Impact of Sales with Advanced Analytical Technology on

Golf Consumer Purchasing Behavior: Traditional vs. Technological Procedures

by

JOHN BREEDLOVE

(Under the Direction of James J. Zhang)

ABSTRACT

In recent decades, the golf equipment sales industry has experienced tremendous growth across the United States. Many industry professionals believe that a substantial portion of this growth is a result of the development and diffusion of launch monitor technologies into the marketplace that has allowed for the application of analytical science into golf club fitting and retail sales. The use of this technology has made it possible for golf equipment retailers to offer high performance analyses that are completely personalized for each individual based on a kinematic assessment. Adopting a quasi-experimental research design in an applied business setting, this study was designed to examine the impacts of this advanced analytical technology on golf consumer purchasing behaviors. Research findings revealed that the inclusion of launch monitor technology in the sales process accounted for significant increases in consumer learning, shopping experience, and expenditure amount. The findings offer practical implications for golf merchandise entities that are considering the use of this technology in daily sales operations.

INDEX WORDS: Launch monitor, Handicap index, Traditional sales, Technological sales.

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CHAPTER 1

INTRODUCTION

The world in which we live is changing due to rapid advances in and increased reliance on technology. This phenomenon is particularly relevant when considering competitive market environments. Organizations must either accept the challenges of keeping up with the endless improvements in technology or deal with the disruption that occurs when the competition discovers and implements new technologies first (Cascio & Montealegre, 2016). This situation becomes especially clear when one views the hyper-competitive golf equipment sales industry (MarketLine Research, 2016; National Golf Foundation [NGF], 2016; Poulin et al., 2006) through the adapted ecological perspective from the animal kingdom. Ecological theory suggests that organizations, like animals, are competing for scarce resources within their environment and today's environment is changing rapidly (Abbott et al., 2016; Bertoni et al., 2019; Hannan & Freeman, 1977; Hannah & Freeman, 1989; Lambkin & Day, 1989; Singh, 1990).

Many organizations in the golf equipment sales industry, being driven by immense competition, have had to adapt their sales approach in order to maintain their competitive positions in the market. Sales techniques have evolved from traditional sales methods to a recently developed technological approach that uses launch monitor technology as the focal point for nearly every equipment sales transaction (Club Champion, 2020; Cool Clubs, 2020; True Spec, 2020; TXG, 2020). Their intentions are to provide ordinary golfers, both men and women, an opportunity to experience the same level of custom fitting and personalization that was previously reserved for the game's elite players. Today, average golfers who wish to purchase a

new set of clubs can book a custom fitting session at specialty club fitting studios that are equipped with technology features that are superior to the computers that sent the Apollo 11 to the moon. Naturally, the introduction of these specialty golf retailers has advanced, complicated, and disrupted the equipment sales marketplace as it previously existed (MarketLine Research, 2016; NGF, 2016). This scenario presents a challenging complexity to the golf equipment sales industry and yet also an opportunity to study the acceptance of technology by golfers and retailers as conditions facilitate their use from a wider audience.

In recent decades, the golf equipment sales industry has experienced tremendous growth across the United States. Golf equipment sales grew from approximately $1.2 billion in 1990 to $2.4 billion in 2002 to over $6 billion in 2016 (MarketLine Research, 2016; NGF, 2016; Poulin et al., 2006). This economic growth has occurred while the number of golfers has only increased by approximately 5% during the same time period. The growth in this industry from 1990 into the early 2000's can be attributed to major technological advancements in the design and manufacturing of high-performance golf equipment, such as titanium drivers and urethane golf balls (Hocknell, 2002; Poulin et al., 2006). Since then, the development and diffusion of launch monitor technologies into the marketplace has allowed for the application of measurement science into golf club fitting and retail sales. Essentially, the implementation and use of launch monitor technology has made it possible for golf equipment retailers to offer high performance equipment that is completely personalized for each individual player based on the evaluation of analytical data (Leach et al., 2017; NGF, 2016; Poulin et al., 2006).

Partially due to technological advancement, the golf market is expanding. Historically being quite exclusive, golf is making a conscious effort to become more inclusive and attract a wider audience. Research evidence indicates that the promotional efforts are paying off,

particularly with growing popularity of technology based "off course" golf organizations like Top Golf and Drive Shack (NGF, 2020; Stanley, 2019). These facilities have provided a fun, non-intimidating new way to attract more novice golfers to the game (Stanley, 2019). According to the NGF (2020), golf's overall reach in 2019 was an estimated 108 million people who either played golf, watched golf, or read about the sport. That is about one out of every three Americans over the age of six. About 34 million people played golf last year and 2.5 million people played for the first time. This growth continues an impressive industrial trend of six straight years with at least 2 million beginner golfers.

One of the most exciting areas of growth is with women golfers. In 2019, there were approximately 5.6 million women who played golf on a golf course, representing about 23% of the golfing population. In 2019, women made up an uncommonly high percentage of beginners (31%), juniors (36%), and off-course golf participants (46%) (NGF, 2020). Although few research studies have examined the reasons that source, channel, and sustain women golf consumers, the unusually high participation rates at off-course facilities likely indicates that women enjoy the relaxed social environment and the innovative use of launch monitor technology. Certainly, more scientific inquiries are needed in this area as women make up a growing, interested, and influential consumer group that is likely of unique needs and expectations (Professional Golfers Association of America [PGA], 2013).

Based on the increased use of launch monitors in golf shops, one might assume that the use of this technology would positively affect sales and help maximize a firm's competitive position in the marketplace. However, this may just be an assumption, intuition, or even fallacy. To date, no studies were uncovered to support such an assumption. The lack of empirical evidence presents a perceived problem for many golf shops. The initial purchase, extended use of

a launch monitor in retail sales, budget for maintenance represent significant costs for the organization. Furthermore, the need for trained salespeople equipped with advanced knowledge in golf, human kinetics, and data analytics will require long term expenditures by the firm. Naturally, golf industry professionals would want the answers to such questions as 'Is launch monitor technology effective in promoting golf equipment sales?' 'Is it a worthwhile investment?' ' and 'Will this technology create value for my customers?' To date, no academic studies have been found that help answer these important questions.

Although many industry practitioners hope or even expect that this technology would help them increase sales, addressing their concerns can provide empirical evidence regarding whether or not this technology indeed facilitates sales and improves customer services. Without a doubt, assessing the effectiveness of adopting contemporary technology on golf equipment sales would also help add to theoretical understanding on the impact of technology on sport consumer behavior. Deeper understanding of the impacts of this technology would be particularly helpful given the high cost associated with purchasing a launch monitor. A golf shop seeking to purchase a commercial grade launch monitor such as a Trackman or FlightScope should expect to pay $18,000-$25,000 for the unit alone. Then, there are additional software subscription and maintenance costs, ranging approximately from $1,000 to $3,000 annually (FlightScope, 2020; Trackman, 2020). The shop would also need to provide a tablet, laptop, or desktop and monitor (estimated $500-$2,500) that must be synced with the launch monitor for daily use.

Certainly, the shop cannot utilize the technology without a safe space for golfers to hit balls and test equipment. At a minimum, this requires the purchase of an artificial turf matt ($489) and an impact projector screen ($3,499) designed specifically to be struck repeatedly by golf balls (Rain or Shine Golf, 2020). There may also be construction or building renovations

needed to meet the specific lighting and space requirements that are necessary for accurate measurement by the launch monitors. As one can tell, the costs associated with building only one commercial grade, indoor golf hitting bay can quickly climb to well upwards of $30,000 dollars, and some golf shops (i.e., PGA Tour Superstore, Edwin Watts Golf, etc.) have more than one unit at each retail location in order to adequately serve their customers.

Furthermore, effective application of the technology in daily sales operations requires the shop to employ one or more salespersons with the needed expertise. Golf Digest (2009) aptly summed it up by saying "Launch monitors are valuable tools, but if a fitter lacks proper knowledge of the golf swing, it'll be as valuable as having a chimp look at your X-rays". Launch monitors are sophisticated technology; besides extensive golf knowledge, analytical technology requires technical training to effectively interpret the data generated by the monitor. For example, the current Trackman uses doppler radar to track and display each shot's 3D trajectory, along with 9 club movement parameters and 17 ball flight parameters in real time (Trackman, 2020a). These data must be quickly interpreted by the operator to determine whether it was a good shot or a bad shot and what can be adjusted to the player's technique or equipment in order to improve performance.

It is also critical that the salesperson possess the communication skills required to communicate and convey the collected information to the customer in a manner that is understandable and applicable. It is possible that an employee without proper training on interpreting launch monitor data or without a thorough understanding of the golf swing could have a negative impact on equipment sales. One uneducated employee giving inaccurate data readings or improper golf advice could reflect poorly on the organization, causing a customer to develop a poor brand image of the retailer. Simply put, if a golf retailer is going to commit to

using launch monitor technology in its sales process, the store must hire and/or train knowledgeable employees and knowledgeable employees usually cost more.

Consumer data reveal that, in general, golfers make up a sophisticated consumer segment; Golfers are well educated and affluent (NGF, 2020). The National Golf Foundation (2016) reports that 58.2% of golfers who play regularly (core golfers) have a college degree and 21.7% have at least some college credits, meaning that about 80% of people who play golf regularly have at least some college education. According to the Benchcraft Company, the average household income for golfers is $100,980 which is more than 200% greater than the average household income for non-golfers. The average net worth of a golfer is $768,400 with 8 out of 10 golfers having a net worth of over $100,000 (Benchcraft, 2020). A majority of the CEO's at Fortune 500 businesses play golf (i.e., 90%), 25% of golfers own their own business, and 33% are employed in top level management positions (Benchcraft, 2020). The use of advanced, analytical technology operated by a salesperson with subject matter expertise may be exactly the tool that is necessary to earn the trust, respect, and loyalty of these sophisticated consumers.

Essentially, the use of launch monitors can potentially add an objective element to the sales interaction through a validation of the recommendations of the salesperson with analytical data. This built-in, cross-validation mechanism (i.e., human with machine) may increase the confidence that customers have in the process (Chai & Lin, 2010) and elevate the perceived credibility for the club fitter (Liu & Leach, 2001). Someone who truly understands the launch monitor data and golf swing mechanics is able to talk technical terms to the comprehension level of these sophisticated consumers and even beyond them in a golf context. This process may result in cognitive stimulation, increased satisfaction, added value for the consumer, and

increased purchase desire. For the organization, this process may result in increased sales and consumer loyalty towards the brand.

Statement of the Problem

In recent years there have been revolutionary changes in the retail environment. A rise in online sales and increasing consumer expectations have required brick and mortar retail stores to improve their sales techniques in order to differentiate themselves from their competition. Sales techniques have gone through transformations from traditional sales that utilize personal selling techniques to stimulate desire and persuade customers, to sales that leverage advanced analytical technology to create a personalized experience and product.

Rapid advances in and increased reliance on technology are continually changing the competitive marketplace. Organizations must embrace modern technologies or risk the disruptions that occur when the competing entities find and implement them first (Cascio & Montealegre, 2016). In the golf equipment retail sales industry, many specialty golf shops have increased their usage of launch monitor technology in custom club fitting. The use of this technology appears to be able to help increase club sales in some situations; yet there has been a lack of empirical evidence to support this adoption with strong confidence, particularly when considering the high cost associated with fully adopting this technology. There are many pending, unanswered questions. Are sales with advanced technology more advantageous than traditional sales? Does it really work? Is it worth the cost and burden to adopt the advanced technology in golf equipment sales?

Moreover, studies have shown that gender influences buyer's judgements and evaluations as well as the communication interactions between the salesperson and the buyer (McQuinston & Morris, 2009; Meyers-Levy & Sternthal, 1991; Wood et al., 2014). Wood et al. (2014) used three

different sales approaches (product-based, solution-based, and provocation based) to measure their effects on men and women consumers respectively. Their findings demonstrated that based on gender, sales activities can differentially impact the buyer's perceptions of salesperson trustworthiness as well as any perceived conflict with the salesperson. Specifically, their study showed that for women, product-based sales approaches increased their perceptions of conflict, while solution-based sales approaches increased their evaluations of salesperson trustworthiness (Wood et al., 2014). For these reasons, it would be prudent to include men and women as separate consumer groups who may be disparately affected by these sales approaches.

This study was designed to examine the effect of sales with advanced analytical technology on golf consumer purchasing behavior by making comparisons to traditional and technological sales procedures. In an effort to closely represent the actual settings of golf equipment retailers, a quasi-experiment study was carried out, in which a number of consumer background variables could not be controlled via sample randomization; instead, these potential compounding variables including golfer age, golf experience, golf ability (skill level), salesperson attributes, familiarity with golf equipment, and familiarity with launch monitor technology were controlled via statistical analyses.

Research Hypotheses

In this study, the following hypotheses were tested:

1. There would be significant differences in the mean vector scores of golf equipment buyer's behavior measures between the traditional and technological sales groups after partialing out the identified covariates.

2. There would be significant differences in the mean vector scores of golf equipment buyer's behavior measures between male and female consumers after partialing out the identified covariates.
3. There would be significant interaction between sales technique and gender in terms of the mean vector scores of golf equipment buyer's behavior measures after controlling for the identified covariates.

Definition of Terms

In this study, the following terms were specifically used and thus operationally defined:

1. **Launch monitor:** A doppler radar or photometric tracking device that measures such golf ball and club head motion parameters as ball speed, spin rate, distance, curvature, descent angle, etc.
2. **Handicap Index:** A numeric representation of the golfers playing ability (skill level).
3. **Traditional Sales:** In this sales approach, retailers rely on personal selling and retail atmospherics to drive sales. Salespeople may offer a demonstration or even allow the shopper to hit some balls with a demo club.
4. **Technological Sales:** This sales approach uses launch monitor technology as the focal point of all sales interactions.

Research Delimitations

In this study, a number of delimitations are recognized as a part of the design of this study, which are listed as follows:

1. This study was focused on comparing sales using advanced technology with traditional sales methods, specifically the use of launch monitor technology in golf equipment retail sales.

2. This study was designed to examine consumer purchasing behavior of the core market segment of golfers (i.e., frequent and not occasional golf players).
3. In an effort to focus on regular golf participants and not beginner or novice players, this study would only include golfers with a handicap of 30 or below.
4. This study would be conducted in a real-world business setting. In an effort not to disrupt normal business operations at the retail establishments and due to limited resources for data collection, there would be no random selection and no random assignment.
5. Data collections were conducted on similar days and similar times of day at each of the retail locations.
6. A manipulation verification was included to confirm that the customer experience matched that of the desired group. The manipulation check question was required to be answered before participants continue on to the second half of the questionnaire.
7. Only the following consumer background variables were statistically controlled in this study: golfer age, golf experience, golf ability (skill level), perceived salesperson attributes, familiarity with golf equipment, and familiarity with launch monitor technology.

Research Limitations

1. This study was only focused on how current and repeating golf consumers responded to various sales methods in retail stores, therefore no effort was made to attract new customers.
2. This study assumed that most golf retail facilities carried equipment from golf's major equipment manufacturers (i.e., Titleist, Callaway, TaylorMade, etc.). This

study was not concerned with the exact brands and/or product lines carried by the store nor the retail prices that the store charged for their products.

3. Golf, being an outdoor sport, may experience patterns in retail equipment sales due to geographic location and season. This study was conducted in the Southeastern United States during the month of December; therefore, the results might not be generalizable to other geographical regions during certain times of year.

Significance of Study

This study was designed to attain deeper understanding of the effects of various sales techniques on golf equipment consumer's purchase intentions. An important theoretical contribution of the present study lies in determining whether or not the identified sales approaches impact the "learn-feel-do" of consumer behavior. The study would aid in determining the relative influence of launch monitor technology on consumers actual purchases and behavioral intentions for men and women respectively. Practical implications of the present study may aid golf equipment retailers in deciding whether or not they should adopt launch monitor technology in their organization. The results may provide valuable information on how golf equipment retailers can effectively use launch monitor technology to influence consumer attitude and purchase intention. Consumers may also receive benefits from improved sales practices and expanded service opportunities. The results from the study can contribute to the overall literature regarding sports consumer behavior.

CHAPTER 2

REVIEW OF LITERATURE

The focus of this study was to examine the impact of various sales approaches on consumer behavior, specifically as it pertained to the use of technology in the sales process. In order to effectively evaluate both the sales process and consumer behavior, a thorough review of relevant literature was conducted. The following literature sections provides perspective for the study as well as the theoretical underpinnings for each of the constructs.

Retail Sales Methods

A recent study conducted by Childs et al. (2020) used the term "retail apocalypse" to address revolutionary changes that have been occurring in the retail industry. The study points out that many of the "traditional" brick and mortar retail stores have been losing their competitive position in the marketplace to "non-traditional" retail shops (Childs et al., 2020). In 2017 alone, over 7,000 US traditional retail stores closed, including major retailers like Sears, JC Penney, Borders, and Payless Shoes (Isidore, 2017). Recently, non-traditional retailers have been encroaching on their market shares through the innovative use of technology and experiential sales methods. These retailers use interactive and interpersonal sales methods to improve the experience for the consumer and differentiate themselves from their competition (Wertz, 2018; Varshneya et al., 2017). Part of this dramatic shift in consumer shopping and purchasing behavior can be attributed to a rise in online sales. Competition from online sales limit the available market shares of "brick and mortar" retail shops. These marketplace changes have empowered today's consumers and led to increased expectations. Even with the existence of

online retail giants like Amazon, evidence suggests that consumers still have a strong desire to shop in-person, but they often expect more than just merchandise from the retailers (Childs et al., 2020). In order to meet rising customer expectations, retailers are using innovative methods that offer superior customer experiences and increased engagement (Albinsson & Yasanthi-Perera, 2010; Childs et al., 2020; Grewal et al., 2009; Pantano & Gandini, 2018). Childs et al. (2020) used the groups "traditional" retailers and "non-traditional" retailers to differentiate between organizations that used a company-centric strategy and organizations that used a consumer-centric strategy. This study will apply this same concept based on consumer behavior and marketplace conditions. These categories will be represented in this paper by the following categories: (1) traditional and (2) technological.

Traditional – This category is intended to reflect the retail sales approach of department stores and sporting goods stores. In traditional sales, many retailers use advertising and promotional methods to attract customers to the store and then rely on the consumers to make autonomous purchase decisions once inside. Common practice is for the retailer to select merchandise based on identified market trends and display a large volume of inventory throughout the store. Products are displayed throughout the store with pricing and additional promotional content. Over time, traditional sales have been evolving. This category may also include the use of personal selling techniques in the retail environment. In this sales approach a salesperson attempts to persuade the customer that they should purchase a supplier's product. Salespeople have the difficult job of balancing the need to make a sale and securing customer satisfaction. Salespeople often try to develop relationships with customers by listening carefully to their needs and trying to identify products or services that satisfy them (Childs et al., 2020; Roggeveen et al., 2020; Saxe & Weitz, 1982).

Technological - This category is intended to represent innovative sales approaches that non-traditional retailers have developed in response to modern technological advances and changing marketplace conditions. This sales approach utilizes advanced analytical technology to create cognitive stimulation, encourage consumer engagement and create interactive experiences to increase product sales (Childs et al., 2020; Grewal et al., 2009; Morgan, 2017).

