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The Sport Commitment Model's Effect on the Participation Frequency and Purchase Behavior of Golfers

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THE SPORT COMMITMENT MODEL'S RELATIONSHIP WITH THE PARTICIPATION
FREQUENCY AND PURCHASE BEHAVIOR OF GOLFERS

by

KEVIN D. RUBEL

A DISSERTATION

Presented to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

UNIVERSITY OF THE INCARNATE WORD

May 2018

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First, I need to recognize my wife, Hillary. Your support through this whole process was instrumental to my success. You make me a better person and I cannot thank you enough. If I can give you half of what you have given me during this difficult time, it still will not be enough. To my dad, David Rubel, you are my role model and my inspiration. You have always pushed me to excel no matter what I am trying to accomplish. Without your guidance as a father, I may not have achieved this level of education. To my dissertation committee, Dr. Craven, Dr. Griffiths, Dr. Roberts, I thank you for challenging me and ensuring that I did everything at the high standards you have set for your students and your classrooms. I would also like to acknowledge my classmates from the program who continually inspired me as the first class of candidates in the program.

Kevin D. Rubel

THE SPORT COMMITMENT MODEL'S RELATIONSHIP WITH THE PARTICIPATION FREQUENCY AND PURCHASE BEHAVIOR OF GOLFERS

Kevin D. Rubel

University of the Incarnate Word, 2018

Golf has a multi-billion dollar impact on the U.S. economy. Golf course revenues have flattened since the industry peaked in 2005. Many golf courses have closed as fewer and fewer golfers continue to play. Golf course managers must develop effective marketing plans to retain customers. This means developing effective systems to retain golfers who have a large variety of playing and equipment options. Determining what factors are related to the reasons a golfer continues to play would help in the development of needed programs. Commitment to golf could be one of the factors related to the purchase intention and participation frequency of consumers. The sport commitment model was developed to help understand what motivates people to continue playing a sport or activity. The sport commitment model has also been used recently to determine if commitment to a sport has any relationship to purchase intention and participation frequency. Many different sports and activities have been tested using the sport commitment model, but golf has yet to be tested. Golf could be different than other sports due to the social nature of playing with a group of people and the financial investment required to play. This research was conducted to test the factors of the sport commitment model in a golf environment to determine if commitment to golf has any relationship to purchase intention and participation frequency. The data indicate that golf is like other sports in the factors of enjoyment, personal investment, valuable opportunities, other priorities, social constraints, social support, desire to

excel, and their relationship to commitment. Purchase intention and participation frequency are not related to commitment to golf. This could indicate that the level of commitment to golf provides no indication about the purchase intention or participation frequency of golfers. Further research is needed to confirm the findings in this research.

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Overview

Context of the Study

Participation in golf has been flat over the last decade. The golf course industry has seen a twenty percent drop overall since it peaked in 2005 (Hoovers Inc., 2018b). With fewer golfers playing less rounds and spending less money on golf equipment, there is the potential for some golf facilities to struggle financially. Like any other business, if golf courses are not profitable, they will go out of business. The National Golf Foundation reported that there were more golf course closures than opening in 2013. This marked the eighth consecutive year of more closings than openings (Buteau, 2014).

Some have speculated on the demise of golf. Tuttle (2014) stated five reasons why golf was failing. These include: people are too busy, it is too expensive, it is too difficult to learn, it is not cool or fun, and the Tiger Woods phenomenon. Addley (2017) argued that there were three issues with golf: time, cost, and perception. The demise of Tiger Woods' career aside, if people are too busy they may not put in the time or effort to play. Golf is a sport in which it takes a long time to learn how to play (Tuttle, 2014). Making the investment of time and effort requires a significant commitment. In addition, if alternatives to golf are believed to be more fun, one may not spend the time learning how to play.

Golf and other sporting goods companies rely on the disposable incomes of consumers (Hoovers Inc., 2018b). It requires a commitment to play the game in order to make the required financial commitment in order to play. Golf has been viewed as a game played by “chaps over a certain age sporting Argyle sweaters and pastel-coloured slacks” (Addley, 2017, para. 6). Hoovers Inc. (2018a) reported that the average golfer is a 54-year-old male with an average income of \$95,000. The reality of the information only adds to the perception. However, people

playing golf regularly have made a consistent commitment to continue their involvement. Is it possible to determine why people make a commitment to play golf? Scanlan, Carpenter, Schmidt, Simons, and Keeler (1993) developed the sport commitment model to determine what factors are most related to commitment in sport. Could these factors help determine how golfers become committed to playing the game? If it is possible, marketing efforts to golfers should then include developing programs that would focus on the factors related to the commitment of golfers, keeping more golfers on the courses.

According to Hoovers Inc. (2018a), 23.7 million golfers participated in golf in 2016 in the United States, which was a drop of about 1.2% from 2015. Golf course facilities and retail stores need golfers to continue to participate in the sport. Through continued participation and commitment to play, golfers will continue to be intentional about purchasing golf related equipment and services. This include hard goods (clubs and balls), soft goods (shoes, gloves, towels, other accessories), and services (which courses to play, practice facilities, coaching, and lessons). Every golfer makes an investment to play the game, but each golfer makes their investment in many different ways.

The equipment required to play golf is distinctly different from other sports. Golf requires a set of clubs, with each club having its own unique purpose. For that reason, most golfers carry a variety of each type of club except for the putter, of which most golfers only carry one. There are many different styles by many different brands by many different manufacturers. Clubs are sold in pro shops, by golf specific retailers, in general sporting goods stores, and online. Some golfers may choose to buy used clubs or borrow from family or friends to lower the cost to play.

Golf courses are unique in that they are not only different due to the varying landscapes based on location and design, but also by organization (Kelley, 2018). Private golf courses are

usually exclusive because they are only open to the membership and guests and can be quite expensive to play. Some hotels and resorts own adjacent golf courses that can be exclusive to the resort or hotel, but may be open to the public. They can be very expensive as well, due to the exclusivity they can provide.

Public access golf courses make up a category of golf courses that provide public access on some level and may or may not include memberships. Daily fee golf courses are privately owned courses that are open to the public without restriction. Semiprivate courses are daily fee courses that also offer memberships. Tax-supported entities such as a city, county, or state owned and operated municipal courses are open to the public at all times. Military golf courses maintain affiliation with a military base where members of the military and their families receive preferred rates and may or may not be open to the public (Kelley, 2018).

Another option for golfers is practicing or playing shorter rounds. According to a report by McCoy (2016), the Hammond Creek Golf Course in Florida recorded times over a 2-year period and the average time to play 18 holes took 4 hours and 11 minutes. Crowded golf courses can lengthen that time to 5 or even 6 hours (McCoy, 2016). Some courses have opened with only nine holes to allow golfers to play a shortened game. Some eighteen hole golf courses allow golfers to pay and play the first nine holes, the *front nine*, or the last nine holes, the *back nine*, shortening the game significantly (Hoovers Inc., 2018a). This attracts golfers who may have other higher priorities than golf. Beyond shorter courses, there are options to practice the game without the large time requirement.

Most full-service golf courses have practice facilities for skills development. These facilities usually include driving ranges with putting greens and/or chipping greens and can include options for private instruction. There are also privately owned practice facilities that

provide similar amenities. The cost to use most practice facilities can be much less than green fees or membership fees to play at any given course. Golfers can use these facilities at a lower cost and time requirement to continue to practice and develop skills.

Statement of the Problem

Fewer golfers playing fewer rounds means less revenue for the golf industry. Reversing the trends over the last decade is important to the golf industry. There could be factors related to a golfer's environment forcing them to play less or quit playing all together. Determining what is important to a golfer's commitment to golf could help marketers understand what programs may be needed to encourage more consistent participation from non-committed golfers. This could also mean turning non-committed golfers into committed golfers. Further, having committed golfers is meaningless unless it leads to more spending. Determining if the commitment of golfers leads to increases in participation and purchase intentions would be important to the industry as well, as it would be an indicator for where to increase efforts to increase revenue.

Scanlan, Carpenter, et al., (1993) introduced the sport commitment model to explain the psychological factors underlying relationship to sport participants and their commitment to the sport. Casper, Gray, and Babkes Stellino (2007) took the sport commitment model further and tried to explain how commitment could affect the purchase intention and participation frequency of athletes. If commitment to a sport can explain purchase intentions in athletes, marketers can develop programs and marketing plans dedicated to creating committed athletes.

Iwaskai and Havitz (1998) stated that commitment to a product or brand leads to brand loyalty. Customer loyalty describes the intention of the customer to make repeat purchases (Khan, 2014). Customer loyalty one of the keys to success for a business and has become more important recently due to increased competition within industries. Understanding why a

customer maintains a relationship with a firm and makes repeat purchases would be extremely important (Paul, Hennig-Thurau, Gremler, Gwinner, and Wiertz, 2009). Loyalty is reflected in the attitudes and behaviors of consumers, especially for repeat patronage. If commitment to a brand or activity is a component of loyalty and loyalty leads to repeat purchases, it is important to understand how golfers become committed to the sport.

Garfield (1990, p.20) said “increased sales comes from only three areas: acquiring new customers, upgrading existing customers, and reducing turnover of customers.” A solid foundation of loyal customers will provide stability, whereas acquiring new customers is hard work, takes a lot of time and businesses must do it continually. It costs almost five times as much to acquire a new customer as it does to retain one (Harley, 1984). Committed customers could be generated through marketing programs designed to attract or create committed participants in golf.

Kurtz and Raymond (1994, p.67) stated, “the importance of repeat business to a company cannot be overlooked.” If golfers have many options for consumption related to hard and soft goods as well as the services provided, maintaining repeat customers would be a very important part of any successful golf business. When a business loses customers, it affects the bottom line. Maintaining committed customers leads to greater profits. According to Reichheld and Sasser (1990), companies can increase profits 100% by retaining 5% of their customers.

Casper et al., (2007, p. 256) defined sport commitment as “a psychological state representing the desire and resolve to continue sport participation in a particular program, specific sport, or sport in general.” Scanlan, Chow, Sousa, Scanlan, and Knifsend (2016, p. 234) defined sport commitment as “the psychological state to persist in a sport over time.” Based on

the definitions, sport commitment could explain repeat behaviors through participation.

Determining the level of commitment could predict the amount of repeat behaviors of golfers.

Research into golfer behavior has focused on the segmentation of the market (Petrick, Backman, Bixler, and Norman, 2001; Fanning, 2003), the tourist industry, and the behaviors of golf tourists (Petrick & Backman, 2002a; Petrick & Backman, 2002b; Hennessey, MacDonald, and MacEachern, 2008; Humphreys, 2014). Little research exists for the behaviors of causal golfers and their everyday golf-related habits. If a relationship exists between purchase intention and participation frequency to commitment, or if repeat customers are created from making a commitment to a product, service, or brand, there is potential to identify the behaviors of committed golfers. If committed customers is the key to having a successful golf business, how can golf managers and marketers identify those factors related to committed golfers?

Purpose of the study

The purpose of the study is to determine the extent of any relationships between the factors of the SCM to sport commitment as they might fit into the golf industry. This study will also determine the extent of any relationship between sport commitment in golf to the participation frequency and purchase intention of golfers.

Research Questions/Hypotheses

Scanlan, Carpenter, et al., (1993) described five predictors related to sport commitment. Modifications to the original sport commitment model based on the results of previous study now include seven predictors: sport enjoyment, personal investment, social constraints, involvement alternatives, involvement opportunities, social support, and desire to excel (Scanlan et al., 2016). Involvement opportunities since has been renamed *valuable opportunities* to include concepts involving both the opportunities presented while playing as well as the

opportunities potentially lost by quitting. Involvement alternatives has been renamed *other priorities* to focus on not just other attractive alternatives, but also potential factors that force one to leave the sport or activity (Scanlan et al., 2016). This study will maintain consistency with the new labels for the predictors.

To confirm the sport commitment model using golf as the sport of focus, those seven predictors must be tested using adult golfers as the survey participants. The following research question will be the question guiding the research:

Do any relationships exist between the predictors and sport commitment for golfers?

H₁: There is a significant relationship between sport enjoyment and commitment.

H₂: There is a significant relationship between social constraints and commitment.

H₃: There is a significant relationship between valuable opportunities and commitment.

H₄: There is a significant relationship between other priorities and commitment.

H₅: There is a significant relationship between personal investment and commitment.

H₆: There is a significant relationship between social support and commitment.

H₇: There is a significant relationship between desire to excel and commitment.

Further, if there were a link between commitment and the activities of golfers related to participation frequency and the purchase intentions of the necessary goods and services to participate, it would be important to test for any relationship between commitment and those factors. Therefore, the following research question will guide the following hypotheses:

To what extent is sport commitment related to a golfer's behavior?

H₈: There is a significant relationship between commitment to golf and participation frequency.

H₉: There is a significant relationship between commitment to golf and purchase intention.

Definition of Terms

Commitment - pursuing a consistent line of activity in a sequence of varied situations. (Becker, 1960, 1964)

Sport commitment - psychological construct representing the desire and resolve to continue sport participation. (Scanlan, Carpenter, et al., 1993).

Sport enjoyment - a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun. (Casper et al., 2007)

Personal investment - personal resources such as time, effort, and energy that would be lost if participation did not continue. (Casper et al., 2007)

Valuable opportunities - highly valued aspects of the sport experience that are only present through continued sport involvement. (Scanlan et al., 2016)

Other priorities - the extent to which other things are more enjoyable than current sport involvement. (Scanlan et al., 2016)

Social constraints - the social expectations or norms that create feelings of obligation to remain in the activity. (Casper et al., 2007)

Social support - relates to feelings of encouragement and support that a sport participant receives from significant others. (Casper et al., 2007)

Desire to excel - wanting or striving to achieve excellence through Mastery and Social Achievement behaviors. (Scanlan et al., 2013)

Purchase intention - a decision plan to buy a particular product or brand created through a choice/decision process

(<https://www.ama.org/resources/Pages/Dictionary.aspx?dLetter=P>).

Summary of Methodology

Creswell (2012, p.13) stated that one of the major features of quantitative research is to describe “a research problem through a description of trends or a need for an explanation of the relationship among variables.” Researchers attempt to solve research problems by the use of a study to describe trends in the predispositions of the responses and to describe how those trends vary among people. Sekaran and Bougie (2013) describe business research as either applied or basic/fundamental. Applied research relates the knowledge gained through findings to a problem. In addition, a correlational study, with an explanatory research design will determine if the changes in the predictors will cause a relational change in the level of sport commitment. (Creswell, 2012). The study will also seek to determine if changes in sport commitment will cause a relational change in participation frequency and purchase intention. This study is an applied, correlational study.

Creswell (2012) states that some research problems need to answer the effect one variable might have on another through comparison. Quantitative studies, specifically a correlational study would be most appropriate. This study will determine if relationships exist between the independent variables of sport enjoyment, social constraints, valuable opportunities, other priorities, personal investment, social support, and desire to excel and the dependent variable of sport commitment. This study will also determine if the independent variable of sport commitment is related to the dependent variables of participation frequency and purchase intention.

Cross sectional surveys collect data about attitudes, values, beliefs, and opinions at a specific time. A cross sectional survey was used to collect information related to the attitudes related to the factors and the relationship to sport commitment. The updated sport commitment model was the foundation for the survey. The instrument developed for this study (Appendix A) consisted of questions from the *Sport Commitment Questionnaire-2* (Scanlan et al., 2016). The original author granted permission to use and adapt the instrument for this study (Appendix C).

The cross-sectional survey design served the purpose of determining if sport commitment relates to a golfer's frequency of participation and purchase intentions. To answer the questions related to golfer behavior, the survey instrument created for this project incorporated survey questions from Casper et al., (2007) adapted for the game of golf and used with permission from the author (Appendix C). The combination of survey questions from the two different instruments resulted in a modified instrument.

Conceptual Framework

The sport commitment model is a theoretical framework to examine the rationale for continued involvement in a sport (Scanlan, Carpenter, et al., 1993). The model postulates five predictors that determine whether an athlete would increase or decrease commitment to their sport: sport enjoyment, involvement opportunities, personal investments, social constraints, and involvement alternatives (Scanlan, Simons, et al., 1993).

Sport enjoyment, social constraints, personal investments, and involvement opportunities were predicted to show a positive relationship to commitment, while involvement alternatives would show a negative relationship, as shown in Figure 1. Scanlan, Carpenter, et al., (1993) developed the sport commitment model with the idea that it could be adapted, improved upon, and further researched.

