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Esports Enthusiasts and Gamers: Motivations, Behaviors, and Attitudes Towards Gambling

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ESPORTS ENTHUSIASTS AND GAMERS: MOTIVATIONS, BEHAVIORS, AND
ATTITUDES TOWARDS GAMBLING

By

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2007

A thesis submitted in partial fulfillment
of the requirements for the

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William F. Harrah College of Hotel Administration
The Graduate College

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ABSTRACT

Esports Enthusiasts and Gamers: Motivations, Behaviors, and Attitudes Towards Gambling

By

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This study examined what the driving factors behind why people watch esports and play video games, and their views on casino gambling. This research takes into account several motivational models and theories for video game and media consumption, including the Uses and Gratifications Theory. In addition, motivations and behaviors in regards to gambling were also examined. Although there is plenty of research on gambling motivations, none looks primarily at how esports and video game enthusiasts in specific feel about gambling.

In-depth Interviews were conducted on esports and video game enthusiasts to understand what they enjoy about esports and gaming, and what they like and don't like about casino gaming. Results showed a wide range of motivations behind video game play, but challenge, skill, and socialization were the most common. For gameplay itself, people tended to really enjoy teamwork and collaboration. None of the participants gambled too often, and cited a lack of interactivity and value as primary reasons. One aspect of casino games that many found frustrating, is that their decisions seem to rarely have an impact on the outcome of a game, unlike video games. With video games, nearly each press of the button has a degree of significance. Casinos and casino game manufacturers alike should examine what it is that drives people to play video games and watch esports, and import those qualities into their casino gaming experience.

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CHAPTER ONE

INTRODUCTION

One of the fastest growing emerging industries in the past few years is that of esports. While the first known example of esports dates back to 1972 (Baker, 2016), the modern esports landscape dates back to the early 2000's, particularly with the formation of Major League Gaming in 2002, which focused on Starcraft, and first-person shooters (Lynch, 2016).

Over the past 15 years, the esports industry has grown significantly, and is on a meteoric rise over the past few years, as evidenced by revenue and viewership numbers. In 2016, esports generated \$493 million of revenue (Carpenter, 2017), up from \$325 million in 2015 (Warman, 2017). Esports is expected to generate \$696 million in revenue in 2017 and \$1.5 billion by 2020 (Wolf, 2017a). In January of 2017, over 214 million hours of popular games Counter-Strike: Global Offensive, League of Legends, and DOTA 2 were streamed on Twitch, the preferred site for esports streaming (Newzoo, 2017a). In 2016, 5,616 events totaled \$84 million in prize pools, up from 4,680 events and \$65 million in 2015, and is projected to reach 10,510 events with \$189 million in prize pools by 2020 (Grove, 2016b).

While still young, the esports industry already has ties to the gambling industry, in that there are already several online bookmakers who offer bets on various esports tournaments (Perry, 2016). In addition, some casinos in New Jersey have already installed slot machines that have gameplay elements that resemble elements found in popular esports titles (Stradbrooke, S. 2016). Another form of gambling in regard to esports is skins gambling. Skins are virtual items people gather while playing games, the biggest by far being Counterstrike: Global Offensive (Grove, 2016b).

Skins are used for aesthetic purposes, and do not add or detract from the player's attributes. Examples of skins would be a different colored knife, gun, or armor for the player's avatar. Once in the player's possession, in addition to trading or selling the skin legally, they can use the skins as a form of currency to gamble with on third party sites. The premise is that the skins are gambled with to win more skins. Forms of games players can use skins to bet on include traditional casino games such as blackjack and roulette, to rock-paper-scissors, coin flips, and even sportsbooks, which were estimated as accounting for 44.79% of the skins market in 2016 (Grove, 2016b). There has been a recent crackdown on these sites by Valve, the company responsible for developing and publishing Counter-Strike: Global Offensive, for various reasons, but even so, roughly \$5 billion was wagered on skins in 2016 (Assael, 2017).

The casino gaming industry has shown significant interest in the esports community over the recent years, in the form of hosting events, having dedicated esports lounges, and have begun accepting wagers on esports events (Alambeigi, 2016; Carter, 2016; Wolf, 2017b). In addition, there has also been an influx of speakers and panel discussions regarding esports at gaming conventions (GGB Staff, 2016).

Purpose of Study

The purpose of this study is to use esports and video game enthusiasts' attitudes, motivations, and behaviors towards gambling to identify strategies for casinos on what games and offerings to have for esports and video game enthusiasts.

Statement of Objective

The primary objective of this exploratory study is to better understand how esports and video game enthusiasts feel about the esports/games they play and watch, traditional casino gambling, and gambling in general. Once the behaviors, attitudes, and motivations towards

gambling and esports are better understood, a roadmap can be laid out to casino operators on what types of games to offer and how best offer wagering on esports. Esports wagering can come in several different formats, including sportsbooks, skins wagering, or wagering with a form of virtual currency. Game offerings would range from traditional casino games such as blackjack and craps, to slots, skill-based games, to new, undefined games. In addition to providing casinos with a framework for optimal offerings, this exploratory study will also be able to serve as a guide for casino game manufacturers, who want to better understand how to design games for the esports enthusiast and gamer.

These behaviors, attitudes, and motivations will be explored through in-depth interviews. With the data collected, we can look at the motivations for various demographics of gamblers and the games they play, compare the groups, and be able to better predict the gambling offerings esports consumers will prefer. For example, if a video game enthusiast prefers games that offer a sense of escapism, and gamblers are motivated by escapism when it comes to playing a particular style of game, that style of game could be a natural fit for that particular video game player.

Furthermore, there are several genres of video games, each with different objectives and goals for the player. Due to the different objectives for each genre, each has its own motivations from the player perspective (Yee, 2016a). In addition to motivations behind playing video games, there are also different motivations for those who watch esports (Sjoblom & Hamari, 2016).

Justification

Some casinos in Las Vegas have begun hosting major esports tournaments, such as MGM Grand with Dreamhack (Gonzales, 2016), a tournament for popular first-person shooter Counter-

Strike: Global Offensive. Mandalay Bay has hosted League of Legends North American Championship Series matches as well. In addition those tournaments, Mandalay Bay will also unveil the first esports-themed area on the Las Vegas Strip in 2018 (Feldberg, 2017). A recent study has reported the largest age group of those indifferent to casinos are between the ages of twenty-two and thirty-four (Lightspeed/Mintel, 2016). There is clear interest from the casino industry in esports as they look for the best solution on integrating esports and video games into their product offering to attract this demographic.

There has been considerable research on gambling motivations and esports enthusiasts and gamers' motivations towards playing and watching esports independent of each other. However, there has been little to no research on esports and video game enthusiasts' attitudes towards gambling. This study aims to fill the gap in this specific area of research, while providing recommendations for future areas of research within this topic.

Constraints

With the total number of participants for the depth interviews in this particular study being relatively small, it may not be a large enough sample size to draw generalizations about an entire demographic. It is important to understand this, as this is an exploratory study, with the intention of looking closer at an emerging industry.

Much of the future of esports wagering in United States casinos lies in how esports becomes regulated. If it is regarded as a sport, wagers on professional matches, for the foreseeable future, will only be legally accepted in Nevada, as far as the United States goes. Participants in the depth interviews may not also represent the interests of international esports enthusiasts in various global jurisdictions.

Glossary

Collectible Card Game (CCG) – Turn-based strategy games in which a player makes decisions from a pool of cards they have collected, against another player. Cards can be purchased or earned. Also referred to as a Trading Card Game (Bursztein, 2016).

