan clubs prevalent in both countries naturally exhibit some differences.

In the TML, one team or individual player may also have several fan clubs. These clubs have activities not only during the games but all year around, and people who join the fan clubs tend to attend more ballgames.

Members of TML fan clubs would attend more games if their fan club would have more activities on the game day. While MLB teams such as the Florida Marlins or the Anaheim Angels have official adult or kids' fan club where fans pay membership fees and receive a fan club-only T-shirt, photos, or other promotional products, several MLB teams now have another type of official fan club where fans sign up for free and are rewarded points by swiping membership card at the kiosk in ballparks. (e.g., Atlanta Braves' Bravo Club; San Diego Padres' Compadres Rewards Club).

Fans may accumulate points and exchange them for coupons, free game tickets, discounts, or even entering a sweepstakes. Not many minor league baseball teams have developed fan clubs similar to the TML or MLB, although the Mobile BayBears have a 'stadium club membership'. The membership costs \$1600 for two people. Members receive access to the exclusive stadium club, beverage service at their seats, reserved VIP parking, nameplates on their seats, stadium club cards, and food and beverage specials (Mobile BayBears, 2002).

In MiLB, however, the popular booster club is the closest version to a fan club. Local business or individuals form booster clubs to raise finances and raise funds for the team. In return, booster club members have more access than normal fans to the players and because booster club members have better access to tickets it's easier for them to attend away games. The cost of booster membership can range from free to hundreds of dollars, either organized and voluntarily maintained by loyal and enthusiastic fans or by ball clubs as a revenue stream.

Economic Factors

The results showed that the two leagues had significant differences on the following factors: price of tickets, season ticket price, home team's local television and radio broadcasting, other sport events in the area, other nearby activities and other nearby professional franchises (see tables 7 and 8).

Fans may accumulate points and exchange them for coupons, free game tickets, discounts, or even entering a sweepstakes. Not many minor league baseball teams have developed fan clubs similar to the TML or MLB

In this study, results indicate that ticket price affects MiLB fans more than TML fans.

Table 7 ANOVA Examining the Different Factors Between Two Countries

Category	Factors	F	R ² /Eta ²	p
Economic	Price of tickets	51.154	.057	.000*
	Season ticket price	6.044	.007	.014*
	Price of concession	1.497	.002	.222
	TV/Radio at local	6.518	.008	.011*
	Another game on TV at same time	.278	.000	.598
	Other sport events in area	6.860	.008	.009*
	Other activities taking place nearby	9.117	.011	.003*
	Other Pro franchises	5.685	.007	.017*
Game Attractiveness	Record of home team	57.800	.065	.000*
	Record of visiting team	3.457	.004	.063
	Star players of home team	44.695	.050	.000*
	Star players of visiting team	25.468	.029	.000*
	Offense of home team	153.876	.155	.000*
	Defense of home team	14.877	.017	.000*
	Offense on visiting team	113.693	.120	.000*
	Defense of visiting team	27.491	.116	.000*
	Closeness of competition	41.567	.047	.000*
	Games with rival team	15.120	.018	.000*
	A chance to see record-breaking performance	33.543	.039	.000*
	Special promotional event	14.021	.016	.000*
	Home team's division standing	-----	----	----
	Home team's league standing	79.340	.086	.000*
	Involvement in race for a playoff spot	92.189	.099	.000*
	Media advertising	1.356	.002	.245
Audience Preferences	Day games during weekdays	58.700	.067	.000*
	Night games during weekdays	29.789	.034	.000*
	Weekend day games	1.918	.002	.166
	Weekend night games	3.211	.004	.074
	Weather is comfortable	1.934	.002	.165
	Cleanliness of the facility	1.004	.001	.317
	Easy/multiple access to stadium	.258	.000	.612
	Availability of parking	.004	.000	.951
	Size of the facility	.666	.001	.415
	Like the fan behavior	3.535	.004	.060
	New ballpark	82.319	.090	.000*
	Many years in the area	16.115	.019	.000*
	Variety concession	3.289	.004	.070
	Less violence in game	5.717	.007	.017*