Technology Application

Modern technological advances are allowing people to do things better and faster. These technologies are transforming the way that organizations conduct business. Technology is changing when, where, and how we work, while also transforming how people interact and communicate. Business leaders must either accept the challenges of keeping up with the endless improvements in technology that can transform their businesses, or deal with the disruption that occurs when the competition discovers and implements them first (Cascio & Montealegre, 2016; World Trade Report [WTR], 2018).

Some examples of technologies that have had a profound effect on the way work is done are the following: cloud and mobile computing, big data and machine learning, sensors and intelligent manufacturing, advanced robotics and drones, and clean energy technologies. These changes have revolutionized industry and created jobs that could not possibly have existed before the advent of modern technologies. Likely the most impactful of modern technologies have been those associated with social interaction. The modern world is one that is hyper-connected. Workers are using tablets, phones, and smart watches to link to the internet and use the unlimited supply of data and information for problem solving and productivity. As a result, there is an unprecedented link between physical and virtual workspaces. This connection improves the production rates of modern workers, but also makes them increasingly reliant upon

technology (Cascio & Montealegre, 2016; International Monetary Fund [IMF], 2018; Lamba & Malhatra, 2009; WTR, 2018).

The combination of the physical and electronic spaces using technology is known as "ubiquitous computing" which may represent the next great wave in technological advances. Ubiquitous computing is made possible because of the decreased cost and improved performance of computing devices as they have evolved over time. Devices such as personal computers, laptops, tablets, GPS units, smart phones, etc. are everywhere, and are performing at increased speeds with improved interfaces. The proliferation of these devices into society has allowed information to spread almost instantaneously, providing workers the ability to make performance decisions based on up to the minute information. This possibility provides increasing opportunities for the combination of two separate spaces: the physical space and the electronic space (Cascio & Montealegre, 2016; Friedewald & Raabe, 2011; Krumm, 2018).

An example of ubiquitous computing in practice could be that of a package delivery service such as UPS of FedEx. The delivery driver may use a device with GPS information about traffic conditions in order to determine optimal delivery routes. The company may at the same time be using another device to track the vehicle location and/or engine performance. The driver then scans each package as it is delivered which updates the package tracking information in the database. The customer that is awaiting the delivery of the package may then receive an email alert that the package has been delivered. This example demonstrates how new technologies are linking together people, computers, and objects while blurring the boundaries between the physical and electronic spaces (Cascio & Montealegre, 2016; Friedewalde & Raabe, 2011; Krumm, 2018).

In the golf industry, the modern club fitting process provides an excellent example of how ubiquitous computing can be applied to the sales process to create additional value for the consumer. Golfers can undergo a custom fitting outdoors on a driving range or in a retail golf shop in what is commonly known as a fitting bay. The fitting bay can be equipped with variety of technological applications but is centered around a launch monitor that tracks golf ball movement as it leaves impact (e.g., Trackman, FlightScope). The process is unique because in addition to feeling the quality of the strike and watching the flight of the ball, golfers can receive instantaneous feedback about each shot in the form of computer-generated data (Brumer, 2004; Golf Digest, 2020a; GOLFTECH Digital, 2018; Kunlehane, 2019). When being fit indoors, a simulated flight path of the golf ball is displayed on a projector screen based on the information collected from impact and the tracking of the ball as it leaves the impact area. The collected data is converted into numerical form and displayed on either the projector screen, a monitor, or both. This information is then analyzed by the golfer, instructor, and/or club fitter. This technology provides a deeper understanding of the physics of impact then was previously possible. The golfer, instructor, and/or fitter can quickly evaluate the information provided on the monitor and make suggestions changing golfer technique or equipment that would better suit the individual.

The introduction of modern technologies and their widespread use can surely have a disruptive effect on entire industries. Evidence of this goes back to the industrial revolution. For example, the advent of the automobile and its diffusion into society left many blacksmiths out of work. Naturally the rise of the automobile industry led to the creation of thousands of more skilled jobs, as automobiles became increasingly popular. As organizations adapt and embrace modern technologies so too will workers be required to adapt as technology continually changes the education and skills required for job performance. In all likelihood, this cycle of current jobs

being eliminated by technologies such as computers and robots, followed by new jobs being created through technological advances and new opportunities for entrepreneurship will continue into the future (Cascio & Montealegre, 2016; WTR, 2018).

Cascio and Montealegre (2016) used self-determination theory to help explain the widespread acceptance of technology in society. Self-determination theory states that personal-motivation and well-being are enhanced when the innate needs of autonomy, competence, and relatedness are satisfied, while personal-motivation and well-being are decreased when the needs of autonomy, competence, and relatedness are not satisfied (Cascio & Montealegre, 2016; Deci & Ryan, 2017). They found this theory to be particularly useful when analyzing the willingness of organizations and individuals to implement the use of modern technologies.

In practice, the following are four important considerations which will determine the likelihood of the implementation of a new technology: Usability, self-efficacy, economic feasibility, and social acceptance (Cascio & Montealegre, 2016; Coovert & Thompson, 2014). If the product is easy to use, provides a good interface, and is generally effective (free of errors) this satisfies the concerns regarding usability. Self-efficacy refers to an individual's confidence in their ability to use or learn to use a new technology (Coovert & Thompson, 2014). If a person feels competent in their ability to use a new technology, they will feel considerably less anxiety and be much more likely to implement it. The primary economic consideration is whether or not the new technology provides a competitive advantage to the individual or organization. Social considerations would include the acceptance among peers who may already be using a particular technology. If friends are already using a technology than that person will be much more likely to adopt a new technology due to peer pressure (Cascio & Montealegre, 2016).

Technology Acceptance Model

The technology acceptance model was originally proposed by Davis (1986) and then expanded upon by Davis et al (1989). The model was created to help researchers understand user acceptance of technological systems. The model is an adaptation of the Theory of Reasoned Action (TRA) tailored specifically for studying user acceptance of information systems (Davis et al., 1989; Jardali et al., 2015; Venkatesh et al., 2003). Davis et al. (1989) found that perceived usefulness is major determinant of people's acceptance of technology, and perceived ease of use is a significant secondary determinant. Perceived usefulness is defined as "the prospective user's subjective probability that using a specific application system will increase his or her job performance" (Davis et al., 1989, p. 985). Perceived ease of use is defined as "the degree to which the perspective user expects the target system to be free of effort" (Davis et al., 1989). In the event that these two determinants are sufficiently positive, it results in behavioral intention and actual system use (Davis et al., 1989).

Diffusion of Technology

The diffusion process can be conceptualized for marketing purposes as "the adoption of new products and services over time by consumers within social systems as encouraged by marketing activities" (Robertson, 1971). The amount of diffusion that can occur over time is limited to the number of potential adopters within a social system. Graham (1962) studied the diffusion of the television into American society. He discovered that the critical factor in diffusion was the extent to which the attributes of the innovation are compatible with the attributes of the culture within the social system (Graham, 1962; Robertson, 1971). Robertson (1971) added that the overall diffusion was strongly influenced by the attributes of the product

including “relative advantage, compatibility, complexity, divisibility, communicability, and perceived risk”.

According to Norton and Bass (1987), “No matter what their advantages, newer technologies are not adopted by all potential buyers immediately”. New technologies diffuse through the population over a period of time based on their attributes and societies’ ability to receive them. In his book *Crossing the Chasm*, Geoffrey Moore (1999) classifies consumers and their adoption of new technology into the following five groups:

1. Innovators – they represent approximately 2.5% of the population and are first people to adopt a new technology. Usually, these people are technological enthusiasts and want to be the first use a new technology despite the known inconveniences they will likely suffer as companies work out the bugs in the products (Moore, 1999, p. 17; Keegan, 2016, p. 121).
2. Early Adopters – they represent about 13.5% of the population. These people often access an emerging technology to achieve strategic business goals not technology goals. Early adopters are visionaries who are looking to find the next technology that is a fundamental breakthrough (Keegan, 2016, p. 121; Moore, 1999, p. 17).
3. The Early Majority – representing approximately 34% of the overall population, these people are seeking technological improvements that can help with productivity in their current operations. They embrace technology as a method for improving their competitive position in the marketplace (Moore, 1999, p. 17).
4. The Late Majority – they also represent 34% of the population. The late majority consists of conservative people who value tradition more than progress. They are opposed to discontinuous innovation and tend to only invest in technology late into its life cycle.

Usually, by the time they invest in technology, the products are mature and market competition has driven the prices down low (Keegan, 2016, p. 121; Moore, 1999, p. 17).

5. Laggards – they represent approximately 16% of the population and are the last to adopt technology. These people are content with the status quo and are reluctant to adopt any technological system (Keegan, 2016, p. 121; Moore, 1999, p. 17).

Technology in the Golf Industry

Golf, a very traditional sport, has begun incorporating technology for multitudinous purposes over the last several years. Industry professionals understand that effective use of innovative technologies can help players to improve both their technique and equipment. Better technique and equipment equal better play; better play equals a more enjoyable round of golf and happier customers. Eddy Lui is the CEO of 18 birdies, a golf tech company that offers products like an artificial intelligence powered swing analyzer and a digital caddy app that keeps personal golf performance stats. He recently spoke about the adoption of technology and how it is creating a shift in the industry saying, "The biggest thing technology can do is improve the overall experience and tailor it to the modern lifestyle, especially in the most important demographic: The Millennials" (Stanley, 2018). Suzy Whaley, current president of the PGA of America, was part of an industry roundtable event in 2019. She addressed the increasing importance of technology saying, "Technology is making a tremendous impact on the golf industry" and "Today's consumer understands the value of working with a highly trained PGA Professional, but they want more than the traditional approach. They also want to engage with us via technology" (Matuszewski, 2019).

Anyone who has been following the sport of golf over the last couple of decades is aware of the increasing use of data in the analysis of the performance of golf equipment (Locket,

2015). This is due to the introduction and diffusion of launch monitor technology into the sport. A simple description of a golf launch monitor is an electronic device that measures golf ball and club movement and then converts this information into numerical data that can be interpreted by the user (Brumer, 2004; Kunlehane, 2019; Locket, 2015; Roberts, 2017; Trackman, 2020). Launch monitors measure ball flight parameters such as ball speed, launch angle, spin rate, carry distance and curvature. They also measure club movement parameters like club speed, dynamic loft, attack angle, club path, and face angle at impact (Flightscope, 2020; Trackman, 2020). This data allows for a deeper understanding of the physics of golf than was previously possible. These groundbreaking technological possibilities have allowed launch monitor technology to revolutionize golf instruction and golf equipment retail sales (Brumer, 2004; Golf Digest, 2020a; Golftech Digital, 2018; Kunlehane, 2019). According to Brumer (2004) "Launch monitors clearly have proven their worth to clubmakers, club fitters, and teachers alike. As improved technology has allowed prices to come down, monitors steadily are becoming a cornerstone of the golf retail industry".

There are two predominant designs in current launch monitor technology. They are doppler radar and photometric. Doppler radar launch monitors evolved from missile tracking technology research from the U.S. military (Brumer, 2004; Kunlehane, 2019; Walker, 2020). Trackman and FlightScope, two of the most popular launch monitor brands on the market today, utilize doppler radar technology in their products (Flightscope, 2020; Trackman, 2020). Doppler radar launch monitor technology can track the ball's entire trajectory giving accurate measurements to within half a yard (Trackman, 2020). Photometric launch monitors use a series of pictures and measurements to mathematically simulate the flight of the golf ball. Top launch

monitor brands that utilize photometric technology are ForeSight and SkyTrac (Kunlehane, 2019).

The purchase and continued use of launch monitor technology represents a significant investment. For example, one of the leading doppler radar launch monitors, the Trackman 4, is priced at $18,995 for the indoor only model and $24,995 for the indoor/outdoor model (Trackman, 2020b). Photometric launch monitors are often priced lower, but can also be slightly less accurate (Kunlehane, 2019). One of the most popular photometric versions, the ForeSight GC Quad, can be purchased for $18,000 (Golf Digest, 2020a). Of course, these prices are purely for the launch monitor unit. There are additional software subscriptions and maintenance costs associated with the technology. For Trackman, the software subscription fee is $1,000 per year or $2,000 for three years while the hardware maintenance package is an additional $1,000 (Trackman, 2020c). Meanwhile, the ForeSight 2020 software can be purchased for $3,000 and needs to be updated every 3 years (Foresight, 2020b).

Once the organization has invested in the launch monitor, there are many further necessities to set up a fitting bay where customers can test golf equipment. Other possible equipment that is required would be a laptop, tablet, or desktop computer and monitor (estimated $500-$2,500) to sync with the launch monitor and display the data produced after each shot. If using the launch monitor indoors, most facilities use a projector ($1,500) to display the simulation of the golf shot from the player's perspective exactly as it would be on a driving range (Jorian, 2019). This set up also requires an artificial turf matt ($489), and an impact projector screen ($3,499) designed specifically to be struck repeatedly by golf balls (Rain or Shine Golf, 2020). The costs associated with building a commercial grade, indoor golf hitting bay can quickly climb to upwards of $30,000 dollars. This, of course, is assuming that the

lighting and space in the interior of the building are appropriate for the setup of an indoor hitting space.

Women as Both Valued and Misunderstood Consumers

The world we live in is changing. Women now have more influence over it than at any other time in history. This major cultural shift is having a profound effect on our society and economy. The roles that women play in the home, workplace, education systems, marketplace, economy etc. are actively being redefined. Young, single women often delay traditional family decisions like marriage and having children to pursue higher education and career opportunities (PGA, 2013). In 2018, approximately 57% of all women participated in the work force, 44% of women ages 25-64 had a bachelor's degree or higher, and women accounted for 52% of all workers employed in management and professional occupations (U.S. Bureau of Labor Statistics, 2019). These women are excelling in the workplace, enjoy disposable income, and are powerful participants in the economy. In fact, American women now represent as much as $5 trillion in economic spending annually (PGA, 2013). Despite these incredible strides, women still appear to be overlooked, undervalued, and underestimated in the marketplace (Silverstein & Stare, 2009).

Women are not just powerful consumers in their own right, they also control 70-80% of all consumer purchasing (Nelson, 2019). Meaning, women are making the majority of all household consumer decisions. According to Silverstein and Stare (2009) women make the purchasing decisions of 94% of home furnishings, 92% of vacations, 91% of homes, 60% of automobiles, and 51% of electronics. Businesses would be wise to recognize the power of women in economy and discover exactly how they can tailor their products and services to their specific needs and expectations. Women are powerful customers who feel that there is no reason

that they should settle for products and services that ignore their needs or attempt to meet their needs cynically and/or superficially (Silverstein & Stare, 2009).

Golf is a great game that values its traditions and history. Both men and women have celebrated histories as the game has developed over the past couple of centuries. However, for far too long, golf business decision making has been dominated by male participation (PGA, 2013). In this regard, the golf business may be a victim of its own success. They have focused on their best customers (men) which has resulted in the reliance on a narrow consumer base. Recent societal changes have led to the empowerment of women in the marketplace representing tremendous opportunity for the growth of the industry (PGA, 2013). One study showed that an estimated 90 million people in the U.S are interested in playing golf and women make up 42% of that number. This evidence demonstrates that there are a potential 38 million women that are interested in playing golf in addition to the 6 million that are already playing (NGF, 2020; PGA, 2013). Simply put, women are of vital importance to every part of the US economy including the golf industry and concerted effort should be made to understand these valuable customers.

When it comes to golf equipment, the needs of women may potentially be different than the needs of men. On average, women tend to swing slightly slower than men, and their average height tends to be shorter than men's. For these reasons, golf equipment manufacturers usually offer women's equipment lines. The problem with gendering equipment in this way is that it may lead sales associates to classify consumers into categories rather than viewing them as unique individuals with their own personal equipment needs (Alvarez, 2019). This approach has the potential to give some women players the wrong equipment, making the game more difficult and less enjoyable. Rather than making this mistake, golf retailers should attempt to make the space feel more inclusive for women, giving them options and treating them as valuable customers

(Alvarez, 2019). This research study will seek to provide insight as to how women interpret the sales process including the use of launch monitor technology.

Consumer Behavior Literature

The Foote, Cone and Belding (FCB) Model proposed by Vaughn (1980) was a major contribution to advertising research. This model is often referred to as the "Learn-Feel-Do" model because it preserved and simplified the basic premise of the "hierarchy of effects models" (Vakratsas & Ambler, 2001). Essentially, hierarchy of effects models proposed that consumer purchases progressed through a sequential hierarchy of events from the cognitive stage, to the affect stage, followed by the behavior stage (Cianfrone et. al. 2006; Lavridge & Steiner, 1961; Vakratsas & Ambler, 2001; Vaughn, 1980). Hierarchy of effects models and other models that view advertising as a persuasive hierarchy have dominated the literature over the past century. The FCB model is unique because it added a new dimension to the previous literature. Vaugh (1980) identified the fact that consumers approach high involvement or low involvement decisions in different manners. For example, frequently purchased packaged goods were more likely to be low-involvement and affect motivated (Vakratsas & Ambler, 2001; Vaughn 1980). Low involvement purchases are the same as those identified by Bettman (1979) as "simple habitual choices". When making simple habitual choices, little cognitive thought is given to the purchase (Bettman, 1979) and advertising can be effective in creating awareness and introducing uncertainty (Vakratsas & Ambler, 2001). For frequently purchased products, trial is easy, and purchases are inexpensive. This results in a lighter penalty for a mistake and less anxiety about the outcome of the purchase (Vaughn, 1980). The consumer's beliefs about the product are updated after product trial and experience to either confirm or disconfirm their expectations of the product (Vakratsas & Ambler, 2001; Vaughn 1980). Customer purchases that require a high

level of customer involvement are likely to be treated entirely different by the consumer. High involvement purchases are perceived as more important to the consumer because they have higher cost, social value, ego support, etc. (Vaugh, 1980). These decisions require greater attention because they involve more risk, increase purchase anxiety, and demand greater use of information in purchase decision making (Vaughn, 1980). Purchasing a set of golf clubs is an excellent example of a high involvement purchase decision that requires conscious thought and reasoned purchase decision making.

AIDA – A Model for Conceptualizing the Sales Process

The AIDA model, proposed by E. St. Elmo Lewis in 1898, is perhaps the most influential model in all of sales and marketing literature (Vakratsas & Ambler, 1999). The acronym AIDA stands for awareness-interest-desire-action and was originally proposed as a personal selling model that was later adapted for advertising (Strong, 1925; Vakratsas & Ambler, 1999). This model remains in widespread use in corporate training, sales textbooks, and scholarly writing. The steps in the AIDA model occur as follows: (1) Awareness – the consumer is made aware of a category, product, service or brand (usually through advertising), (2) Interest – the consumer becomes interested in learning about the product or service and how it can satisfy a need or want and improve their lifestyle, (3) Desire - the consumer develops a favorable attitude towards the product, service, and/or brand, (4) Action – the consumer forms a purchase intention and makes a purchase (Cianfrone et al., 2006; Constantinovits & Zhang, 2018; Kotler, 2015; Rawal, 2013; Strong, 1925; Vakratsas & Ambler, 1999).