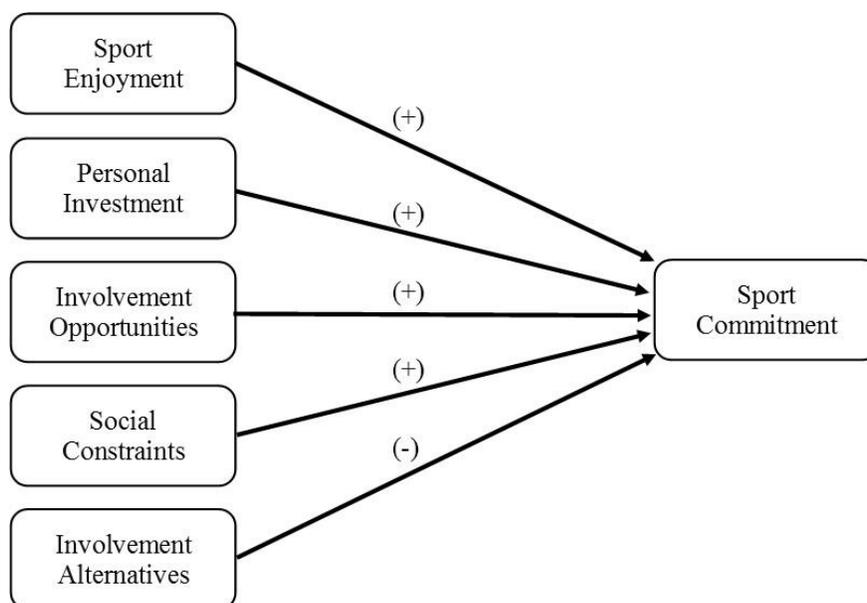


Figure 1. The original sport commitment model with theorized predictors. From An introduction to the sport commitment model, (pp. 1-15), *Journal of Sport & Exercise Psychology*, 1993, 15(1), Scanlan, Carpenter, et al.

Carpenter, Scanlan, Simons, & Lobel (1993) introduced a sixth predictor to the original five. Social support refers to the emotional support for participation from significant others (Casper et al., 2007). The PEAK series of research papers took a qualitative approach to the SCM to attempt to explain why the sport commitment model worked as a theoretical model (Scanlan, Russell, Wilson, and Scanlan, 2003; Scanlan, Russell, Beals, and Scanlan, 2003; Scanlan, Russell, Magyar, and Scanlan, 2009; Scanlan, Russell, Scanlan, Klunchoo, and Chow, 2013). From that research, Scanlan, Chow, Sousa, Scanlan, and Knifsend (2016) developed a new survey instrument.

The new model included a seventh predictor, *Desire to Excel*. Desire to Excel comprises two sub-categories: *Mastery Achievement* and *Social Achievement*. Mastery Achievement is defined by striving for improvement and achieving mastery of the skills, and Social Achievement is defined by establishing superiority and winning, including the desire to outperform one's opponents (Scanlan et al., 2013; Scanlan et al., 2016).

This study took the elements from the original research of Scanlan, Carpenter, et al., (1993), used the two new predictors of social support (Carpenter et al., 1993; Scanlan et al., 2009) and desire to excel (Scanlan et al., 2013) to create seven predictors for the conceptual model for this project (Figure 2).

The new proposed framework also includes the constructs of purchase intention and participation frequency to determine if commitment has a relationship to those two constructs. Casper et al. (2007) took the original model a step further and introduced a model to determine if commitment could be a determinant of participation frequency and purchase intention (Figure 2).

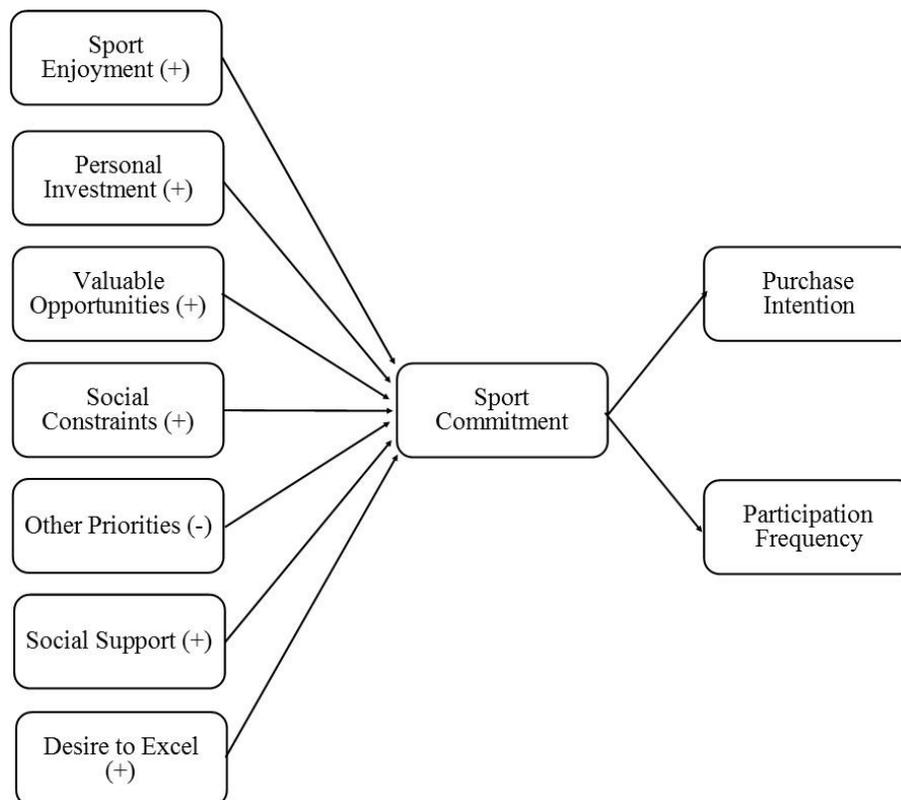


Figure 2. The proposed model with added predictors and consumer behavior constructs.

Casper et al. (2007) gathered data related to hard and soft goods and determined that sport commitment could possibly influence consumer behavior in the tennis industry. The work was not conclusive though, and they believed further study was necessary. They believed that adding a third item to hard and soft goods would provide better results.

Significance of the Study

“The purpose of a psychological model applied toward marketing is to understand the behavior of the participant as a consumer” (Casper, 2004, p. 16). According to Kang (2002, p. 173), “understanding how an individual makes a decision to participate in sport and exercise is critical to sport marketers who want to make customer-oriented marketing plans.” This study could assist in determining how marketing plan decisions are made to keep golfers participating in the sport, using the facilities, and purchasing new equipment. On a practical level, marketers could be able to identify multiple factors for highly committed golfers, possibly suggesting a different use of the sport commitment model results in a sport not previously tested.

This study determined whether there were any relationships of commitment to the factors of the expanded model in a sport yet to be tested: golf. Golf varies from other sports in the factors leading to individual to participate. Enjoyment has been a leading indicator for some sports tested with the sport commitment model, and it can be assumed that individuals who continue to play golf over time do it because they enjoy it on some level. However, golf is a very social sport and the social support/social constraint factors could possibly play a more important role. In addition, being that it takes a lot time to play one round, the investment of time and effort could eclipse enjoyment as a leading factor. The model also tested the relationship of commitment with participation frequency and purchase intentions using the proposed model. With an expanded sport commitment model, there could be a more defined role of commitment to the purchase intention and participation frequency factors.

Literature Review

The Sport Commitment Model

Scanlan, Carpenter, et al., (1993) introduced the sport commitment model to help explain the underlying psychological factors that causes sport participants to become committed to their sport. Since the introduction of the sport commitment model, many studies have validated and verified the model as a relevant model.

Various circumstances and a variety of different settings have been used to test the sport commitment model in the youth domain including baseball and softball participants (Scanlan, Carpenter, et al., 1993), participants in football, volleyball, and soccer (Carpenter et al., 1993), soccer players (Carpenter & Scanlan, 1998), and gymnasts (Weiss & Weiss, 2007; Weiss, Weiss, & Amorose, 2010).

Youth results have been consistent involving the sport commitment model. Scanlan, Carpenter, et al., (1993) surveyed 178 boys and girls playing Little League baseball and softball, respectively. The youth were asked questions related to their participation in the game. Correlational analysis showed enjoyment, personal investment, involvement opportunities (valuable opportunities) were significantly related to commitment. Regression analysis showed a significant correlation between the factors of enjoyment and personal investments to commitment explaining 58% of the model. Social constraints was not correlated upon initial analysis. Involvement alternatives (other priorities) was dropped from analysis due to missing data and viewed as incomplete. The researchers were not sure what caused the missing data, but theorized that it could have been that youth did not understand the questions related to involvement alternatives. The youth were asked to think of other alternatives as being mutually exclusive, which may have caused confusion with the youth leading to incomplete responses.

The sport commitment model was designed to apply to adult and youth for both casual and elite recreationalists across all sports and activities (Carpenter et al., 1993). The work of Scanlan, Carpenter, et al., (1993) involved youth in one sport. Carpenter et al. (1993) attempted to replicate the results by testing the sport commitment model across a variety of youth sports. The survey involved 1342 youth in the team sports of football, volleyball, and soccer. They used structural equation modeling for their analysis. Structural equation modeling “can account for interrelationships among the predictor variables, as well as the relationships between the predictor variables and the criterion variable, without the problems of multicollinearity associated with multiple regression analyses” (Carpenter et al., 1993, p. 123).

The measurement model consisted of the factors enjoyment, personal investment, involvement opportunities, and social constraints, leaving out involvement alternatives. The issues of involvement alternatives were similar to the work of Scanlan, Carpenter, et al., (1993). The variable was left out of analysis, but left in the model for further research. Similar to the results of Scanlan, Carpenter, et al., (1993), the structural model showed strong positive correlations for enjoyment, personal investment, and involvement opportunities. Unlike Scanlan, Carpenter, et al., (1993) which showed no relationship, the results of Carpenter et al. (1993) showed a weak, but significant, negative relationship between social constraints and commitment.

Carpenter and Scanlan (1998) surveyed 103 players mid-season and at the end of the season to determine if changes in commitment happened over time relative to changes in the predictive factors of their environment. Using correlational and regression analysis, they discovered that enjoyment and valuable opportunities were the leading predictors of commitment and over time those two factors led to the desire to continue. They also found that over time as

the factors of enjoyment and opportunities decreased, so did commitment. Consistent with Scanlan, Carpenter, et al., (1993) there were no correlations to commitment and social constraints.

Weiss and Weiss (2007) believed that commitment and the factors of the sport commitment model would be different based on the age and experience level of the participants. Gymnasts were separated into three age level groups and two experience level groups to be measured using correlational analysis. Findings of the 304 gymnasts indicated different correlations based on groupings. Enjoyment had the strongest relationship to commitment for all age groups. Social support was the other significant factor for commitment with the youngest age group, whereas personal investments was the other key factor for commitment in the middle and older age groups.

Results based on the experience level groups were similar to the age groupings. Enjoyment was the leading predictor of commitment for all groups. Other factors that emerged as predictors of commitment based on experience level for the less experienced group were personal investments, social constraints, and social support. For the more experienced group, personal investments was a leading predictor. Similar to Carpenter and Scanlan (1998), the research of Weiss and Weiss (2007) shows that over time the factors that contribute to commitment can change. If the factors of commitment can change causing changes in commitment over time for youth, the factors for adults would probably vary as well.

If the sport commitment model was developed to be applicable to both youth and adults across all sports, then research into commitment to sport for adults must be explored as well. Research of the sport commitment model with adults has included adult exercise and fitness participants (Wilson et al., 2004; Alexandris, Zahariadis, Tsorbatzoudis, and Grouios, 2002),

tennis players (Casper et al., 2007), college dancers (Yin Chu & Wang, 2012), adult ballroom dancers (Wang & Yin Chu, 2016), and youth swimmers (Young & Medic, 2011). The research into adult sport participants related to the factors of the sport commitment model have been inconsistent, thus requiring further exploration into the factors related to sport commitment in an untested sport.

Alexandris et al. (2002) wanted to confirm the sport commitment model using adult health club members. Structural equation modeling of 210 members of three health clubs in Greece showed that involvement opportunities was the most significant variable of commitment. Personal investment and enjoyment were also highly significant variables. Similar to Carpenter et al. (1993) and their investigation of the sport commitment model involving youth, there was a weak relationship between social constraints and commitment. Wilson et al. (2004) confirmed the sport commitment model using structural equation modeling and health club members in the U.S. They used 205 participants that were attained immediately after the exercise programs at their health club. Commitment for this study was split between two groups: *want to* and *have to*. Enjoyment and personal investments were significantly correlated to both commitment groups. This indicates that enjoyment and personal investment results are similar to Alexandris et al. (2002). Wilson et al. (2004) also found that social constraints and involvement alternatives were only associated with the *have to* group of commitment.

Using structural equation modeling, Casper et al. (2007) found that enjoyment and personal investment were the leading predictors of commitment. Their study of 537 adult tennis players also found that involvement opportunities was also a significant factor for commitment. Yin Chu and Wang (2012) surveyed 127 college dancers to determine what factors contribute to continued participation in dance. They used ANOVA analysis as well as Scheffé post hoc

analysis to find different results than the youth in Scanlan, Carpenter, et al., (1993) and Carpenter et al. (1993). Personal investment and involvement alternatives were significantly correlated to commitment. Variations based on how they participated was noted. Dancers who participated in school-based program had lower personal investment scores. Dance club participants had to pay to participate whereas the school-based program dancers did not, explaining the difference in the groups. The school-based program dancers had a more significant involvement alternatives relationship. Some schools provide alternatives by offering many options for participating in school-based programs.

Participation in activities is important for older adults (Wang & Yin Chu, 2016). They surveyed 150 ballroom dancers in Taiwan and found that the longer an individual participated in ballroom dancing, the more personal investments became an important factor in their commitment. Using ANOVA and Scheffé post hoc analysis, they also found that enjoyment and involvement opportunities were highly correlated, but not significantly different based on experience level.

The sport commitment model has been a consistent determinant for establishing the factors that relate to the commitment of athletes to their sports and activities. However, the individual factors have been inconsistent across sports for both youth and adult participants. Research related to some factors of the sport commitment model related to youth could not be clarified, requiring further study. Determining which factors are more important for a sport yet to be tested would include looking at the factors related to the sport commitment model individually.

Factors of the sport commitment model

Commitment. Commitment has been considered one of the more important factors for continue participation in an activity. A qualitative study found that for some sports participant's commitment is the most important factor for their participation (Scanlan, Russell, Wilson, et al., 2003). For one athlete, commitment was the key to everything they did. Another said that about 85 to 90 percent of their success could be recognized by their commitment.

Bodet (2012) found a significant relationship between satisfaction and psychological commitment. Resistance to change is one of the antecedents of commitment. Structural equation modeling with 252 participants showed a link between involvement and resistance to change, with the resistance to change significantly related to the consumer's behavioral intentions.

McDonough and Crocker (2005) found that perceptions of competence leads to an increased participation in sport. However, competence does not necessarily lead to sport commitment. Using 227 female teams sport participants and structural equation modeling, they found that perceived competence lead to more enjoyment while participating in sport, but not increased commitment. This is in line with findings of Scanlan et al. (2013).

Commitment is an important factor related to continued participation in sport. Commitment has also been shown be related to the behavioral intentions of athletes. Determining how commitment to golf affects a golfer's intentions should help create programs to increase the number of committed golfers. Casper et al. (2007, p. 273-274) stated that the sport commitment model "is ripe for continued expansion and exploration". They also stated that their results could be limited to the population of tennis players and further research is warranted. This study will address identify the behaviors of participants in a sport yet to be tested.

Enjoyment. Research into the relationship and effect of enjoyment on commitment has been confirmed through many different types of quantitative analysis to include correlational

analysis, regression analysis, and structural equation modeling using the sport commitment model previously discussed (Carpenter et al., 1993; Scanlan, Carpenter, et al., 1993; Tamminen, Gaudreau, McEwen, and Crocker, 2016; and Weiss, Weiss, and Amorose, 2010). In each instance, enjoyment was significantly associated with, and a predictor of, commitment. Allender, Cowburn, and Foster, (2006) conducted a qualitative review of the literature related to sport participation. Their study into the reasons people participate in exercise and fitness found that even though athletes recognized the health benefits of exercise and participation in sport, enjoyment was a better predictor for participation.