Table 8 Mean and Standard Deviation of the Differences Between Two Countries

Factors	U.S. Minor League		TML	
	Mean	SD	Mean	SD
Economic Category				
Price of tickets*	4.294	.812	3.863	.941
Season ticket price*	3.693	.947	3.850	.897
Price of concession	3.509	1.174	3.409	1.191
TV/Radio at local*	2.796	1.032	2.593	1.259
Another game on TV at same time	2.951	1.735	3.005	1.130
Other sport events in area*	2.876	1.754	3.145	1.086
Other activities taking place nearby*	2.893	1.059	3.116	1.059
Other Pro franchises*	2.889	1.125	3.147	1.947
Game Attractiveness Category				
Record of home team*	3.300	1.008	3.841	1.052
Record of visiting team	3.129	.0867	3.252	1.071
Star players of home team*	3.497	.940	3.923	.904
Star players of visiting team*	3.279	.880	3.604	.989
Offense of home team*	3.413	.875	4.153	.846
Defense of home team*	3.360	.836	3.613	1.062
Offense on visiting team*	3.212	.789	4.172	1.702
Defense of visiting team*	3.213	.775	3.620	1.045
Closeness of competition*	3.606	.824	3.943	.936
Games with rivalry team*	3.565	.873	3.812	.966
A chance to see record-breaking Performance*	3.609	1.735	4.173	.880
Special promotional event*	4.081	.872	3.844	.971
Home team's division standing**	3.520	.953	-----	-----
Home team's league standing*	3.527	.932	4.095	.912
Involvement in race for a playoff spot*	3.628	.971	4.237	.847
Media advertising	3.808	1.723	3.692	.971
Audience Preference Category				
Day games during weekdays*	2.623	1.185	3.234	1.090
Night games during weekdays*	3.610	1.082	3.202	1.083
Weekend day games	3.302	1.117	3.194	1.105
Weekend night games	3.867	.988	3.987	.929
Weather is comfortable	4.081	.903	4.169	.927
Cleanliness of the facility	4.289	.748	4.198	1.736
Easy/multiple access to stadium	4.024	.844	3.992	.987
Availability of parking	4.220	.741	4.211	2.776
The ballpark is large	4.134	1.576	4.207	.865
Like fan behavior	4.072	2.554	4.326	.830
New ballpark*	3.231	1.020	3.873	1.023
Many years in the area*	3.534	.864	3.782	.925
Variety of concessions	3.801	.829	3.685	1.028
Less violence in game*	3.867	.965	4.146	2.243
Like design/color of uniform*	3.290	1.076	3.715	1.002
Fan club member*	2.523	.986	3.317	1.163
Fan activity*	2.875	.963	3.662	1.818
Go with friends*	4.016	.902	3.695	1.040
Go with family*	4.273	.748	3.380	1.157

* Factors that have a significant p value ($p < .05$)

** TML does not have divisions.

In this study, results indicate that ticket price affects MiLB fans more than TML fans. However, when comparing the season ticket price, the opposite was observed. In either scenario, however, the more affordable the price of the ticket, the more inclination to attend.

In Taiwan, the average TML single ticket price was \$4.29 (New Taiwan Dollar \$150) for inner field seats and while outfield seats were free. The average ticket price in four MiLB games was \$6.62, above the national average of \$4.50 (2000). However, in comparison to other professional sports tickets, the Southern League of the MiLB clubs claims their ticket prices are most affordable. [e.g., NBA (\$51.02), NFL (\$48.97) and NHL (\$47.69; Professional Baseball Promotion Corp., 2001)].

While previous studies found that the broadcasting home games had a negative impact on home game attendance (Demmert, 1973; Noll, 1974; Zhang et al., 1995; Zhang & Smith, 1997a), the MiLB fans tend to be more neutral while the TML fans tend to disagree with the response that they would be affected by television or radio broadcasting.

In addition, spectators with or without fan club membership and spectators with or without season tickets do not have differences on this broadcasting factor in both leagues ($p > .05$). The ballgame broadcasting is different in two countries. Most minor league games in America are carried on radio only. The four Southern League teams in this study have radio broadcast for 70 home games and 70 away games. Specifically, only the Mobile BayBears had eight live games telecast on Comcast Cable Port City Six. All eight games were televised on the Comcast Sports South (CSS), which is a regional sport channel and reaches 15 million homes throughout the south and southeastern United States (Nichols, 2001).