Esports – “Competitive tournaments of video games, especially among professional gamers” (Williams, 2015)

First-Person Shooter (FPS) – A genre of video games where the camera perspective is from the view of the protagonist, seen by the player. The games typically revolve around some form of gun combat (Claypool, Claypool, & Damaa, 2006).

Multiplayer Online Battle Arena (MOBA) – A video game featuring elements of real-time strategy and roleplaying games, with each player controlling an avatar as part of a larger army, with the goal of take over an opposing team’s base (Cavadenti, Codecedo, Boulicaut, & Kaytoue, 2016).

Real-Time Strategy (RTS) – A video game genre which an individual controls an entire army, where the goal is to gather resources and destroy the opponent’s base. (Chan, Fern, Ray, Wilson, & Ventura, 2007)

Skin – A virtual item used in video games that serve as a mask for another item, used for decorative and aesthetic purposes. These items do not add or deduct any attributes to the item it is masking. An example might be a camouflage knife. (Grove, 2016b).

CHAPTER TWO

LITERATURE REVIEW

Introduction

The literature review consists of the following sections: a review of popular esports genres, esports and video games motivations, current gambling offerings for esports, and gambling motivations. The first section provides a more in-depth explanation of the finer details of the genres commonly found in the world of esports. The motivations section will explain what internal needs are being fulfilled when people watch esports and play video games. The third section of the literature review will provide examples of how people currently gamble on esports and wager with skins. Gambling motivations will detail the motivations in individuals over a range of gambling games.

Although there are dozens of genres and subgenres of video games, only a few are predominantly seen in esports. These genres include: Real-Time Strategy (RTS), Multiplayer Online Battle Arena (MOBA), First-Person Shooter (FPS), Fighting, Collectible Card Games, (CCG) and Sports (Bursztein, 2016; Newzoo, 2016a).

RTS games have existed for decades and have long been a staple in esports (Cheung & Huang, 2011). The RTS genre typically allows for a player to control over an entire army, and involves them building up land areas and erecting buildings. One measure of players' skill is determined by their actions per minute, or APM (Sutter, 2012). MOBA games are a subgenre of RTS, and have grown into one of the most popular genres of esports (Winn, 2015). In a MOBA, each player controls a single character as part of a larger army in a team vs. team format, where the ultimate goal is to destroy the other team's home base. The most popular games of this genre are League of Legends, and DOTA 2 (Winn, 2015). The FPS genre involve games which the

player controls a character with a first-person point of view, and uses projectiles and various weapons to defeat and kill enemies. (Claypool et al, 2006).

Fighting games involve one player controlling one or more characters as they combat and engage in hand-to-hand combat with another player, with the goal being to take the other character's health down to zero (Carnagey & Anderson, 2004)). The most popular games in this genre are Street Fighter and Super Smash Brothers (Jakobsson, 2007; Su, 2010). CCG as a video game genre is relatively young, and revolves around players collecting cards either by purchasing, winning in battle, or earning through a task (Bursztein, 2016). The player will then go to battle against an opponent, commonly in a turn-based format, playing their cards against an opponent's, until one player beats the other. The most profitable game in this genre is Hearthstone, which in 2016 earned \$394.6 million in revenue (Minotti, 2017). Games in the sports genre are merely a video game adaptation of an existing sport game, a variation, or a conglomeration of various sports. (Wolf, 2001) Examples of sports games are the NHL franchise, the FIFA franchise, and Rocket League (Kain, 2016; Hamari & Sjoblom, 2017).

Motivations Behind Esports and Video Game Participation

Much research on esports and video game play motivations is steeped in Uses & Gratifications Theory, a theory which explores social and psychological reasons for why users consume media (Katz, Blumler, & Gurevitch, 1973). Uses and Gratifications Theory states the primary motivation for this consumption is to satisfy a particular gratification. The audiences consuming media are largely thought of to be active, and goal directed in their consumption, which is often casual (Katz et al, 1973).

Although over 60 years old, this theory is still being used as a basis for determining motivations behind nearly all forms of media consumption, with esports being no exception

(Hamari & Sjoblom, 2015; Wu et al, 2010). Prior to the 1970s, research on Uses and Gratifications was primarily focused on the gratifications sought out by viewers, as opposed to the gratifications obtained (Ruggiero, 2000). The concept of an active audience was developed in the 1980s, which looked at the types of activity and different communication processes (Ruggiero, 2000).

With technology changing and updating so rapidly, there too have been updates to the traditional Uses and Gratifications Theory, which take into account changes in media consumption as well as new forms of media (Ruggeiro, 2000; Sundar & Limperos, 2013). Interactivity has become commonplace for most forms of media consumption, providing an intense engagement with the content. However, this intense engagement has been found to have a polarizing effect on the user, with content of a high quality shining through from interactivity, while interactivity of mediocre content simply highlights the flaws in the content. The interactivity element could establish new gratifications to be found in its consumption, which may include greater levels of activity, choice and control, and flow (Sundar & Limperos, 2013).

Motivations for Playing Video Games

One of the most widely accepted motivational models for video game playing features a total of twelve motivation factors which form six clusters (Yee, 2015a). The clusters include action, social, mastery, achievement, immersion, and creativity. The action cluster comes from those who enjoy destruction and excitement in their games, and tend to gravitate towards first-person shooters. The social cluster includes competition and community. While competitive gameplay can be found in MOBAs and RTS, It is important to note that competition does not always include combat. Those who seek out the community element enjoy playing as part of a team, working towards an overall larger goal (Yee, 2015a).

The mastery cluster is comprised of challenge and strategy. Challenge relies on skill and ability, which take time to perfect. Often, the player will fail a mission countless times, knowing that is the only way to master a game. Strategy includes planning and precision, and often features completing goals. Along the lines of mastery is the achievement cluster, which features the elements of completion and power. Completion comes in the form of finishing every element of a game, which includes completing every mission, finding every item, and secret locations. Power in the gaming world involves acquiring and obtaining the most powerful weapons, statistics, and equipment (Yee, 2015a).

Fantasy and story are two elements of the immersion cluster. Fantasy is simply when a user wants to be someone, or somewhere, else. The user will also control an alter ego in an immersive game environment. Story elements appeal to gamers who seek out deep storylines and complex characters. The final cluster is the creativity cluster, which feature elements of discovery and design. For those who enjoy discovery, they typically go outside of the bounds of normal gameplay to play in ways not intended by the developers. Design elements are for those who prefer the process of building characters or environments in their games.

As esports involve one player or team pitted against each other, those who participate in esports and video games are often thought of as being motivated by competition. Competition is a large motivating factor among younger and male demographics, but is far down the list of motivations among female and older players (Yee, 2016c). For females, completion and fantasy were found to be the greatest motivating factors. Completion involves obtaining all the collectibles in a game and completing missions, whereas fantasy would be immersing oneself somewhere else, or being someone else. For men, the greatest motivating factors were

competition and destruction. Examples of competition would be beating others, and working up a ranking ladder, while destruction includes guns and explosives.

For both men and women, competition as a motivating factor declined tremendously with age (Yee, 2016b). This factor declined dramatically between the ages of 15-35 for both genders, and plateaued with men around age 50. For gamers aged 36 and higher, competition dropped significantly, coming in as only the 9th highest motivational factor, with fantasy and completion being among the highest (Yee, 2015a).