The original AIDA model used in the sales literature was expanded by E.K. Strong Jr. (1925) to add an "S" representing customer satisfaction. The acronym AIDAS stands for attention-interest-desire-action-satisfaction and is commonly used for personal selling. Personal

selling and marketing are slightly different constructs that play different roles in the overall consumption process. The primary focus of personal selling is to stimulate desire and persuade customers of their need for a supplier's product (Weitz & Bradford, 1999). According to the AIDAS theory, in a successful sales interaction, the customer's mind consciously progresses through five successive mental states: attention, interest, desire, action and satisfaction (Ahinful & Asomaning, 2017; Barry & Howard, 1990; Vakratsas & Ambler, 1999).

Attention – The first step in the process is securing the attention of the prospective buyer (Strong, 1925). From a salesperson's perspective, this includes the first few minutes of a sales interview in which the salesperson is making their first impression on the prospective customer. In the first few minutes of a sales encounter, customers are often evaluating such things as proper attire, neatness, friendliness, knowledgeability and trustworthiness of the salesperson. During this phase of the sales encounter conversation openness is a particularly potent skill. A good conversation, perhaps even a friendly smile, can help the customer to relax and set the stage for the sales presentation (Barry & Howard, 1990).

Interest – Once the salesperson has secured the attention of the customer, they can begin to work on increasing their interest level in the product or service. Often, salespeople incorporate technology to showcase product or service attributes. During this part of the process, successful salespeople will often use probing questions that are designed to identify product attributes that have the greatest appeal to the prospective customer. Using the feedback from the customer throughout the process, the salesperson can highlight the product attributes that are best used to satisfy their individual needs (Barry & Howard, 1990).

Desire - After attention has been paid to the salesperson and awareness of the product has been created, a strong desire for the product needs to be evoked from the prospective customer

(Chaudhary, n.d.). The challenge for the salesperson is for them to generate enough desire from the consumer that they want to purchase the product immediately. They want the customer to be thinking "Why have I not purchased it before?" (Chaudhary, n.d.).

Action – If the sales encounter has been successful to this point in the process, then the prospective customer is ready to buy. Even so, the buying must be induced. An experienced salesperson will not induce action until the prospective buyer is fully convinced of the benefits of the product and the merits of the sales proposal. Often in this stage, the prospective buyer may have some hesitation. The salesperson should use interpersonal techniques to reassure the customer that they are making the correct decision (Barry & Howard, 1990; Chaudhary, n.d.).

Satisfaction – Satisfaction is the element that was added to the model by Barry and Howard (1990). If the sale has been accomplished successfully, the customer should feel that the salesperson has not "made a sale", but rather has helped them in making the right decision (Chaudhary, n.d.). This is an important step in the process because it results in long lasting relationships with satisfied consumers (Barry & Howard, 1990). Thus, it is important to follow-up with the customer to make sure they are satisfied with the product, reassure them that they made a good decision, and provide good after sales services. Strong (1925) says that "Satisfaction is, finally, most important because unless the goods measure up to expectations there will be no repeat orders".

Theory of Reasoned Action (Prescriptive Model)

Another theory has greatly impacted the consumer behavior literature (including the FCB model itself) is the Theory of Reasoned Action (TRA). This is perhaps one of the most in influential theories in all of social psychology. The theory was originally introduced by Martin Fishbein and Icek Ajzen in 1967, and was later expanded upon in their book *Belief, Attitude,*

Intention, and Behavior: An Introduction to Theory and Research in 1975 (Venkatesh et al., 2003). TRA is primarily concerned with the determinants of consciously intended behaviors (Ajzen & Fishbein, 1980; Davis et al., 1989; Fishbein & Ajzen, 1975; Venkatesh et al., 2000). TRA theorizes that there are two components that combine to make up behavioral intention. The first is the subjective belief that performing a certain action will result in an intended consequence. This subjective belief is a determinant in that person's attitude toward the behavior (Davis et al., 1989; Fishbein & Ajzen, 1975, p. 25). The second component is the person's normative beliefs and their motivation to comply with them (Davis et al., 1989) which combine to make up their subjective norms. The subjective norm is described by Fishbein & Ajzen (1975, p. 302) as "the person's perception that most people that are important to him think he should or should not perform the behavior in question". The person's attitude toward the behavior and their subjective norm combine to determine the behavioral intent. If the behavioral intent is sufficiently positive then it results in the performance of the target behavior (Davis et al., 1989; Fishbein & Ajzen, 1975, p. 216).

Information Processing Theory of Consumer Choice (Analytic Cognitive Model)

Another underlying theory applied in this paper comes from Bettman (1979) who views the consumer as a "processor of information" (p. 1). Bettman (1979) theorized that the consumer is constantly interacting with his or her environment, both seeking and collecting information from a variety of sources, processing and evaluating this information, and then performing decision making from a series of alternatives. When analyzing the choice process, the following basic components are considered: processing capacity, motivation, attention, perception, information acquisition and evaluation, memory, decision processes, and learning.

It is clear that there are a number of variables that will present themselves throughout the decision-making process, and not all decisions or people are created equal. Some decisions are made with very little thought. The buyer uses either simple heuristics or relies heavily on prior experiences in an effort to simplify the choice. These purchases usually consist of inexpensive items or items that are purchased on a regular basis (i.e. which brand of bread or beer that a consumer usually buys at the grocery store). These choices are defined as simple habitual choices. This paper will not address simple habitual choices but will focus on consumer choices that require cognitive thought as a perspective buyer interacts with their environment, takes in new information, and processes the information to achieve personal outcome goals.

A golfer that is purchasing a new set of golf clubs and undergoing a custom club fitting by a professional would not fall into the category of simple habitual choices. This customer is faced with a purchase decision that is particularly difficult because 1. It is a relatively expensive purchase (A quality set of clubs that is purchased at a custom club fitting facility usually costs upwards of $2,000). 2. It is an investment of personal importance for avid golfers 3. There are an overwhelming number of equipment choices available which makes it difficult for players to know which is right for them individually. These reasons serve as evidence that the modern golf club custom fitting environment is an excellent opportunity to apply the information processing theory of consumer choice while essentially eliminating simple habitual choices.

The basic components of the information processing theory of consumer choice are processing capacity, motivation, attention, perception, information acquisition and evaluation, memory, decision processes, and learning (Bettman, 1979, pp. 1-2). It will be beneficial to describe each of these components in further detail in order to construct the theory and apply it to the real-world process that is golf club custom fitting.

The first of the basic components identified by Bettman is **processing capacity** (Bettman, 1979, p. 17). Many scholars have developed hypotheses suggesting that human beings have only a limited capacity for processing information (e.g., Bettman, 1979; Lindsay & Norman 1972; Norman & Bobrow, 1975; Simon, 1969). This would imply that humans are not capable of making complicated calculations or conducting extensive processing without applying a good deal of energy and effort. Humans are also limited in the number of tasks that they are capable of performing at one time. These basic concepts are the presuppositions that determine the strategies which consumers develop and the general rules that they follow during choice making situations (Bettman, 1979, pp. 17-18).

The second basic component is **motivation** (Bettman, 1979, p. 18). Merriam-Webster's dictionary defines motivation as "a motivating force, stimulus, or influence: Incentive, Drive" (Merriam-Webster, n.d.). Motivation is an important component of the theory because the consumer's motivation directly affects both the direction and the intensity of the behavior (Bettman, 1979, p. 18). Previous literature on consumer behavior shows us that consumers are continually making choices (Bettman, 1979; Irwin, et al., 2002; Neisser, 1963; Simon, 1967). It is clear that consumers are making these choices in an effort to achieve certain purposes or goals. In fact, this theory of consumer choice is predicated on the idea that consumers are moving from some initial state toward some desired state (Bettman, 1979; Newell & Simon, 1972). Motivation is viewed as a set of mechanisms that drive the consumer from the current state toward the desired state, usually by passing through a hierarchy of goals. Bettman also proposes that humans have an interrupt mechanism or "scanner" that allows for adjustment of a goal hierarchy in reaction to new information or a changing environment (Bettman, 1979, p. 17).

The development of the goal hierarchy as well as the use of the interrupt mechanism or "scanner" are of particular interest for this paper and should be expanded upon. Bettman (1979) defines the "goal object" as the desired end state or the item that the buyer wishes to purchase. He defines a "goal" as a specific state that when attained is instrumental in reaching the desired end state. He defines a "set of goals" as a set of intermediate goals that need to be accomplished in order to move toward accomplishing the goal object (Bettman, 1979, p. 19). The choice process is the process through which the consumer accomplishes an individually developed set of goals toward the attainment of the goal object. It is important to note that consumers rarely develop the goal hierarchy in its entirety and then retrieve this hierarchy from memory for use in the decision-making process. In fact, usually the goal hierarchy is continually being constructed throughout the choice process as consumers progress through their set of goals (Bettman, 1979, p. 22). This theory would be an inadequate depiction without acknowledging that either the introduction of new information or changing conditions can disrupt the process. The theory proposes the concept of an interrupt mechanism or scanner that allows for adaptation to new information or changing conditions. This interrupt mechanism can halt progress on current activities and also affect the current goal hierarchy as well as the development or rearrangement of future goals and their position in the goal hierarchy (Bettman, 1979, p. 24).

The third basic component of the theory is **attention and perceptual encoding** (Bettman, 1979, p. 25). Attention refers to the particular information (often presented by a stimulus) that is attended to by the consumer, and perceptual encoding refers to the process in which the consumer interprets the information that has been attended to (Bettman, 1979, p. 25). The stimulus is often information that is presented by marketers, researchers, or manufacturers, and the consumer's interpretation of the information presented by the stimulus is based on the

memory that has been accumulated through past experiences. This highlights the idea that not all consumers will respond to a particular stimulus in the same manner. Not only will they not respond in the same manner, but consumer's individual reaction to the stimulus will influence their subsequent direction of attention (Bettman, 1979, p. 25). An example of two consumers responding to the same stimulus in different manners is how consumers react to the price of a product. In the golf club custom fitting environment, two golfers may each like the results they get with a particular driver head and shaft combination. One of these golfers may eliminate it as a possible purchase because of the expensive price, while another golfer may experience increased confidence in the product because it is expensive.

The fourth basic component of the information processing theory is **information acquisition and evaluation** (Bettman, 1979, p. 28). When making a choice, the consumer may retrieve information from memory, but if the information retrieved from memory is insufficient, they will need to acquire any additional information necessary through external means. Thus, the intermediate goal hierarchy is altered because the consumer has identified the need to acquire new information, and this becomes the new short-term priority. During the acquisition of the required new information, the consumer's perception of the information retrieved affects their choice of how to proceed in the process (Bettman, 1979, p. 30). The interrupt mechanisms mentioned previously can impact this part of the process as well. Examples of this include if the consumer receives conflicting information or if the new information received contradicts the information that they have stored in their memory. Either of these scenarios presents a conflict for the consumer. How to resolve these conflicts will be determined by the individual, but it is often a result of either discounting the information in memory or discounting the new information being presented. Simply put, the information acquisition and evaluation component

may be required in order to attain specific goals within the goal hierarchy. The search for information may be either internal (from memory) or external (outside source), and the information is constantly being evaluated by the consumer. The particular information having been acquired and evaluated may lead to interrupts or changes in goals, or it may lead to continuation to the next step of the process (Bettman, 1979, p. 31). This component is heavily influenced by attention, perception, and motivation (Bettman, 1979, p. 28).

The fifth basic concept of the information processing theory of consumer choice is **decision processes** (Bettman, 1979, p. 31). This basic component of the theory is unique because it is discussed as a separate component, but in reality, it is being applied continuously throughout the process. A "decision" is simply a choice between alternatives. As mentioned in basic component #1 processing capacity, humans are limited in their ability to process information and limited in their capacity to conduct complicated computations (Bettman, 1979, p. 17). Because of this, people find ways to simplify the decision-making process, often by developing and applying simple heuristics or rules of thumb. Now, the decision process (choice between alternatives) is a continually occurring and often cyclic process that happens throughout the consumer's progress towards the goal object. Also, important to note, is that different heuristics can be applied by different people or even by the same person when faced with a different choice (Bettman, 1979, p. 32). Developing an understanding of how these heuristics are developed, how and when they are applied, and how they affect the choices made throughout the process are an important aspect of the theory.

The sixth basic concept of the theory is **effects of consumption and learning** (Bettman, 1979, p. 35). This is an area of consumer behavior that should not be overlooked by marketers, researchers, or professionals. This is the stage where after the purchase has been made and the

product has been consumed, the outcomes experienced by the consumer continue to serve as a source of information for future purchase decisions (Bettman, 1979, p. 35). When the consumer uses a product they have purchased, they experience a particular outcome i.e. positive, negative, indifferent, or somewhere in between. The impact of this outcome on future choices depends on how the outcome is interpreted by the consumer, and the specific inferences they develop on what caused the outcome (Bettman, 1979, p. 36). For example, if a consumer experiences an undesirable outcome, they may attempt to determine whether the outcome is due to a poor product, incorrect use of the product, or perhaps not following instructions properly.

Essentially, the consumer does not automatically connect the undesirable outcome directly with the product consumed, but rather they make inferences about why particular outcomes occurred, and their future responses will generally depend on the inferences that they made during this process (Bettman, 1979, p. 36). Once the consumer has decided why the outcome occurred, there are a variety of actions that they may take. If the outcome met expectations, simplifications may be made in the choice of heuristics that they use when making future purchases i.e. they develop loyalty to a brand due to positive experiences from past purchases of the brand's products (Bettman, 1979, p. 36). Another possible action is an elaboration of heuristics. This is usually the result of a negative experience, or at least an outcome that did not meet expectations. Perhaps they determine that the brand from which they previously made a purchase was not adequate because of a particular attribute that they had not previously considered. The consumer then adds this previously unconsidered attribute to the choice heuristic for future occasions (Bettman, 1979, p. 277).

In summary, the information processing theory of consumer choice views the consumer as a processor of information (Bettman, 1979, p. 1). The consumer takes both information from

memory and new information and forms a goal hierarchy. This goal hierarchy is considered to be guiding the process through which consumers attempt to move from some initial state toward a desired state. The process is considered to be cyclic because the goal hierarchy is constantly interrupted from conflicting stimuli, unexpected events, changes in the environment etc. The motivation and attention of the individual consumer then determine if the goal hierarchy should be adjusted and reprioritize the goals within the restructured goal hierarchy. All throughout this process the consumer is continually presented with choices between alternatives in which decisions will be made in an attempt to attain the next goal in the hierarchy (Bettman, 1979, p. 37). If the consumer is satisfied with the information that has been acquired and evaluated, and it is evident that the purchase will achieve the goal object then the purchase is made. After the purchase is made and the chosen alternative is consumed, the outcomes experienced serve as a source of information that the consumer may use in future choices (Bettman, 1979, p. 35).

Behavioral Intention

The purpose of this study is to evaluate the effects of the use of technical and analytical technology on the purchase intention of customers seeking to purchase golf equipment. This methodology seems appropriate based on the review of the consumer behavior research and golfer demographics. Generally speaking, golfers make up a sophisticated consumer segment; Golfers are well educated and affluent (NGF, 2016). For example, the National Golf Foundation (2016) reports that 58.2% of golfers who play regularly (core golfers) have a college degree and 21.7% have at least some college credit, meaning that about 80% of people who play golf regularly have at least some college credit. According to the Benchcraft Company, the average household income for golfers is $100,980 which is more than 200% greater than the average household income for non-golfers. The average net worth of a golfer is $768,400 with 8 out of

10 golfers having a net worth of over $100,000 (Benchcraft, 2020). 90% of the CEO's at Fortune 500 businesses play golf, 25% of golfers own their own business, and 33% are employed in top level management positions (Benchcraft, 2020).

Moreover, the golfers who are targeted for this study participate in the sport regularly. Committed golfers are generally knowledgeable about the game, the equipment, and the current technology. While it is true that golfers are often slow to accept and adapt to technology as it is introduced to the market (Keegan, 2016, p. 121), golfers have always valued lower scores and have proven their willingness to purchase golf equipment if it improves their performance (NGF, 2016). Because of these golfer traits, TRA may be particularly useful for analysis of this consumer segment. Fishbein and Ajzen (1975) theorized that people first develop beliefs about a behavior, then they develop attitudes toward the behavior, and later intentions which eventually culminate into the behavior itself (Hoek, 1999). This basic theory has been developed into more specific consumer behavior theories such as the Howard-Sheth model that measure behavioral intent as a response variable (Hoek, 1999). Researchers have successfully measured attitude and behavioral intent in a multitude of studies. Spears and Singh (2004) defined "purchase intention", an adapted form of behavioral intent, as "an individual's conscious plan to make an effort to purchase a brand". In the sports world several studies have successfully used adapted Likert scales to measure purchase intention (Brady et al., 2005; Chen-Yuen et al., 2019; Cronin et al., 2000; Yoshida & James, 2010).

Compounding Variables

Golfer Age

One of the primary reasons for its popularity in the U.S., is that people of all ages from all different backgrounds can enjoy the game for life (Moss, 2013). While this is one of the game's greatest attributes, it also presents challenges for organizations who seek to identify and deepen their understanding of their consumer base (NGF, 2012). Currently, the age segment of "young adults" (18-34 years old) is golf's largest customer group (NGF, 2020). There are approximately 6.1 million players in this group, and they average approximately 12 rounds of golf per year (NGF, 2020). This is great news for the sport because it means more young people are getting involved in the game. Another particularly important group from a sales and marketing standpoint are seniors. There were approximately 5.3 million golfers over the age of 65 in the U.S. in 2019. This is a critical demographic in the golf industry because these golfers tend to play more rounds of golf per year than younger players (NGF, 2020). Golfers over the age of 65 average about 36 rounds per year. Those 18-34 are likely playing less than seniors because of increased demands on their time due to work commitments and involvement in other activities (NGF, 2020). In an effort to maintain continuity with the current golf industry research being conducted by such organizations as the NGF, this study will identify the age of the player as a potential compounding variable.

Golfer Skill Level

Another challenge for golf retailers is the considerable variation in skill level of their customers. To address this challenge, golf courses all over the world use a handicapping system to make the game more enjoyable and allow players of differing abilities to compete fairly (Tiger et al., 2006). Vamplew (2012) proposes that the handicapping system supports one of the

primary motivations for golf participation which is “player self-improvement”. According to Vamplew (2012) “Handicapping allowed the best to play with the worst, the young with the old, men with women” and when no one is available to play with, players can pursue continued self-improvement by competing “by oneself against par and the environment”. The current handicap system in the US is operated by the United States Golf Association (USGA). The system can be defined as a mathematical procedure that produces a statistic defined as the player’s handicap index (Tiger et al., 2006). Essentially, the handicap index is a numeric representation of the golfers playing experience and skill level. While it is not a perfect system, evaluating a golfer’s skill level based on their handicap index is a universally accepted method. Accordingly, this study will use the player’s USGA handicap index as an indicator of the skill level of the golfer.