Boyd and Yin (1996) believed that determining the origins of sport enjoyment would provide a better understanding about why participants remain active and make a commitment in their sport. They found that as 215 athletes participating in organized sports perceive themselves to be more competent in a sport, the more they enjoy playing the sport. Their results also showed that competence based on self-referenced standards of performance was significant to sport enjoyment. McCarthy, Jones, and Clark-Carter (2008) found similar results as Boyd and Yin (1996) for self-referenced competence. Exploring the relationship between goal orientation and perceived competence with enjoyment, they surveyed 152 youth athletes involved in organized sport with an average of 3.6 years. They found that sport participants with more self-referenced competence and a higher task goal orientation experienced more enjoyment in their sport.

Research in determining the effect of goal orientation on sport enjoyment has been explored through other theoretical frameworks including the goal orientation theory (Yoo & Kim, 2002), the achievement goal theory (Hodge, Allen, and Smellie, 2008), the hierarchical model of achievement motivation (Morris & Kavussanu, 2009), and the achievement goals and

achievement emotions model (Puente-Díaz, 2012). Results for these studies were consistent with their evaluation of enjoyment.

Goal orientation theory puts athletes into one of two groups: goal oriented and task oriented. Both groups are associated with sport enjoyment, but for different reasons (Yoo & Kim, 2002). They surveyed 334 athletes using a mixed methodology approach and found that goal-oriented athletes find more enjoyment with winning, competition, and the psychological benefits of participation as the factors for enjoyment. Task-oriented athletes enjoy sports based on social recognition and external rewards. The findings of Hodge, Allen, and Smellie (2008) were similar for task-oriented older athletes attempting to master their sport. Using a correlational survey design, they surveyed 373 athletes. The athletes were motivated by the enjoyment of participating based on the social support and social recognition they received.

Mastery approach goals stimulate high levels of praise and approval which are subjective to the athlete, but should be related to enjoyment in participation of sports. (Puente-Diaz, 2012). Morris and Kavussanu (2009) used correlational and regression analysis to find that athletes who are motivated to master their sport found more enjoyment than other athletes. The athlete's enjoyment was due to the task/goal orientation of the pursuit of their mastery. Structural equation modeling was used by Puente-Díaz (2012) to continue this idea by surveying 200 athletes and found that mastery-approach goal oriented athletes had the highest level of enjoyment. The enjoyment leads to higher levels of effort, performance, and satisfaction.

Enjoyment has been one of the more impactful factors of commitment. If participants of any hobby or sport dedicate resources such as time, effort, and money into their hobby or sport, it would be safe to assume they do so because they enjoy the activity. Golf has yet to be tested

within the sport commitment model and continuing research will add to the body of knowledge surrounding the sport commitment model as it pertains to golf.

Social constraints. (Scanlan, Russell, Beals, et al., 2003) stated that if participating in sports was voluntary and enjoyable, there should be no constraints to participate. Individuals participate in sports because they want to play, not because they have to play. Casper et al. (2007), Scanlan, Carpenter, et al., 1993, Weiss, Weiss, and Amorose (2010), and Yin Chu and Wang (2012) have verified this concept. Social constraints have shown no significant relationship to commitment.

McDonough and Crocker (2005) found that enjoyment was such a strong indicator for commitment in team sports that they deemed it statistically impossible to test against other factors. Weiss and Weiss (2007) found similar results in their study and removed enjoyment due to the extreme relationship of enjoyment and commitment to see if another factor emerged more significantly. Without the enjoyment variable, social constraints became more prevalent for less experienced athletes. Others have found a relationship between social constraints and commitment.

Carpenter et al. (1993) found a marginal relationship between social constraints and commitment using structural equation modeling. They also found that social constraints had a marginal effect on commitment. Carpenter and Scanlan (1998) found a marginal negative relationship between social constraints and argued that social constraints could create stress that possibly weakens commitment.

A study completed by Santi, Bruton, Pietrantonio, and Mellalieu (2014) found a significant relationship between social constraints and commitment. Their study involved 523 master swimmers. Using structural equation modeling, they found that for elite athletes, the significance

of social constraints can be attributed to the pressures to continuing participating, which might be stronger than for casual athletes. Similarly, Young and Medic (2011) researched master swimmers to determine the social influences into continued participation. Among the 424 participants, they found social constraints had a strong link to commitment using regression analysis. The link between commitment and the social constraints can be attributed to an obligation to maintain their commitment to swimming and avoid the perception of being a quitter.

Initial results of Scanlan, Carpenter, et al., (1993) indicated that financial items did not correlate well because children did not have to pay to play. However, having parents pay could create constraints on the children to continue to participate. Dunn, Dorsch, King, and Rothlisberger (2016) researched the impact that the financial investment and perceived pressure from parents created when children participate in sports. What they found from 163 parent-child dyads across multiple sports using path analysis was that as parents invest more money into a sport for their child, the children perceived more pressure to participate. Children also showed less enjoyment and commitment to the sport as financial investment increased, which was attributed to the increased pressure to participate.

Social constraints is an indicator that one must continue to play a sport or activity based on the social expectations of the group. Social constraints has been an inconsistent factor of commitment thus requiring additional inquiry to determine its significance to the sport commitment model.

Valuable opportunities. When the sport commitment model was introduced by Scanlan, Carpenter, et al., (1993) valuable opportunities was known by the different label, *involvement opportunities*. Scanlan, Russell, Wilson, et al. (2003) changed it to valuable opportunities to

reflect not only the opportunities offered by participating, but also the opportunities potentially missed by not participating. Scanlan, Carpenter, et al., (1993) theorized this within the initial tests of the sport commitment model. Scanlan, Russell, Beals, et al., (2003) found that for many athletes, the opportunities they could potentially miss created commitment and continued participation.

Valuable opportunities has been found to be a statistically significant factor related to commitment (Alexandris et al., 2002; Carpenter et al., 1993; Carpenter & Scanlan, 1998; Casper et al., 2007; Scanlan, Carpenter, et al., 1993; Wang & Yin Chu, 2016). Alexandris et al. (2002), Carpenter et al. (1998), and Casper et al. (2007) found that valuable opportunities come from the benefits of participating, both directly and indirectly. As participants of a sport realize the benefits of participating, their commitment levels increase. The participants can benefit physically, psychologically, or sociologically.

Valuable opportunities of participating could be an indicator to a golfer's commitment. Valuable opportunities has shown to be a significant factor in other research. If the benefits of participating are significant enough, the potential benefits could lead golfers commitment through continued desire of those benefits. Golfer's commitment could also be dictated by a perceived sense of loss if participation is discontinued. Further research into the dynamics of loss of valuable opportunities has yet to be tested in golf and further study will further add to the body of knowledge surrounding the sport commitment model.

Other priorities. Like valuable opportunities, other priorities started with a different name, *involvement alternatives*, under the original research of Scanlan, Carpenter, et al., (1993) and changed to reflect a more robust factor based on the research of Scanlan, Russell, Beals, et al., (2003). Involvement alternatives was originally defined as a variable related to choosing an

alternate activity or sport than the one currently being played. Changing the variable to other priorities included identifying those factors of life in general that could prohibit participation, e.g. marriage, children, education.

Other priorities has been a non-significant factor of commitment (Casper et al., 2007). Less experienced athletes were found to have a significant relationship with commitment (Weiss, Weiss, and Amorose, 2007). Other priorities has had difficulties being measured since the sport commitment model was introduced. Scanlan, Carpenter, et al., (1993) theorized that for it could have been the athlete's difficulties in viewing alternatives as being mutually exclusive for the purposes of study. It may be possible that for committed athletes, nothing can get in their way of playing and devote time to participate.

Most activities in life are not mutually exclusive. A person could like fishing and golfing and can find time to do both. Other priorities has not been a very strong indicator in past research possibly due to activities not being mutually exclusive. However, golf takes a long time to play and involves a significant financial requirement each time one plays. People have family, work, and other potential commitments leading to a lack of willingness to participate in golf. Individuals may prioritize their lives around golf, therefore making other priorities a potentially significant factor for commitment in golf. A key question for other priorities is its significance in the model. It has not been significantly related to commitment in past studies and further research is necessary to add to the existing knowledge of the sport commitment model.

Personal investment. Investment in the form of the time and effort required to participate in sports has always been highly correlated in research (Alexandris et al., 2002; Carpenter et al., 1993; Carpenter & Scanlan, 1998; Casper et al., 2007; Scanlan, Carpenter, et al., 1993; Wang & Yin Chu, 2016; Weiss, Weiss, and Amorose, 2010; Yin Chu & Wang, 2012).

Scanlan, Russell, Beals, et al., (2003) discussed the fear of losing the investment of time and effort if participation ceased. Alexandris et al. (2002) discussed the idea that as individuals invest more and more of their free time and effort, their commitment will increase. This idea could attribute to higher dropout rates of beginning participants of sports than more experienced participants. Yin Chu & Wang (2012) found that less experienced athletes had a lower correlation of personal investment to commitment than more experienced athletes lending credibility to the ideas of Alexandris et al. (2002) and Scanlan, Russell, Beals, et al., (2003).

The initial findings of the sport commitment model removed the financial component leaving time and effort as the indicators for personal investment (Carpenter et al., 1993; Scanlan, Carpenter, et al., 1993; Scanlan, Simons, et al., 1993). The subjects of the study were youth and it was believed that the parents of the children were paying the fees and costs to play. The children did not have a financial stake in the sport, so the youth would not be able to answer those questions appropriately.

Personal investment in the form of time and effort has been a significant factor for commitment. Personal investment in the form of money has been inconsistent. Despite other priorities, if golfers are willing to make the investment of time and effort, there should be a strong relationship between their personal investment and commitment to golf. This could be true especially over time.

Social support. Social support was not considered a factor for the initial sport commitment model but has consistently been found to be a significant factor of commitment since its inclusion (Casper et al., 2007; Santi et al., 2014; Wang & Yin Chu, 2016; Yin Chu & Wang, 2012). Their findings vary slightly in their reasoning. Casper et al. (2007) found a weak relationship and theorized that it could be due to higher levels of the other factors and that people

do not want to admit that social approval is important to them. Yin Chu and Wang (2012) found that as athletes achieved a higher level of experience social support became more important than enjoyment. Santi et al. (2014) found a significant relationship between social support and commitment. They stated that it is possible that social support is such that participants identify with goals, difficulties, and lifestyles of their social group.

Other researchers have explored how social support affects continued participation in sports (Kilpatrick, Hebert, and Bartholomew, 2005; Sanchez-Miguel, Leo, Sanchez-Oliva, Amado, and Garcia-Calvo, 2013; Ullrich-French & Smith, 2009). As our society has become less active, researchers have been looking for the factors that contributed to increased participation in sporting or exercise activities. A survey of 233 college students conducted by Kilpatrick et al. (2005) showed that one of the primary reasons individuals are motivated to play sports is the social recognition related to their participation.

Research has shown that social support from parents affects young athletes. In a study of 723 team sport athletes, Sanchez-Miguel et al. (2013) wanted to determine how parental support or a lack of support affected the enjoyment and socialization of children in sports. What they found was that positive parental social support increased sport enjoyment and motivation to play. Similar to the research of Dunn et al. (2016), a lack of social support in the form of pressure to perform, also decreased enjoyment and amotivation.

Ullrich-French and Smith (2009) wanted to determine if social support factors were more influential than other motivational factors related to participation, such as enjoyment and perceived competence. Surveying 148 youth soccer players, they found that social support structures in the form of peer acceptance, quality of friendships, and relationships with parents were significantly related to continued participation. These social support structures were indeed

more important than enjoyment and perceived competence in the sport. Their evidence suggests the importance of social support to commitment.

Just as some athletes may feel socially constrained to continue participating, the social support athletes receive may lead to commitment as well. The quality and structure of the social support is important. Individual golfers who become part of a regular group may continue participating due to the social support they receive from the group. Golfers may then continue participating for the fear of losing that support through discontinuation. The dynamics of social support has not been tested in golf and further study will add to existing knowledge of the sport commitment model as it pertains to golf.

Desire to excel. Desire to excel is a new factor of the sport commitment model and was incorporated as the best option of six themes created by Scanlan et al. (2009). It postulates two sub-categories: mastery achievement and social achievement. Mastery achievement is the desire for improvement toward achieving perfection, playing to one's potential, and achieving goals. Social achievement is about winning, establishing superiority, and outperforming your opponent (Scanlan et al., 2013).

Desire to excel-mastery achievement was significantly related to commitment in a study completed to test an updated version of the sport commitment model questionnaire (Scanlan et al., 2016). This new questionnaire included items related to the new *desire to excel* variable. What they found from the 723 athletes they studied was that as athletes work toward being the best they can be, their commitment rose. Although desire to excel-social achievement was not significant, it should still be included in research. This new factor deemed it a good fit for the model worthy of further research and inclusion in the sport commitment model.

Desire to excel is a new concept related to commitment. In limited testing, factors related to mastering the sport has been in indicator of commitment. This could be true for golf as well. Golf is a difficult game to learn and even through years of practice can be difficult to play. Golfers may become totally committed to golf in the attempt to become good in the views of others and themselves based on the abilities. Desire to excel based on social achievement has not been indicated completely in sport yet. Golf is an individual sport and defeating one's opponent on any given day could be a factor related to commitment to golf and therefore should be evaluated. Desire to excel has not been fully clarified in the early research of the factor and further research is necessary. This study will evaluate the elements of the desire to excel factor more closely for golf and possibly answer questions and add to the body of knowledge surrounding the sport commitment model as it pertains to golf.

Consumer Behavior Factors

Purchase intention. Commitment plays a role in the purchase intention of consumers. Research into the mediating effect of commitment for enjoyment and satisfaction with purchase intentions has been studied in different contexts (Quero & Ventura, 2015; Wang, 2002). Using structural equation modeling, Wang (2002) surveyed individuals across three different product categories and found that commitment was a predictor of purchase intention across all three categories. Quero and Ventura (2015) surveyed 927 people and found that for the performing arts segment, commitment was the key factor related to purchase intention and appears to be a mediating variable of purchase intentions for both satisfaction and trust as well.

The overall relationship quality consumers have toward products and services can relate to purchase intention (Kim, Trail, and Ko, 2011). Commitment is an important factor of relationship quality. A survey of 424 college students found that commitment is highly correlated

to sport merchandise purchase intention. Using correlational analysis, they determined that consumers with higher levels of commitment are more likely to consume more.

Bouhleb, Mzoughi, Hadiji, and Slimane (2011) surveyed 380 consumers to explain the value of different influences on a consumer's decision-making process. Using regression analysis, they found that commitment was significantly related to purchase intention and suggested that commitment to a product or brand could lead it to becoming part of the decision making process.

Determining what factors lead to commitment for golf would be important to golf managers. Further understanding of what commitment means for the behavior of golfers would be important as well. Research has shown that commitment leads to purchase intention. Casper et al. (2007) found that commitment significantly predicted purchase intention. The relationship between commitment and purchase intention was based on a two-factor analysis requiring additional research into the reliability of the data. Further research with golf will address the consistency of the relationship between commitment and purchase intentions. If commitment to golf is related to purchase intention, marketing managers could use that information for programs to increase more purchasing behavior.

Frequency of participation. There are many factors that play into why a person participates in sport. Some of those factors are related to the factors of the sport commitment model. Lim et al. (2011) surveyed 122 athletes across three countries, the United States, the Netherlands, and Korea to find that while having a competitive environment (desire to excel) increased participation, family obligations (other priorities) and a general lack of time (personal investment) contributed to a decrease in participation.

Oliveira-Brochado, Quelhas Brito, and Oliveira-Brochado (2017) studied 516 individual to determine what factors correlated to increased participation in sport. They learned that the enjoyment, social support, and opportunities from their involvement in a sport leads to increased frequency of playing sports.

Costs can be a barrier to participation in sports. Golf has a significantly high cost restriction (Hoovers Inc., 2018a). Eime, Charity, Harvey, and Payne (2015) attempted to answer questions related to the socio-economic nature of sports participation and found that activities in lower socio-economic areas with smaller cost restrictions are more likely to have higher participation rates than those with higher costs restrictions. Individuals with a lower socio-economic status were less inclined to participate in sports in general. Areas with low socio-economic status were also less likely to have facilities for which residents could participate.

Participation in golf is important for golf facilities. Understanding how commitment is a factor towards increased participation would be beneficial to those stakeholders in the golf industry. Research has shown that specific factors related to commitment have been related to participation frequency. Casper et al. (2007) found that commitment predicts participation frequency. Research into commitment and participation is limited. Further research of the relationship between commitment and participation frequency will address the body of knowledge surrounding the sport commitment model as it pertains to golf.

Golf Participation

The sport commitment model has been shown to be consistent across many sports. Determining which factors of the sport commitment model are a greater significance to committed golfers could explain the commitment of golfers. Social support and social constraints could be a more significant factor towards commitment to golf. Rees, Hardy, and Freeman

(2007) examined the main stress buffering factors of golfers during competitions using regression analysis. Of the 177 participants surveyed, they found that social support increases performance for golfers.