In Taiwan, however, most of the TML games are broadcast both on TV and radio. In this 2002 season, this is not only limited to Taiwan TV stations but will include ESPN Star Sports (ESPN in Asia). Since ESPN Star Sports covers several Asian countries, this is a huge step toward reaching an international market for TML (Huang, 2002).

Interestingly, however, while some American baseball spectators often have radios and listen to radio broadcast games while they are in ballparks, TML spectators do not. Often it is too loud in the park to listen to the radio, as fans supporting the home or visiting team bang drums and gongs, play trumpets, and use air horns to cheer or jeer.

TML and MiLB have significant differences in forms of entertainment available around the local area of their ball clubs. Compared to MiLB fans, results have shown that TML fans were influenced more by other sporting events, activities, and professional franchises in the local area. This finding in the TML is similar to those found in studies conducted by other researchers (Hansen & Gauthier, 1989; Jones, 1984; Zhang et al., 1995a; Zhang et al., 1996).

Inherent to professional baseball in Taiwan is that it is the only professional team sport in the country. With two professional baseball leagues (Taiwan major league and Chinese professional baseball league) and significant overlap of ballparks (even the same ballpark), fan base, or potential fans, limited market and players, research has suggested that these two leagues should merge (Lin, Yeh, Yang, Lu, Chen, & Tzeng, 2000). However, both leagues are still attempting to find common ground and fighting for market share.

In Taiwan, however, most of the TML games are broadcast both on TV and radio. In this 2002 season, this is not only limited to Taiwan TV stations but will include ESPN Star Sports (ESPN in Asia).

While some American baseball spectators often have radios and listen to radio broadcast games while they are in ballparks, TML spectators do not. Often it is too loud in the park to listen to the radio, as fans supporting the home or visiting team bang drums and gongs, play trumpets, and use air horns to cheer or jeer.

In the United States, MiLB fans were less likely to be affected by other activities, as professional sports is prevalent in all of the cities although there are couple of other professional sport organizations in the local.

In the United States, these other professional sport franchises have different seasons. MiLB fans can support different sport teams and attend different sport games in the different times of the year. Taiwan has two professional baseball leagues and they both play in the same season.

Game Attractiveness Factors

Differences were found in several of the factors in the category of game attractiveness factors, and many off these were significant (see Tables 7 and 8). TML fans more often made decisions to attend baseball games than MiLB fans based on the following factors: home team's winning record, involvement of star players (home and visitors), offensive and defensive plays, closeness of competition, rivalry, record-breaking performances, team's league standing and/or the race for the playoffs. In these results, it appears that TML fans care about the team and/or players' performance more than the MiLB fans. Especially, three out of five factors where the two countries have the most differences are in this category. They are offense of home team, offense of visiting team, and defense of visiting team. In contrast, MiLB fans react more to special promotional events.

In these results, it appears that TML fans care about the team and/or players' performance more than the MiLB fans.

To attract more interest, MiLB franchises have developed many promotional events, and the results of this study revealed that MiLB fans reported that they would attend more games because of promotional events. MiLB teams have many special game day promotions, such as giveaway of hats, bats, towels, pizzas, and T-shirts. Between inning breaks, there are activities either on or off the field (e.g., OLD NAVY 7th-inning-scratch

game and Bingo), or kids can have their birthday party during the game. Most teams have special theme nights during the season (e.g., 4th of July fireworks and San Diego Chicken night). Other promotional events might include ticket discounts or ticket packages and entertainment programs such as music, dance, light and sound. Many promotional events can be presented before, during, and after the games to draw and keep spectators at the park. The findings of this study agree with the findings of previous research that reported that promotions are attendance generators (Hill et al., 1982; Marcum & Greenstein, 1985; Siegfried & Eisenberg, 1980; Wall & Myers, 1989; Wells, Southall, & Peng, 2000; Zhang et al., 1995a; Zhang et al., 1995b).