Previous Experience

Many researchers have recognized the role of expertise in the consumer decision making process (Alba & Hutchinson, 1987; Chi, Glaser, & Rees, 1982; Punj & Srinivasan, 1989). Punj and Srinivasan (1989) highlighted the importance of consumer expertise in their decision-making process saying, “expertise plays a critical role in structuring the choice problem and in the consideration of alternatives for purchase”. The construct of consumer expertise, in its various forms (i.e., product knowledge, attention to new information etc.), is an important part of the comprehensive consumer behavior model proposed by Bettman (1979). Johnson and Russon (1984) proposed that familiarity with a product class, often as a result of previous purchase experience, results in three different forms of consumer expertise: (1) a superior knowledge of existing alternatives, (2) a superior ability to encode new information, and (3) a superior ability to discriminate between relevant and irrelevant information (Punj & Srinivasan, 1989). Thus, a

consumer's expertise and/or their previous purchase experience will be considered as a compounding variable for the purposes of this study.

The Salesperson

Several studies have examined the importance of salesperson attributes in the retail environment (Darley et al., 2008). Salesperson attributes such as courtesy, knowledge, friendliness, respect for consumer knowledge, responsiveness etc. have been shown to effect consumer behavior intention (Darian et al., 2001; Darley et al., 2008; Grewal & Sharma, 1991; Humphreys & Williams, 1996). Interestingly, women and men have been shown to perceive salesperson attributes differently, leading to disparate outcomes in behavioral intent (Darley et al., 2008). Studies such as Humphrey and Williams (1996) showed significant positive correlations between the salesperson's interpersonal communications process and the customer's overall satisfaction. Goff et al. (1997) conducted a study regarding new car purchasers which showed that the salesperson's selling orientation-customer orientation (SOCO) not only affected the customer's satisfaction with the salesperson and the dealership, but also indirectly affected the customer's satisfaction with the car (product) and the manufacturer. Based on this previous research, it is reasonable to conclude that salesperson behavior can have a significant effect on the overall consumer satisfaction (Darley et al., 2008; Grewal & Sharma, 1991).

Golf Equipment Retail Facilities

To understand the current ecological environment of golf equipment sales industry and how it is changing, an overview of custom fitting facilities and retailers should be provided. Each of these facilities occupies a relative competitive position within the market. Poulin et al. (2006) group the facilities that retail golf equipment into these basic categories: general sports stores (i.e., Dicks Sporting Goods, Academy Sports), specialty golf stores (i.e., PGA Tour Superstore,

Edwin Watts, Golf Galaxy), and pro shops (i.e., the golf shop at a public or private golf course); However, since the writing of this article in 2006, many specialty golf fitting studios have sprung up across the country (i.e. Club Champion, True Spec, Hot Stix, Cool Clubs). These specialty golf fitters have integrated many technological innovations into the personalization process. General sports stores and specialty golf stores continue to maintain the largest market shares, but smaller companies are enjoying increasing success in the market (MarketLine Research, 2016).

Generally speaking, many green grass pro shops have shifted away from equipment sales due to increased competition from both online and brick & mortar equipment retailers. Most pro shops carry limited inventory but employ PGA professionals that conduct club fitting in addition to their golf operations responsibilities. These PGA pros are often "on staff" with one of the major OEM's, meaning that they have a professional relationship with one particular golf equipment manufacturer, and they special-order equipment directly from that company. If golf courses are fully equipped to conduct fittings, then members purchase their equipment from the pro shops because of the trust they develop throughout their relationship with the golf professionals and/or the equipment discounts that are available for members. These golfers can rely on the expertise of PGA professionals in making the appropriate equipment choices (Brunton, 2012, pg. 188). Many club pros conduct custom fittings using launch-monitor technology, but some pros may not have access to this technology and must make equipment recommendations simply by observing ball flight and taking static measurements.

General sports stores (i.e., Dicks Sporting Goods, Academy Sports) offer a wide variety of sports gear including footwear, equipment, and apparel. Approximately 15% of Dick's Sporting Goods overall sales come from golf equipment and apparel (MarketLine Research, 2016; Rovell, 2014). General sports stores accomplish the majority of their golf equipment sales

either through traditional retail showroom floor or via online sales. These stores usually offer a simplistic version of a club fitting in which a salesperson offers general advice to the consumer when making decisions on the proper equipment to purchase. This process is usually completed in approximately half an hour and is either inexpensive or in many cases included free of charge with the purchase of new clubs; however, according to Brunton (2012) Salespeople in retail stores rarely have the proper equipment or expertise required to meet the needs of serious competitive golfers (p. 188). Interestingly, until 2014, Dick's Sporting Goods staffed PGA professionals in nearly every one of their 500 plus stores. The company attempted to use custom club fittings from PGA professionals to differentiate themselves from other online retailers, but due to economic challenges both inside and outside the golf industry they were forced to let go of the 500 plus PGA pros that they had employed (Rovell, 2014).

Specialty golf stores (i.e., Edwin Watts, Golf Galaxy, PGA Tour Superstore) have dominated the golf equipment industry for the past several decades. These stores usually have 6,000-15,000 square feet of retail store space on which they display golf clubs, apparel, and footwear, but many specialty golf stores are also heavily invested into online sales (Grant, 2013). The main focus of these stores is on golf products, but some, such as PGA Tour Superstore, have a tennis section as well (PGA Tour Superstore, 2020). They usually stock the most recently released golf equipment from golf's major equipment manufacturers, and most stores are equipped with launch monitor technology. They usually offer golf club fittings, golf lessons, and club repair services such as re-gripping and re-shafting. Golf specialty stores are particularly vulnerable in the current market environment in which the mass customization of equipment and personalization have allowed specialty club fitters to create a superior customer experience using

boutique style custom fitting. In 2013, Edwin Watts Golf filed for Chapter 11 bankruptcy citing "increased competitor intrusion into their markets" (Grant, 2013).

Specialty club fitters (i.e. Club Champion, True Spec, Cool Clubs, Tour Experience Golf) are transforming the golf equipment market. They concentrate their sales and marketing strategies around the consumer experience through the application of cutting-edge technology and expertise of certified professionals. For example, True Spec Golf boasts of "an elite club fitting experience" saying that "at True Spec golf you'll experience an elite level fitting by their certified experts using Trackman (the industry standard in ball flight and data measurements)" (True Spec, 2020). At Tour Experience Golf (TXG) their organizational goal is to provide all types of players, from competitive amateurs to weekend warriors, the same custom fitting experience and custom-built equipment that is available to PGA tour professionals (TXG, 2020).

Furthermore, TXG has become well known within the golf equipment industry for their podcasts and video reviews on the latest golf equipment. This continual creation of digital content allows the brand to demonstrate its product and service expertise while simultaneously creating additional touchpoints on the consumer purchase journey. These facilities do not use a traditional retail showroom floor to showcase their goods. Their sales are generated almost entirely through the custom fitting process. The fitting experience at these specialty club fitting facilities is relatively expensive. TXG charges $400 for a full bag fitting which lasts 3-4 hours (TXG, 2020), and Club Champion charges $350 for a full bag fitting which lasts approximately 3 ½ hours (Club Champion, 2020). Despite these prices, a customer looking to book a fitting at TXG, True Spec, or Club Champion should expect to have to wait several weeks before an appointment is available. The popularity of these consumer-experience based specialty club

fitters has increased dramatically over the past decade as golf equipment and fitting technology improve and as consumers share their positive feedback from the experience.

There is a new hybrid facility type that has recently emerged that is worth mentioning. This hybrid facility is known as Moon Golf and is already ranked in the Golf Digest top 100 club fitters (Stachura, 2018). It consists of a full-service retail golf shop, all the capabilities of a specialty club fitter, component accounts with major OEM's, expert staff, and professional club builders on site. The hybrid business model offers consumers the choice of a basic fitting that is essentially free with the purchase of new clubs, or a professional fitting experience using the same equipment and technologies that can be found at the specialty club fitters at a lower price point. Another unique feature of Moon Golf is their relationship with a local golf course (Abacoa Golf Club in Jupiter, FL) that allows customers to be fit outdoors. Conducting club fittings outdoors provides some advantages over indoor club fitting such as the ability to observe ball flight and turf interaction (Moongolf.com, 2020). This outdoor fitting option is available at an upcharge and by appointment only. The Moon Golf model may be the future of how golf equipment is sold in the US.

CHAPTER 3

METHODOLOGY

In order to assess the impact of sales with advanced analytical technology on golf consumer purchasing behavior, a quasi-experimental study was conducted. This chapter discusses the quantitative methodology of the study in five sections: (a) research design (b) participants, (c) measurement, (d) quasi-experimental protocol, and (e) data analyses.

Research Design

This study is an ex post facto quasi experimental design that used a 2 x 2 multivariate analysis of covariance (MANCOVA), consisting of two independent variables (Technology and Gender) and three response variables (the *Learn, Feel, Do* of consumer behavior). The independent variables were implemented by identifying the gender of the participant and collecting data from two separate groups of consumers: those who experienced the use of launch monitor technology during their visit to the store and those who did not. Participants represented two groups identified as: (a) traditional sales procedures and (2) technological sales procedures. They were separated into these groups by using a verification check question. Participants were separated into two groups (traditional or technological) by the use of the following manipulation check question: During your visit to the store today, did you hit golf balls and receive feedback using launch monitor technology?

Traditional – 'To conceptualize the "traditional" group, please think of your last visit to a department store or a sporting goods store.' Throughout the shopping experience, the retailer is attempting to influence your purchase decision making using both sales techniques and retail

atmospherics (Roggeveen et al., 2020). Many golf shops use this approach in daily sales operations. Salespeople roam the store to recommend the latest drivers from brands like TaylorMade or Callaway golf. They may offer a demonstration or even allow the shopper to hit some balls with a demo driver. Salespeople in these stores typically have some golf experience but rarely have the proper technological equipment or expertise to serve the needs of a competitive golfer (Brunton, 2012, p. 188).

Technological – This category is intended to represent sales strategies that use launch monitor technology as the focal point of the interaction. The salespeople represented in this category possess extensive knowledge of the game of golf, golf equipment, launch monitor technology, and golf swing mechanics (Club Champion, 2020b; True Spec, 2020c). Participants in this category experienced the use of advanced analytical technology to create cognitive stimulation, encourage consumer engagement, and create interactive experiences to increase product sales (Childs et al., 2020; Grewal et al., 2009; Morgan, 2017).

This study was conducted in a genuine and authentic business environment. Because of this real-world setting, randomization would have been unrealistic without significant resources for data collection and without disrupting daily operations at the business establishment. Because randomization was not a possibility, the inclusion of covariates was necessary to ensure that the background information of those participating in the study did not impact sales behavior unequally. Estimating the causal effects of the treatments can be complicated by the existence of confounding variables. This is an important problem to address when attempting to make causal inferences. In cases such as this where it may not be possible to physically control the confounding variables, it is common practice for confounders to be controlled by statistically adjusting for covariates (Shpitser, VanderWeele, & Robins, 2012). The following covariates

have been identified as confounding variables in the context of the present study: (a) consumer age, (b) golf experience, (b) golf ability (skill level), (c) perceived salesperson attributes, (d) familiarity with golf equipment, and (e) familiarity with launch monitor technology.

Participants

Research participants were customers shopping at a retail golf shop in Palm Beach Gardens, FL. All participants were at least 18 years old and voluntarily participated in the study. The study was intended to measure the consumer behaviors of the core market segment of golfers (i.e., frequent and not occasional golfers) and avid golfers not beginner or novice players therefore, the study was limited to golfers with a USGA handicap of 30 or less. Data were collected over a seven-day period in December 2020 and produced a sample size of 127 participants (Table 1).

Measurement

This measurement section discusses the development and refinement of the survey instrument in detail.

Questionnaire Development

Based on the review of literature, a survey instrument was developed with adaptations to collect socio-demographic information, measure the dependent variables in the areas of consumer cognition, affect, and behavior, and measure the identified covariates in familiarity with golf equipment, familiarity with launch monitor technology, perceived salesperson attributes, age, golf experience, and golf ability (i.e., USGA handicap) (Appendix C). The first section of the questionnaire asked the participants to answer the following questions regarding their socio-demographic status: gender, ethnicity, household income, USGA golf handicap, golf experience, and age. The format of the responses was multiple choice. The questions and answer

choices were designed based on the previous research of Bennett et al. (2002), Braunstein and Zhang (2005), Cianfrone and Zhang (2006), NGF (2016), and Pine and Gilmore (1998).

For covariant variables, a total of five items for familiarity with golf equipment and familiarity with launch monitor technology, respectively, were adapted from the previous research of Kent and Allen (1994) and Zeng (2008). Five items for consumer learning were adapted from the previous work of Bennett et al. (2002), Braunstein and Zhang (2005), and Cianfrone and Zhang (2006). To measure the way that the customers perceived the salesperson, this study utilized an adapted version of the scale with six items that was developed by Darley et al. (2008) who used it to measure perceived salesperson attributes in the auto sales industry. Darley et al. (2008) developed the scale based on the previous research of Winsted (2000) and Hawes et al. (1993). All of these items were phrased in a Likert 7-scale, with anchoring adjectives depicting the concept.

For dependent variables, five items for shopping experience were adapted from Bagdare and Jain (2013), Pine and Gilmore (1998), and Richins (1997). Five customer satisfaction questions were adapted from previous successful research studies on customer satisfaction (e.g., Angelova & Zekiri, 2011; Hansemark & Albinsson, 2004; Kotler, 2000; Zairi, 2000). The concept of intention to buy or recommend to others was assessed by five questions measuring behavioral intention adapted from Baker & Churchill (1977), Cronin et al. (2000), Darley et al. (2008), Dodds et al. (1991), and Zeng (2008). All of these items were phrased in a Likert 7-scale, with anchoring adjectives depicting the concept. The final dependent variable was a measure of actual purchasing behavior. This critical behavior is usually the bottom-line question in which retailers are most interested. Customers were asked to report “what was the total amount of the

purchase if a purchase was made?" It was an open-ended question. For those who did not make a purchase, a response of $0 was recorded.

In addition to using the aforementioned literature as the primary guideline to assess the content validity, the formulated questionnaire was submitted to a panel of three experts with strong background in sport marketing research and practice to assess item relevance, representativeness, and clarity of each item in the context of the specified concept. The panel members fully approved all of the items with respect to the three aspects of content validity although some suggestions were made to made minor wording improvement, which were completed accordingly.

Pilot Study

In an effort to examine the measurement properties of the questionnaire and also become familiar with the quasi-experimental procedures, a pilot study was conducted. Test administration was conducted at a local golf course's driving range where golfers (n = 30) were asked to complete the questionnaire (Appendix B). To qualify for the pilot study, an individual playing at the golf course was asked if he/she had purchased any golf equipment at a golf shop in the last two years. Upon confirmation of previous purchase behavior and filling out the informed consent form, the individual was asked to reflect on their most recent golf retail shopping experience and complete the survey form. In an effort to further examine the content validity of the measures and seek input from consumers, an open-ended question was made available at the end of each concept, such as for the concept of familiarity with golf equipment, to ask for comments on item relevance, clarity, and adequacy. Carrying out procedures in the SPSS Version 26 program, item-total correlation coefficients were calculated and tested for each item within a concept. All of the coefficients were about .707, a rigorous standard suggested by Hair,

Anderson, Tatham, and Black (2006), indicating a strong evidence for preliminary establishment of construct validity of measures. Cronbach's alpha coefficients were calculated for all of the dependent and covariant variables, which ranged from .775 to .957 and exceeded the recommended cut-off criterion of .70 (Nunnally & Bernstein, 1994), indicating that the measures for assessing the dependent and covariant concepts were internally consistent. As a result, minor improvements were made in the wording of a few items to enhance their clarity. In brief, based on meeting the basic measurement property, it was deemed appropriate for the quasi-experimental study proposed to proceed.

Quasi-Experimental Protocol

Before beginning any research procedures, the institution's review board for the use of human subjects gave their approval for the study (Appendix A). Also, written approval was obtained from the store owner and manager via email. The quasi-experimental study design was intended to be carried out in an authentic, real world business setting at a retail golf shop. A true experimental design was unrealistic due to limited resources of the researchers and the disruption it would cause to the daily business operations of the store. Researchers obtained written consent from a golf shop in Palm Beach Gardens, FL to allow them to collect data from customers at the facility. This golf store consists of approximately 13,000 square feet of retail floorspace for showcasing golf equipment and two hitting bays each equipped with Trackman version 4 launch monitors. Customers entering the golf shop were asked if they were willing to complete a brief questionnaire. Data was collected over a seven-day period with nearly every customer entering the store being asked to participate. Those willing to participate were provided a consent letter and told that the study was related to the retail store; however, neither the detailed purpose of the study nor the experimental conditions were revealed to them. Participants were asked to fill out a

two-part questionnaire with the first half being completed before entering the store, and the second half after completing their shopping experience. The first half of the questionnaire consisted of 16 questions related to socio-demographic information, the participant's familiarity with golf equipment, and the participant's familiarity with launch monitor technology. The familiarity constructs were measured before entering the store because their experience in the store would likely affect their responses. The second half of the questionnaire, completed after they exited the store, asked 27 questions related to the following 6 constructs: consumer learning, shopping experience, salesperson attributes, customer satisfaction, intention to buy or recommend, and actual purchase amount. The study produced a sample size of 127 participants completing a questionnaire that contained 44 items under 9 factors.

As the study was conducted during the COVID-19 pandemic, measures were taken to follow social distance regulations and protect research respondents. All data was collected from outside the entrance to the facility. A table was set up in an open location removed from the high traffic areas. This allowed respondents adequate space to observe social distancing requirements. No more than two participants were allowed to fill out the questionnaire at one time. Each questionnaire was laid out with a clipboard and a new pencil. Pencils were discarded after one use and clipboards were disinfected between users. Furthermore, disposable masks and hand sanitizer were provided for the participants at the data collection point.

Data Analyses

The data analyses were conducted by carrying out the procedures in SPSS Version 26 program. Descriptive statistics were calculated for all of the sociodemographic, covariant, and dependent variables with respect to the two quasi-experimental groups (i.e., technological and traditional) and genders (i.e., male vs. female consumers). Although the construct validity of

each of dependent variable and covariate variable concepts was examined by calculating item-total correlation coefficient during the pilot study, it was deemed necessary to further examine the unidimensionality of each concept as it was the original intention during the questionnaire development stage. To do so, a factor analysis with principal component extraction and varimax rotation was conducted for the items within each of the concepts (Costello & Osborne, 2005; Williams, Onsman, & Brown, 2010; Won Jae Seo & Green, 2008). Following the guideline set forth by Nunnally and Bernstein (1994), an eigenvalue equal to or greater than 1.0 was used as a criterion to determine a factor, which was also coupled with examining the scree plot (Cattell, 1966). A factor loading equal to or greater than .707 without double loading was used as a standard to retain an item (Hair, Anderson, Tatham, & Black, 2006). Utilizing the factor scores, a 2x2 factorial multivariate analysis of covariance (MANCOVA) was conducted to examine the differences in mean vector scores of consumer learning, shopping experience, customer satisfaction, purchase intention and recommendation, and actual expenditure amount between technology group and traditional group and between male and female customers after partialling out the effects of familiarity with equipment, familiarity with technology, salesperson attributes, golf experience, golf handicap, and consumer age.

CHAPTER 4

RESULTS

The findings of this study are presented in the following sections: (a) descriptive statistics (b) check of measurement properties (c) mean comparisons.