Golf is a social sport that allows for the building of interpersonal relationships through social networks (Arthur, Del Campo, and Van Buren III, 2011). They found that these social networks provide access to information and social support. According to Wood and Danylchuk (2011), some people begin playing golf as a function of their social group. Their qualitative study into continued participation in golf includes the collective culture of the group and the social support it provides.

Stenner, Mosewich, and Buckley (2016) found that older adults participate in golf for the social and community engagement opportunities and for the time spent with others. The social support and nurturing of the group then contributes to their continued participation, or commitment, to the game. Findings support these networks and social norms as reasons golfers continue to play. The expectations of the group, or the social constraints, could indicate that golfers feel obligated to continue playing to maintain their place in the social group as well.

Lyu and Lee (2018) studied golfers in Korea to determine the constraints on golfers affecting their participation. Using choice modeling, they surveyed 372 participants in the study and found that time constraints was a significant predictor for determining a golfers participation. If golfers view the personal investment of time as a constraint, their commitment and participation may decrease. Golf on average takes over 4 hours to play (McCoy, 2016), so making the investment of time and effort could affect the personal investment factor for sport commitment.

Golfing requires a large purchase intention to participate. Hoovers Inc. (2018a) reported that golf courses fees average \$45 for an 18-hole round on the weekends and at more prestigious courses can cost from \$200 to \$500 per round. Membership fees at private clubs can include initiation fees reaching \$20,000 with monthly membership dues that vary between \$50 and \$500. These numbers could require a significant commitment to play in order to make the ongoing purchase intention. It would also require highly committed golfers to continue to pay these rates on a consistent basis. This purchase intention requirement is not only in the costs to play, but also in the costs of equipment.

The sporting goods market is highly seasonal because those sporting goods are usually used based on whether the sport is a summer or winter sport (Hoovers Inc., 2018b). Sporting goods tend to have a short product life cycle, so companies are continually producing new products to maintain differentiation. Hoovers Inc. (2018b) found that golf makes up 30% of the sporting goods market. Becoming committed to golf would require ongoing purchases of equipment.

Summary

Sport commitment has many factors related to continued participation. Enjoyment is a very strong predictor of sport commitment. After the introduction of the sport commitment model, research continued to build upon the original model using a variety of team and individual sports and activities. Golf has yet to be utilized as the sport of focus. Golf is different from other sports due to the significant initial financial and time investment required to play. Golf is also a social game and for some it appears that the social dynamics could lead to commitment to golf. Testing the sport commitment model using golf as the sport of focus could provide more evidence related to explaining how golfers become committed to playing. Testing

the sport commitment model could show slight variations from previous research. Personal investment, social constraints, and social support could show stronger relationships to commitment.

Further, marketers of any industry or occupation need to be interested in why consumers make purchases. Yin Chu and Wang (2012) concluded that marketers of sport should focus on enjoyment for lower level experienced athletes. They then can focus on involvement opportunities, social support, and personal investment as experience in the sport increases. If research into the commitment of sports participants could provide a glimpse into their purchase intentions, that research would be invaluable. Research into how sport commitment affects the purchase intention and participation frequency began with Casper et al. (2007) and could be expanded to explain further the effect of sport commitment on the purchase intention and participation frequency of golfers.

Methodology

Overall Approach and Rationale

The purpose of this study was to apply prior research to a new problem. The sport commitment model has been tested in a variety of settings, but never using the sport of golf. Golf is different and could provide different results from previous research that can be used by the golf industry. Sekaran & Bougie (2013) describe applied research as solving problems that would help managers find solutions and make decisions. This study is an applied research study as the findings could help golf managers find solutions to the problem of customer retention.

Creswell (2012) states that correlational research designs provide an opportunity to explain relationships between variables. Researchers wishing to determine if two or more variable have any influence on another variable would use correlational research design. This study will seek to determine if there are any relationships between the predictor variables and sport commitment. This study will also seek to determine if sport commitment affects some consumer behaviors.

Correlational analysis is a statistical procedure conducted to determine relationships from data collected from a survey instrument (Creswell, 2012). The procedures used are the characteristics for quantitative research by “describing a research problem through a description of trends or a need for an explanation of the relationship among variables” (Creswell, p. 13).

Research Strategy

Business research can be completed in an environment in which normal events and activities can proceed normally or non-contrived settings (Sekaran & Bougie, 2013). This includes correlational studies. Quantitative research is appropriate for this type of study because the data collected through the instrument will be used to determine relationships between

variables. The setting for the study was a non-contrived setting, obtaining participants as they complete their golf related activity for that day. This study used the 5-step method of collecting quantitative data from Creswell.

Participants. Golfers provided the sample needed for this study. With an estimated golfer population of 26 million, spread over the United States, it would be very difficult to obtain a true random sample to represent the population. The strategy for this study was to use convenience sampling. Convenience samples are collected where the population is conveniently available to provide it (Sekaran & Bougie, 2013).

Respondents were surveyed over a three-month period in a southwestern metropolitan area at facilities where golf consumption takes place. Additionally, snowball sampling was used by emailing prospective participants requesting additional names for participation. Two social media requests were sent out to local groups to reach prospective participants.

Instrument. The instrument used for this survey (Appendix A) was a combination of the Sport Commitment Questionnaire-2 (Appendix B) and open-ended questions related to participation frequency and purchase intention from Casper et al. (2007). The questions related to the SCM were modified from the Sport Commitment Questionnaire-2 with permission from the authors (Appendix C) to relate to golf.

The survey contained 58 questions related to the seven variables of sport enjoyment, personal investment, other priorities, valuable opportunities, social constraints, social support, and desire to excel. The survey instrument also contained 15 questions related to commitment to golf and questions related to the variables of purchase intention and participation frequency. To assess possible connections to specific groups of golfers, questions related to gender, income, age, and experience level were asked.

Protection of human subjects: Ethical considerations. Prior to collecting data for this study, the Institutional Review Board of the University of the Incarnate Word granted permission to the researcher. The researcher is CITI certified and carefully followed the guidelines of 45 CFR 46 from the U.S. Department of Health and Human Services. The survey averaged less than 10 minutes to complete based on the online survey data. All information collected was maintained confidentially at all times.

Each participant at the golf course received and signed an informed consent form (Appendix E) indicating that participation is voluntary. The participants of the online survey read and signed the informed consent on the first page of the survey before continuing. The informed consent contained statements explaining the purpose of the study, risks associated by participating, benefits of participation, and statements regarding rights to ask questions, obtain results, and anonymity. Risks were minimal. Participation in the study did not affect the professional status. The membership status for any of the participants was not affected. Demographic data did not identify any specific participant.

Data collection. The researcher received permission from the facilities with which the collection will take place. The intent was to attain prospective participants at golf courses as golfers walked off the course at the end of their round to avoid. The golf course managers allowed the research to be conducted during days and times before, during, and after a tournament to capture as many participants as possible. A table was set up outside the clubhouse in the path of the golfers without disrupting the business flow of the golf course and disrupting the individual golfers pregame routine. Golfers were approached about participating as they walked off the course at the conclusion of their playing time. A potential reward for participating was offered to those that participated. Upon completion of the survey period, the researcher

would purchase gift cards from the golf course to be awarded randomly through a drawing held by the staff of the golf course.

Data analysis. For every question answered by participants, the results were broken down into parts that answered the research question. Statistical analysis compared groups, addressed the research problem, and explained whether the results reflect the predictions made by this study.

Data was input into SPSS software to assign scores and organize the data. Results were reported through tables and figures, including a discussion that details the results in reference to the statistical findings. This study includes a summary of the findings related to the factors of sport commitment and how it might affect participation frequency and purchase intention.

Results

Introduction

The purpose of this study was to determine the relationship between the factors of the sport commitment model and commitment. The purpose was also to determine the relationships between commitment and the purchase intention and participation frequency of golfers. The relationships were determined using the modified sport commitment model framework proposed in Figure 2 based on the original work of Scanlan, Carpenter, et al., (1993) and expanded by Casper et al. (2007).

The quantitative data collected came from a modified version of The Athletic Questionnaire located in Appendix A. The survey contained 58 questions about golf related to the factors of the original sport commitment model: commitment, enjoyment, personal investment, social constraints, valuable opportunities, other priorities, desire to excel, and social support. There were 15 questions related to purchase intention and participation frequency and seven questions related to demographics.

Response Rates

The response rates for data collection were very low. The original plan of gaining access to specific golf courses and asking players directly if they wanted to participate at the conclusion of their round received zero responses. Attempting to use the *snowball effect* (Sadler, Lee, Lim, & Fullerton, 2010) led to 16 emails sent to potential participants, asking for follow-up emails of other potential participants. Eight local golf course managers were sought out to attempt to gain access to membership rolls. One general manager responded that he would pass the link to his membership. Further attempts to contact the general manager to verify the number of members contacted were unreturned. Finally, a social media request using the Facebook platform was sent

to a community group consisting of 634 members. After allowing responses for seven days via the social media link, the online survey was turned off. A total of 42 responses were collected.

After scrubbing the data to remove any responses with excessive missing data, only 30 responses were available for analysis. The following figures and tables display the demographic information of the participants.

Descriptive Analysis

Demographic information collected included gender, age, race, income, experience level, marital status, and whether or not they had children. Figure 3 represents the gender of the participants. The sample consists primarily of males (86.6%).

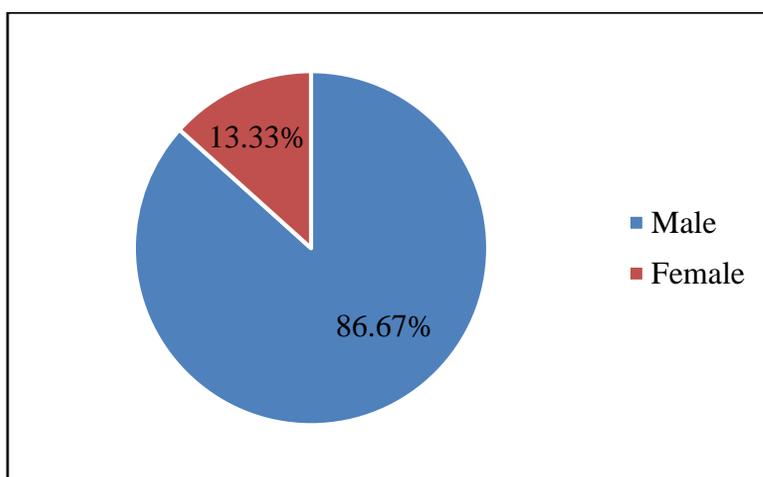


Figure 3. Physical characteristics related to the gender of the participants.

Figure 4 shows the age distribution for the sample. Most of the participants were over the age of forty (56.7%) with the largest population being in the 40-49 year old age group. The distribution of the participants based on their race is shown in Figure 5. A majority were white (76.6%), with 16.67% being Hispanic.

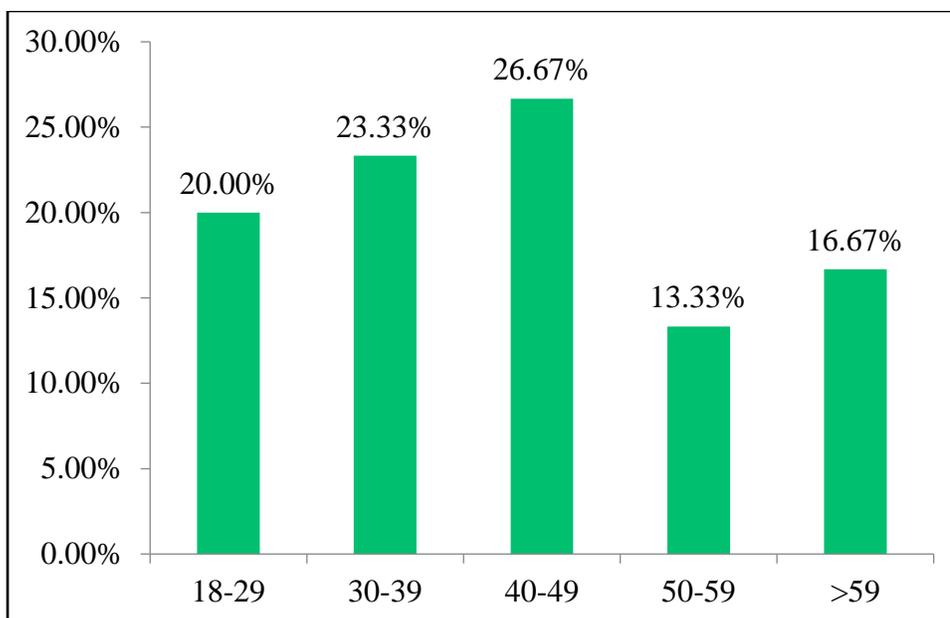


Figure 4. Physical characteristics related to the age of the participants.

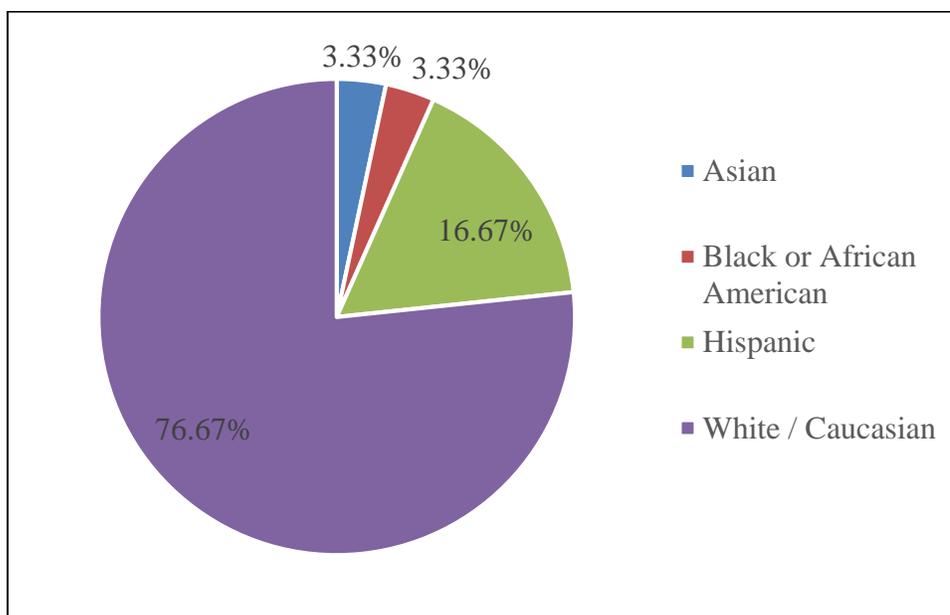


Figure 5. Physical characteristics related to the ethnicity of the participants.

Figure 6 shows the breakdown of the sample by income level. The \$50,000-\$100,000 annual income level had the most respondents (43.33%), but overall a majority of the sample made more than \$100,000 (53.33%). The experience level of golfers is displayed in Figure 7. A large majority of the participants claimed to be advanced level golfers (83.33%). Intermediate level golfers made up 13.33% of the sample, with only 3.33% falling into the beginner level.

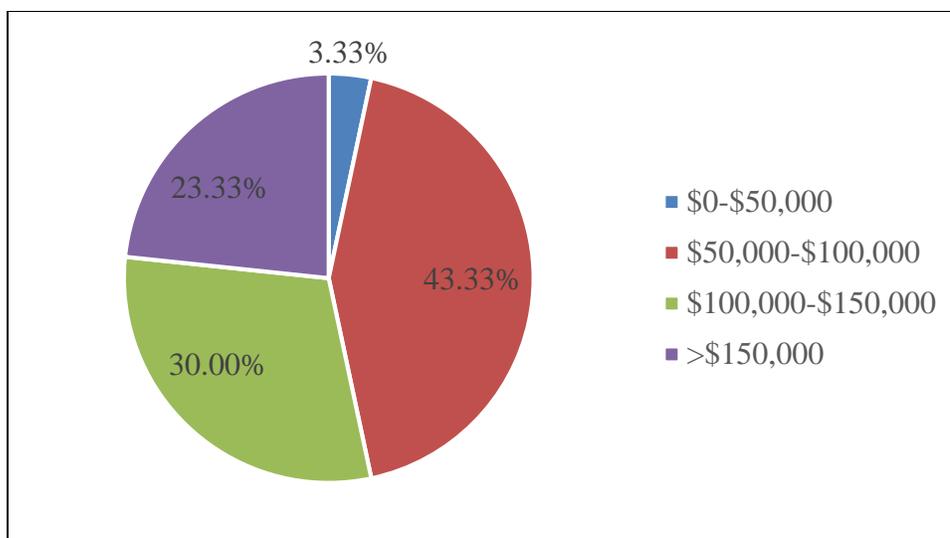


Figure 6. Characteristics related to the income of the participants.