The Uses and Gratifications Theory has been used as a method to predict time spent on video game device and the type of game played (Sherry, Lucas, Greeberg, & Lachlan, 2006). The study from Sherry et al used a six dimension questionnaire revolving around the traits of arousal, challenge, competition, diversion, fantasy, and social interaction. Arousal was described as a stimulation of emotions and challenges as working towards solving puzzles, or rising in level or personal accomplishment. Competition was seen to come in the form of gratification which was based on other players' reactions to their dominance.

Escaping from stress, filling time, and relaxing were seen as elements of diversion. Fantasy came from video games allowing users the opportunity to do something they can't do in reality. Interacting with others and learning about others were elements of social interaction. The largest gratification predictors of time spent playing games came from diversion, social interaction, and arousal. Challenge, competition, and arousal were the top reasons for play in a general, overall sense (Sherry et al, 2006).

Motivations for Specific Genres

As opposed to research on motivations towards playing FPS games, much of the research on this genre leans towards the effects of playing, aggression, and arousal (Barlett, Harris, & Baldassaro, 2007; Weber, Behr, Tamborini, Ritterfield, & Mathiak 2009). Research has been done, however, comparing motivations of FPS players compared to other genres (Ghuman & Griffiths, 2012). Compared to RPG and RTS players, FPS players were motivated significantly by achievement. RPG players, specifically Massively Multiplayer Online Role-Playing Game (MMORPG) players, are motivated heavily by social aspects of the games (Ghuman & Griffiths, 2012).

MOBAs, on the other hand, have seen a range of research done on the genre, including motivations, time played, personality traits, among others (Johnson, Nacke, & Wyeth, 2015; Tyack, Wyeth, & Johnson 2016). Tyack et al found that a major motivation for users to begin playing was to partake in an activity with friends. What they found was the motivation for users to continue playing, was ascending through the ranks of users. In addition, players received a tremendous sense of satisfaction from all of the teamwork that goes into playing this genre of game, along with mastering all of the elements of nuanced strategy (Johnson et al, 2015).

Viewing Esports

The most popular platforms for watching esports online are Twitch and Youtube. Twitch had over 1 billion hours of League of Legends alone viewed in 2016 (Steiner, 2017). While users can watch large-scale professional tournaments on Twitch, there is also a substantial amount of user generated content, in which individual players will stream their online play. The players typically provide commentary during their play, which is either educational, entertaining, or both (Sjoblom & Hamari, 2015). The live-broadcasting of this play will often offer the viewer an

opportunity to communicate via chat with the broadcaster, forming a unique form of two-way communication. It was shown the main motivation positively linked to number hours of video games on Twitch viewed was tension release, in the form of escapism and diversion (Sjoblom & Hamari, 2015).

The motivations behind Twitch viewership have also been looked at in terms of entertainment, socialization, and information (Gros, Wanner, Hackenholt, Zawadzki, Knautz, 2017). The study showed a direct and positive correlation between the amount of time spent per week viewing Twitch streams and the importance of being part of a community. When comparing the motivations of users who spent money on Twitch subscriptions, compared to those who have not, the largest gap in motivation came in the socialization element, for those who spent money. The greatest motivation in general came from entertainment (Gros et al, 2017).

Live Twitch streams also serve as a sort of virtual hangout, or third place, for various player communities (Hamilton, Garretson, & Kerne, 2014). The third place naturally develops a group of regulars, whose mere existence helps define the qualities of the place. The interactions have a snowball effect, drawing in exponentially greater numbers of viewers, who then feel a sense of closeness. The majority of Twitch streams were found to be participatory communities, engaged in sociability, where interaction is typically filled with humor and light-hearted banter. (Hamilton et al, 2014).

The highest amount of viewership for esports in the video on demand (VOD) format is on Youtube, an area the platform specializes in (Newzoo, 2016b). While the average age of the esports enthusiast Twitch viewer is 21, Youtube viewers averaged 28 years of age, with 43% of total viewership on Youtube coming from those aged 21-35 (Newzoo, 2016b). In 2016, Twitch

introduced Chat Replay, allowing viewers to go back and watch recorded livestreams, and the accompanying rolling chat, in hopes to compete with Youtube, who first introduced the feature with its launch of Youtube Gaming (Gaudiosi, 2016). Youtube viewership is nearly triple that of Twitch, at 517 million viewers compared to 185 million (Superdata, 2017b). Other smaller streaming platforms in the market include Azubu, Hitbox, and Dingit (Gaudiosi, 2016).

Live tournaments themselves have the ability to sell high volumes of tickets, such as the 2015 DOTA 2 International Championship, which sold out KeyArena in Seattle, Washington, in only ten minutes (Pereira, 2015). The League of Legends 2016 World Championships also sold out Madison Square Garden, where over 15,000 fans each night watched the event (Fitzpatrick, 2016).

Mobile Gaming

Mobile in Esports

In addition to esports played on PC and consoles, a growing area has been seen in esports played on mobile devices, which is the youngest of platforms (Lehtonen & Harviainen, 2016). While mobile esports is considered niche compared to PC and console, its potential has been seen by large companies, including Twitch, which began a multi-million dollar, three-year partnership with developer Super Evil Megacorp (Procter, 2016). The company's MOBA game Vainglory is their flagship, and the largest mobile esports title, by prize pool, in front of Clash Royale, a CCG (Lam, 2016).

Motivations for Playing

Although the genre is relatively young, there have been a handful of studies regarding behaviors and motivations towards playing mobile games, which show many of the motivations are different than those found with console or PC games (Wei & Lu, 2014). The study by Wei & Lu focused solely on social mobile games, and found network externalities to be a key factor for success among the games. When the social element becomes a driving factor of a game, a larger player pool was found to make the game more exciting and enjoyable for users. The underlying cause for this was the fact players had more opportunities for interactions with both friends and strangers, a key component to the games' overall enjoyment (Wu, Wang, & Tsai, 2010).

With the nature of mobile games' ability to be played anywhere there is an internet connection, combined with ease of play compared to home or pc consoles, attitudes, behaviors, and play habits are different (Okazaki, Skapa, & Grande, 2008). A research model was created, grounded in the Technology Acceptance Model (TAM), which assesses that the behavioral intention for a person to use a "system", hinges on the ease of use and usefulness of the system. The positive and negative attitude toward the mobile game, in this model, was hypothesized to be correlated to the perceived fun, and convenience of the game and device. Results surprised the authors, showing that perceived convenience had a far greater effect than the perceived fun on the overall attitude toward mobile gaming (Okazaki et al, 2008).

Current State of Esports Gambling

Currently, in regards to cash wagering, the market is dominated by esportsbook betting. It was estimated in 2016, \$594 million would be wagered on esports, with 92.59% (\$550 million) in the sportsbook format, roughly \$16 million in the form of fantasy esports, and \$28 million wagered on head to head, where a player simply wagers on themselves against another opponent

(Grove, 2016c). The total number of dollars wagered on esports is expected to reach \$10 billion by 2020 (Grove, 2016c). While the number of esports titles one can wager on continues to grow, in 2016, it was estimated 38% of dollars wagered were on League of Legends, while 29% were wagered on Counter-Strike: Global Offensive (Grove, 2016a). Other popular titles to wager on include DOTA 2 and Starcraft 2, which combined for an additional 25% of dollars wagered (Grove, 2016a).

Skins Wagering

An area that has caused a great deal of controversy in esports over the past few years is skins wagering, and the websites that facilitate the wagers. Skins wagering sites are easily accessible, and most have no age verification, thus enabling underage individuals an avenue to gamble (Lewis, 2016). Skins are virtual items that serve as an aesthetic upgrade to an existing item in various games, such as weapons, armor, etc. (Grove, 2016b). Players earn skins through gameplay, as a promotional giveaway, by trading with other players, or by purchasing skins in various marketplaces. The items, although they do not serve as an upgrade to any element of armor or weaponry, are highly sought after. Counter-Strike: Global Offensive accounts for roughly 80% of the total skin wagering activity (Grove, 2016b).