Descriptive Statistics

Socio-Demographic variables

For the purposes of sample description, descriptive statistics were calculated for socio-demographic variables. These findings are presented in Table 4.1. Of the 127 shoppers who voluntarily participated in the study, 95 (74.8%) were male and 32 (25.2%) were female. In terms of ethnic composition, the sample consisted of Native American (2.3%), Asian (2.3%), Hispanic or Latino (.8%), Mixed (2.3%), and White or Caucasian (90.7%). The participants indicated their age groups on the survey using seven multiple choice response options ranging from 18-29 to 70+. The two largest groups were the oldest 70+ (31%), followed by the youngest 18-29 (19.4%). However, golfers over the age of 50 account for approximately 63% of those who participated in the study.

Participants indicated their annual household income using seven multiple choice response options ranging from "Under $30,000" to "$250,000+". Findings showed that 71% of the customers reported that their annual household income was over $100,000 and 37.2% of incomes were $250,000+. These findings were slightly higher than previous research which has indicated that the average household income for golfers in the US was $100, 980 (Benchcraft, 2020; NGF, 2016; NGF, 2020). This is likely due to the survey being administered in Palm

Beach Gardens, FL where the median household income is higher than the national average (Palm Beach Gardens, 2021).

Previous golf experience was selected as a construct with potential to influence the consumer behaviors of participants. Those who volunteered to participate were asked to estimate the number of years they had played at least 8 rounds of golf. This number was chosen because the NGF (2016) considers golfers who played 7 or less rounds per year to be "occasional" golfers and those who played 8-24 rounds of golf to be "moderate" players. The previous experience levels were indicated by the participants with seven multiple choice options that ranged from Never to 20+. The responses of the participants demonstrated that approximately 90% of the participants have played 8 rounds of golf or more for at least 3-5 years. Golfing ability or skill level was also selected as a potential compounding variable for measuring consumer behavior. Participant's golfing ability was measured by USGA handicap index which is a numerical representation of the golfer's skill level (Tiger et al., 2006). The lower the number, the better the player. 72% of the study participants had a handicap of 20 or less. This indicated that the sample was an accurate representation of avid golfers and not novice players.

Descriptive Statistics for Affective Covariates and Criterion Variables

Descriptive statistics for affective covariates and criterion variables are presented in Table 4.2. First, the mean scores for the covariate variables were reported. The construct of familiarity with golf equipment was measured using five questions in a Likert scale format. The highest mean score was "How familiar are you with new golf clubs available in 2020? (M= 4.34, SD= 2.103)" comparatively, the lowest was "How familiar are you with golf equipment in general? (M= 5.38, SD= 1.532)". The construct familiarity with launch monitor technology was also measured using five questions with the highest being "How familiar are you with launch

monitor club measurements? (*M*= 4.24, *SD*= 2.191)" and the lowest being "How familiar are you with brands like Trackman, FlightScope, and Foresight? (*M*= 3.75, *SD*= 2.229)". The construct salesperson attributes was measured using six questions. The mean scores for salesperson attributes were all very high, ranging from the highest "Ease of doing business with the salesperson (*M*= 6.47, *SD*= 1.056)" to the lowest "Salesperson knowledge of the products (*M*= 6.13, *SD*= 1.492)".

The mean scores for the dependent variables are reported. The construct consumer learning produced lower mean scores than any of the other constructs. Consumer learning was measured using responses to five statements with the highest mean score in response to the statement "I learned a lot about my golf equipment needs (*M*= 4.56, *SD*= 2.024)" and the lowest mean score in response to the statement "I learned a lot about my golf swing (*M*= 3.66, *SD*= 2.084)". The construct shopping experience was measure by asking participants to respond to six adjectives. The highest mean response score was from the adjective "Enjoyable (*M*= 6.43, *SD*= 0.941)" with the lowest response score was from the adjective "Memorable (*M*= 4.93, *SD*= 1.703)". Customer satisfaction was measured using the responses from five questions. The highest mean responses came from the question "What is your overall satisfaction with your experience today? (*M*= 6.43, *SD*= 1.084)" comparatively, the lowest mean responses came from the question "How satisfied were you with recommendations of the salesperson? (*M*= 6.07, *SD*= 1.569)". The construct intention to buy or recommend was measured using five statements. The highest means scores were in response to the statement "Likelihood of you recommending this golf shop to a friend (*M*= 6.48, *SD*= 1.015)" with the lowest mean scores coming from the statement "Likelihood of you purchasing golf equipment from this store today (*M*= 5.04, *SD*= 2.002)".

The final construct in the questionnaire was the actual purchase amount. Customers reported their expenditure amount in response to the question "What was the total amount of purchase"? The mean purchase amount for all 127 participants was $375.14. Reported individual expenditure amounts ranged from $0 to $4,000. 53.2% of the participants made a purchase of $100 or less. More specifically, 26 of the participants (20.2%) reported not having made a purchase at all, and 41 of the participants (33%) made an actual purchase of $100 or less. 15 participants (11.8%) reported making a purchase of over $1000.

Check of Measurement Properties

To conduct a factor analysis of items under each concept, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was first calculated (Kaiser, 1974), followed by the Bartlett Test of Sphericity (BTS) to examine whether the hypothesis of variance and covariance matrix of the variables as an identity matrix was rejected and whether a factor analysis was appropriate (Tinsley & Tinsley, 1987; Williams, Onsman, & Brown, 1996). For the affective covariant concepts (i.e., familiarity with equipment, familiarity with technology, salesperson attributes), KMO values ranged from .842 -.889, all of which exceeded the recommended threshold of .70 (Williams, Onsman, & Brown, 1996; Yong & Pearce, 2013). For the latent dependent variable concepts (i.e., consumer learning, shopping experience, customer satisfaction, purchase intention and recommend), KMO values ranged from .834 to .888, again all of which exceeded the recommended threshold of .70. The BTS for each of these constructs was statistically significant ($p < .05$), indicating that it was appropriate to proceed for conducting a factor analysis (Tinsley & Tinsley, 1987; Williams, Onsman, & Brown, 1996) (Table 4.3).

Based on the standard of an eigenvalue equal to or greater than 1.0 (Kaiser, 1960; Nunnally & Berstein, 1994), one factor was consistently extracted in the principal component

analysis for each of the affective covariant and dependent concept, respectively, with 70.76% to 92.39% variance explained within each of the concepts. As a single factor was extracted, a rotation was not necessary, and thus, was not conducted as planned. The scree-plot test by using a graphical representation (Cattell, 1966) confirmed unidimensionality of all of the concepts. Based on the criterion of a factor loading equal to or greater than .707 without double loading (Hair et al., 2006), all of the items within each concept were retained. Alpha reliability coefficients ranged from .866 to .979 for the concepts, all of which exceeded the recommended cut-off threshold of .70 (Nunnally & Bernstein, 1994), indicating the measures for the covariant and dependent variable concepts were of good internal consistency.

In brief, the items under each of the affective covariant and dependent variable concepts displayed acceptable measurement properties in terms of factor validity and internal consistence reliability; thus, it was deemed appropriate to utilize the data to test the stated hypotheses. Factor scores were then calculated for each of these variables and utilized for further analyses. As three other covariant variables (i.e., golf experience, golf skill level, and age) and one other dependent variable (i.e., actual purchase expenditure amount) were observed variables, the original data were later utilized.

Mean Comparisons

Descriptive statistics for the covariant and dependent variable concepts between the two quasi-experimental groups and between genders are presented in Table 4.4. Interestingly, calculated mean scores of the covariate variables for females were lower than that of males for the constructs of familiarity with equipment, familiarity with technology, and golf experience respectively, while their mean handicap scores were higher (Table 4.4). Another noticeable difference between male and female mean scores regarding the covariate variables was within

the construct of perceived salesperson attributes. In the traditional sales group, men rated the salesperson attributes higher (M= -.133, SD=1.029) while women rated them lower (M= -.495, SD= 1.449); However, in the technological sales group, women rated salesperson attributes higher (M= .576, SD=.576) and men rated them lower (M= .374, SD= .376). This represents a substantial difference in the mean scores of females in the traditional group vs the mean scores of females in the technological sales group.

Regarding the dependent variables, without controlling for the effect of covariates, substantial increases could be identified within each measured construct in the technological sales group compared to that of the traditional sales group. The largest increases between the groups could be found within the construct of consumer learning and also expenditure amount. For consumer learning, males in the traditional sales group had calculated means scores of (M= -.388, SD=.730) while males in the technological sales group reported scores of (M= .719, SD= .686). Similarly, females reported consumer learning scores in the traditional group were (M= -.556, SD= .677) while females calculated mean scores in the technological sales group were (M= 1.037, SD= .606). Again, noteworthy increases could be observed in the expenditure amounts of males in the traditional group (M= 86.81, SD= 100.05) and males in the technological sales group (M= 852.14, SD= 873.78). Similarly, females in the traditional sales group had notably lower expenditure amounts (M= 87.18, SD= 97.92) than that of females in the technological sales group (M= 1047.90, SD= 1267.59).

After partialling out the effect of covariates including familiarity equipment, familiarity technology, salesperson attributes, golf experience, golf handicap, and consumer age, the mean vector scores of consumption variables including consumer learning, shopping experience, customer satisfaction, purchasing intention, and expenditure amount were statistically significant

(p = .000) between the technological group and the traditional group (Table 4.5). Utilizing the Bonferroni approach with adjusted level of significance (a = .01) to conduct post-hoc univariate analyses of covariance, the mean scores of consumer learning, shopping experience, and actual purchase expenditure amount for consumers involving in the launch monitor technology during the sales process were significantly ($p < .01$) higher than those for consumers who did not involve in the launch monitor technology during the sales process, explaining a total of 33.2%, 9.9%, and 23.6% variance in the three dependent variables, respectively. After partialling out the effect of covariates, the mean vector scores of consumption variables were not found to be statistically significant ($p > .05$) between male and female consumers. Furthermore, although interactions were observed in both of the original and the estimated mean consumption variable scores between the two quasi-experimental groups and two gender groups throughout the multivariate and univariate analyses, they were not found to be statistically significant ($p > .05$). Comparatively, female consumers were notably higher in the mean consumer learning and shopping experience scores than male consumers; however, these differences could not be substantiated in the multivariate analyses and only the mean shopping experience score for female consumers was identified to be significantly higher than male consumers in the univariate analysis. Failure to be statistically significant could be attributed to the small sample size associated with the female consumer group which is further deliberated in the discussion section.

Table 4.1. Descriptive Statistics for the Background Variables (*N*=127)

Variable	Category	N	%
Gender	Male	95	74.8
	Female	32	25.2
Race	Native American	3	2.3
	African American	0	0.0
	Asian	3	2.3
	Hispanic or Latino	1	0.8
	Pacific Islander	0	0.0
	Mixed	3	2.3
	White or Caucasian	117	90.7
	Other	0	0.0
Age	18-29	25	19.4
	30-39	9	7.0
	40-49	7	5.4
	50-59	18	14.0
	60-69	24	18.6
	70+	40	31.0
Household Income	> $30,000	6	4.7
	$30,000 - $49,999	5	3.9
	$50,000 - $74,999	10	7.8
	$75,000 - $99,999	9	7.0
	$100,000 - $149,999	21	16.3
	$150,000 - $250,000	23	17.8
	$250,000 +	48	37.2
Golf Experience	Never	4	3.1
	1-2	9	7.0
	3-5	6	4.7
	6-10	16	12.4
	11-15	18	14.0
	16-20	9	7.0
	20 +	65	50.4
Golf Handicap Level	> 5	20	15.5
	6-10	24	18.6
	11-15	24	18.6
	16-20	26	20.2
	21-25	9	7.0
	26-30	20	15.5

Table 4.2. Descriptive Statistics for Affective Covariates and Criterion Variables

Construct	Variable	M	SD
Familiarity with golf equipment	• How familiar are you with golf equipment in general?	5.38	1.532
	• How familiar are you with the current products from golf's major equipment manufacturers? (i.e., TaylorMade, Callaway, Ping)	4.98	1.784
	• How familiar are you with this golf retail store?	4.80	1.969
	• How familiar are you with new golf clubs available in 2020?	4.34	2.013
	• How familiar are you with golf club custom fitting?	4.94	1.796
Familiarity with monitor technology	• How familiar are you with launch monitor technology?	4.17	2.208
	• How familiar are you with launch monitor club measurements? (i.e., club head speed, attack angle, or club path)	4.24	2.191
	• How familiar are you with launch monitor ball measurements? (i.e., ball speed, spin rate, or launch angle)	4.15	2.168
	• How familiar are you with brands like Trackman, FlightScope, and Foresight?	3.75	2.229
	• How familiar are you with using launch monitor technology to help determine which golf equipment you should use?	4.11	2.226
Salesperson attributes	• Sincerity of the salesperson	6.30	1.241
	• Honesty of the salesperson	6.38	1.189
	• Attitude of the salesperson	6.43	1.144
	• Ease of doing business with the salesperson	6.47	1.056
	• The salesperson's knowledge of the products	6.13	1.492
	• The salesperson showed concern for my needs	6.27	1.348
Consumer learning	• I learned a lot about my golf equipment needs	4.56	2.024
	• I learned a lot about my golf swing	3.66	2.084
	• I feel I will be a better golfer after what I learned today	3.85	2.084
	• The knowledge I gained today will help me to make good equipment purchasing decisions	4.22	2.125
	• What I learned today will help me to lower my golf score	3.75	2.055
Shopping experience	• Enjoyable	6.43	0.931
	• Unique	5.10	1.666
	• Memorable	4.93	1.703

	• Engaging	5.70	1.444
	• Educational	4.99	1.886
Customer satisfaction	• What is your overall satisfaction with your experience today?	6.43	1.084
	• To what extent did the service meet your expectations?	6.34	1.208
	• How well did the service experience compare with an ideal one?	6.28	1.226
	• How satisfied were you with the recommendations of the salesperson?	6.07	1.569
	• How satisfied are you with this store's ability to meet your golf equipment needs?	6.32	1.224
Intention to buy or recommend	• Likelihood of your recommending this golf shop to a friend	6.48	1.015
	• Likelihood of you recommending the salesperson to a friend or relative	6.11	1.550
	• Likelihood of you purchasing golf equipment from this store today	5.84	2.002
	• Likelihood of your returning to this store to purchase golf equipment	6.27	1.450
	• I intend to use this facility's services again	6.45	1.450
Amount of purchase	• What was the total amount of purchase?	375.14	695.24

Table 4.3. Factor Analysis of Affective Covariates and Criterion Variables with Principal Component Extraction

Construct	Variable	KMO	Bartlett's Test	Eigenvalue	Variance Explained	Factor Loading	Alpha
Familiarity with golf equipment	• How familiar are you with golf equipment in general?	.842	375.085 ($p < .001$)	3.541	70.827%	.847	.893
	• How familiar are you with the current products from golf's major equipment manufacturers? (i.e., TaylorMade, Callaway, Ping)					.869	
	• How familiar are you with this golf retail store?					.762	
	• How familiar are you with new golf clubs available in 2020?					.881	
	• How familiar are you with golf club custom fitting?					.843	
Familiarity with monitor technology	• How familiar are you with launch monitor technology?	.889	1148.484 (p<.001)	4.619	92.389%	.972	.979
	• How familiar are you with launch monitor club measurements? (i.e., club head speed, attack angle, or club path)					.980	
	• How familiar are you with launch monitor ball measurements? (i.e., ball speed, spin rate, or launch angle)					.984	
	• How familiar are you with brands like Trackman, FlightScope, and Foresight?					.919	
	• How familiar are you with using launch monitor technology to help determine which golf equipment you should use?					.949	
Salesperson attributes	• Sincerity of the salesperson	.860	1157.173 (p<.001)	5.250	87.506%	.970	.968
	• Honesty of the salesperson					.951	
	• Attitude of the salesperson					.929	
	• Ease of doing business with the salesperson					.912	
	• The salesperson's knowledge of the products					.891	
	• The salesperson showed concern for my needs					.957	
Consumer learning	• I learned a lot about my golf equipment needs	.863	627.397 (p<. 001)	4.310	86.190%	.887	.961
	• I learned a lot about my golf swing					.925	
	• I feel I will be a better golfer after what I learned today					.954	
	• The knowledge I gained today will help me to make good equipment purchasing decisions					.935	

	• What I learned today will help me to lower my golf score					.940	
Shopping experience	• Enjoyable	.846	434.655 (p<.001)	3.645	72.894%	.721	.914
	• Unique					.902	
	• Memorable					.897	
	• Engaging					.884	
	• Educational					.851	
Customer satisfaction	• What is your overall satisfaction with your experience today?	.888	821.027 (p<.001	4.253	85.058%	.966	.947
	• To what extent did the service meet your expectations?					.970	
	• How well did the service experience compare with an ideal one?					.956	
	• How satisfied were you with the recommendations of the salesperson?					.793	
	• How satisfied are you with this store's ability to meet your golf equipment needs?					.915	
Intention to buy or recommend	• Likelihood of your recommending this golf shop to a friend	.834	423.729 (p<.001)	3.538	70.758%	.928	.866
	• Likelihood of you recommending the salesperson to a friend or relative					.738	
	• Likelihood of you purchasing golf equipment from this store today					.781	
	• Likelihood of your returning to this store to purchase golf equipment					.825	
	• I intend to use this facility's services again					.918	
Purchase Amount	• What was the total amount of purchase?						