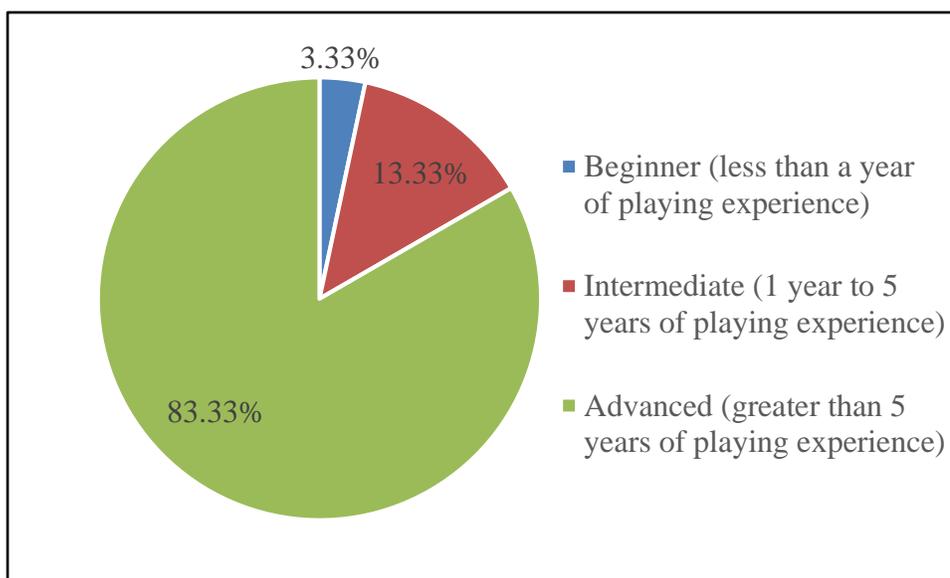


Figure 7. Characteristics related to the experience level of the participants.

The relationship status of golfers is shown in Figure 8. Most of the sample consisted of married individuals (9%), with 6.67% of the golfers being single. Figure 9 provides the breakdown of golfers with children. A majority of the respondents had children (76.6%) with 53.33% of the sample having children still at home. Those golfers without children made up 23.33% of the sample.

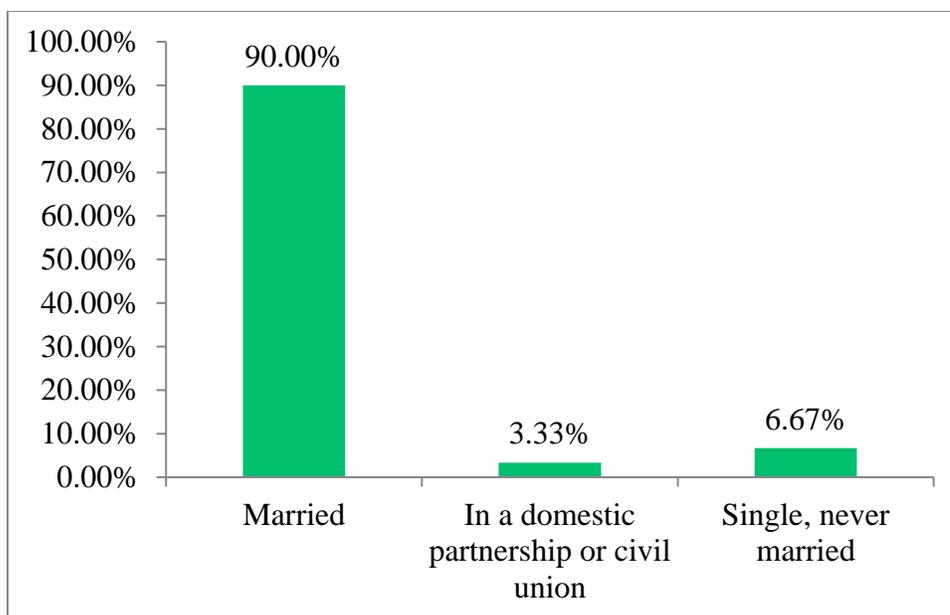


Figure 8. Characteristics related to the relationship status of the participants.

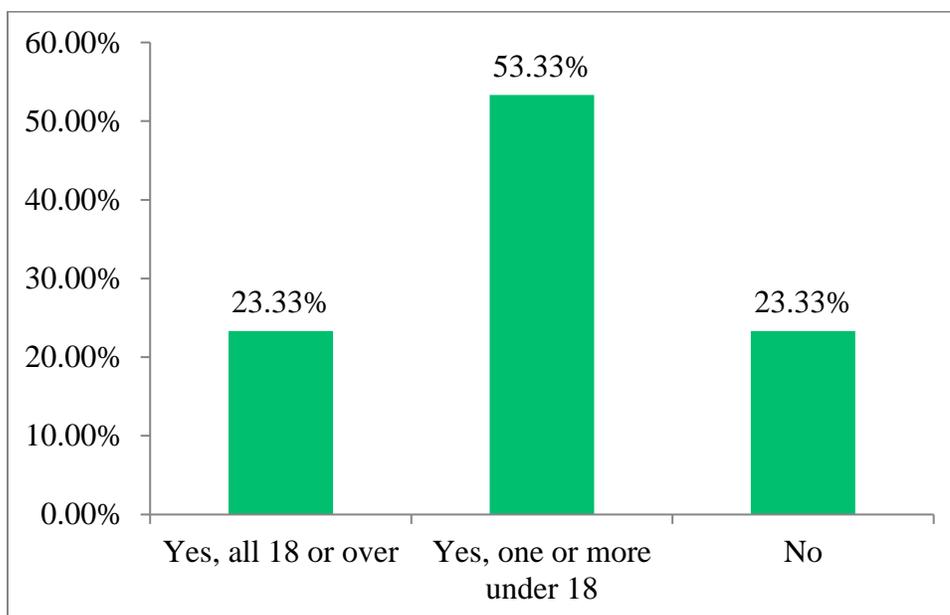


Figure 9. Characteristics related to the family status of the participants.

A major objective of the study was to examine the factors of the sport commitment model and commitment. Due to the lack of a large sample size, correlation analyses were conducted similar to the analysis of the original sport commitment model conducted by Scanlan, Carpenter, et al., (1993). Pearson correlations were conducted between the variable, commitment, and the variables of enjoyment, personal investment, valuable opportunities, social constraints, other

priorities, desire to excel, and social support to determine if the proposed relationships exist between the variables in the hypotheses. Pearson correlations were then conducted with commitment and the variables of purchase intention and participation frequency.

The items related to each variable considered reliable and valid were combined using the summing method to create single variables for testing (Creswell, 2012, p. 178). Summing removes potential bias toward any specific item and captures the complete perspective of the participant for each variable.

Inferential Analysis

Testing the reliability and validity of each item is necessary to determine if the instrument is providing reliable data to be analyzed. Prior to correlational analysis, Chi-square tests were conducted on each item to measure goodness of fit and Cronbach's alpha (Table 1) were completed to measure the reliability and validity of the test items for each variable.

Factors of the sport commitment model

The results for the items related to commitment came from a Likert scale with responses being *strongly agree* = 1, *agree* = 2, *neither agree or disagree* = 3, *disagree* = 4, *strongly disagree* = 5. Table 1 shows the item number and the label for each commitment item.

Items 31 (COM4), 32 (COM5), and 58 (COM11) were not shown to have a statistically significant goodness of fit and were removed from further evaluation as seen in Table 2. The remaining eight items had an acceptable alpha ($\alpha = .809$). The eight acceptable items were combined using the summing method to create a single variable, *Commitment*, to be measured for any significant relationships with the factors of the SCM.

Hypothesis 1: relationship of sport enjoyment and sport commitment. The items in Table 3 related to enjoyment in golf were asked with the Likert scale responses identical to the

commitment items. Item 1 (ENJ1) item 11 (ENJ2), and item 28 (ENJ3) showed a statistically significant goodness of fit, as shown in Table 4. Chi-square testing for the enjoyment variables show that items 45 (ENJ4) and 55 (ENJ5) were not reliable questions for the study based on goodness of fit. Items 45 and 55 were removed from further analysis to provide a clean variable. The three acceptable items found to be reliable were combined to form one variable, *enjoyment*, using the summing method.

Table 1.

Alpha Coefficients of the Variables

Variable	α coefficient
Commitment	.809
Enjoyment	.846
Social Constraints	.877
Valuable Opportunities	.827
Other Priorities	.250
Personal Investment	.766
Social Support	.686
Desire to Excel	.821
Participation Frequency	.475
Purchase Intention	.809

Table 2.

Commitment Variable Items and Labels

Item #	Label	Question
7	COM1	Staying in golf is more of a necessity than a desire.
12	COM2	I am dedicated to keep playing golf.
21	COM3	I feel trapped in golf.
31	COM4	I am willing to overcome any obstacle to keep playing golf.
32	COM5	Although I think about quitting golf, I feel I must keep playing.
39	COM6	I feel I am forced to keep playing golf.
43	COM7	I feel I have to keep playing golf, even though I don't want to.
48	COM8	I am determined to keep playing golf.
49	COM9	I am very attached to golf.
53	COM10	I will continue to play golf for as long as I can.
58	COM11	I am willing to do almost anything to keep playing golf.

Table 3.

Chi-square Goodness of Fit Results for commitment items

	COM1	COM2	COM3	COM4	COM5	COM6	COM7	COM8	COM9	COM10	COM11
Chi-Square	16.00 ^a	15.67 ^a	10.67 ^a	1.67 ^a	2.80 ^b	20.40 ^b	39.33 ^a	13.33 ^a	24.62 ^c	16.40 ^b	3.67 ^a
df	4	4	4	4	3	3	4	4	4	3	4
Asymp. Sig.	.003	.004	.031	.797	.423	.000	.000	.010	.000	.001	.453

Notes: ^a0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0. ^b0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5. ^c0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.8.

Cronbach's alpha for the three items was above the acceptable level ($\alpha = .846$).

Enjoyment was measured against *commitment* through Pearson correlations (Table 5). The correlation shows a statistically significant positive relationship between the variables (Table 6). Based on the findings, there is evidence that a relationship exists between the enjoyment of playing golf and continuing to play golf and the hypothesis is not rejected.

Table 4.

Enjoyment Variable Items and Labels

Item #	Label	Question
1	ENJ1	Playing golf is fun.
11	ENJ2	I like playing golf.
28	ENJ3	I love to play golf.
45	ENJ4	Playing golf is very pleasurable.
55	ENJ5	Playing golf makes me happy.

Hypothesis 2: relationship of social constraints and sport commitment. Table 7 represents the item number, label, and questions for the social constraint variable. The items were asked using the Likert scale responses of *strongly agree* = 1, *agree* = 2, *neither agree nor disagree* = 3, *disagree* = 4, and *strongly disagree* = 5. The items were measured for goodness of fit using chi-square analysis. Table 7 shows that none of the items were a good fit for this model as all four items are not statistically significant, $p > .05$.

To maintain consistency of analysis, no further analysis for social constraints were conducted. With none of the variables exhibiting a goodness of fit all four must be removed leaving zero variables for correlational analysis. It also indicates that the hypothesis must be rejected.

Hypothesis 3: relationship of valuable opportunities and sport commitment. The items for valuable opportunities were labeled according to Table 8. Questions for the four items included responses using the Likert scale identical to the other variables, *strongly agree* = 1, *agree* = 2, *neither agree nor disagree* = 3, *disagree* = 4, and *strongly disagree* = 5.

Table 5.

Chi-square Goodness of Fit Results for Sport Commitment Model Items.

	Chi-Square	df	Asymp. Sig.
ENJ1	16.133 ^a	1	.000
ENJ2	13.333 ^a	1	.000
ENJ3	24.069 ^b	2	.000
ENJ4	2.133 ^a	1	.144
ENJ5	1.200 ^a	1	.273
SC1	2.800 ^c	3	.423
SC2	7.000 ^d	4	.136
SC3	4.000 ^d	4	.406
SC4	9.000 ^d	4	.061
VO1	7.333 ^d	4	.119
VO2	4.333 ^d	4	.363
VO3	17.333 ^d	4	.002
VO4	12.667 ^d	4	.013
OP1	21.000 ^d	4	.000
OP2	7.667 ^d	4	.105
OP3	5.333 ^d	4	.255
OP4	17.667 ^d	4	.001
OP5	8.667 ^d	4	.070
PI1	10.800 ^c	3	.013
PI2	1.333 ^d	4	.856
PI3	10.333 ^d	4	.035
PI4	7.667 ^d	4	.105
PI5	5.667 ^d	4	.225
PI6	17.333 ^d	4	.002
PI7	7.667 ^d	4	.105
PI8	6.667 ^d	4	.155
PI9	12.333 ^d	4	.015
SS1	9.000 ^d	4	.061
SS2	12.000 ^d	4	.017
SS3	15.667 ^d	4	.004
SS4	11.333 ^d	4	.023
SS5	2.667 ^d	4	.615
SS6	5.667 ^d	4	.225
SS7	4.000 ^d	4	.406
SS8	27.333 ^d	4	.000
SS9	26.667 ^d	4	.000
DE1	5.667 ^d	4	.225
DE2	6.333 ^d	4	.176
DE3	18.000 ^d	4	.001
DE4	.667 ^d	4	.955
DE5	12.667 ^d	4	.013
DE6	25.667 ^d	4	.000
DE7	15.667 ^d	4	.004
DE8	27.667 ^d	4	.000
DE9	7.000 ^d	4	.136
DE10	31.000 ^d	4	.000
DE11	27.000 ^d	4	.000

Notes: ^a0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.0. ^b0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.7. ^c0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5. ^d0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0.

The responses were evaluated for goodness of fit using Chi-square analysis. Items 30 (VO3) and 50 (VO4) represented statistically significant goodness of fit, while the items 8 and 14 were not significant. For correlational analysis, a two-item variable was used. The two items were summed using the same method as the other variables and called *valuable opportunities*. The two-item variable was found to be reliable ($\alpha = .827$). Pearson correlations were conducted between the two variables. A strong, positive correlation provides evidence that a statistically significant relationship exists for valuable opportunities and commitment (Table 9). The researcher cannot reject the hypothesis.

Table 6.

Pearson's Correlations for Enjoyment and Commitment

		Enjoyment
Commitment	Pearson Correlation	.620**
	Sig. (2-tailed)	.000
	N	30

** $p < .01$, two-tailed.

Table 7.

Social Constraint Variable Items and Labels

Item #	Label	Question
15	SC1	People would be upset if I did not keep playing golf because they have invested so much.
18	SC2	People would be disappointed if I did not keep playing golf.
37	SC3	Because people who are important to me also play golf, it is assumed that I will keep playing.
52	SC4	People who are important to me expect me to keep playing golf.

Hypothesis 4: relationship of other priorities and sport commitment. Table 10 shows the item numbers, labels, and questions for the other priorities variable. The questions asked related to other priorities were rated based on the Likert scale for other items. Items 3 (OP1) and 36 (OP4) were the only items that showed goodness of fit based on chi-square analysis. Items 9,

26, and 40 were initially left out of analysis. Items 3 and 36 were combined and summed identical to the other variables into a two-item variable, *other priorities*. The new variable had a very low alpha ($\alpha = .250$), so item 40 (OP5) was summed and combined with items 3 and 36 to check if it made the variable more reliable. Item 40 was chosen because it was marginally non-significant relative to the other items, $\chi^2 (4, N = 30) = 8.667, p = .070$. However, the alpha ($\alpha = .691$) was still below acceptable standards and removed again from further analysis, leaving the two-item variable, *other priorities*.

Table 8.

Valuable Opportunities Variable Items and Labels

Item #	Label	Question
8	VO1	There are future events in golf that I would really miss experiencing if I no longer played.
14	VO2	I would really miss the travel experiences I have if I no longer played golf.
30	VO3	I would really miss the things I learn in golf if I didn't play.
50	VO4	I would really miss the competition in golf if I no longer played.

Table 9.