Skin wagering websites allow players to deposit their skins. Once deposited, the player is able to wager their skin, or exchange the skin for a form of virtual currency, which can then be wagered on on a variety of options (Grove, 2016b). Some of the wagering options include raffles, mystery boxes, and coin flips. There are also options to wager the skin or currency on more traditional casino games such as roulette and blackjack. However, the most popular form of wagering is seen in esportsbooks. It is estimated esportsbook style wagering accounted for 44.79% of the skins wagering market in 2016 (Grove, 2016b). After a wager is made with

winning outcome, the player can then chose to use the winning skin, trade the skin, sell the skin on Steam (an online community for video games), for credits to be used on more skins, or exchange the skin for cash on a third-party site.

It was originally estimated \$7.4 billion worth of skins would be wagered in 2016. Valve, the publishing company of Counter-Strike: Global Offensive, came under tremendous scrutiny and faced lawsuits in 2016 after numerous reports revealed the ease of wagering skins on illegally operating sites (Grove, 2016a). The ensuing lawsuits led to Valve sending cease and desist letters to twenty-three skin wagering sites in July of 2016. (Grove, 2016b). The letters submitted indicated the sites violated the Steam Subscriber Agreement, and had a mere ten days to cease operations. While the sites claim the practice is legal, as skins hold no actual value, Valve specifically refers to the sites as “gambling sites.” After the crackdown, the actual amount wagered was roughly \$5 billion for the year (Postrado, 2017). Skins wagering interestingly shows a form of a gambling ecosystem constructed by the gamer community, for the gamer community, and indicates this demographic has interest in gambling.

Gambling Motivations

Currently, much of the research on gambling motivations tends to skew towards problem gamblers, as opposed to recreational gamblers (Blaszczynski & Nower, 2002; Thomas, Allen, & Phillips, 2009; Vitaro, Arseneault, & Tremblay, 1999). However, there have been a large number of studies that focus on the motivations themselves in a broad sense, including one study using a five-dimensional model for motivations (Binde, 2013). The study by Binde found four optional motives; the dream of hitting the jackpot, social rewards, intellectual challenge, and mood change, with one motive “essential to gambling”, the chance of winning. The study was

primarily applicable to leisure gamblers as opposed to problem gamblers, by comparing the motivations of gambling relative to other activities.

Binde noted the dream of hitting the jackpot tends to show up more when one gambles a small sum of money in hopes of a big win that has the chance to catapult one's life. Social rewards include communion, competition, ostentation, and the gambling environment in general. Those who prefer intellectual challenge were found to enjoy poker and sports betting primarily (Binde, 2013). The excitement from gambling, or a cure from boredom explain mood changes, but the chance of winning was found to be the core of gambling (Binde, 2013).

Other studies have looked into comparing motivations between problem and non-problem gamblers (Lee, Lee, Bernhard, & Lee, 2009). Lee et al looked into four primary factors; escape, socialization, winning, and scenery and culture, analyzing which factors tended to appeal more towards probable pathological, some-problem, and non-problem gamblers. The non-problem gamblers were found to enjoy slot machines primarily, while problem gamblers favored baccarat and roulette. In addition, problem gamblers were driven significantly by the opportunity to win money or hit a jackpot, while non-problem gamblers showed the highest correlation to enjoying scenery around the casino. Nearly half of the problem gamblers gambled alone, while the non-problem gamblers primarily went with friends, family, or a group.

Studies have also been done which focus on motivational factors towards specific styles of games (Fang & Mowen, 2009). This study by Fang and Mowen aimed to explore motives and trait antecedents of slot machines, skilled card games, sports betting, and promotional gambling game play. It was anticipated slots and promotional game gamblers would show similar motives, but the opposite turned out to be true. Slots gamblers exhibited motives of excitement and escape, while they were low in competitiveness and arousal needs. In contrast, those who

avored promotional games did so for the sole motive of money. Both however, were high in impulsiveness and materialism. Sports gamblers (those who wagered on their own performance) and skilled-card gamblers were also predicted to exhibit similar motives, and it was in fact found to be true in some cases. Both sets of gamblers were motivated by money, social interaction and self-esteem, and tended to be young males. Card gamblers, however, had low motives for escape, but strong motives for excitement. Sports bettors tended to be more impulsive and less agreeable (Fang & Mowen, 2009).

While much research in regards to college students gambling tends to focus on the harms it can produce, some research has come out that focuses simply on the motivations of college students towards gambling (Neighbors, Lostutter, Cronce, & Larimer, 2002; Weinstock, Whelan, & Meyers, 2008). Neighbors et al identified sixteen different motives for college students to gamble, which included skill, money, and challenge, among others. The study showed the main motive to be money, with 42.7% of respondents listing money as their primary motivation to gamble. The next top motivations for gambling included enjoyment/fun, and social reasons. The lowest motivation was found to be challenge.

Research has also come out which aimed to correlate motivations based on frequency of gambling, gaming medium, and game choice (Abarbanel, 2014). This particular study looked at socialization through learning, escape, peripheral activity, fun/challenge, socialization through competition, and winning money as motivations. Winning money was always the highest motivation no matter the frequency of play, and positively correlated to frequency of play, while fun/challenge ended up as the second highest motivation. Socialization through competition and fun/challenge were found to be significantly influenced by those who played poker, which should not be surprising due to the competitive and challenging nature of the game. Those who

played lottery were found with higher mean scores in peripheral activity, possibly suggesting games of complete chance with no choice by the player are seen as less engaging (Abarbanel, 2014).

Sports wagering, much like other games, has its own unique set of motivations and behaviors attached to it (Humphreys, Paul, & Weinbach, 2013; Paul & Weinbach, 2010). Those who wager on sports matches prefer wagering on matches between high-caliber teams that are close in terms of talent (Paul & Weinbach, 2010). In addition, it was found sports bettors tend to wager the most on the best matchups of the week, with a high degree of uncertainty in the outcome, which is in line with sports consumption motives (Humphreys et al, 2013).

As the vast majority of industries have transitioned into the digital age, gambling is no exception, and has spawned research on motivations and behaviors of internet gamblers (Gainsbury, Wood, Russell, Hing, Blaszczynski, 2012). Those who gamble on the internet were found to do so primarily from the convenience and accessibility. In addition, the internet sites were found to provide an added benefit, by allowing users to gamble without being around other people, allowing for anonymity and privacy (Gainsbury et al, 2012).

Some research exists in areas of motivations and behaviors towards gambling in regards to game selection, as does research on behaviors by college students towards gambling (Fang & Mowen, 2009; Neighbors, et al, 2002). However, there currently is little to no research on gambling motivations from individuals who identify as esports enthusiasts or video gamers.

Other Industries

Several other industries, aside from the casino gaming industry, are looking towards gamification, modern technology, and incorporating video game elements into their product

offering as a way of engaging younger people. One of most notable of these industries is museums (Boyce, Mishra, Halverson, & Thomas, 2014; winner, Carter, Smith, & Vetere, 2017; Xhembulla, Rubino, Barberis, & Malnati, 2014).