Table 4.4. Descriptive Statistics for the Dependent Variables between Quasi-Experimental Groups and between Genders

Sales Approach	Variable usage	Construct	Male				Female			
			Min	Max	M	SD	Min	Max	M	SD
Technology approach	Covariate variable	Familiarity equipment	-2.448	1.374	.073	.993	-2.287	1.374	-1.080	1.002
		Familiarity technology	-1.273	1.374	.247	.718	-1.458	1.017	-1.012	.826
		Salesperson attributes	-.661	.576	.374	.376	.576	.576	.576	.000
		Golf experience	2.000	7.000	5.940	1.474	3.000	7.000	4.900	1.595
		Golf handicap	1.000	7.000	3.460	1.615	1.000	6.000	4.500	1.841
		Age	1.000	7.000	4.090	2.063	1.000	6.000	4.300	1.567
	Dependent variable	Consumer learning	-.520	1.556	.719	.686	-.001	1.556	1.037	.606
		Shopping experience	-1.244	1.176	.444	.767	.273	1.176	.984	.355
		Customer satisfaction	-2.044	.617	.232	.726	.432	.617	.598	.058
		Purchasing intention	-1.281	.626	.421	.454	-.820	.626	.481	.457
		Expenditure amount	0.00	3000.00	852.14	873.78	0.00	4000.00	1047.90	1267.59
Traditional approach	Covariate variable	Familiarity equipment	-2.004	1.374	.341	.823	-2.581	1.374	-.555	.922
		Familiarity technology	-1.458	1.374	.207	1.032	-1.458	1.374	-.495	1.449
		Salesperson attributes	-4.660	.576	-.133	1.029	-3.788	.576	-.495	1.449
		Golf experience	1.000	7.000	5.780	1.795	1.000	7.000	4.500	2.110
		Golf handicap	1.000	7.000	2.800	1.527	1.000	6.000	4.680	1.673
		Age	1.000	7.000	4.100	2.048	1.000	6.000	4.180	1.842
	Dependent variable	Consumer learning	-1.559	1.556	-3.88	.730	-1.559	.614	-.556	.677
		Shopping experience	-2.989	1.176	-.318	.938	-2.826	1.176	-.285	1.166
		Customer satisfaction	-4.705	.617	-.085	1.012	-3.818	.617	-.410	1.347
		Purchasing intention	-4.730	.626	-.211	1.032	-4.066	.626	-.314	1.396
		Expenditure amount	0.00	406.00	86.81	100.05	0.00	300.00	87.18	97.92

Table 4.5. Factorial (2x2) MANCOVA Analyzing the Effect of Technology Sales Approach and Gender on Golf Equipment Purchase Behaviors

Effect	**Wilks' Lambda *(Λ)***	***F***	**Hypothesis *df***	**Error *df***	***p***	η^2	***1-β***
Intercept	.926	1.794	5	112	.120	.074	.597
Familiarity equipment	.975	.567	5	112	.725	.025	.202
Familiarity technology	.964	.847	5	112	.519	.036	.294
Salesperson attributes	.289	.847	5	112	<.001	.711	1.000
Golf experience	.979	55.229	5	112	.797	.021	.173
Golf handicap	.992	.187	5	112	.967	.008	.093
Age	.997	.077	5	112	.996	.003	.067
Technology Approach (A)	.548	18.466	5	112	<.001	.452	1.000
Gender (B)	.944	1.318	5	112	.262	.056	.452
A x B	.962	.873	5	112	.502	.038	.303

Table 4.6. ANCOVA Examining the Effect of Technology Sales Approach and Gender on Golf Equipment Purchase Behaviors with Bonferroni Alpha Level Adjustment

Effect	*Dependent Variable*	*ss*	*df*	*ms*	*F*	*p*	η^2	*1-β*
Intercept	Consumer learning	.369	1	.369	.790	.376	.007	.143
	Shopping experience	1.246	1	1.246	2.800	.097	.024	.382
	Customer satisfaction	.155	1	.155	.552	.459	.005	.114
	Purchasing intention	.009	1	.009	.019	.890	.000	.052
	Expenditure amount	2043637.67	1	2043637.67	5.785	.018	.047	.665
Familiarity equipment	Consumer learning	.000	1	.000	.001	.982	.000	.050
	Shopping experience	.134	1	.134	.301	.584	.003	.085
	Customer satisfaction	.716	1	.716	2.552	.113	.022	.354
	Purchasing intention	.881	1	.881	1.922	.168	.016	.280
	Expenditure amount	18774.082	1	18774.082	.053	.818	.000	.056
Familiarity technology	Consumer learning	.802	1	.802	1.717	.193	.015	.255
	Shopping experience	.352	1	.352	.792	.375	.007	.143
	Customer satisfaction	2.647E-5	1	2.647E-5	.000	.992	.000	.050
	Purchasing intention	.561	1	.561	1.223	.271	.010	.195
	Expenditure amount	25307.460	1	25307.460	.072	.789	.001	.058
Salesperson attributes	Consumer learning	3.483	1	3.483	7.458	.007	.060	.773
	Shopping experience	41.244	1	41.244	92.716	.000	.444	1.000
	Customer satisfaction	75.123	1	75.123	267.758	.000	.698	1.000
	Purchasing intention	49.259	1	49.259	107.402	.000	.481	1.000
	Expenditure amount	39804.942	1	39804.942	.113	.738	.001	.063
Golf experience	Consumer learning	.014	1	.014	.030	.863	.000	.053
	Shopping experience	.863	1	.863	1.939	.166	.016	.282
	Customer satisfaction	.173	1	.173	.615	.434	.005	.122
	Purchasing intention	.029	1	.029	.064	.801	.001	.057
	Expenditure amount	321.510	1	321.510	.001	.976	.000	.050

Golf handicap	Consumer learning	.016	1	.016	.034	.854	.000	.054
	Shopping experience	.002	1	.002	.004	.952	.000	.050
	Customer satisfaction	.055	1	.055	.197	.658	.002	.072
	Purchasing intention	.270	1	.270	.588	.445	.005	.118
	Expenditure amount	61807.910	1	61807.910	.175	.677	.002	.070
Age	Consumer learning	.019	1	.019	.041	.841	.000	.055
	Shopping experience	.030	1	.030	.067	.796	.001	.058
	Customer satisfaction	.033	1	.033	.116	.734	.001	.063
	Purchasing intention	.007	1	.007	.015	.904	.000	.052
	Expenditure amount	27128.711	1	27128.711	.077	.782	.001	.059
Technology Approach (A)	Consumer learning	26.900	1	26.900	57.608	.000	.332	1.000
	Shopping experience	5.700	1	5.700	12.812	.001	.099	.944
	Customer satisfaction	.041	1	.041	.144	.705	.001	.066
	Purchasing intention	1.088	1	1.088	2.371	.126	.020	.333
	Expenditure amount	12679882.9	1	12679882.9	35.890	.000	.236	1.000
Gender (B)	Consumer learning	.787	1	.787	1.685	.197	.014	.251
	Shopping experience	2.576	1	2.576	5.792	.018	.048	.665
	Customer satisfaction	.409	1	.409	1.459	.230	.012	.224
	Purchasing intention	.721	1	.721	1.572	.212	.013	.238
	Expenditure amount	254747.235	1	254747.235	.721	.398	.006	.134
A x B	Consumer learning	.941	1	.941	2.016	.158	.017	.291
	Shopping experience	.262	1	.262	.590	.444	.005	.119
	Customer satisfaction	.330	1	.330	1.178	.280	.010	.190
	Purchasing intention	.059	1	.059	.128	.721	.001	.065
	Expenditure amount	131501.254	1	131501.254	.372	.543	.003	.093

Table 4.7. Estimated Marginal Means for the Dependent Variables between Quasi-Experimental Groups and between Genders

Sales Approach	Construct	Male				Female			
		M	SEE	95% lower bound	95% upper bound	M	SEE	95% lower bound	95% upper bound
Technology approach	Consumer learning	$.624^a$	.122	.383	.864	1.064^a	.234	.600	1.528
	Shopping experience	$.209^a$	.119	-.026	.444	$.724^a$	.229	.271	1.177
	Customer satisfaction	$-.085^a$	.094	-.272	.101	$.204^a$	.182	-.156	.563
	Purchasing intention	$.132^a$	.120	-.106	.371	$.289^a$	.232	-.171	.749
	Expenditure amount	848.137^a	105.688	638.808	1057.466	1055.708^a	203.763	652.129	1459.287
Traditional approach	Consumer learning	$-.401^a$	.094	-.589	-.241	$-.400^a$	.160	-.717	-.083
	Shopping experience	$-.248^a$	.092	-.431	-.066	$.036^a$	.156	-.274	.345
	Customer satisfaction	$-.004^a$	.073	-.149	.141	$.026^a$	.124	-.220	.271
	Purchasing intention	$-.173^a$	.094	-.358	.013	$.093^a$	.159	-.221	.408
	Expenditure amount	75.776^a	82.197	-87.025	238.578	119.582^a	139.209	-156.139	395.303

CHAPTER 5

DISCUSSION

This chapter summarizes the research findings and discusses both the theoretical and practical implications of the study. The limitations and recommendations for future research are also presented.

Summary

In the golf industry, it is common knowledge that the use of launch monitors in retail sales has led to substantial increases in golf equipment sales in recent years. However, to date, no studies have been conducted to attempt to quantify the effectiveness of sales procedures that incorporate the use of launch monitor technology in terms of consumer behavior measurements. This study was intended to fill this void by conducting a quasi-experiment in a real-world business environment. This was carried out by making comparisons between traditional and technological sales procedures as well as between genders male and female. Findings from this quasi-experimental study are meant to help establish a cause-effect relationship between the use of launch monitor technology in sales procedures and golf equipment buyer's behavior measures.

First, the present study was grounded in a thorough review of consumer behavior literature. Researchers identified the FCB model (Vaughn, 1980), the AIDA model (Strong, 1925), and the Information Processing Theory of Consumer Choice (Bettman, 1979) as important models for conceptualizing the sales process. The FCB model (Vaughn, 1980), also known as the "learn, feel, do" model, which theorized that consumer purchases progressed from

the cognitive stage, to the affect stage, followed by the behavior stage, provided the framework for the measurement constructs of this study.

With these theoretical underpinnings in mind, this study developed/adopted a research instrument to assess consumer behaviors in each of the three stages (cognitive stage, affect stage, behavior stage) and to determine whether the use of advanced analytical technology impacted consumers in each stage of the purchasing process. The cognitive stage was measured using the construct of consumer learning, the affect stage was measured using the constructs of shopping experience and customer satisfaction, and the behavior stage was measured by the construct of behavioral intention as well as recording the actual purchase amount. Because the study was conducted in real-world business environment, randomization was not a possibility and the covariates golfer age, golf experience, golf ability (skill level), perceived salesperson attributes, familiarity with golf equipment, and familiarity with launch monitor technology needed to be controlled statistically. The proposed survey instrument contained 44 items under these 9 factors.

The instrument was submitted to a panel of experts who approved it for use in a pilot study. The pilot study was conducted to test the validity and reliability of the measurement instrument. The results of the pilot study indicated that the instrument met the basic measurement property requirements, and it was deemed appropriate for the proposed quasi-experimental study to proceed. Data collection was then conducted over a seven-day period resulting in a sample size of 127 participants.

Hypotheses Testing

Using the data collected from the participants with the final survey instrument, the following hypotheses were tested: (a) there would be significant differences in the mean vector scores of golf equipment buyer's behavior measures between the traditional and technological

sales groups after partialing out the identified covariates (b) there would be significant differences in the mean vector scores of golf equipment buyer's behavior measures between the traditional and technological sales groups after partialing out the identified covariates (c) there would be significant interaction between sales technique and gender in terms of the mean vector scores of golf equipment buyer's behavior measures after controlling for the identified covariates.

The findings of the study supported hypothesis one and revealed that the use of launch monitor technology in the sales process resulted in significant increases ($p < .001$) in overall consumer behaviors accounting for 45.2% of the variance between the technological sales group and the control group. The findings of the study were unable to support hypothesis two. In the descriptive statistics, notable disparities could be observed between male and female consumer groups; However, after partialling out all the covariate variables, these differences were not statistically significant ($p = .262$). The findings of the study were unable to support hypothesis three. No significant interaction between sales technique and gender could be observed after controlling for the identified covariates ($p = .502$)

Theoretical and Practical Implications

Previous scholars have separated consumer purchasing behaviors into two distinct categories. Vaughn (1980) classified these as "low involvement" and "high involvement". Bettman (1979) defined low involvement purchases as "simple habitual choices". He proposed that when making simple habitual choices, little cognitive thought is given to the purchase and advertising can be effective in creating awareness and introducing uncertainty. For frequently purchased products, trial is easy, and purchases are inexpensive. This results in a lighter penalty for a mistake and less anxiety about the outcome of the purchase (Vaughn, 1980). Customer

purchases that require a high level of customer involvement are theorized to be treated entirely different by the consumer. Vaugh (1980) proposed that high involvement purchases are perceived as more important to the consumer because they have higher cost, social value, ego support, etc. Essentially, high involvement decisions are thought to require greater attention because they involve more risk, increase purchase anxiety, and demand greater use of information in purchase decision making. When designing and conducting the present study, the purchase of golf equipment was considered a high involvement purchase decision for which the "learn, feel, do" model of consumer behavior was used to provide in depth analysis of the purchasing process. This conceptual approach functioned flawlessly for this research, providing further support for previous consumer behavior theories.

Covariate Variables

Previous scholars have recognized the role of the consumer's background and preceding experiences in the consumer decision making process (Alba & Hutchinson, 1987; Chi, Glaser, & Rees, 1982; Johnson & Russon, 1984; Punj & Srinivasan, 1989). For example, Johnson and Russon (1984) theorized that familiarity with a product class results in three different forms of consumer expertise: (1) a superior knowledge of existing alternatives, (2) a superior ability to encode new information, and (3) a superior ability to discriminate between relevant and irrelevant information. Furthermore, numerous studies have examined the importance of perceived salesperson attributes in the retail environment (Darley et al., 2008). Salesperson attributes such as courtesy, knowledge, friendliness, respect for consumer knowledge, responsiveness etc. have been shown to effect consumer behavior intention (Darian et al., 2001; Darley et al., 2008; Grewal & Sharma, 1991; Humphreys & Williams, 1996). Interestingly, women and men have been shown to perceive salesperson attributes differently, leading to

disparate outcomes in behavioral intent (Darley et al., 2008). Studies such as Humphrey and Williams (1996) showed significant positive correlations between the salesperson's interpersonal communications process and the customer's overall satisfaction. Based on this previous research, it is was proposed that the consumer's previous experience and perceived salesperson attributes would have a significant effect on the overall consumer behavior measurements.

The present study included age, golfer experience, golf skill level, familiarity with golf equipment, familiarity with launch monitor technology, and perceived salesperson attributes as potential confounding variables. Each of the identified covariates did influence the model, but outside of salesperson attributes their relative effects were minimal. The most notable finding from the inclusion of the covariate variables was the significance of salesperson attributes in the sales process. In the MANCOVA, salesperson attributes was the only covariate variable with a significant influence ($p < .001$) on the dependent variables, accounting for 71.1% of the variance. This finding underscores the importance of the perceived salesperson attributes in the sales process and has significant theoretical and practical implications. Simply put, when customers have positive perceptions about salesperson attributes and shopping experience this leads to increases in behavioral intention and purchase amounts. In the context of the present study, these findings highlight the importance of employing trained salespeople, equipped with advanced knowledge in golf, human kinetics, and data analytics. Findings suggest that the expenditures required to employ these salespeople can be recuperated through an increase in short-term and long-term profits. Consider also that, poorly trained salespeople without the above traits, could have a negative impact on purchasing behaviors. Just as positive salesperson attributes can increase purchasing behavior and increase the likelihood of patronage of the shop, negative perceived salesperson attributes could prevent customers from making a purchase and drive

customers toward competitors. With this in mind, retailers should place an internal focus on hiring and training salespeople to demonstrate attributes such as honesty, sincerity, and positive attitude toward the consumer.

Technology

Technology is changing the world. It has had a disruptive effect on almost all major industries across the global economy, which includes both the golf industry and retail sales. Over the past few years, retailers across the globe have been losing their relative marketplace positions to online sellers. Studies have shown that modern consumers still like to shop in stores, but they have higher expectations. They expect more than just merchandise on shelves. They expect innovative sales practices that offer superior customer experiences and increased engagement (Albinsson & Yasanthi-Perera, 2010; Childs et al., 2020; Grewal et al., 2009; Pantano & Gandini, 2018). In the golf industry, the invention and diffusion of launch monitor technology into the marketplace has presented golf equipment retailers with a unique opportunity. In response, the golf industry trend has been to use this technology to offer every-day golfers a level of custom fitting and personalization of equipment that was previously reserved for the game's elite players. The evidence provided by this study suggests that using launch monitor technology as a focal point in the sales process creates cognitive stimulation, encourages consumer engagement, creates interactive experiences, adds an additional element of consumer learning, and ultimately increases product sales.

Furthermore, previous research and consumer data has revealed that golfers make up a sophisticated, well-educated, and affluent consumer segment (NGF, 2020). The NGF (2016) reported that about 80% of people who play golf regularly have at least some college education, and the Benchcraft Company (2020) found that the average household income for golfers is over

$100,000. The descriptive statistics for the participants of the study presented in table 4.1 supported the previous research findings. In fact, over 70% of the golfers who participated in this study, reported their household income to be over $100,000. Identifying effective sales methods for impacting this sophisticated consumer segment is desirable, perhaps even critical, for long-term success in an extremely competitive marketplace. For these reasons, the use of advanced, analytical technology operated by a salesperson perceived as a subject matter expert was hypothesized to result in significant positive increases in golf equipment purchasing behaviors.

One of the most important outcomes of the present investigation was the conclusive empirical evidence exhibiting that the proper use of launch monitor technology significantly increases golf equipment purchasing behaviors among consumers. Results showed that the use of launch monitor technology in the sales process accounted for a remarkable 45.2% increase in overall consumer behavior measurements. Furthermore, these increases could be observed within all three stages of the sales process (cognitive stage, affect stage, behavior stage) as identified by Vaughn (1980). Findings showed that the use of the technology in the sales process resulted in increases in consumer learning (+33.2%), shopping experience (+9.9%), and purchase expenditure amount (+23.6%). It is also likely that the findings within the construct of consumer learning are even more significant than the results that can be observed in the model. For example, of the 127 participants in the study only 105 responded to all five items in the consumer learning scale with 22 participants marking this section “N/A”. All 22 who marked this section not applicable were in the traditional sales group and did not use launch monitor technology during their shopping experience. This would suggest that the analytical data produced by the launch monitors presents retailers with an opportunity to add a valuable educational element to the sales process. Effectively, launch monitors are an advanced form of

analytical technology that communicate the physics of impact and ball flight through computer generated data. A salesperson who truly understands the launch monitor data and golf swing mechanics is able to convey technical information to the consumer and explain not only what golf equipment performs better for them and why, but also how they can improve their golf technique to hit better shots. The statistical evidence presented in this study suggests that this process results in cognitive stimulation and offers an educational element that simply does not exist in the traditional sales environment.

Gender

Previous theoretical and practical investigations have highlighted that gender influences buyer's judgements and evaluations as well as the communication interactions between the salesperson and the buyer (Meyers-Levy & Sternthal, 1991; McQuinston & Morris, 2009; Wood et al., 2014). Their findings demonstrated that based on gender, sales activities can differentially impact the buyer's perceptions of salesperson trustworthiness as well as any perceived conflict with the salesperson. Wood et al. (2014) showed that for women, product-based sales approaches increased their perceptions of conflict while solution-based sales approaches increased their evaluations of salesperson trustworthiness. For these reasons, men and women were included as separate consumer groups who could be disparately affected by the technological and traditional sales approaches.

Unfortunately, the differences were not statistically significant in the MANCOVA, but the disparities that could be observed between male and female consumer groups in the descriptive statistics were noteworthy. This was particularly true for females who utilized launch monitor technology. This group demonstrated the highest mean scores for consumer learning, shopping experience, customer satisfaction, purchasing intention, and expenditure amount. Men

who used technology also rated each of the respective constructs higher than men who did not, but these increases were measurably higher for females than for males. For example, the greatest increases in any construct were in that of consumer learning. These increases could be observed for both males and females, but females showed a larger increase with the use of technology. Males in the traditional sales group had calculated means scores of (M= -.388, SD=.730) while males in the technological sales group were notably higher at (M= .719, SD= .686). Females reported consumer learning scores in the traditional group were (M= -.556, SD= .677) while females calculated mean scores in the technological sales group were much higher at (M= 1.037, SD= .606). It is plausible that the lack of statistical significance in the MANCOVA can be partially attributed to the small sample size of the females who utilized technology in the sales process. Despite the fact that data was collected over a one-week period, with virtually all of the golf shop's customers being asked to participate, only 10 women who used launch monitor technology during their shopping voluntarily participated in the study.