Pearson Correlations for Valuable Opportunities and Commitment

		Valuable Opportunities
Commitment	Pearson Correlation	.767**
	Sig. (2-tailed)	.000
	N	30

** $p < .01$, two-tailed.

Incorporating all five items into a variable, *other priorities 5*, had an acceptable alpha (.847) but with three items unreliable for the combined variable, the correlational analysis would be unreliable. Pearson correlations were run between *commitment* and both the two-item variable, *other priorities*, and the five-item variable, *other priorities 5*, with results listed in Table 11. Although both unreliable, they do indicate a negative relationship to *commitment*,

which is in line with previous research (Scanlan, Carpenter, et al., 1993). Neither variable shows a statistically significant relationship toward *commitment*. The findings show that there is no relationship between other priorities and commitment and the researcher must reject the hypothesis.

Table 10.

Other Priorities Variable Items and Labels

Item #	Label	Question
3	OP1	Other things in my life make it difficult to play golf.
9	OP2	I am being pulled away from golf by other things in my life.
26	OP3	It is almost impossible to play golf because of other things in my life.
36	OP4	There are other things in my life that limit my participation in golf.
40	OP5	Other things in my life compete with playing golf.

Table 11.

Pearson Correlations for Other Priorities and Commitment

		Other Priorities	Other Priorities 5
Commitment	Pearson Correlation	-.228	-.246
	Sig. (2-tailed)	.226	.191
	N	30	30

Hypothesis 5: relationship of personal investment and sport commitment. The items, labels, and questions are represented in Table 12. Questions for the personal investment items included responses using the Likert scale identical to the other variables, *strongly agree* = 1, *agree* = 2, *neither agree nor disagree* = 3, *disagree* = 4, and *strongly disagree* = 5. Chi-square goodness of fit tests in Table 5 revealed that item 2 (PI1), item 10 (PI3), item 34 (PI6), and item 56 (PI9) were reliable. The other five items were dropped from further analysis.

The four reliable items were combined into a single variable, *personal investment*, using the summing method, consistent with the other variables. *Personal investment* had a reliable alpha ($\alpha = .766$) and was deemed fit for correlational analysis. Pearson correlations were run

between *personal investment* and *commitment* with the results displayed in Table 13. The analysis showed a statistically significant correlation between *personal investment* and *commitment* that indicates a strong relationship exists between the variables. The researcher cannot reject the hypothesis.

Table 12.

Personal Investment Variable Items and Labels

Item #	Label	Question
2	PI1	I have spent a lot of time playing golf.
6	PI2	The mental effort I have put into golf makes it difficult to stop playing.
10	PI3	The physical effort I have put into golf makes it difficult to stop playing.
17	PI4	In golf, I have put in a lot of training.
23	PI5	The time I have spent in golf makes it difficult to stop playing.
34	PI6	I have put a great deal of mental effort into golf.
42	PI7	It is difficult to stop playing because of the personal discipline I have maintained in golf.
48	PI8	I have put a great deal of physical effort into golf.
56	PI9	It is difficult to stop playing because of the training I have put into golf.

Table 13.

Pearson Correlations for Personal Investment and Commitment

		Personal Investment
Commitment	Pearson Correlation	.688**
	Sig. (2-tailed)	.000
	N	30

** $p < .01$, two-tailed.

Hypothesis 6: relationship of social support and sport commitment. The items related to social support are listed by item number and label in Table 14. Questions using the Likert scale identical to the other variables, *strongly agree* = 1, *agree* = 2, *neither agree nor disagree* = 3, *disagree* = 4, and *strongly disagree* = 5 were asked for the social support items. Chi-square

goodness of fit tests in Table 5 revealed that item 20 (SS2), item 22 (SS3), item 25 (SS4), item 54 (SS8), and item 57 (SS9) were reliable. The four unreliable items were dropped from further analysis.

The five items deemed reliable were consolidated into a single variable, *social support*, using the summing method like all other variables. The new social support variable was tested for reliability using Cronbach's Alpha ($\alpha = .686$). Pearson correlations were run between *commitment* and *social support* with the results listed in Table 15. The analysis showed a statistically significant correlation between *social support* and *commitment* that indicates a strong, positive relationship exists between the variables. This means the hypothesis cannot be rejected.

Table 14.

Social Support Variable Items and Labels

Item #	Label	Question
19	SS1	I have a mentor who provides guidance in golf.
20	SS2	People who are important to me attend the majority of my competitions in golf.
22	SS3	People who are important to me are there for me after I perform poorly in golf.
25	SS4	When things get tough in golf, people who are important to me provide comfort.
27	SS5	People who are important to me teach me the strategies of golf.
35	SS6	People who are important to me teach me about the mental side of golf.
51	SS7	When I compete in golf, people who are important to me cheer me on.
54	SS8	People give me trustworthy advice about golf.
57	SS9	In golf, people provide useful instruction to improve my performance.

Hypothesis 7: relationship of desire to excel and sport commitment. The items, labels, and questions for the desire to excel variable are listed in Table 16. Questions using the Likert scale identical to the other variables, *strongly agree* = 1, *agree* = 2, *neither agree nor disagree* = 3, *disagree* = 4, and *strongly disagree* = 5 were asked for the desire to excel items.

Chi-square goodness of fit tests in Table 19 revealed that seven of the eleven items were reliable. Those items 13 (DE3), 24 (DE5), 29 (DE6), 33 (DE7), 38 (DE8), 44 (DE10), and 47 (DE11) were consolidated using the summing method like all other variables into a single variable, *desire to excel*. The four unreliable items were dropped from further analysis.

Table 15.

Pearson Correlations for Social Support and Commitment

		Social Support
Commitment	Pearson Correlation	.744**
	Sig. (2-tailed)	.000
	N	30

** $p < .01$, two-tailed.

Reliability tests were conducted with the new variable, *desire to excel*, with an acceptable alpha ($\alpha = .821$). Pearson correlations were conducted between *desire to excel* and *commitment* with the results listed in Table 5. The analysis showed a statistically significant correlation between *desire to excel* and *commitment* indicating that a positive relationship exists between the variables (Table 17). Based on the analysis, the researcher cannot reject the hypothesis.

Purchase Intention and Participation Frequency

The second part of the analysis deals with determining if commitment is a predictor for purchase intention and frequency of participation. The variables for commitment were measured against the variables for participation and purchase intention. The variables for purchase intention included questions for golfers to estimate their upcoming purchases for hard and soft goods. Hard goods was broken down into the variables of drivers, fairway woods, irons or iron sets, wedges, putters, and golf balls. Soft good included golf shoes, golf gloves, and other golf accessories.

The participation frequency construct is made up of six items, three items asking about weekly playing habits in the fall, summer, and spring seasons. The other three items asked about monthly driving range habits during the fall, summer, and spring seasons. These items were compared to commitment to show any relationships.

Table 16.

Desire to Excel Variable Items and Labels

Item #	Label	Question
4	DE1	I try to dominate while playing golf.
5	DE2	In golf, I am constantly trying to improve my skills.
13	DE3	Once I attain a goal in golf, I challenge myself to continue improving.
16	DE4	In golf, I strive for the perfect performance.
24	DE5	I constantly try to learn from my mistakes in golf.
29	DE6	In golf, I strive to be better than my opponents.
33	DE7	I push myself to win every time I compete in golf.
38	DE8	In golf, I strive to improve every aspect of my performance.
41	DE9	I push myself to reach my full potential in golf.
44	DE10	To improve in golf, I push myself to achieve the goals that I have set.
47	DE11	In golf, I challenge myself to be better than everyone else.

Table 17.

Pearson Correlations for Desire to Excel and Commitment

		Desire to Excel
Commitment	Pearson Correlation	.548**
	Sig. (2-tailed)	.002
	N	30

** $p < .01$, two-tailed.

Hypothesis 8: relationship of participation frequency and sport commitment. The items, labels, and questions related to participation frequency are identified in Table 18. Participants were asked to estimate the number of rounds they played per week during the various seasons. They were also asked to estimate how many times they went to the driving range to practice per month during the various seasons. The results for the items *playfall*,

playspring, and *playsummer* were scaled to the following: *>4 rounds per week = 1, 4 rounds per week = 2, 3 rounds per week = 3, 2 rounds per week = 4, and 1 round per week = 5*. The three practice items, *rangefall*, *rangespring*, and *rangesummer* were scaled to the following: *>4 visits per month = 1, 4 visits per month = 2, 3 visits per month = 3, 2 visits per month = 4, and 1 visit per month = 5*. After the items were scaled, chi-square goodness of fit analysis was conducted on each of the items. All six items were found to be of good fit as seen in Table 19.

Table 18.

Participation Frequency Variable Items and Labels

Item #	Label	Question
59.	playfall	Please indicate how many rounds you might play per week for the given season.
	playspring	Please indicate how many rounds you might play per week for the given season.
	playsummer	Please indicate how many rounds you might play per week for the given season.
60.	rangefall	Please indicate how many visits to the driving range you might make per month for the given season.
	rangespring	Please indicate how many visits to the driving range you might make per month for the given season.
	rangesummer	Please indicate how many visits to the driving range you might make per month for the given season.

The items proved to be unreliable ($\alpha = .475$). Pearson correlations were run between *commitment* and the six participation frequency items to see if any relationships exist during any of the individual seasons (Table 20). There were no statistically significant relationships between any of the individual items and *commitment*. The three playing items, *playfall*, *playspring*, and *playsummer* were then combined to make a *playing participation* variable. The three practice items, *rangefall*, *rangespring*, and *rangesummer* were combined to make a *practice participation* variable. Pearson correlations were conducted to see if any relationships exist between the summed variables and *commitment*. Table 21 shows that there is no statistically significant

relationship between *playing participation* and *commitment*. There is also no statistically significant relationship between *practice participation* and *commitment*.

Finally, all participation variables were summed to create the variable, *participation frequency*, to determine if any relationships exist with the summed variable, *commitment*. Table 21 shows that no relationship exists for *participation frequency* and *commitment*. Based on the analysis of all items, there is no relationship between *participation frequency* and *commitment* and the hypothesis must be rejected.

Table 19.

Chi-square Goodness of Fit Results for Participation Frequency Items

	playspring	playsummer	playfall	rangespring	rangesummer	rangefall
Chi-Square	31.333 ^a	7.867 ^b	27.333 ^a	19.000 ^a	21.467 ^b	19.333 ^a
df	4	3	4	4	3	4
Asymp. Sig.	.000	.049	.000	.001	.000	.001

Notes: ^a0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0. ^b0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5.

Table 20.

Pearson Correlations for Participation Frequency Items and Commitment

	playspring	playsummer	playfall	rangespring	rangesummer	rangefall
Commitment Pearson Correlation	-.274	-.360	-.253	-.207	-.205	-.241
Sig. (2-tailed)	.143	.050	.177	.273	.277	.200
N	30	30	30	30	30	30

Hypothesis 9: relationship of purchase intention and sport commitment. Participants of the study were asked to estimate how much they would spend on specific golf related items of the next year. The items driver, fwood, irons, wedges, putter, and balls constituted hard goods. Shoes, gloves, and other were considered soft goods. Table 22 shows the item number the labels

and the questions for the purchase intention items. The items driver, fwood, irons, wedges, putter, and shoes were coded as follows: >200 dollars = 1, 101-200 dollars = 2, 51-100 = 3, 1-50 dollars = 2, 0 dollars = 1. The items balls, gloves, and other were coded as follows: >100 dollars = 1, 51-100 dollars = 2, 26-50 = 3, 1-25 dollars = 2, 0 dollars = 1.

Table 21.

Pearson Correlations for Participation and Commitment

		Playing Participation	Practice Participation	Participation Frequency
Commitment	Pearson Correlation	-.306	-.225	-.279
	Sig. (2-tailed)	.100	.231	.135
	N	30	30	30

Once scaled, the items were then checked for goodness of fit using chi-square analysis.

Table 23 shows the results for the chi-square analysis for the items considered hard goods. Table 24 shows the results for the analysis of the items considered soft goods. All items in the two tables are a good fit for further analysis. Reliability for the items was found to be acceptable ($\alpha = .809$). Pearson correlations were conducted on the individual items to see if any relationships exist between commitment and any particular hard or soft good. The information in Table 25 indicates that no statistically significant relationship exists between any individual hard good items and *commitment*. Pearson correlations were conducted next on soft goods with the results shown in Table 25. There are no statistically significant relationships between any individual soft good items and *commitment*.

Next, all the hard good items were summed using the summing method identical to other variables in this analysis and called *hard goods*. The soft goods were likewise summed into a variable called *soft goods*. Pearson correlations were conducted using the summed variables and

Commitment. Table 26 shows that no statistically significant relationship exists between the summed variables, *hard goods* and *soft goods*, and *commitment*.

Table 22.

Purchase Intention Variable Items and Labels

Item #	Label	Question
61.	driver	Estimate the dollar amount you might spend over the next year for the given golf item below.
	fwood	Estimate the dollar amount you might spend over the next year for the given golf item below.
	irons	Estimate the dollar amount you might spend over the next year for the given golf item below.
	wedges	Estimate the dollar amount you might spend over the next year for the given golf item below.
	putter	Estimate the dollar amount you might spend over the next year for the given golf item below.
	balls	Estimate the dollar amount you might spend over the next year for the given golf item below.
	shoes	Estimate the dollar amount you might spend over the next year for the given golf item below.
	gloves	Estimate the dollar amount you might spend over the next year for the given golf item below.
	other	Estimate the dollar amount you might spend over the next year for the given golf item below.

Similar to participation, the last step for purchase intention was to sum all the items into a variable, *purchase intention*, to test with *commitment* to determine if any relationships exist.

Table 26 includes the correlations for the two variables. There is no statistically significant relationship between *purchase intention* and *commitment*. This means that the hypothesis must be rejected.

Summary

The sport commitment model postulates seven factors that affect the commitment of people to a particular sport. This study attempted to apply the sport commitment model using the sport of golf. Figure 10 shows the model with the relationships based on the current research.

Based on the results, five of the seven variables of the sport commitment model appear to have a strong relationship with commitment. The hypotheses that are rejected are social constraints and other priorities (Table 35). Valuable opportunities (.767, $p < .01$), followed by social support (.744, $p < .01$), show the strongest relationships to commitment. Valuable opportunities was only a two item variable. The variable started with four items, but two items were not reliable based on chi-square analysis. Based on the reliability of each item, items VO3 and VO4 made up the variable. Personal investment (.688, $p < .01$) was the next strongest variable.

Table 23.

Chi-square Goodness of Fit Results for Hard Goods Items

	driver	fwood	irons	wedges	putter	balls
Chi-Square	62.000 ^a	75.333 ^b	67.667 ^b	86.800 ^a	43.333 ^c	40.000 ^d
df	5	4	4	5	3	9
Asymp. Sig.	.000	.000	.000	.000	.000	.000

Notes: ^a0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.0. ^b0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0. ^c0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5. ^d0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 3.0.

Table 24.

Chi-square Goodness of Fit Results for Soft Goods Items

	shoes	gloves	access
Chi-Square	67.600 ^a	29.333 ^b	68.000 ^c
df	7	9	6
Asymp. Sig.	.000	.001	.000

Notes: ^a0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.0. ^b0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.0. ^c0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.5.

Social constraints (.628, $p > .01$) showed a strong relationship, however, none of the individual items were reliable upon chi-square testing. This indicates that the relationship may not be as strong as presented or even plausible due to the lack of reliability of the individual items. Enjoyment (.620, $p < .01$), which was the strongest predictor for Scanlan, Carpenter, et al., (1993), was only the fifth strongest for this study. Desire to excel (.548, $p < .01$) was found to have a relationship to commitment for golfers, although not as strong as the other variables. Other priorities was unreliable for this study. Only two of the five items were reliable for testing upon chi-square analysis. Those two items only scored an alpha of .250. Including the unreliable items could not provide an acceptable alpha. The relationship for other priorities was negative and the only variable to show a negative relationship.

Table 25.

Pearson Correlations for Purchase Intention Items and Commitment

		driver	fwood	irons	wedge	putter	balls	shoes	glove	access
Commitment	Pearson Correlation	-.108	.089	-.232	-.071	-.011	-.232	-.209	-.134	-.215
	Sig. (2-tailed)	.569	.639	.218	.710	.952	.217	.268	.480	.253
	N	30	30	30	30	30	30	30	30	30

Table 26.

Pearson Correlations for Purchase Intentions and Commitment

		Hard Goods	Soft Goods	Purchase Intention
Commitment	Pearson Correlation	-.163	-.246	-.183
	Sig. (2-tailed)	.389	.189	.333
	N	30	30	30

The participation frequency and purchase intention variables were not reliable in this study and showed no statistically significant relationships to commitment. Figure 10 shows the results of the analysis for the relationships for both commitment/purchase intention and

commitment/participation frequency. Neither variable tested with any statistical significance between the target variable and commitment. The hypothesis for both variables needed to be rejected due to their lack of any significance (Table 27).