In addition to using interactive technology as a source of edutainment (a combination of education and entertainment), several museums have looked into interactive technology to have an advantage over competitors (Pop & Borza, 2016). Pop and Borza provide a case study looking at the Baia Mare museum in Romania and the technological innovations found within, in comparison to other museums within the country. While Baia Mare has some technological advancements, one downfall found was that the technology was primarily unidirectional, not offering interaction from the point of view of visitors. The Grigore Atipa National Museum of National History, in comparison, features plenty more interactive exhibits, such as interactive information panels and maps, which have led to higher customer satisfaction (Pop & Borza, 2016.)

Other studies have looked specifically at how gamifying exhibits within museums can lead to both higher levels of engagement, satisfaction, and knowledge retention (Xhembulla et al, 2014). In this particular study, the authors looked at the Palazzo Madama-Museo Civico d'Arte Antica in Turin, Italy, which introduced a location-based mobile game in 2012. The game was created to provide a rewarding experience to young visitors who may or may not have any knowledge of the museum.

The two primary goals focus on exploration and tasks, which challenge the user in three main areas: Observation tasks, reasoning tasks, and arcade tasks, which provided highly-animated graphics, and interaction based on speed. Upon completion of all tasks, visitors are then presented with a “detective certificate”, as a reward for exploring the entire museum within

the game. A questionnaire provided to participants showed not only high levels of interest, but also enjoyment, satisfaction, and enthusiasm among participants (Xhembulla et al, 2014).

Experiments have also been conducted, where games were created for a museum for the sole purpose of research into the effects on the user experience (Horn et al, 2012). In this particular study by Horn et al, an interactive tabletop game was created and used at the Harvard Museum of Natural History. The game required collaborative interaction in which users worked together on a multi-level puzzle game to build a tree, while also teaching about the evolution of trees. (Horn et al, 2012).

Results showed that participants spent roughly three times as long on the interactive exhibit, compared to others. The authors adopted the concept of Active Prolonged Engagement (APE) from literature on science museums. Studies on APE show an average visitor spending 3.3 minutes at APE exhibits, compared to 1.1 minutes for more traditional exhibits. While recruited participants on average spent a staggering 14 minutes at the exhibit, non-recruited participants spent an average of 3.66 minutes at the exhibit. Although that number is much lower than the recruited class, it notably ranks higher than what an average APE time is deemed to be, possibly linking gamification and interactivity to higher levels of engagement within the museum environment.

The students in the previous studies ranged from elementary to high school aged. The games and technology were implemented as a way to appeal to those who have grown up as digital natives, with video games existing far before their birth, and being a familiar concept to them (Horn et al, 2012). Games have shown to be an effective way to communicate content, form purposeful interactions, and to share social experiences (Xhembulla et al, 2014). The

interactivity from game-based exhibits has shown to be one of the most effective ways to better capture attention from a previously passive interaction (Xhembulla et al, 2014).

Mobile Device Usage

In addition to exhibits that merely have upgraded technology or varying degrees of interactivity, some museums have begun incorporating interactive games via mobile device into the overall experience (Schroyen et al, 2008). Schroyen et al studied the effects of mobile game experiences on increased learning, engagement, and excitement from museum goers. The specific games the authors looked at featured a collaborative experience which was incorporated in various aspects throughout the gameplay. Some of these aspects included problem solving and an opportunity for the user to further explore actions based on the effects they had on the game (Schroyen et al, 2008).

To make the user feel more committed, the game also featured a customizable avatar to immerse themselves into, which were found to make the user more connected to the games. The graphics of the game reflected the overall museum experience, which promoted a higher degree of learning, on a subconscious level. The results showed 90% of users enjoyed the experience, with between 85% and 90% saying the game made the overall museum experience much more fun (Schroyen et al, 2008).

CHAPTER THREE

METHODOLOGY

This research study looks at the behaviors and attitudes of esports enthusiasts and gamers towards gambling. A qualitative approach was used to achieve a deeper understanding of the behaviors and attitudes towards gambling. The sample consisted of esports enthusiasts and participants recruited through an esports club located at the University of Nevada, Las Vegas, the Flipperspiel Underground Arcade Club, and from an esports course at the University of Nevada, Las Vegas. The main research question for this study was, “What are esports enthusiasts’ and gamers’ attitudes, motivations, and behaviors towards gambling?” An in-depth interview format in which participants were allowed to respond to open-ended questions was used.

Nine interviews were conducted at the University of Nevada, Las Vegas with participants who self-identified as either esports enthusiasts, video game enthusiasts, or both. While three of the participants rarely, if ever, watch esports, all nine played video games on a daily, or near daily basis. This study focuses on the motivations and needs that are being met from the world of esports viewership in addition to video game and gambling participation. This was accomplished by asking open-ended questions regarding what they like about esports and video games, and the goals they try to accomplish when playing video games.

Since the interviews aimed for a natural, organic dialogue to develop, not every person received the exact same questions, and they were not always asked in the same order. The open-ended questions that were asked provided answers at times which warranted further elaboration. Questions on esports and video games were asked first, before questions regarding thoughts on casinos and traditional gambling. To participate in the interviews, there was no pre-requisite to frequent casinos, or even to have ever played in one before. Questions that were both open-

ended, and on familiar categories, were expected to get the interviewees to open up and robustly discuss their thoughts on casinos.

In-Depth Interviews

This study consisted of nine in-depth interviews. In-Depth interviews are the preferred method for this study as they provide an avenue for people to discuss detailed thoughts and behaviors on a new issue in depth (Boyce & Neale, 2016). One major benefit of the depth interview is they provide a wider breadth of information than would be contained in a focus group (Zikmund, Babin, Carr, & Griffin, 2013). It has been found that that smaller numbers of participants, roughly twenty or less, help generate a stronger association with the interviewer, providing a higher degree of validity of the in-depth inquiry (Crouch & McKenzie, 2006).

Participants were restricted to a minimum age of 21 and identified as an esports enthusiast, gamer, or both. For the purpose of this study, an esports enthusiast will be someone with a familiarity of various genres, professional teams, and streaming services. In addition, participants who identified as gamers played video games at least twice per week.

The interviews took place in a conference room at the International Gaming Institute at the University of Nevada, Las Vegas, and were moderated by the author, John Lukasik. There were nine interviews in total, due to time constraints, lasting between thirty and sixty minutes apiece. The interviews were limited to nine questions, to allow for enough time to elaborate on answers, and further probe on certain topics of interest. The conversations from each interview were recorded via audio, and transcribed. Since not all esports enthusiasts play the same games or have the same motivations, questions were asked regarding what genres(s) of games the participant frequently plays.

Questions were asked to participants that cover three sections: (1) What they like about esports (2) What they like about the video games they play (3) What they would like or dislike about the current casino gaming offering. What the participants like about esports and video games involved the frequency of engagement, the context of play, and the social nature of the activities. The questions also probed into understanding what peripheral activities they take part in while viewing esports, or if esports viewing is in itself a tertiary activity for them. These questions looked to probe into whether or not the participants have gambled on esports or video games previously, and if not, what their level of interest on gambling on professional esports matches or video game tournaments was. Questions regarding thoughts on casinos and gambling sought to understand their enthusiasm (or lack thereof) for traditional casino gaming. Participants were asked what it is they enjoy about the games they do play, and were invited to express thoughts on changes they would like to see in casino games.

The questions on current casino gaming hoped to provide discussion and insights about the current casino offerings and what appeals or does not appeal to esports enthusiasts. Topics included the current game offerings, wagering limits, layout, the aura, among others. The discussion allowed for participants to focus on specific elements of the casino experience that do not appeal to them, in addition to elements that do.