Undoubtedly, the golf industry has a major opportunity for growth in this area. Women make up a growing, interested, and influential consumer group. They also make up a growing percentage of the golfing population, with the largest increases in participation coming with younger women and girls (NGF, 2020; PGA, 2013). The results from this study and previous studies demonstrate that gender influences buyer's judgements and behaviors (Meyers-Levy & Sternthal, 1991; McQuinston & Morris, 2009; Wood et al., 2014). Furthermore, findings indicate that women appear to be particularly responsive to technological applications and perceived salesperson attributes. Women showed positive response to technology and were very satisfied with the experiences. Questions that remain are: what is preventing more women from participating? And How can the process be tailored for them? In the meantime, businesses would

be wise to focus on the power of women in the economy and discover exactly how they can tailor products and services to meet their specific needs and expectations.

The findings of this research have major implications for retail golf shops and other organizations who are attempting to determine whether the initial purchase costs plus the long-term expenditures required to own and operate launch monitor technology is a worthwhile investment. These results indicate that launch monitor technology provides a substantial competitive advantage for golf equipment retailers who utilize this technology as the focal point of the sales process compared with those who do not. In brief, if golf retailers do not use launch monitor technology for equipment sales, they are at a significant disadvantage and will quickly lose their relative competitive position in the marketplace due to the disruptive effects of the technology. With this in mind, organizations should optimize their use of launch monitor technology by hiring expert personnel to offer personalized experiences to consumers, knowing that this will have a significant positive effect on consumer purchasing behaviors.

Limitations and Future Research

Certain limitations associated with the current study have been identified. First of all, this study was conducted in Palm Beach Gardens, FL, which is a particularly wealthy area. Though the layout of the retail shop provided the ideal environment to facilitate the study, its geographical location resulted in 37.2% of participant's having an annual household income over $250,000. Previous research has indicated that golfers make up a sophisticated consumer segment, but the mean income of the participants in this study is likely higher than that of golfers in other parts of the country. Therefore, future research could be conducted in a location with a lower mean annual household income to improve the generalizability and reliability of the conclusions.

Second, the study was only able to produce a sample size of 10 women who underwent technological sales procedures, despite the fact that researchers conducted the survey over a seven-day period. Unfortunately, golf is a male dominated sport averaging only 26% female participation (NGF, 2020). This study accurately reflected previous research findings with 25.2% female participation, however only about one-third of females used launch monitor technology during their shopping. All 10 females that experienced launch monitor technology reported the maximum scores of 7 for each measurement of salesperson attributes on the Likert-scale. Thus, there was no variability for this construct. The generalizability and reliability of the findings is limited by the small sample size, and future studies should include data collection strategies to increase the number of women included in the research. Further studies should be conducted to understand how the use of this technology in the sales process can be tailored for female golfers in order to meet their specific needs and expectations. Studies could also be conducted to determine what is preventing more women from participating in the process at golf shops.

Third, findings of the present study demonstrated the powerful influence of perceived salesperson attributes on consumer behavior. This construct was originally included as a potential confounding variable based on the previous research of Darley et al. (2008) but was certainly not a primary focus of the research. Though the construct of salesperson attributes was anticipated to have an effect on consumer purchasing behavior, researchers were quite surprised by the significance of the findings, particularly that it influenced consumer behavior far more than any of the other identified covariate variables. The findings suggest that the modern golf equipment sales process offers a unique opportunity for future researchers to study and evaluate the importance of salesperson attributes in the sales process, and how they are perceived by different individual consumers. Deeper understanding of perceived salesperson attributes in the

sales process could have significant practical implications for organizations within the competitive marketplace.

Fourth, the present study only considered the gender of the consumer when making gender comparisons and did not take into account the gender of the salesperson. It is certainly plausible that the gender of the salesperson could have a disparate effect on consumers' individual experience and satisfaction evaluations. Future researchers should consider the gender of the salesperson when designing the study.

Finally, this study did not account for the customer's intent to purchase golf equipment during their visit to the store. It is possible that some customers, particularly those in the technological sales group, arrived at the store already having decided that they were going to purchase golf equipment while those in the traditional group may have only visited the store to browse with no intention to make a purchase that day. Future research could include an intention to make a purchase scale on the first half of the questionnaire.

References

Abbott, K. W., Green, J. F., & Keohane, R. O. (2016). Organizational ecology and institutional change in global governance. *International Organization*, 247-277.

Ahinful, E.A., & Asomaning, R. (2017). Sales force activities in small service firms. *International Journal of Advanced Research*, 5(10), 1758-1765.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes,* 50(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice Hall.

Al Jardali, H., Abdallah, F., & Barbar, K. (2015). Measuring intentions among employees toward the use of a balanced scorecard and information system: A conceptual approach using the theory of planned behavior and the technology acceptance model. *Procedia Economics and Finance*, 26(2015), 1146-1151.

Alvarez, A. (2019). What exactly makes a woman's golf club a woman's golf club. *My Golf Spy*. Retrieved from https://mygolfspy.com/the-problem-with-womens-clubs/

Alba, J.W., & Hutchinson, J.W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.

Albinsson, P. A., & Yasanthi-Perera, B. (2012). Alternative marketplaces in the 21st century: Building community through sharing events. *Journal of Consumer Behavior*, 11(4), 303-315.

Angelova, B., & Zekiri, J. (2011). Measuring customer satisfaction with service quality using American customer satisfaction model. *International Journal of Academic Research in Business and Social Sciences*, 1(3), 232-258.

Bagdare, S., & Jain, R. (2013). Measuring retail customer experience. *International Journal of Retail & Distribution Management*, 41(10), 790-804.

Baker, M.J., & Churchill, J. (1977). The impact of physically attractive models on advertising evaluations. *Journal of Marketing Research*, 14(4), 538-555.

Barry, T. F., & Howard, D. J. (1990). A Review and Critique of the Hierarchy of Effects in Advertising. *International Journal of Advertising*, *9*(2), 121–135.

Benchcraft Company (2020). Golfer Demographics. Retrieved from https://www.benchcraftcompany.com/demographics/

Bennett, G., Henson, R., & Zhang, J. (2002). Action sports sponsorship recognition. *Sport Marketing Quarterly*, *11*(3), 174.

Bettman, J. (1979). *An information processing theory of consumer choice*. Boston, MA: Addison-Wesley Publishing Company, Inc.

Brady, M.K., Knight, G.A., Cronin Jr., J.J., Tomas, G., Hult, M., & Keillor, B.D. (2005). Removing the contextual lens: A multinational, multi-setting comparison of service evaluation models. *Journal of Retailing*, 81(3), 215-230.

Braunstein, J. R., & Zhang, J. J. (2005). Dimensions of market demand associated with pre-season training: Development of a scale for major league baseball spring training. *Sport Management Review (Sport Management Association of Australia & New Zealand)*, 8(3), 271–296.

Brumer, A. (2004, August 21). Launch monitors: Dissecting devices. *Golfweek*. Retrieved from https://golfweek.usatoday.com/2004/08/21/2004-launch-monitors-dissecting-devices/

Brunton, H. (2012). *High performance golf: The serious golfer's guide to effective training.* Seattle, WA: Sea Script Company.

Cascio, W., & Montealegre, R. (2016). How technology is changing work and organizations. *The Annual Review of Organizational Psychology and Organizational Behavior,* 3, 349-375.

Cattell, R. B. (1966). The Scree test for the number of factors. *Multivariate Behavioral Research*, 1, 245-276.

Cianfrone, B., Bennett, G., Siders, R., & Tsuji, Y. (2006). Virtual advertising and brand awareness. *International Journal of Sport Management and Marketing*, 1(4), 289-310.

Cai, H., & Lin, Y. (2010). Tuning trust using cognitive cues for better human-machine collaboration. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, *54*(28), 2437–2441.

Chaudhary, N. (n.d.). The marketing mix of Adidas: Adidas marketing mix. *College of Vocational Studies, University of Delhi*. Retrieved from http://www.cvs.edu.in/upload/1st%20May-SME.pdf

Chen-Yueh Chen, Yi-Hsiu Lin, Chen-Yin Lee, Yen-Kuang Lin, Min-Chieh Chuang, & Kuan-Nan Lee. (2019). Reflective or impulsive buying or both? Evidence from the sport merchandise consumption context. *Social Behavior & Personality: An International Journal*, *47*(11), 1.

Chi, M., Glaser, R., & Rees, E. (1982). Expertise in problem solving. In K.J. Sternberg (ed.), *Advances in the Psychology of Human Intelligence*, Volume 1, Hillsdale, NJ: Lawrence Erlbaum Associates.

Childs, M., Blanchflower, T., Hur, S., & Matthews, D. (2020). Non-traditional marketplaces in the retail apocalypse: Investigating consumers' buying behaviours. *International Journal of Retail and Distribution Management*. 48(3), 262-286.

Club Champion (2020a). A custom fit game is a click away. Retrieved from https://clubchampiongolf.com/locations

Club Champion (2020b). Careers. Retrieved from https://clubchampiongolf.com/careers

Constantinovits, M., & Zhang, S. (2018). Oral tactics in principled negotiation based on AIDA model. *Broad Research in Accounting, Negotiation, and Distribution*, 9(1), 39-45.

Coovert, M., & Thompson, L. (2014). *The psychology of workplace technology* (Organizational frontiers series). New York, NY: Routledge/Taylor & Francis Group.

Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*: 10(7).

Cronin, J., Brady, M., & Hult, T. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.

Del Greco, L., Walop, W., & McCarthy, R. H. (1987). Questionnaire development: 2. Validity and reliability. *Canadian Medical Association Journal*, *136*(7), 699.

Darley, W., Luethge, D., & Thatte, A. (2008). Exploring the relationship of perceived automotive salesperson attributes, customer satisfaction, and intentions to automotive service department patronage: The moderating role of customer gender. *Journal of Retailing and Consumer Services*, 15(6), 469-479.

Darian, J. C., Wiman, A.R., & Tucci, L.A. (2001). Perceived salesperson service attributes and retail patronage intentions. *International Journal of Retail and Distribution Management*, 29(5), 205-213.

Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results.* [Doctoral Dissertation, Sloan School of Management, Massachusetts Institute of Technology].

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982.

Deci, E., & Ryan, R. (2012). Self-determination theory. In *Handbook of theories social psychology*, vol. 1, pp. 416-437. Thousand Oaks, CA: Sage.

Dodds, W.B., Monroe, K.B., & Grewal, D. (1991). Effects of price, brand, and store information on buyer's product evaluations. *Journal of Marketing Research*, 28(3), 307-319.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research* (Addison-Wesley series in social psychology). Reading, Mass.: Addison-Wesley Publications.

Flightscope (2020). The technology behind Flightscope golf ball trackers. Retrieved from https://flightscope.com/company/technology/

Foresight Sports (2020a). Welcome to freedom. Retrieved from https://www.foresightsports.com/gchawk

Foresight Sports (2020b). FSX 2020 software full purchase. Retrieved from https://shop.foresightsports.com/products/fsx-2020-software

Friedewald, M., & Raabe, O. (2011). Ubiquitous computing: An overview of technology impacts. *Telematics and Informatics*, *28*(2), 55-65.

Goff, B.G., Boles, J.S., Bellenger, D.N., & Stojack, C. (1997). The influence of salesperson selling behaviors on customer satisfaction with products. *Journal of Retailing*, 73(2), 171-183.

Golf Digest (2009). Misfits. Retrieved from https://www.golfdigest.com/story/new_looks_club_fitting

Golf Digest. (2020). Best launch monitors. Retrieved from https://www.golfdigest.com/story/best-launch-monitors

GOLFTEC Digital. (2018, May 22). The science behind launch monitors. Retrieved from https://www.golftec.com/blog/2018/05/science-behind-launch-monitor-technology/

Graham, S. (1962). Cultural compatibility in the adoption of television. *Social Forces*, 33, 166-170.

Grant, R. (2013) Edwin Watts golf shops files for chapter 11 bankruptcy on November 4, 2013. Culhane Meadows PLLC. Retrieved from http://chapter11dallas.com/edwin-watts-files-bankruptcy/

Grewal, D., Levy, M., & Kumar, V. (2009). Customer experience management in retailing: An organizing framework. *Journal of Retailing*, 85(1), 1-14.

Grewal, D., & Sharma, A. (1991). The effect of sales behavior on customer satisfaction: An interactive framework. *Journal of Personal Selling and Sales Management*, 11, 13-23.

Hale, C. (n.d.). What is a golf handicap? *Golfweek*. Retrieved from https://golftips.golfweek.com/high-golf-handicap-1939.html

Hannan, M., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology,* 82(5), 929-964.

Hannan, M., & Freeman, J. (1989). *Organizational ecology.* Cambridge, MA: Harvard University Press.

Hansemark, O. C., & Albinsson, M. (2004). Customer satisfaction and retention: The experiences of individual employees. *Managing Service Quality, 14*(1), 40-57.

Hoek, J. (1999). Sports sponsorship evaluation: A behavioral analysis. *International Journal of Sports Marketing and Sponsorship*, 1(4), 16-32.

Howard, J., & Sheth, J. (1969). *The theory of buyer behavior* (Wiley marketing series). New York, NY: Wiley.

Humphreys, M.A., & Williams, M.R. (1996). Exploring the relative effects of salesperson interpersonal process attributes and technical product attributes on customer satisfaction. *Journal of Personal Selling and Sales Management*, 16, 47-57.

International Monetary Fund. (2018). *World economic outlook: Cyclical upswing, structural change.* Washington, DC.

Irwin, R., Sutton, W., & McCarthy, L. (2002). *Sport promotion and sales management*. Champaign, IL: Human Kinetics.

Isidore, C. (2017). Retail's toughest year: A record for store closings. *CNN*. Retrieved from https://money.cnn.com/2017/12/26/news/companies/retail-toughest-year-store-closings/index.html

Johnson, E., & Russo, E. J. (1984). Product familiarity and learning new information. *Journal of Consumer Research*, 11, 542-550/

Jorian (December 28, 2019). Best projector screen for a golf simulator 2020. Retrieved from https://econsumermatters.com/technology/best-projector-for-golf-simulator/

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141-151.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

Keegan, J. (2016). *The business of golf: What are you thinking?* New York, NY: Maestro.

Kent, R.J., & Allen, C.T. (1994). Competitive interference effects in consumer memory for advertising: The role of brand familiarity. *Journal of Marketing*, 58, 97-105.

Kotler, P. (2000). *Marketing management*. 10th edition. New Jersey: Prentice Hall.

Kotler, P. (2015). *Framework for marketing management*, Pearson Education India.

Krumm, J. (Ed.). (2018). *Ubiquitous computing fundamentals*. Boca Raton, FL: CRC Press.

Kunlehane, M. (December 19, 2019). Guide to launch monitors and how they work. Retrieved from https://southamptongolfclub.com/guide-to-launch-monitors-and-how-they-work/

Lamba, T., & Malhatra, H. (2009). Role of technology in globalization with reference to business continuity. *Global Journal of Enterprise Information System*, 1(2), 70-77.

Lambkin, M., & Day, G. (1989). Evolutionary processes in competitive markets: Beyond the product life cycle. *Journal of Marketing*, 53(3), 4-20.

Lavidge, R., & Steiner, G. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing,* 25(6), 59-62.

Lindsay, P., & Norman, D. (1972). *Human information processing.* New York, NY: Academic.

Liu, A., & Leach, M.P. (2001) Developing loyal customers with a value-adding sales force: Examining customer satisfaction and the perceived credibility of consultative salespeople. *Journal of Personal Selling & Sales Management*, 21(2), 147-156.

Locket, L. (2015). Guide to launch monitors. Retrieved from https://www.golfalot.com/equipment-news/guide-to-launch-monitors-3070.aspx

MarketLine Research (2016). *MarketLine industry profile: Sports equipment in the United States* [PDF]. Retrieved from https://www.marketinsightsreports.com/reports/03189109/sports-equipment-in-the-united-states

Matuszewski, E. (2019). The state of golf for 2019: An industry roundtable. *Forbes*. Retrieved from https://www.forbes.com/sites/erikmatuszewski/2019/05/01/the-state-of-the-golf-industry-for-2019/#7da165635208

McQuinston, D.H., & Morris, K.A. (2009). Gender differences in communication: Implication for salespeople. *Journal of Selling and Major Account Management*, 9, 54-64.

Merriam-Webster (n.d.). Motivation. Retrieved April 13, 2020 from https://www.merriam-webster.com/dictionary/motivation

Meyers-Levy, J., & Sternthal, B. (1991). Gender differences in the use of message cues and judgements. *Journal of Marketing Research*, 28(1), 84-96.

Moongolf.com (2020). Locations. Retrieved from https://moongolf.com/location/

Moore, G. (1999). *Crossing the Chasm*. New York, NY: Harper Business Essentials.

Morgan, B. (2017). Five trends shaping the future of customer experience in 2018. *Forbes*. Retrieved from https://www.forbes.com/sites/blakemorgan/2019/12/17/5-predictions-for-customer-experience-in-2020/#1204c5912ec7

Moss, R. J. (2013). The American private golf club: Its golden age and after. *International Journal of the History of Sport*, *30*(14), 1604–1617.

MyGolfSpy. (2019). The best personal launch monitors of 2019. Retrieved from https://mygolfspy.com/the-best-personal-launch-monitor-2019/

National Golf Foundation (2012). Know your customer playbook [PDF]. Retrieved from https://cdn.cybergolf.com/images/1867/Golf--know_your_customer_playbook.pdf

National Golf Foundation. (2016). Golf participation in the U.S. Retrieved from https://cdn.cybergolf.com/images/1867/2016-Golf-Participation-in-the-US.pdf

National Golf Foundation. (2020). Golf industry facts. Retrieved from https://www.ngf.org/golf-industry-research/

Neisser, U. (1963). The imitation of man by machine. *Science*, 139(1), 193-197.

Nelson, A. (2019). Women drive the majority of consumer purchasing and it's time to meet their needs. *Inc*. Retrieved from https://www.inc.com/amy-nelson/women-drive-majority-of-consumer-purchasing-its-time-to-meet-their-needs.html

Newell, A., & Simon, H. (1972). *Human problem solving.* Englewood Cliffs, NJ: Prentice-Hall.

Norman, D., & Bobrow, D. (1975). On data-limited and resource-limited processes. *Cognitive Psychology*, (7), 44-64.

Norton, J., & Bass, F. (1987). A diffusion theory model of adoption and substitution for successive generations of high technology products. *Management Science*, 33(9), 1069-1086.

Nunnally, J. C., & Bernstein, I. (1994). Validity. *Psychometric theory*, 99-132.

Palm beach gardens, fl. (2021). Retrieved from https://datausa.io/profile/geo/palm-beach-gardens-fl/.

Pantano, E., & Gandini, A. (2018). Shopping as a networked experience: An emerging framework in the retail industry. *International Journal of Retail & Distribution Management*, 46(7), 690-704.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.

PGA Tour Superstore (2020). Who we are. Retrieved from https://www.pgatoursuperstore.com/about-us/

Pine, B. J., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, *76*, 97-105.

Professional Golfers Association of America (2013). Connecting with her playbook [PDF]. Retrieved from https://lpgawomensnetwork.com/wp-content/uploads/2019/02/Playbook-Final-102512.pdf

Poulin, M., Montreuil, B., & Martel, A. (2006). Implications of personalization offers on demand and supply network design: A case from the golf club industry. *European Journal of Operational Research*, 169, 996-1009.