Previous research has also found that the opportunity to see a record-breaking performance was an important influence on attendance at sporting events (Green, 1995). The findings in this study, however, are not in agreement with Green's study. For example, while the TML fans agreed that they would attend more games if there was a chance to see a record-breaking performance, the MiLB fans were neutral.

When examining the results in relation to audience preference factors, it appears that the TML and the MiLB have few differences.

Audience Preference Factors

When examining the results in relation to audience preference factors, it appears that the TML and the MiLB have few differences.

Game Schedules

Previous studies have suggested that the convenience of the game schedule is one of the major factors that affect game attendance (Marcum & Greenstein, 1985; Zhang et al., 1995b). Generally, spectators

favor attending weekend, holiday, and evening games. The MiLB schedules vary slightly from team to team, but most teams arrange games on weekday nights or weekends. The results of the current study are in line with previous studies. MiLB fans prefer not to attend during the week. They prefer night games on weekdays.

However, unlike the stadium-building boom in America, it is hard to construct new stadiums in Taiwan because of limited land and budgets only a few stadiums are managed well enough to offer with quality professional baseball games facilities.

In contrast, TML fans tend to be neutral regarding day games during the week. All TML regular games start at 6 pm from Wednesday to Sunday inclusive, with make-up games (rained-out) on Mondays and Tuesdays at 6 PM or Sunday afternoon at 1 PM. Though TML fans were neutral on the issue of scheduled day games, they believed that more games on weekend nights would likely translate into increased attendance. Indeed, attendance records showed that games on Saturday night had the largest crowds with an average of 2,832 people per game, followed by the second highest attendance of 2,620 people per game for games on Sunday, while games on Wednesday had the lowest attendance, 956 (Taiwan Major League, 2002).

Stadium Building

The TML fans agree that having a new ballpark would attract more fans. Kaohsiung ballpark is one of the newest in Taiwan, with nice seating and facilities; it also boasted the highest attendance numbers among the TML ball clubs (Taiwan Major League, 2002). However, unlike the stadium-building boom in America, it is hard to construct new stadiums in Taiwan because of limited land and budgets. Besides, because lack of budget and poor management, only a few stadiums are managed well enough to offer with quality professional baseball games facilities.

In comparison, the MiLB spectators do not feel the same need to build new stadiums. The four Southern league ballparks in this study average 22 years old, with Wolfson Park, home of the Jacksonville Suns, open since 1955. (The Suns have moved to play at the nearby baseball grounds at Jacksonville since the 2003 season). In contrast, however, the Mobile BayBears' Hank Aaron Stadium is the youngest, open since in 1997.

This study's finding are in contrast to the minor league claims that new ballparks, new locations (or both) were key ingredients for 4 leagues (International, Pacific Coast, Texas and Midwest) which exceeded their all-time records ("Minor League Attendance Hits 37.7 Million", 2000; "Building Boom Continues as New Season Opens", 2002). Southern League fans' responses showed that cleanliness of the facility is far more important than having a new stadium.

This study's finding are in contrast to the minor league claims that new ballparks, new locations (or both) were key ingredients. Southern league fans' responses showed that cleanliness of the facility is far more important than having a new stadium.

Going with Friends and Family

Ball games can be a social events for family, friends, or even businesses. "To be with friends" is a common reason that people give for any sport involvement. The MiLB fans stated they would go to more games if they go with friends or with family. TML fans were indifferent to going with family. Moreover, the effect size of going with family was one of the factors where the fans of the two leagues have the greatest difference (see Table 7).

Summary and Recommendations

While some of the findings in this study agree with previous studies involving consumer behavior, culture, and other market demands in relation to factors that affect attendance at sports events, there were some contradictory findings. Overall, the results of this study contribute significantly to the current small body of research in this area. More research is needed to further our discourse and understandings of the behavior of sport event consumers.

While some of the findings in this study agree with previous studies involving consumer behavior, culture, and other market demands in relation to factors that affect attendance at sports events, there were some contradictory findings.