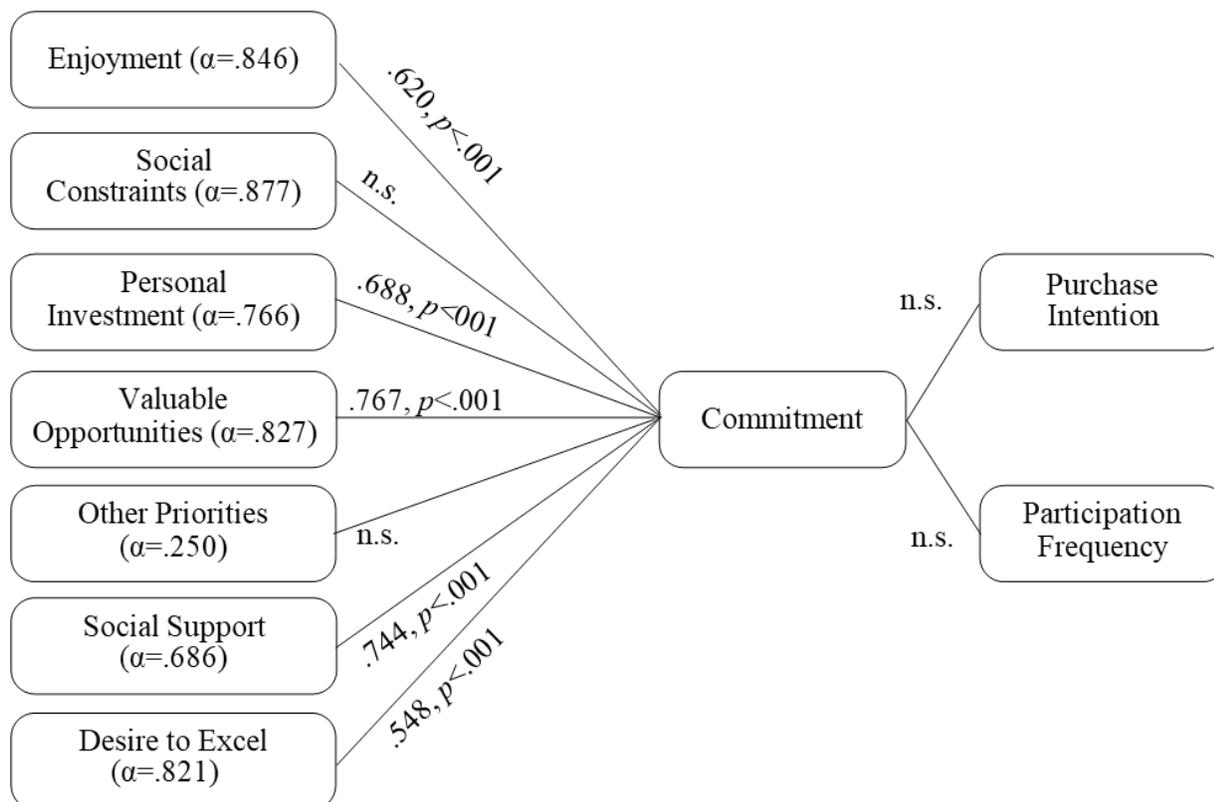


Figure 10. The results of the proposed model with significance.

Commitment was compared to the participation items individually to determine if any relationships existed. There were no significant relationships. Participation was summed into two groups; practice and playing. Those two summed variables also showed no significant relationship to commitment. Finally, all variables were summed with no significant relationship to commitment.

Purchase intention followed a similar pattern. The individual items were measured against commitment to determine if any relationships were present. None of the items had a statistically significant relationship. The items were then split into hard and soft goods and

measured against commitment. Neither variable showed a significant relationship to commitment. All purchase intentions items were summed into one variable, purchase intention, and tested. The results again showed no significant relationship. The one possible takeaway from the analysis is that they both indicated a negative relationship.

Table 27.

Reject/Fail to Reject Hypothesis with Significance

Hypothesis	Reject or Fail to Reject	Significance
H ₁ : Relationship Between Sport Enjoyment and Sport Commitment.	Fail to reject	.620, $p < .001$
H ₂ : Relationship Between Social Constraints and Sport Commitment.	Reject	.628, $p < .001$
H ₃ : Relationship Between Valuable Opportunities and Sport Commitment.	Fail to Reject	.767, $p < .001$
H ₄ : Relationship Between Personal Investments and Sport Commitment.	Fail to Reject	.688, $p < .001$
H ₅ : Relationship Between Other Priorities and Sport Commitment.	Reject	-.228, $p > .10$
H ₆ : Relationship Between Social Support and Sport Commitment.	Fail to Reject	.744, $p < .001$
H ₇ : Relationship Between Desire to Excel and Sport Commitment.	Fail to Reject	.548, $p < .01$
H ₈ : Relationship Between Participation Frequency and Sport Commitment.	Reject	-.279, $p > .10$
H ₉ : Relationship Between Purchase Intention and Sport Commitment.	Reject	-.183, $p > .10$

Discussion and Recommendations

Discussion

The purpose of this study was to provide further evidence of the relationships between the factors and commitment of the sport commitment model using golf as the sport of focus. The study also sought to determine if there were any connections between commitment and two consumer behaviors: purchase intention and participation frequency. The results provide evidence that relationships exist between the factors of the sport commitment model by using correlational analysis based on findings from the original sport commitment model research (Scanlan, Carpenter, et al., 1993). Further research with a larger sample size will be required establish any casual relationships between the predictors and commitment using structural equation modeling.

The sport commitment model. Enjoyment showed the strongest relationship with commitment for Scanlan, Carpenter, et al., (1993). This follows other research in that individuals are going to participate in the activities which they enjoy playing (Carpenter et al., 1993; and Tamminen, Gaudreau, Mcewen, and Crocker, 2016; Weiss, Weiss, and Amorose, 2010). However, contrary to other findings enjoyment was not the leading variable for commitment in this study. It does appear that golfers do play the game for the enjoyment of it, but it is not the main determination for the reason to play. The items “Playing golf is pleasurable” and “Playing golf make me happy” were not reliable items when tested in this study. It could be the wording, or it could be that it is not so much playing the game that is pleasurable, it is the social support, the desire to excel, or being outside that is affecting the pleasure or happiness of golfers.

Prior research into social constraints and commitment have been mixed. Casper et al., (2007), Scanlan, Carpenter, et al., 1993, Weiss, Weiss, and Amorose (2010), and Yin Chu &

Wang (2012) found no significant relationships between social constraints and commitment. Alexandris et al. (2002) and Carpenter et al. (1993) found a marginal relationship, while Santi et al. (2014) found a significant relationship. It was thought that the pressure to continue to participate as an elite athlete created the social constraint/commitment relationship. For casual golfers, this apparently is not the case. All four items in the survey were unreliable and not a good fit for the study. It could be that even though golf has some important social dynamics, it is still an individual sport. People may not feel as though they feel pressured to continue to play making this variable a non-factor to commitment for golf. Based on zero items with a good fit, further analysis cannot be conducted and the hypothesis of a relationship between social constraints and commitment has to be rejected.

Valuable opportunities has consistently shown to be one of the biggest factors towards commitment in past research (Alexandris et al., 2002; Carpenter et al., 1993; Carpenter & Scanlan, 1998; Casper et al., 2007; Scanlan, Carpenter, et al., 1993; Wang & Yin Chu, 2016) and showed the strongest relationship of any other the variables for this study. The variable only included items VO3 and VO4 for analysis. Those two items referred to the opportunities gained by participating in golf. Items VO1 “There are future events in golf that I would really miss experiencing if I no longer played” and VO2 “I would really miss the travel experiences I have if I no longer played golf” referred to the opportunities golfers might miss by discontinuing their participation. This could indicate that golfers play for the opportunities provided through their participation, but are unconcerned about what they might miss by quitting golf.

Similar to valuable opportunities, personal investments has been divided into two components, commitment based on the personal investments required, and commitment based on losing those investments if a golfer quit. Half of the items were reliable and they included items

for both components. Overall, the items found to be reliable and used for analysis were found to be statistically significant. There is definitely a strong positive relationship between personal investment and commitment for golfers. This is in line with other findings (Alexandris et al., 2002; Carpenter et al., 1993, Carpenter & Scanlan, 1998; Casper et al., 2007; Scanlan, Carpenter, et al., 1993; Wang & Yin Chu, 2016; Weiss, Weiss, and Amorose, 2010; Yin Chu & Wang, 2012).

Initial findings for personal investments were significant for time and effort (Carpenter et al., 1993; Scanlan, Carpenter, et al., 1993). The financial items were not reliable and removed from further study, as the youth participants were not necessarily required to pay. Scanlan, Carpenter, et al., (1993) proposed that adult related activities would have a stronger relationship to commitment than youth. This study did not include any items related to the financial spending required to play and the role it might play in commitment to sport. Further research should definitely include items related to spending in the items for personal investment.

Social support is a fairly new concept related to commitment and the findings in this study are in line with other findings (Santi et al., 2014; Wang & Yin Chu, 2012). The relationship between social support and commitment was the strongest after valuable opportunities. Yin Chu and Wang (2012) found that as experience level increases, social support increases, possibly exceeding enjoyment. Although not tested here, this study included a majority of high experienced golfers, which could have influenced the social support variable to be greater than enjoyment, validating the results of Yin Chu and Wang (2012). This could indicate the importance of the social nature of golf and the social dynamics related to playing with groups. The item “I have a mentor who provides guidance in golf” was unreliable, and could stress the equality of social groups for those who are committed. The items that refer to

golfers being taught by people important to them, “People who are important to me teach me the strategies of golf” and “People who are important to me teach me about the mental side of golf”, were also both unreliable. These statements may need to be worded differently to be more effective. Possibly asking the question referring to people important to that sport would be a better question for adult golfers, e.g. “People who are important to me in golf teach me the strategies of golf”.

Desire to excel is a new factor that has had limited testing. This study found that the desire to excel is significantly related to commitment although only moderately. Golf is a very difficult sport to learn to play, and to learn to play well. Even professional golfers must practice every day in order to compete at a high level to maintain their status on the professional tours. Scanlan et al. (2016) found that the mastery achievement sub category was correlated with commitment. The data here suggests that for golfers the social achievement sub-category may be more related to commitment. Of the items maintained for the overall Desire to excel variable, only one the five items was kept out for social achievement. Three of the six items for mastery achievement were dropped to keep a reliable variable. More research into the specific sub-categories could show this to be the case.

Participation frequency and purchase intention. The constructs of participation frequency and purchase intention were added to the sport commitment model to determine if commitment lead to significant behaviors in form of more participation or an increased willingness to purchase more golf related equipment or accessories. In this case, there was no clearly defined relationships between purchase intention and commitment nor participation frequency and commitment.

Although not significant, the correlations were negative. It can be possibly assumed that the purchase intention is greater for less committed golfers due to the large investment required to begin playing the game. Beginner golfers may also have a greater purchase intention as they try to navigate what brands to buy and what to buy, whereas, experienced, more committed golfers may know more precisely what they want and when to get it. More research with scalable items, such as “I plan to buy a new driver this year” instead of estimating how much they might spend on a new driver, might provide better results. Similarly, asking scalable items for participation frequency, such as “I play golf regularly (>3 times per week)”, might provide better results than asking golfers to estimate their playing habits.

Conclusions

Golf as a sport is a good fit for the sport commitment model. Many of the factors that were significantly related in other sports are significantly related to golfers. Valuable opportunities and social support were the two most significant variables. This suggests that golfers put more emphasis on the opportunities they have while playing golf and the social support they receive from the social groups as a part of their participation. This would also indicate to marketers of golf facilities that providing golfers opportunities and focusing on the social aspects could be the key to retaining committed golfers.

The internal items for personal investments were not consistent, but as a whole the variable shows a strong positive relationship to commitment. Enjoyment has a strong positive relationship as well, but does not show the strongest relationship as other research suggests. This then postulates that golfers play the game because of the enjoyment, but it is not the leading factor for their participation.

Desire to excel proved to be a significant factor for golfers. The relationship between desire to excel and commitment was only moderate. Further research into the sub-categories of mastery achievement and social achievement can further define how desire to excel is related to commitment.

There is no evidence to show that commitment is related to purchase intention and participation frequency. There is also no evidence to prove that commitment is not related to purchase intention and participation frequency. None of the items within the variables were reliable, making the overall variables unreliable for testing. More research, with a significantly larger sample, is necessary for the variables to be completely ruled out.

Recommendations

On a practical level, golf course managers can use this information to provide better programs and customer service to their patrons. The variables that were confirmed through testing the hypotheses can be used to incorporate ideas for improving a golfer's experience. The Valuable opportunities variable had the highest correlation to commitment. Increased marketing of the physical benefits of playing golf could show those valuable opportunities. The business world has understood the afternoon business meeting on the links. Golf course managers could use that concept to encourage further participation.

The social support variable showed a significant positive correlation. Encouraging play in groups will help develop the social support variable. Putting smaller groups and/or individuals into foursomes whenever possible could expose golfers to the social support concept this research showed. Hosting leagues and or more tournaments aimed at casual golfers would also provide an atmosphere for social support.

Time is valuable to consumers. Analysis confirms this through the personal investment variable. The correlation to commitment could show that managers need to understand that time is important. Having more marshals on the course ensures pace of play would be maintained. Increased pace of play means less standing and waiting to hit the next shot. This will provide a better experience for golfers.

Enjoyment was hypothesized to be significant similar to previous research. This proved to be true, so golf course managers need to ensure they maintain a fun atmosphere for golfers is important. If golf has developed a perception that it is not fun, golf course managers need to focus on the aspects of the game that makes it fun, and then highlight those features to encourage more participation. Spending time outdoors could be what makes it fun. In addition, enjoyment could possibly be a mediating factor for golf. The social support of fellow golfers could make the sport fun to play. Spending the time with friends on a common goal could make golf fun. The challenge of the game and developing one's skills could be a factor of enjoyment.

Desire to excel is a new variable that was found to be significant in the findings of this research. Golf is a difficult game to learn, so having programs in place to allow golfers to see success in their play is important. This means that golf course managers need to increase the ways that golfers can continue to develop their skills. Providing affordable instruction or practice facilities could facilitate the desire to excel. Providing free weekend instructional clinics could encourage more golfers to improve their skills.

Developing a better process for securing participants for the survey is imperative. The data collection process proved to be more difficult than planned. Survey participants were sought during the 2-week period in August 2017. The process included gaining access to the golf courses to present the project to prospective participants as they were concluding their rounds.

The surveys were available from 7:00 a.m. through 1:00 p.m. at each course. Issues arose when the golfers were coming off the course. Most of them had just finished a 4+ hour round of competitive golf on a 100+ degree August day in the southwestern region of the United States and had no interest in the survey. It became apparent that golfers were more inclined to want to sit and relax with their fellow golfers. This happened at each of the three courses in which there were zero participants gathered.

The next step was to determine an alternative method of gathering participants. Contacting prospective courses and asking the golf course managers to forward an invitation to an online survey created matching exactly to the paper version of the survey was to be used. This process last two weeks and gathered 16 total participants.

The dissertation committee was consulted at this point to ask for recommendations. One of the recommendations was to use the *snowball effect* (Sadler, Lee, Lim, & Fullerton, 2010). This involves finding a number of participants willing to take the survey, asking them to recommend participants, who would also be offered the opportunity to participate. The dissertation chair also recommended contacting potential participants who would likely participate in the survey and forward the invitation to other contacts who would possibly be interested in taking the survey. This process gathered 11 more participants. The researcher then sent out a social media invitation to multiple groups. This invitation collected the remaining responses.

Future research should include obtaining larger sample sizes to confirm the data here. Research should also consider attempting to determine the dynamics of commitment within motivations to buy goods and services. If commitment is a function of motivation and motivation

is a function of purchase intention, it would be important to verify what factors of motivation are more important to golfers.

Limitations

The initial findings in this research shows a model consistent with other research into the sport commitment model. However, the findings need to be confirmed through further testing. Past research has focused on using structural equation modeling to provide evidence that the independent variables (enjoyment, personal investment, social constraints, social support, desire to excel, other priorities, and valuable opportunities) not only have a relationship to the dependent variable (commitment), but the independent variables also influence the dependent variable (Alexandris, et al., 2002; Carpenter & Scanlan, 1998; Casper et al., 2007; Scanlan, Carpenter, et al., 1993; Wang & Yin Chu, 2016; and Yin Chu & Wang, 2012).