Punj, G., & Srinivasan, N. (1989). Influence of expertise and purchase experience on the formation of evoked sets. *Advances in Consumer Research*, *16*(1), 507–514.

Rain or Shine Golf (2020). Swing bay golf simulator screen & enclosure. Retrieved from https://rainorshinegolf.com/products/swingbay-golf-simulator-screen-enclosure

Rawal, P. (2013). AIDA marketing communication model: Stimulating a purchase decision in the minds of consumers through a linear progression of steps. *International Journal of Multidisciplinary Research in Social & Management Sciences*, 1, 37-44.

RICHINS, M. L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, *24*(2), 127–146.

Roberts, A. (2017). Launch monitors: The low down. *Golf Magic*. Retrieved from https://www.golfmagic.com/news/equipment-news/launch-monitors-the-lowdown/21008

Robertson, T. (1971). *Innovative behavior and communication* (Editors' series in marketing). New York, NY: Holt, Rinehart and Winston.

Rovell, D. (2014). Dick's fires more than 500 golf pros. *ESPN*. Retrieved from https://www.espn.com/golf/story/_/id/11248733/dick-sporting-goods-fires-more-500-store-pga-professionals

Saxe, R., & Weitz, B. A. (1982). The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research*, 19(3), 343-351.

Shank, M., & Lyberger, M. (2015). *Sports Marketing: A strategic perspective.* New York, NY: Routledge.

Shpitser, I., VanderWeele, T., & Robins, J. M. (2012). On the validity of covariate adjustment for estimating causal effects. *arXiv preprint arXiv:1203.3515*.

Silverstein, M. J., & Sayre, K. (September, 2009). The female economy. *Harvard Business Review*. Retrieved from https://hbr.org/2009/09/the-female-economy

Simon, H. (1969). *The sciences of the artificial.* Cambridge, Mass: M.I.T. Press.

Singh, J. (1990). *Organizational evolution: New directions*. Newbury Park, CA: Sage Publications.

Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, *26*(2), 53–66.

Stachura, M. (2018). Clubfitter directory: America's best clubfitters. Retrieved from https://www.golfdigest.com/story/clubfitter-directory-americas-best-clubfitters

Stanley, A. (2018). How technology is changing a traditional game. *National Golf Foundation*. Retrieved from https://www.ngf.org/news/2018/03/how-technology-is-changing-a-traditional-game/

Stanley, A. (2019). Off-course golf: How big can it get? *National Golf Foundation*. Retrieved from https://www.thengfq.com/2019/11/off-course-golf-how-big-can-it-get/

Strong, E. K., Jr. (1925). Theories of selling. *Journal of Applied Psychology*, *9*(1), 75–86.

Thomas, J.R., Nelson, J.K., & Silverman, S.J. (2015). *Research Methods in Physical Activity.* Champaign, IL: Human Kinetics.

Tiger, A., Ur-Rehman, K., & Hurst, C. (2006). Using spreadsheet-based simulation to evaluate the fairness of the USGA golf handicap index. *Journal of Business and Leadership: Research, Practice, and Teaching*, 2(1), 210-218.

Tinsley, H. E., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology*, *34*(4), 414.

Trackman (2020a). What we track: Trusted by the leaders. Retrieved from https://trackmangolf.com/what-we-track

Trackman (2020b). Trackman 4: A new standard is born. Retrieved from https://trackmangolf.com/products/trackman-4

Trackman (2020c). Trackman support: Peace of mind starts here. Retrieved from https://trackmangolf.com/support

True Spec Golf (2020a). An elite club fitting experience. Retrieved from https://www.truespecgolf.com/elite-club-fitting-experience/

True Spec Golf (2020b). Why you should consider brand agnostic fitting. Retrieved from https://www.truespecgolf.com/why-you-should-consider-brand-agnostic-fitting/

True Spec Golf (2020c). Join our growing team. Retrieved from https://www.truespecgolf.com/careers/

TXG (2020). We fit and build the best golf clubs for your game. Retrieved from https://txg.ca/our-services/

U.S. Bureau of Labor Statistics (2019). Women in the labor force: A data book. Retrieved from https://www.bls.gov/opub/reports/womens-databook/2019/pdf/home.pdf

Vakratsas, D., & Ambler, T. (1999). How advertising works: What do we really know? *Journal of Marketing*, 63, 26-43.

Vamplew, W. (2012). Concepts of capital: An approach shot to the history of the British golf club before 1914. *Journal of Sport History*, 39(2), 299-331.

Varshneya, G., Das, G., & Khare, A. (2017). Experiential value: A review of research methods. *The Marketing Review*, 17(2), 179-197.

Vaughn, R. (1980). How advertising works: A planning model. *Journal of Advertising Research*, 20, 27-33.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425.

Walker, C. (2020). The essentials of launch monitors. Retrieved from https://golfsciencelab.com/launch-monitors/

Weitz, B., & Bradford, K. (1999). Personal selling and sales management: A relationship marketing perspective. *Journal of the Academy of Marketing Science*, 27(2), 241-254.

Wertz, J. (2018). 5 trends that will redefine retail in 2019. *Forbes*. Retrieved from https://www.forbes.com/sites/jiawertz/2018/11/28/5-trends-that-will-redefine-retail-in-2019/#41852f865260

Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, *8*(3).

Won Jae Seo, & Green, B. C. (2008). Development of the Motivation Scale for Sport Online Consumption. *Journal of Sport Management*, *22*(1), 82–109.

World Trade Report (2018). The future of world trade: How digital technologies are transforming world commerce [PDF]. *World Trade Organization*. https://www.wto.org/english/res_e/publications_e/world_trade_report18_e.pdf

Wood, J. A., Johnson, J., Boles, J. S., & Barksdale, H. (2014). Investigating sales approaches and gender in customer relationships. *The Journal of Business and Industrial Marketing*, *29*(1), 11-23.

Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, *9*(2), 79-94.

Yoshida, M., & James, J. D. (2010). Customer satisfaction with game and service experiences: Antecedents and consequences. *Journal of Sport Management*, *24*(3), 338–361.

Zaire, M. (2000). Managing customer satisfaction: A best practice perspective. *The TQM Magazine*, 12(6), 389-494.

Zeng, Y. (2008). *Young consumers' perceptions and purchase intentions towards mass-designer lines.* (11243) [Master's Thesis, Iowa State University].

Appendix A- Approval of the use of Human Subjects

UNIVERSITY OF GEORGIA

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Human Research Protection Program

EXEMPT DETERMINATION

November 13, 2020

Dear James Zhang:

On 11/13/2020, the Human Subjects Office reviewed the following submission:

Title of Study:	Impact of Sales with Advanced Analytical Technology on Golf Consumer Purchasing Behavior: Comparisons Between Traditional and Technological Sales Procedures
Investigator:	James Zhang
Co-Investigator:	John Breedlove
IRB ID:	PROJECT00003029
Funding:	None
Review Category:	DHHS Exempt 2i

We have determined that the proposed research is Exempt. The research activities may begin 11/13/2020. Since this study was determined to be exempt, please be aware that not all future modifications will require review by the IRB. For more information please see Appendix C of the Exempt Research Policy (https://research.uga.edu/docs/policies/compliance/hso/IRBExempt-Review.pdf). As noted in Section C.2., you can simply notify us of modifications that will not require review via the "Add Public Comment" activity.

A progress report will be requested prior to 11/13/2025. Before or within 30 days of the progress report due date, please submit a progress report or study closure request. Submit a progress report by navigating to the active study and selecting Progress Report. The study may be closed by selecting Create Version and choosing Close Study as the submission purpose.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103).

Sincerely,

Kate Pavich, IRB Analyst
Human Subjects Office, University of Georgia

Appendix B- Pilot Study Research Instrument

Golf Retail Sales Questionnaire

(Part 1 to be completed upon entry to the store)

Code: 001

Demographics: The following questions are designed to collect basic demographic information on participants in the study. Please circle the appropriate response for each question. The study is completely anonymous, and results will only be used for research purposes.

1. Gender of the person completing the questionnaire: Male Female

2. What is your ethnicity? Please circle one.
   a. Native American Black. b. African American. c. Asian
   d. Hispanic or Latino e. Native Hawaiian or Pacific Islander
   f. Mixed. g. White or Caucasian. h. Other

3. What is your annual household income? Please circle one.
   a. Under $30,000. b. $30,000-$49,999. c. $50,000-$74,999
   d. $75,000-$99,999. e. $100,000-$149,999. f. $150,000-$250,000.
   g. $250,000+

4. What is your USGA golf handicap? Please circle one.
   0-5. 6-10. 11-15. 16-20. 21-25. 25-30.

5. Estimate the number of years that you have played 8 rounds of golf or more. Circle one.
   Never. 1-2. 3-5. 6-10. 10-15. 16-20. 20+

6. Please circle your age group

18-29	30-39	40-49	50-59	60-69	70+

Familiarity with Golf Equipment: The questions below ask about your past experience with golf equipment retail and manufacturers. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Familiar						Very Familiar
1. How familiar are you with golf equipment in general?	1	2	3	4	5	6	7
2. How familiar are you with the current products from golf's major equipment manufacturers? (i.e., TaylorMade, Callaway, PING)	1	2	3	4	5	6	7
3. How familiar are you with this golf retail store?	1	2	3	4	5	6	7
4. How familiar are you with new golf clubs available in 2020?	1	2	3	4	5	6	7
5. How familiar are you with golf club custom fitting?	1	2	3	4	5	6	7

Familiarity with Launch Monitor Technology: The questions below ask about your past experience with launch monitor technology. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Familiar						Very Familiar
1. How familiar are you with launch monitor technology?	1	2	3	4	5	6	7
2. How familiar are you with launch monitor club measurements (i.e.,	1	2	3	4	5	6	7

club head speed, attack angle, or club path)?							
3. How familiar are you with launch monitor ball measurements (i.e., ball speed, spin rate, or launch angle)?	1	2	3	4	5	6	7
4. How familiar are you with brands like Trackman, FlightScope, and Foresight?	1	2	3	4	5	6	7
5. How familiar are you with using launch monitor technology to help determine which golf equipment you should use?	1	2	3	4	5	6	7

The above questions are intended to measure your familiarity with golf equipment and familiarity with launch monitor technology. Do you feel that the above questions are easy to understand and are relevant to these topics? Please comment below:

Golf Retail Sales Questionnaire

(Part 2 to be completed at the exit after having completed shopping)

Code: 001

Please Circle One: During your visit to the store today, did you hit golf balls and receive feedback using launch monitor technology? **Yes** or **No**

Consumer Learning: Please indicate your response to statements below by circling the number that best describes your experience at this store today.

	Strongly Disagree						Strongly Agree
1. I learned a lot about my golf equipment needs	1	2	3	4	5	6	7
2. I learned a lot about my golf swing	1	2	3	4	5	6	7
3. I feel I will be a better golfer after what I learned today	1	2	3	4	5	6	7
4. The knowledge I gained today will help me to make good equipment purchasing decisions	1	2	3	4	5	6	7
5. What I learned today will help me to lower my golf score	1	2	3	4	5	6	7

Shopping Experience: Please indicate how well the adjectives below described your shopping experience today by circling the number that best matches your feelings and opinions.

	Not at all						Very Much
Enjoyable	1	2	3	4	5	6	7
Unique	1	2	3	4	5	6	7
Memorable	1	2	3	4	5	6	7

Engaging	1	2	3	4	5	6	7
Educational	1	2	3	4	5	6	7

The above items were intended to measure consumer learning and shopping experience. Do you feel that the above questions are easy to understand and are relevant to these topics? Please comment below:

Salesperson Attributes: Please indicate your response to statements below by circling the number that best describes your feelings and opinions.

	Not at all satisfied						Very satisfied
1. Sincerity of the salesperson	1	2	3	4	5	6	7
2. Honesty of the salesperson	1	2	3	4	5	6	7
3. Attitude of the salesperson	1	2	3	4	5	6	7
4. Ease of doing business with the salesperson	1	2	3	4	5	6	7
5. The salesperson's knowledge of the products	1	2	3	4	5	6	7

6. The salesperson showed concern for my needs	1	2	3	4	5	6	7

Customer Satisfaction: The questions below ask about your experience with the salespeople in the store. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Satisfied						Very Satisfied
1. What is your overall satisfaction with your experience today?	1	2	3	4	5	6	7
2. To what extent did the service meet your expectations?	1	2	3	4	5	6	7
3. How well did the service experience compare with an ideal one?	1	2	3	4	5	6	7
4. How satisfied were you with the recommendations of the salesperson?	1	2	3	4	5	6	7
5. How satisfied are you with this store's ability to meet your golf equipment needs?	1	2	3	4	5	6	7

The above items were intended to measure salesperson attributes and customer satisfaction. Do you feel that the above questions are easy to understand and are relevant to these topics? Please comment below:

Intention to Buy or Recommend: The statements below are about your intention to purchase golf equipment or to recommend this store to a friend. Please indicate your response to each statement by choosing the number that best describes your feelings and opinions.

	Not at all likely						Very likely
1. Likelihood of you recommending this golf shop to a friend	1	2	3	4	5	6	7
2. Likelihood of you recommending the salesperson to a friend or relative	1	2	3	4	5	6	7
3. Likelihood of you purchasing golf equipment from this store today	1	2	3	4	5	6	7
4. Likelihood of you returning to this store to purchase golf equipment	1	2	3	4	5	6	7
5. I intend to use this facility's services again	1	2	3	4	5	6	7

The final section was intended to measure your intention to buy or recommend. Do you feel that the above questions are easy to understand and are relevant to these topics? Please comment below:

Appendix C- Quasi-Experimental Research Instrument

Golf Retail Sales Questionnaire

(Part 1 to be completed upon entry to the store)

Code: 150

Demographics: The following questions are designed to collect basic demographic information on participants in the study. Please circle the appropriate response for each question. This study is completely anonymous, and results will only be used for research purposes.

7. Gender of the person completing the questionnaire: Male Female

8. What is your ethnicity? Please circle one.
   b. Native American b. African American c. Asian
   d. Hispanic or Latino e. Native Hawaiian or Pacific Islander
   f. Mixed g. White or Caucasian h. Other

9. What is your annual household income? Please circle one.
   b. Under $30,000. b. $30,000-$49,999. c. $50,000-$74,999
   d. $75,000-$99,999. e. $100,000-$149,999. f. $150,000-$250,000.
   g. $250,000+

10. What is your USGA golf handicap? Please circle one.
    0-5. 6-10. 11-15. 16-20. 21-25. 25-30.

11. Estimate the number of years that you have played 8 rounds of golf or more. Circle one.
    Never. 1-2. 3-5. 6-10. 10-15. 16-20. 20+

12. Please circle your age group

18-29	30-39	40-49	50-59	60-69	70+

Familiarity with Golf Equipment: The questions below ask about your past experience with golf equipment, retailers, and manufacturers. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Familiar						Very Familiar
6. How familiar are you with golf equipment in general?	1	2	3	4	5	6	7
7. How familiar are you with the current products from golf's major equipment manufacturers? (i.e., TaylorMade, Callaway, PING)	1	2	3	4	5	6	7
8. How familiar are you with this golf retail store?	1	2	3	4	5	6	7
9. How familiar are you with new golf clubs available in 2020?	1	2	3	4	5	6	7
10. How familiar are you with golf club custom fitting?	1	2	3	4	5	6	7

Familiarity with Launch Monitor Technology: The questions below ask about your past experience with launch monitor technology. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Familiar						Very Familiar
6. How familiar are you with launch monitor technology?	1	2	3	4	5	6	7
7. How familiar are you with launch monitor club measurements (i.e., club head speed, attack angle, or club path)?	1	2	3	4	5	6	7
8. How familiar are you with launch monitor ball measurements (i.e., ball speed, spin rate, or launch angle)?	1	2	3	4	5	6	7
9. How familiar are you with brands like Trackman, FlightScope, and Foresight?	1	2	3	4	5	6	7
10. How familiar are you with using launch monitor technology to help determine which golf equipment you should use?	1	2	3	4	5	6	7

Golf Retail Sales Questionnaire

(Part 2 to be completed at the exit after having completed shopping)

Code: 150

In Store Experience: During your visit to the store today, did you hit golf balls and receive feedback using launch monitor technology? Please circle one:

YES	**NO**

Consumer Learning: Please indicate your response to statements below by circling the number that best describes your experience at this store today.

	Strongly Disagree						Strongly Agree
6. I learned a lot about my golf equipment needs	1	2	3	4	5	6	7
7. I learned a lot about my golf swing	1	2	3	4	5	6	7
8. I feel I will be a better golfer after what I learned today	1	2	3	4	5	6	7
9. The knowledge I gained today will help me to make good equipment purchasing decisions	1	2	3	4	5	6	7
10. What I learned today will help me to lower my golf score	1	2	3	4	5	6	7

Shopping Experience: Please indicate how well the adjectives below described your shopping experience today by circling the number that best matches your feelings and opinions.

Not at all						Very Much

Enjoyable	1	2	3	4	5	6	7
Unique	1	2	3	4	5	6	7
Memorable	1	2	3	4	5	6	7
Engaging	1	2	3	4	5	6	7
Educational	1	2	3	4	5	6	7

Salesperson Attributes: Please indicate your response to statements below by circling the number that best describes your feelings and opinions.

	Not at all satisfied						Very satisfied
7. Sincerity of the salesperson	1	2	3	4	5	6	7
8. Honesty of the salesperson	1	2	3	4	5	6	7
9. Attitude of the salesperson	1	2	3	4	5	6	7
10. Ease of doing business with the salesperson	1	2	3	4	5	6	7
11. The salesperson's knowledge of the products	1	2	3	4	5	6	7
12. The salesperson showed concern for my needs	1	2	3	4	5	6	7

Customer Satisfaction: The questions below ask about your experience with the salespeople in the store. Please indicate your response to each question by choosing the number that best describes your feelings and opinions for each question.

	Not at all Satisfied						Very Satisfied

6. What is your overall satisfaction with your experience today?	1	2	3	4	5	6	7
7. To what extent did the service meet your expectations?	1	2	3	4	5	6	7
8. How well did the service experience compare with an ideal one?	1	2	3	4	5	6	7
9. How satisfied were you with the recommendations of the salesperson?	1	2	3	4	5	6	7
10. How satisfied are you with this store's ability to meet your golf equipment needs?	1	2	3	4	5	6	7

Intention to Buy or Recommend: The statements below are about your intention to purchase golf equipment or to recommend this store to a friend. Please indicate your response to each statement by choosing the number that best describes your feelings and opinions.

	Not at all likely						Very likely
6. Likelihood of you recommending this golf shop to a friend	1	2	3	4	5	6	7
7. Likelihood of you recommending the salesperson to a friend or relative	1	2	3	4	5	6	7
8. Likelihood of you purchasing golf equipment from this store today	1	2	3	4	5	6	7

9. Likelihood of you returning to this store to purchase golf equipment	1	2	3	4	5	6	7
10. I intend to use this facility's services again	1	2	3	4	5	6	7

Did you make a purchase today? Yes or No

What was the total amount of the purchase? _____