The information from this study can be used by sport marketing educators in their courses to inform students who will be working in the sport business industry. With a constantly expanding and competitive sports entertainment industry in the United States, professional sport marketers have a need to understand consumer behavior: specifically, a need to know what consumers want and what will bring the consumer to the event. Research on culture as a consumer behavior factor, such as in this study and those cited in this paper, can help provide that information.

While differences were found between the fans attending the American games and the fans attending the Taiwan games, more research is needed to determine if these findings can be repeated. We would also recommend research in which sociocultural and sport consumer studies are involved in order to determine if baseball fans in Taiwan are different due to sociocultural differences or if these differences have more to do with the sports culture. Additionally, there should be studies involving categories of sports events other than baseball and other than professional sports to discern differences or similarities to the results of this study.

References

- Attendance Hits 38.8 million, second highest ever. (2001, end of season). *Baseball News*, 17(8), 1.
- Branvold, S. E., Pan, D. W., & Gabert, T. E. (1997). Effects of winning percentage and market size on attendance in minor league baseball. *Sport Marketing Quarterly*, 6(4), 35-42.
- Building boom continues as new season opens. (2002, opening day). *Baseball News*, 18(2), 1.
- Chen, W. B. (2000). *An analysis of contract and system of professional baseball player*. Unpublished master's thesis, Fu-Jen University, Taipei, Taiwan.
- Cicciarella, C. F. (1997). *Research in physical education, exercise science, and sport: An introduction*. Scottsdale, AZ: Gorsuch Scarisbrick.
- Demmert, H. G. (1973). *The economics of professional team sports*. Lexington, MA: D.C. Heath.
- Directorate General of Budget Accounting and Statistics Executive Yuan, R.O.C. (2002a). 2000 *Population and housing census in Taiwan and Fu-kien Area*. Retrieved on April 3, 2002, from http://www.dgbas.gov.tw/census-n/Six/lue5/p89012_c.doc.
- Directorate General of Budget Accounting and Statistics Executive Yuan, R.O.C. (2002b, February 22). *National income and economic forecasting*. Retrieved April 14, 2002, from <http://www.dgbas.gov.tw/dgbas03/bs4/news/new09102.doc>.
- Directorate General of Budget Accounting and Statistics Executive Yuan, R.O.C. (2002c, March). *Household income and disposal income*. Retrieved April 14, 2002. Retrieved April 14, 2002, from <http://www.dgbas.gov.tw/dgbas03/bs4/nis/p62.xls>.
- Fillingham, E. J. (1977). *Major league hockey: An industry study*. Master's thesis, University of Alberta, Alberta, Canada.
- Green, F. E. (1995). *An examination of factors related to consumer behavior influencing attendance at professional sporting events*. Unpublished doctoral dissertation, Florida State University, Tallahassee.
- Greenstein, T. N., & Marcum, J. P. (1981). Factors affecting attendance of major league baseball: Team performance. *Review of Sport and Leisure*, 6(2), 21-33.
- Hansen, H., & Gauthier, R. (1989). Factors affecting attendance at professional sport event. *Journal of Sport Management*, 3(1), 15-32.
- Hansen, H., & Gauthier, R. (1993). Spectators' views of LPGA golf events. *Sport Marketing Quarterly*, 2(1), 17-25.