The individuals were also asked specific questions relating to their motivations and behaviors towards playing video games. The answers and ensuing discussion aimed to provide guidance to casinos and manufacturers towards what esports enthusiasts look for in a gaming experience, and how games in the future can provide the same experiences and satisfy the same needs currently provided by video games. Questions on the players' motivations for video game

play were open ended, and were followed up by questions regarding the goals of their play, which were loosely adapted from Yee's Gamer Motivation Model.

The closed-ended questions primarily were used to establish what games and game genres the interviewees played, and time played per week. Participants were also asked what devices they play on, what they like about the games, how their taste in games and game genres have changed through the years, and what their main objectives are when playing games. Examples of objectives would be to climb a leaderboard, explore a wide landscape, or to blow things up. In regards to game genres, the question arose as to how the player's preference for game selection have changed through the years. This was asked to help test the validity of the previous study conducted, which claimed players tend to show a sharp decrease in competition as motivating factors for game selection as they got older (Yee, 2016b).

Rationale for Methodology

Esports consists of a complex, diverse, and emerging culture. In-depth interviews, as opposed to other qualitative methods, such as focus groups, benefit by being an ideal outlet to share thoughts on new areas of research (Boyce & Neale, 2016). A qualitative approach, as opposed to a quantitative, is more preferred for an exploratory study for discovery-oriented research (Zikmund, Babin, Carr, & Griffin, 2013). As the esports/video game phenomenon is emerging, the open discussion regarding new ideas is an ideal format. Depth interviews with less than twenty participants are ideal as the small group allows for the interviewer to form a stronger association with the participants, eliciting more authentic responses (Crouch & McKenzie, 2006).

Interviews done face-to-face benefit from the interviewer being able to take note of social cues and body language that might arise when a question is asked (Opdenakker, 2006). Based on

reactions, such as excitability, interviewees can be probed to further explain specific answers, or introduce a topic of their own. Additionally, one major benefit of the depth-interview, as opposed to other approaches, include the participant having an opportunity to expand much further on answers, while in a relaxed environment (Boyce & Neale, 2006).

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

Introduction

Throughout the interview process, common themes emerged on questions regarding esports viewership, video games, and views and behaviors towards gambling. Esports were primarily viewed as a social or learning experience among the interviewees. Major tournaments were cause for small parties among the participants that enjoyed the social element. Regardless of the genre of video game, the interviewees all discussed enjoyment derived from the challenge and skill elements of the games they play. Casino gambling is something none of the interviewees do on a regular basis. Demographic information and information on preferred video game genre, motivations, gambling games is provided in Table 1.

Table 1. Esports and video game enthusiast interviewee characteristics.

Pseudonym	Age Range	Preferred genre(s)	Video game motivations	Preferred casino games
Alan	Mid 20's	FPS	Fantasy	Poker
Beatrice	Early 20's	MOBA & FPS	Teamwork & social	None
John	Early 30's	Adventure	Storytelling & fantasy	Poker & blackjack
Kevin	Early 30's	MOBA	Skill & competition	Video poker & sports betting
Ned	Mid 30's	All	Challenge & teamwork	Poker & blackjack
Alicia	Mid 30's	Puzzle & fighting	Achievement	Slots
Donald	Mid 30's	Strategy	Achievement	None
Len	Mid 20's	FPS	Competition & Challenge	Blackjack & Roulette
Wendell	Early 40's	All	Fun & simplicity	Slots & Table games

Frequency and Preferred Method for Participation

Nearly all interviewees said they play video games every day. For the ones who did not, it was for a lack of free time. Cell phones were the most common device for regular and every day video gaming. Only a few of the interviewees said they rarely, if ever, watch esports. The majority watch esports in some capacity on a weekly basis. For those who watched esports, they tended to do so on mobile devices and PC, and split between Twitch and Youtube. When elaborating on their experiences gambling, nobody gambled regularly, but when they did, did so in a brick and mortar casino environment.

Social and Collaborative Elements

The social and collaborative elements were mentioned by multiple people in regards to esports viewership, video game play, and casino gambling. The social aspect of viewing esports was rather prevalent, as those who watched with friends tended to make small events around viewing, as opposed to simply casually watching. The social events around viewing esports tended to occur more for the larger tournaments. *“It’s like a party. It’s like a Super Bowl party, but it’s not as extravagant if it’s just for a normal competition of esports, but like, for the championships it’s pretty big.”*

Eating, drinking, and being around friends were commonplace, and the viewing of events was very similar to traditional sports viewing. Those who enjoyed the social and collaborative elements of video games tended to enjoy the same elements for viewing esports, and were more prone to watch with others. Those who enjoyed the social and collaborative elements of the games tended to play multiplayer online battle arena games, massively multiplayer online games, and first-person shooter games. A few interviewees commented that they enjoyed the team dynamic of FPS games, and working towards specific goals within the game. *“I really like the*

team play and the role dynamic in it, as opposed to a lot of your classic first person shooter stuff. The Modern Warfare stuff hasn't interested me a lot because I think there's only one or two that did any kind of class system. I like the fitting into a team dynamic and 'this is my role.'"

When it came to gambling, a few pointed to table games as being a fun social experience, with high thrills and high energy. *"Do you know why roulette and craps is really popular in the casino? It's because you've got people yelling, screaming, doing a dance every time they roll the dice and get something, or the ball drops on the number you just put your twenty or forty dollars on. The energy and experience it provides makes it more enticing."*

This social experience was the entire reason some of them play table games. Slot machines, as opposed to table game, were perceived as not social. Those who enjoy the social element of video games and table games were asked if they would feel more inclined to play slots if it provided more of a collaborative, team-like experience. All seemed surprised and intrigued at the concept, but said it would be a fun experience that they would want to play.

Escape and Fantasy

While interviewees did not refer to gambling as a way to escape from daily life, some mentioned playing video games as a way to escape and immerse themselves in a fantasy environment. However, the concept of fantasy was much more prevalent in video game play. Among those who enjoyed the fantasy element, the thought of being a character or person you normally would not be in daily life was appealing. One interviewee pointed to the fantasy element of the games, and enthusiastically said, *"It's exciting. For example, with Call of Duty, I'm able to be a special forces soldier. I'll never be a special forces soldier in life. That's not even my interest."*

The fans of fantasy found immersing themselves into the lives of the character to be a satisfying experience. The characters all played critical roles in the overall gameplay, however, making the experience full and rich for the interviewees.

Challenge, Skill, and Strategy

Themes that came up in both video game and casino gambling discussion from many interviewees were a strong liking of games that involve elements of challenge, skill, and strategy. Challenge is seen in many forms in video games, from fighting a strong boss to completing a puzzle correctly. During the interviewees, one participant said, *“I mostly do word and puzzle games. It’s just a fun little challenge. It’s fun to advance through the levels and stuff.”* Another interviewee responded, *“I like the challenge more than anything else. It’s a lot of fun. You challenge yourself to always get better and to be as smart as other players. To be more aware of your surroundings.”* All interviewees commented they enjoy gaining and utilizing skills throughout gameplay.

Strategy, much like the element of challenge, came in several varieties. No matter the genre, interviewees all pointed out they enjoy the strategy involved in various games. This was an interesting point brought up by the participants, as specific genres are rarely thought of as appealing to gamers who prefer strategy elements (Yee, 2015a).

Along the lines of strategy, another common theme that arose was decision making, and more specifically, meaningful decisions that had a strong impact on the outcome of a game. Respondents who also mentioned enjoying board games tended to feel more strongly on the importance of decision making in their video gaming experience. *“I like games that have multiple decisions to be made that affect the outcome of the game. That probably comes from my*

preference for playing board games as well. I just like having choices in my games. I prefer strategy games. Anything that gives a player options so there's different ways to win the game."