Structural equation modeling requires a large sample size for validity and reliability due to missing items and the overall number of factors (Wolf, Harrington, Clark, and Miller, 2013). Due to the number of factors included in the survey and the small sample size acquired for this study, structural equation modeling was not be conducted. Further research needs to be completed with a larger sample size to confirm the data in these findings.

Summary

Valuable opportunities, social support, enjoyment, and personal investments are highly correlated to commitment for golfers. Desire to excel is moderately correlated to commitment. Social constraints was highly correlated, however, the data proved to not be a good fit for the model and unreliable. This means that further research needs to be conducted to verify the results. Other priorities is not correlated to commitment for golfers.

Participation frequency and purchase intention variables were not a good fit for the model. At this point, the researcher cannot confirm nor deny whether or not the variables are correlated to commitment. Further research is necessary, possibly using a different strategy for item questioning.

Further research should be conducted to verify the data here. A larger sample size will allow researchers to run more advanced analysis, e.g. confirmatory factor analysis and structural equation modeling, to determine not only if relationships exist, but if there are casual relationships. Gaining prospective participants proved to be difficult. Developing an alternative method of data collection for a golf sample is required for further research.

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Appendices

Appendix A

Golf Commitment Questionnaire

Item	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
1. Playing golf is fun.	1	2	3	4	5
2. I have spent a lot of time playing golf.	1	2	3	4	5
3. Other things in my life make it difficult to play golf.	1	2	3	4	5
4. I try to dominate while playing golf.	1	2	3	4	5
5. In golf, I am constantly trying to improve my skills.	1	2	3	4	5
6. The mental effort I have put into golf makes it difficult to stop playing.	1	2	3	4	5
7. Staying in golf is more of a necessity than a desire.	1	2	3	4	5
8. There are future events in golf that I would really miss experiencing if I no longer played.	1	2	3	4	5
9. I am being pulled away from golf by other things in my life.	1	2	3	4	5
10. The physical effort I have put into golf makes it difficult to stop playing.	1	2	3	4	5
11. I like playing golf.	1	2	3	4	5
12. I am dedicated to keep playing golf.	1	2	3	4	5
13. Once I attain a goal in golf, I challenge myself to continue improving.	1	2	3	4	5
14. I would really miss the travel experiences I have if I no longer played golf.	1	2	3	4	5
15. People would be upset if I did not keep playing golf because they have invested so much.	1	2	3	4	5
16. In golf, I strive for the perfect performance.	1	2	3	4	5
17. In golf, I have put in a lot of training.	1	2	3	4	5
18. People would be disappointed if I did not keep playing golf.	1	2	3	4	5
19. I have a mentor who provides guidance in golf.	1	2	3	4	5
20. People who are important to me attend the majority of my competitions in golf.	1	2	3	4	5
21. I feel trapped in golf.	1	2	3	4	5
22. People who are important to me are there for me after I perform poorly in golf.	1	2	3	4	5
23. The time I have spent in golf makes it difficult to stop playing.	1	2	3	4	5
24. I constantly try to learn from my mistakes in golf.	1	2	3	4	5
25. When things get tough in golf, people who are important to me provide comfort.	1	2	3	4	5

26. It is almost impossible to play golf because of other things in my life.	1	2	3	4	5
27. People who are important to me teach me the strategies of golf.	1	2	3	4	5
28. I love to play golf.	1	2	3	4	5
29. In golf, I strive to be better than my opponents.	1	2	3	4	5
30. I would really miss the things I learn in golf if I didn't play	1	2	3	4	5
31. I am willing to overcome any obstacle to keep playing golf.	1	2	3	4	5
32. Although I think about quitting golf, I feel I must keep playing.	1	2	3	4	5
33. I push myself to win every time I compete in golf.	1	2	3	4	5
34. I have put a great deal of mental effort into golf.	1	2	3	4	5
35. People who are important to me teach me about the mental side of golf.	1	2	3	4	5
36. There are other things in my life that limit my participation in golf.	1	2	3	4	5
37. Because people who are important to me also play golf, it is assumed that I will keep playing.	1	2	3	4	5
38. In golf, I strive to improve every aspect of my performance.	1	2	3	4	5
39. I feel I am forced to keep playing golf.	1	2	3	4	5
40. Other things in my life compete with playing golf.	1	2	3	4	5
41. I push myself to reach my full potential in golf.	1	2	3	4	5
42. It is difficult to stop playing because of the personal discipline I have maintained in golf.	1	2	3	4	5
43. I feel I have to keep playing golf, even though I don't want to.	1	2	3	4	5
44. To improve in golf, I push myself to achieve the goals that I have set	1	2	3	4	5
45. Playing golf is very pleasurable.	1	2	3	4	5
46. I am determined to keep playing golf.	1	2	3	4	5
47. In golf, I challenge myself to be better than everyone else.	1	2	3	4	5
48. I have put a great deal of physical effort into golf.	1	2	3	4	5
49. I am very attached to golf.	1	2	3	4	5
50. I would really miss the competition in golf if I no longer played.	1	2	3	4	5
51. When I compete in golf, people who are important to me cheer me on.	1	2	3	4	5
52. People who are important to me expect me to keep playing golf.	1	2	3	4	5

53. I will continue to play golf for as long as I can.		1	2	3	4	5
54. People give me trustworthy advice about golf.		1	2	3	4	5
55. Playing golf makes me happy.		1	2	3	4	5
56. It is difficult to stop playing because of the training I have put into golf.		1	2	3	4	5
57. In golf, people provide useful instruction to improve my performance.		1	2	3	4	5
58. I am willing to do almost anything to keep playing golf.		1	2	3	4	5
59. Please indicate how many rounds you might play per week for the given season.						
Fall		1	2	3	4	>4
Spring		1	2	3	4	>4
Summer		1	2	3	4	>4
60. Please indicate how many visits to the driving range you might make per month for the given season.						
Fall		1	2	3	4	>4
Spring		1	2	3	4	>4
Summer		1	2	3	4	>4
61. Estimate the dollar amount you might spend over the next year for the given golf item below.						
Driver						
Fairway wood						
Irons or iron set						
Wedges or wedge set						
Putter						
Golf Balls						
Golf Shoes						
Golf Gloves						
Other accessories (Golf towels, golf bag, club covers, etc.						
What is your gender?		Male	Female			
What is your experience level?		Beginner	Intermediate	Advanced		
What is your age?		18-29	30-39	40-49	50-59	>59
What is your average household income?		\$0-\$50,000	\$50,000-\$100,000	\$100,000-150,000	>\$150,000	
Which of the following best describes your current relationship status?		Married	Widowed	Divorced	In a domestic partnership	Single, never married
Do you have any children?		Yes, all over 18	Yes, one or more under 18	No		
Which race or ethnicity best describes you?	American Indian or Alaskan Native	Asian	Hispanic	Native Hawaiian or Pacific Islander	White or Caucasian	Multiple Ethnicity

Appendix B
Sport Commitment Questionnaire-2 (The Athletic Questionnaire)

Item	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
1. Playing this sport is fun.	1	2	3	4	5
2. I have spent a lot of time in this sport.	1	2	3	4	5
3. Other things in my life make it difficult to play this sport.	1	2	3	4	5
4. I try to dominate in this sport.	1	2	3	4	5
5. In this sport, I am constantly trying to improve my skills.	1	2	3	4	5
6. The mental effort I have put into this sport makes it difficult to stop playing.	1	2	3	4	5
7. Staying in this sport is more of a necessity than a desire.	1	2	3	4	5
8. There are future events in this sport that I would really miss experiencing if I no longer played.	1	2	3	4	5
9. I am being pulled away from this sport by other things in my life.	1	2	3	4	5
10. The physical effort I have put into this sport makes it difficult to stop playing.	1	2	3	4	5
11. I like playing this sport.	1	2	3	4	5
12. I am dedicated to keep playing this sport.	1	2	3	4	5
13. Once I attain a goal in this sport, I challenge myself to continue improving.	1	2	3	4	5
14. I would really miss the travel experiences I have if I no longer played this sport.	1	2	3	4	5
15. People would be upset if I did not keep playing this sport because they have invested so much.	1	2	3	4	5
16. In this sport, I strive for the perfect performance.	1	2	3	4	5
17. In this sport, I have put in a lot of training.	1	2	3	4	5
18. People would be disappointed if I did not keep playing this sport.	1	2	3	4	5
19. I have a mentor who provides guidance in this sport.	1	2	3	4	5
20. People who are important to me attend the majority of my competitions in this sport.	1	2	3	4	5
21. I feel trapped in this sport.	1	2	3	4	5
22. People who are important to me are there for me after I perform poorly in this sport.	1	2	3	4	5
23. The time I have spent in this sport makes it difficult to stop playing.	1	2	3	4	5
24. I constantly try to learn from my mistakes in this sport.	1	2	3	4	5
25. When things get tough in this sport, people who are important to me provide comfort.	1	2	3	4	5
26. It is almost impossible to play this sport because of other things in my life.	1	2	3	4	5
27. People who are important to me teach me the strategies of this sport.	1	2	3	4	5
28. I love to play this sport.	1	2	3	4	5
29. In this sport, I strive to be better than my opponents.	1	2	3	4	5
30. I would really miss the things I learn in this sport if I didn't play	1	2	3	4	5
31. I am willing to overcome any obstacle to keep playing this sport	1	2	3	4	5

32. Although I think about quitting this sport, I feel I must keep playing.	1	2	3	4	5
33. I push myself to win every time I compete in this sport	1	2	3	4	5
34. I have put a great deal of mental effort into this sport.	1	2	3	4	5
35. People who are important to me teach me about the mental side of this sport.	1	2	3	4	5
36. There are other things in my life that limit my participation in this sport.	1	2	3	4	5
37. Because people who are important to me also play this sport, it is assumed that I will keep playing.	1	2	3	4	5
38. In this sport, I strive to improve every aspect of my performance.	1	2	3	4	5
39. I feel I am forced to keep playing this sport.	1	2	3	4	5
40. Other things in my life compete with playing this sport.	1	2	3	4	5
41. I push myself to reach my full potential in this sport.	1	2	3	4	5
42. It is difficult to stop playing because of the personal discipline I have maintained in this sport.	1	2	3	4	5
43. I feel I have to keep playing this sport, even though I don't want to.	1	2	3	4	5
44. To improve in this sport, I push myself to achieve the goals that I have set	1	2	3	4	5
45. Playing this sport is very pleasurable.	1	2	3	4	5
46. I am determined to keep playing this sport	1	2	3	4	5
47. In this sport, I challenge myself to be better than everyone else.	1	2	3	4	5
48. I have put a great deal of physical effort into this sport.	1	2	3	4	5
49. I am very attached to this sport.	1	2	3	4	5
50. I would really miss the competition in this sport if I no longer played.	1	2	3	4	5
51. When I compete in this sport, people who are important to me cheer me on.	1	2	3	4	5
52. People who are important to me expect me to keep playing this sport.	1	2	3	4	5
53. I will continue to play this sport for as long as I can.	1	2	3	4	5
54. People give me trustworthy advice about this sport.	1	2	3	4	5
55. Playing this sport makes me happy.	1	2	3	4	5
56. It is difficult to stop playing because of the training I have put into this sport.	1	2	3	4	5
57. In this sport, people provide useful instruction to improve my performance.	1	2	3	4	5
58. I am willing to do almost anything to keep playing this sport.	1	2	3	4	5

Appendix C

Permission to use model

Begin forwarded message:

From: Tara Scanlan <>
Subject: Re: Permission to use model
Date: November 11, 2016 at 9:02:49 AM PST
To: "Rubel, Kevin D." <>

Dear Kevin,

You have my permission to use our new scale but you actually do not need it as the work is published. I have enclosed the measurement article that contains the scale (2016). Also, you will see the PEAK series which presents interview data that significantly enhanced the scale development and that you potentially could use for interpretation purposes. If you like, see the personal journey article that discusses mixed methods.

Best,

Tara K. Scanlan, Ph.D.
Research Professor of Social and Sport Psychology
Director of the International Center for Talent Development
Department of Psychology
3560 Franz Hall
University of California, Los Angeles 90095-1563

On Nov 10, 2016, at 7:07 PM, Rubel, Kevin D. < > wrote:

Dr. Scanlan,

My name is Kevin Rubel. I am a doctoral candidate at the University of the Incarnate Word in San Antonio, TX. I am conducting research for my dissertation related to your work with the Sport Commitment Model and it's potential effects on specific consumer behaviors in the golf industry.

I was hoping to get permission to use your model within my research project. I also would like permission to use and a copy of the Athlete Opinion Survey you created as a baseline for creating my survey instrument related to my particular research project.

I appreciate your time and permissions to use your research to complete my dissertation.

Thank you,
Kevin D Rubel
Doctoral Candidate
University of the Incarnate Word

This email and any files transmitted with it may be confidential or contain privileged information and are intended solely for the use of the individual or entity to which they are addressed. If you are not the intended recipient, please be advised that you have received this email in error and that any use, dissemination, forwarding, printing, or copying of this email and any attachments is strictly prohibited. If you have received this email in error, please immediately delete the email and any attachments from your system and notify the sender. Any other use of this e-mail is prohibited. Thank you for your compliance.

Appendix D
Permission to use model

Jonathan Casper <jmcasper@ncsu.edu>

Fri 11/11/2016 6:54 AM

To: Rubel, Kevin D. <rubel@uiwtx.edu>;

Hi Kevin. Yes no problem. It was a modified model from Scanlan et al.

Sent from my iPhone

On Nov 10, 2016, at 10:14 PM, Rubel, Kevin D. > wrote:

Dr. Casper,

My name is Kevin Rubel. I am a doctoral candidate at the University of the Incarnate Word in San Antonio, TX. I am conducting research for my dissertation related to your work with the Sport Commitment Model and it's potential effects on specific consumer behaviors in the golf industry. I have reviewed your work on the expanded model you created related to consumer behaviors in tennis players and the SCM. I was hoping to get permission to use your model within my research project.

I appreciate your time and permissions to use your research to complete my dissertation.

Thank you,

Kevin D Rubel

Doctoral Candidate

University of the Incarnate Word

This email and any files transmitted with it may be confidential or contain privileged information and are intended solely for the use of the individual or entity to which they are addressed. If you are not the intended recipient, please be advised that you have received this email in error and that any use, dissemination, forwarding, printing, or copying of this email and any attachments is strictly prohibited. If you have received this email in error, please immediately delete the email and any attachments from your system and notify the sender. Any other use of this e-mail is prohibited. Thank you for your compliance.

Appendix E
Informed Consent Form

THE SPORT COMMITMENT MODEL'S EFFECT ON THE PARTICIPATION
FREQUENCY AND PURCHASE BEHAVIOR OF GOLFERS

Informed Consent to Participate in a Research Study
University of the Incarnate Word

You are being asked to participate in a research study conducted by doctoral student Kevin Rubel, under the supervision of Annette E. Craven, Ph.D. The purpose of the study is to (a) determine the extent of any relationships between the predictors of the SCM to sport commitment in the context of golf and to (b) determine the extent of any relationship between sport commitment to participation frequency and purchase behaviors. This study will also seek to determine if there are any relationships between demographic variables and commitment.

If you agree to take part in this study, you will participate in a survey that will take approximately 10-15 minutes to complete. If you feel uneasy or discomfort at any time about the study, do not participate in this study. By participating in this study, you may be instrumental in contributing not only to the body of knowledge about commitment to sports and the consumer behavior of golfers but also to golf managers and facilitators that could be instrumental in the development of programs designed to provide better customer service.

Participation is voluntary and you have the right to refuse participation without penalty of any kind. Your identity will be protected and any publication that follows this study will only display group data. You have the right to stop participating at any time. You have the right to be informed of the findings of this study after it has been concluded.

If you have questions, please ask them at any time. If you have additional questions later or you wish to report a problem that may be related to this study, contact:

Kevin D. Rubel, MS
(210)787-8972
rubel@uiwtx.edu

Annette E. Craven, Ph.D.
(210)283-5031
craven@uiwtx.edu

To contact the University of the Incarnate Word committee that reviews and approves research with human subjects, the Institutional Review Board (IRB), and ask any questions about your rights as a research participant, call the University of the Incarnate Word IRB at the Office of Research Development (210)805-3036.

If you completely understand the expectations and rights of participants in this study, all of your questions have been answered to your satisfaction, and you are willing to participate in this study please sign and date this consent form in the space provided. To sign this consent form, you must be 18-years-old or older as of the date of the signature. A copy of the informed consent is provided for your records.

Printed Name

Participant's Signature

Date