- Hill, J. R., Madura, J., & Zuber, R. A. (1982). The short run demand for major league baseball. *Atlantic Economic Journal*, 10(2), 31-35.
- Howard, D. R., & Crompton, J. L. (1995). *Financing sport*. Morgantown, WV: Fitness Information Technology, Inc.
- Howard, D. R., & Crompton, J. L. (2004). *Financing sport (2nd Edition)*. Morgantown, WV: Fitness Information Technology, Inc.
- Huang, T. (2002, March 12). Naluwan signed 2002 broadcasting contract with ESPN Start Sports. *Central New Agency*. Retrieved March 12, 2002, from <http://news.yam.com/cna/sports/news/200203/200203122050414.html>.
- Johnson, A. (1993). *Minor league baseball and local economic development*. Champaign-Urbana, IL: University of Illinois Press.
- Jones, J. C. H. (1984). Winners, losers and hosers: Demand and survival in the National Hockey League. *Atlantic Economic Journal*, 12 (3), 54-63.
- Kasky, J. (1994, October). Money's sports value rankings. *Money*, 10, 158-170.
- King, B. (2002a). National pastime goes multinational: Booming Hispanic and Asian populations hold promise for all U.S. teams. *Street & Smith's SportsBusiness Journal*, 4(50), 23.
- King, B. (2002b). Baseball: TV key to game's growth in Asia, Latin America. *Street & Smith's SportsBusiness Journal*, 4(50), 26.
- Land, K. C., Davis, W. R., & Blau, J. R. (1994). Organizing the boys of summer: The evolution of U.S. minor league baseball, 1883-1990. *The American Journal of Sociology*, 100(3), 781-813.
- Lin, H., Yeh, C., Yang, H., Lu, H., Chen, W., & Tzeng, W. (2000). *Professional baseball*. (NCPFS Publication No. Exc-089-003). Taipei, Taiwan: National Council on Physical Fitness and Sports, R.O.C.
- Liu, M. Y. (1999). *Consumer behavior of the Taiwan's professional baseball*. Unpublished master's thesis, National Chen-chi University, Taipei, Taiwan.
- Loudon, D. L., & Della Bitta, A. J. (1993). *Consumer behavior: Concepts and applications* (4th ed.). New York: McGraw-Hill.
- Lu, D. (2001, May). *Factors affecting spectator attendance in professional baseball: A pilot study*. Paper presented at the 16th annual conference of the North America Society for Sport Management, Virginia Beach, VA.
- Mahony, D. F., & Howard, D. R. (1998). The impact of attitudes on the behavioral intentions of sport spectators. *International Sports Journal*, 2(2), 96-110.
- Marcum, J. P., & Greenstein, T. N. (1985). Factors affecting attendance of major league baseball: II. a within-season analysis. *Sociology of Sport Journal*, 2(4), 314-322.
- McDonald, M., & Rascher, D. (2000). Does bat day make cents? The effect of promotions on the demand for major league baseball. *Journal of Sport Management*, 14(1), 8-27.
- Miniard, P., Bhatla, S., & Rose, R. (1990). On the formation and relationship of ad and brand attitudes: An experimental and causal analysis. *Journal of Marketing Research*, 27, 290-303.
- Minor league attendance hits 37.7 million. (2000, end of season). *Baseball News*, 16(8), 1.
- Mobile BayBears. (n.d.). *Hank Arron Stadium: Stadium Club*. Retrieved April 15, 2002, from <http://63.64.4.120/stadium-club.asp>.
- Morgenson, G. (1992). Where the fan still comes first. *Forbes*, 149, 40-42.
- Mullin, B. J., Hardy, S., & Sutton, W. A. (2000). *Sport marketing* (2nd ed.). Champaign, IL: Human Kinetics.
- Nichols, T. (2001). *BayBears 2001 souvenir yearbook*. (Brochure). Mobile, AL: Mobile BayBears Professional Baseball.
- Noll, R. G. (1974). Attendance and price setting. In R. G. Noll (Ed.), *Government and the sports business* (pp. 115-157). Washington, DC: The Bookings Institute.
- Pitts, B. G., & Stotlar, D. K. (2002). *Fundamentals of sport marketing* (2nd ed.). Morgantown, WV: Fitness Information Technology, Inc.
- Professional Baseball Promotion Corp. (2001). *Minor league baseball: 100th anniversary* (Brochure). St. Petersburg, FL: Author.
- Rea L. M., & Parker, R. A. (1997). *Designing and conducting survey research: A comprehensive guide* (2nd ed.). San Francisco: Jossey-Bass, Inc.
- Rone, K. (2002). Marketing: Potential new fans waiting for pitch. *Street & Smith's SportsBusiness Journal*, 4(50), 31.
- Saudohar, P. D., & Mangan, J. A. (Eds.). (1991). *The business of professional sports*. Urbana, IL: University of Illinois Press.
- Schiffman, L. G., & Kanuk, L. L. (2000). *Consumer behavior* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Schofield, J. A. (1983). Performance and attendance at professional team sports. *Journal of Sport Behavior*, 6(4), 196-206.
- Schütte, H., & Ciarlante, D. (1998). *Consumer behavior in Asia*. New York: New York University Press.
- Scully, G. W. (1974). Pay and performance in major league baseball. *The American Economic Review*, 64(2), 915-930.
- Siegfried, J. J., & Eisenberg, J. D. (1980). The demand for minor league baseball. *Atlantic Economic Journal*, 8(1), 59-71.
- Simmons Market Research Bureau (1990). *Study of media & market: Sports & leisure*. New York: Simmons.
- Stahl, M. J. (1986). *Managerial and technical motivation*. New York: Praeger.
- Taiwan Major League (2002). *2001 Year Book*. Taipei, Taiwan: Taiwan Major League.
- The World Bank Group. (n.d.). *Learning modules: GNP per capita*. Retrieved April 14, 2002, from <http://www.worldbank.org/depweb/english/modules/economic/gnp/>.
- Thomas, G. S. (2001a). *Pro sports tracker*. *Street & Smith's SportsBusiness Journal*, 4(2), 35.