The decision making is also a theme that came across for those who play table games in casinos. *"Even with blackjack, I prefer to play that. Even if the odds are generally against you, at least I can make decisions. I can feel good. When I win or lose I feel like there's some degree of my ability that came into play."*

Skill was a theme that nearly everyone mentioned as part of a satisfying gaming experience. *"If it's something that I can sit down at, I can play, and I can come away feeling that I played better, got [further... That's true whether it's multiplayer game with a ranking system, or whether it's a story based game like Assassins Creed where I've just revealed more of the story, made more progress, that sort of thing."* The games in this sense become interactive by giving feedback to the players. The greater their skill, the greater their achievements are within the game itself. This positive reinforcement seemed to provide a great satisfaction to the players.

The element of skill was also brought up by those who enjoy poker. *"It's a skill game. That's what I enjoy about poker. There's a definite skill to it. More than a lot of casino games where you're just playing against the house and the odds are just weighted against you."* Those who enjoyed the social elements of the casino experience tended to eschew the skill-based table games such as blackjack and poker, and opted for games such as roulette and craps.

Those who participated in blackjack and poker were also fans of the skill and strategy components in video games. These same interviewees found slot machines to be boring, primarily from the lack of skill involved. *"It's just not a skill game at all. It's pure luck. There's no skill at all. There's no decision making at all"* said one interviewee on slots. The one theme

that came up from nearly every participant, was the feeling of slots being about nothing but luck, with them having no control over the outcome at all.

A few people enjoyed wagering on sports from time to time as well, although it was not a regular practice. One interviewee said the only time he wagers on sports is during NCAA March Madness, but tends to bet aggressively when it does come around. When asked to expand on why they bet sports, gaming math and house advantage was brought up. Sports wagering was the only way for this group to feel as if they had a chance at winning against the house.

When asked what they would change about the current offering of slots, nearly all interviewees wanted to see skill and decision making involved. *“Something that would be interactive rather than just dropping in your coin, pushing a button, and it being over. Something that you could control the outcome, that there’s some sort of skill involved.”*

After mentioning they wanted to see more skill elements in the games, each interviewee was probed as to what “skill” meant to them, and what types of skills could be incorporated into slot games to get them more interested. *“If you could implement speed and manipulate it to incorporate some sort of element of speed and reflex, like you would do on a video game, like a Super Mario Game. Like how quickly can you jump across the platforms and avoid the turtle shells. Similarly, how quickly could you manipulate things on a board.”* While that particular interviewee wanted to see more dexterity-based skill components in the games, other skill elements people wanted to see in slot games included components such as knowledge, critical thinking, trivia, and puzzle solving.

Video Game Participation

In terms of playing video games, several themes emerged on what it was they liked about games, and why they tended to play them. The gameplay elements of destruction and fighting

were enjoyed by the interviewees more as they got older to let off steam from the daily grind of life. *“As far as console games, I love Mortal Kombat. Besides it just being a fun game, I’ve always found it’s a really good way to get out frustration. If I’m having a terrible day I love to play Mortal Kombat III.”* Nearly all interviewees claimed that as they got older, competition was less a motivating factor behind gameplay. Some said as they got older, they did not have the time to keep their skills sharp at certain games, and knew they would lose against sharper, younger players.

Achievement

Achievement was seen in primarily two forms, which were leaderboard/ranking climbing, and a personal sense of achievement for accomplishing some task or feat within a game. *“If I start losing more than I’m winning, I’ll stop playing because I’m not getting that satisfaction of feeling like I’m achieving anything. In fact, that has the reverse effect where I feel like I’m digging myself into a hole and that frustrates me and makes me angry, so I go to bed.”*

In discussions regarding video game motivations, the concept of achievement was common, and in turn tended to drive the interviewees to play longer gaming sessions. When the topic of achievement was brought up, they were asked elaborate on whether to them, the satisfaction from achievement came more from climbing a leaderboard/ranking system, or if it was more an internal sense of achievement. *“It’s definitely internally. I don’t care about the leaderboard. As long as the number is higher than when I started playing, that’s good enough for me. I don’t even care if other people don’t see it. It’s my own sense of, “Oh, I achieved this.”* This particular interviewee was not alone, as most people felt the same way, indifferent to leaderboards in general.

Gambling Views and Behaviors

Traditional Casino Games

None of the interviewees gambled on a regular, or even semi-regular basis. Themes emerged from the interviews as to why this is. All participants are well aware the math does not work in their favor, which is a turn off to them. *“I’m more interested in the mathematical aspect of it. I know from the math that the casino always wins, so it’s essentially like me tearing up my own money unless I get lucky, but more than likely, I’m not going to. So I don’t really have a logical incentive to go and play blackjack or poker because I’m probably going to lose.”*

Having a strong understanding of the various statistics and probabilities deterred them from gambling more often. The other themes across that emerged across the board for the interviewees, is that they feel the current game offering from the casino, particularly slots, lack interactivity and value. *“I’m essentially tearing up my money. I’m essentially giving this casino my money. If they had different games where it wasn’t so obvious that the cards were stacked against the player, I think that they would be able to get more customers in there to gamble.”*

One other interviewee echoed the same sentiments, when they said, *“There are better ways for me to set my money on fire, is how I feel about that.”*

This theme was recurring and addition to value, there was a greater degree of interactivity found in video games, compared to gambling games. *“Games such as Halo are a lot more interactive than you and I sitting at a table playing poker. I just think the entertainment factor is much greater with video games or games similar to video games,”* said an interviewee. The interactivity element was one of the most recurring. However, unlike the previous quote, the other interviewees referred to a lack of interactivity specifically in slot machines.

Very few of the interviewees said they play slot machines, and for the ones who did, it seemed to be an extremely rare occurrence. They were asked what it was about the machines they did not like. Nearly all referenced slot machines as being boring, lacking any decision making, and lacking any enjoyment. *“I know some slots have decisions like pick between these two thing and its still basically random overall, but if there were more skill to it or if there were more actual things that I feel like I could affect in the game it would probably make me feel like I want to play slots more.”*

Skins Wagering

None of the interviewees had ever participated in skins wagering. Few of the interviewees were even familiar with the concept, and even when explained to them, expressed little to no interest. One interviewee expressed a distrust with the sites that offer that type of wager. *“I have not done any skins wagering. I have heard about it, but I haven’t ever trusted... When I see that stuff it’s usually either private parties or something like that that I don’t trust them to come through if I were to win.”* Even with trust issues aside, nobody showed much interest in skins wagering. This was not too surprising, as none of interviewees typically played the video games associated with skins wagering (Grove, 2016a).

Esports and Video Game Gambling

None of the participants said they ever wagered on an esports match. It is of note, however, that only two professional tournaments were able to be wagered on legally in the state of Nevada. When asked if they would be open to the idea of wagering on professional esports matches, there was mild interest from some of the interviewees. *“I would consider it if they made it more diverse than the current wagering system.”* For them, a standard bet on which team would win was not enough, and they wanted to see a wide arrange of propositional bets.

When it comes to gambling on the video games themselves, interviewees were asked about playing matches with friends and strangers, and entering tournaments for money after discussion on what genres of games they enjoy and their video gaming motivations. Most of them said at some point in their lives they gambled on games with friends, but for the majority it was something other than cash, usually a meal or a bar tab. One interviewee said they played tournaments for money on a regular basis in the past, but due to a full-time job and other obligations, does not participate anymore.