- Thomas, G. S. (2001b). *Pro sports tracker. Street & Smith's SportsBusiness Journal*, 4(26), 39.
- Thomas, G. S. (2001c). *Pro sports tracker. Street & Smith's SportsBusiness Journal*, 4(30), 47.
- U.S. Census Bureau (2002a, September 4). Survey of income and program participation.
- U.S. Census Bureau. (2002b, March 29) *Census 2000 Supplementary Survey*. Retrieved April 3, 2002, from <http://www.census.gov/c2ss/www/products/profiles/2000/narrative/010/npo1000us.htm>.
- Wall, G. V., & Myers, K. (1989). Factors influencing attendance: Toronto Blue Jays game. *Sport Place International: An international Magazine of Sport*, 3(1/2), 29-33.
- Wells, D. E., Southall, R. M., & Peng, H. H. (2000). An analysis of factors related to attendance at Division II football games. *Sport Marketing Quarterly*, 9(4), 203-210.
- White House (2002). *Economic statistics briefing room*. Retrieved April 14, 2002, from <http://www.whitehouse.gov/fsbr/income.html>.
- Whitney, J. D. (1988). Winning games versus winning championships: The economics of fan interest and team performance. *Economics Inquiry*, 26, 703-724.
- Williams, P. (2001a). Minor leagues play major competitive role. *Street & Smith's SportsBusiness Journal*, 3(39), 40-41.
- Williams, P. (2001b). Special report of minor league baseball: Small-time baseball, big-time success. *Street & Smith's SportsBusiness Journal*, 4(12), 21-27.
- Zhang, J. J., & Smith, D. W. (1997a). Impact of broadcasting on the attendance of professional basketball games. *Sport Marketing Quarterly*, 6(1), 23-29.
- Zhang, J. J., & Smith, D. W., Pease, D. G., & Jambor, E. A. (1997b). Negative influence of market competitors on the attendance of professional sport games: The case of a minor league hockey team. *Sport Marketing Quarterly*, 6(3), 31-40.
- Zhang, J. J., Pease, D. G., & Saffici, C. L. (1995b, June). *Dimensions of spectators satisfaction toward the support programs of an NBA team*. Paper presented at the 10th Annual Conference of North American Society for Sport Management, Athens, GA.
- Zhang, J. J., Pease, D. G., & Smith, D. W. (1998). Relationship between broadcasting media and minor league hockey game attendance. *Journal of Sport Management*, 12(2), 103-122.
- Zhang, J. J., Pease, D. G., Hui, S. C., & Michaud, T. J. (1995a). Variables affecting the spectator decision to attend NBA games. *Sport Marketing Quarterly*, 4(4), 29-39.
- Zhang, J. J., Smith, D. W., Pease, D. G., & Lam, E. T. C. (1998). Dimensions of spectator satisfaction toward support programs of professional hockey games. *International Sports Journal*, 12(2), 1-17.
- Zhang, J. J., Smith, D. W., Pease, D. G., & Mahar, M. T. (1996). Spectator knowledge of hockey as a significant predictor of game attendance. *Sport Marketing Quarterly*, 5(3), 41-48.