Most interviewees said at some point in their lives, they had entered tournaments for money, but said the process was not that engaging or enjoyable. Many said as they have grown in age, they no longer have the time to dedicate to games, and maintain a competitive edge. This lack of time combined with knowing they were not playing up to optimal levels made the thought of entering a tournament for money to be a waste of their time and money.

A discussion question came up for the interviewees regarding a level playing field. They were asked if they could be assured every participant in a tournament was equal in skill level, if that would entice them to participate more, all said they would at least consider it. *“Yes, if I entered a tournament and I was assured that the people I played against would be at my skill level, say beginner or intermediate, then I would be more likely. I’m not going to say I would, but I would definitely be more likely to join the tournament.”* The mild enthusiasm was a common response in regards to playing a tournament for money with an even playing field.

Changes to Casinos

Everyone was asked what they would change about the current casino landscape to get them more interested in visiting casinos. The question was open ended, and interviewees were instructed they could comment on any single aspect of casinos. Nearly all pointed to the games,

and what they want to see changed. *“I don’t really find the draw of just pulling slots and or having the really flashy looking animations on the screen. It’s kind of like, give more interaction rather than just pulling slots.”* Comments regarding slot machine game play and design came up more often than other casino games. The interviewees found current slot machines to lack appeal, which stemmed primarily from gameplay elements, and the lack of interactivity.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

Summary

The purpose of this study is to use esports and video game enthusiasts' attitudes, motivations, and behaviors towards gambling to identify strategies for casinos on what games and offerings to have for esports and video game enthusiasts. It has been shown that the millennial generation is more indifferent towards casinos than any other adult demographic (Lightspeed/Mintel, 2016). While the quantitative data is out there, little, if any, qualitative data has explored why this phenomenon exists. One of the opinions on why millennials are indifferent to casinos is that younger people want a more video game-like experience in casinos (Parker, 2016)..

The goal of this research was to uncover if specific motivations existed and needs met from viewing esports and playing video games that was lacking in the overall casino experience, as an answer as to why this demographic gambles less than others. The literature review looked at a wide range of topics on esports viewership, video game playing, and gambling, including motivations for each. In addition, the literature review examined other industries that had incorporated video game elements into their product(s).

As an exploratory study, a qualitative approach using in-depth interviews was chosen to be the ideal research method. Various motivations and behaviors surrounding the areas from the literature review served as a basis for the questions that were asked in the interviews.

Interviewees were asked to comment on anything they would like to see casinos do differently to earn more of their business. The games offered by the casino continuously were

brought up by most of the interviewees. The two recurring themes from interviewees were that current game offerings, specifically slots, lacked interactivity and value.

Video Games vs. Esports

Prior to the interviews, the participants were not asked whether they spent more time watching esports or playing video games. Every person interviewed played video games on daily, or near daily basis. Esports viewing was done less often, and more sporadic.

Esports viewership was typically done for social and/or educational purposes. Most literature on esports viewership that focuses on the social elements focuses on the virtual interactions people have each other, instead of the in-person social experience (Hamilton et al, 2014). With people watching esports in groups, there could be potential for the casino industry to further explore offering wagers on professional esports matches. Some of these wagers might need to expand on prop bets, and offer a new style of wagering system, for this demographic that prefers high levels of interactivity.

Video games serve not only a wide range of purposes for those interviewed, but contain numerous genres, fulfilling one or more of a wide range of needs. The questions on esports were the first ones asked in the interviews, before moving on to video game play, so it is possible that just hadn't opened up enough yet. Preference for video game genres coupled with motivation fell in line for the most part with video game motivation literature (Yee 2015a, Yee 2016b). When each person was asked what they would change about the current casino landscape to appeal to them more, esports was only mentioned a little bit. The current casino games, though, were brought up by many. In particular, the lack of interactivity, skill, challenge, and decision making in current games, or in other words, elements that are featured prominently in the video games they play.

Interactivity and Value

Interactivity, or the lack thereof, in current casino gaming, was the most common theme referenced by interviewees. In their daily life, the games they play require decision making, challenge, and skills. The more the player hones their skill, the more they achieve within that game. The interviewees all enjoy games that feature elements of skill, which can range from cognitive, to dexterity-based.

When someone plays a video game, the game gives the player feedback they are improving, by advancing them to a higher level, opening up more gameplay options, etc. Current offerings in traditional slot machines are limited in their feedback to players, as there is no skill or leveling up in a traditional slot game. The interactivity in video games was seen as more dynamic than slot machines as well, with a real-time responsiveness that is sought out in interactive forms of entertainment (Sundar & Limperos, 2013).

While some players tended to play games alone, others enjoyed the collaborative effort of working within a team. Those who work as part of a team all enjoyed taking on a specific role within that team, such as a healer, someone who deals damage, or someone who takes damage from opponents. This collaborative play is something casinos and manufacturers could consider for slot games in the future, as teamwork in video games relates to fun, social experiences (Yee, 2015a).

At the heart of everything seemed to be decision making. When playing games, the interviewees thoroughly enjoy having their decisions impact the gameplay. These decisions could be moving a puzzle piece a specific way, making a certain jump, or choosing which door to enter, among others. Slot machines simply do not offer that same feeling to them. Even on bonus rounds in slots when a player must choose a treasure chest, or balloon to reveal their prize,

the interviewees feel it is all pure luck, even though they technically have a choice. At the end of the day, they are correct, as those decisions are all randomized.

Interviewees were asked to elaborate on the types of decisions or skills they would like to see slot machines offer. Answers ranged from wanting to see dexterity-based skills along the lines of Super Mario Bros., to puzzle solving, to more cognitive-based skills such as critical thinking. One interviewee mentioned they wanted the games to provide more of an experience. All interviewees were excited to talk about the changes in games they would like to see implemented, and to see skill and decision making having a larger impact on the outcome of the game. There is a tremendous opportunity for game designers to incorporate these particular skill elements, among others into future casino games.

The other element that came up among most interviewees was value. Nearly everyone pointed to the math, how the games are rigged in favor of the house, and that they do not provide enough of an experience or entertainment to warrant spending money, knowing in the long run they will lose.

Limitations, Future Recommendations, and Implications

Due to the study being limited to only nine people interviewed, it is difficult to draw generalizations about an entire demographic. Furthermore, due to the methodology being in-depth interviews, it is limited to interpretation of the findings. Future research could further explore specific game design and how people interact with those games compared to current offerings through observation or as an experiment, much like what was done for museums (Horn et al, 2012). Future research should also look to explore views on the potential of gambling on devices such as mobile, as that device may be a preferred method compared to a slot machine.

As the majority of millennials play video games, they find a greater sense of entertainment, achievement, and fulfillment from video games than casino games, at a fraction of the cost. The revenue that is being left on the table from having such a small percentage of this demographic gambling while inside casinos is difficult to quantify, but is considered significant. The gaming industry should look to create games that not only play like the video games they enjoy, but also fulfill the same needs as the video games they play.

Casinos could benefit aim to make slots a more social experience for gamers, as the socialization for esports viewership, video gaming, and casino gaming came up frequently not only in discussion, but in the literature as well. The social experience can come in a variety of ways, but the theme of teamwork and collaboration as a motivation for both video game play and for going to a casino crossed over frequently. There could be tremendous opportunity in exploring collaborative gameplay options in the future of slot machines.

For those who enjoy the social and skill aspects of games and casinos, they tended to play table games, but still knew the impact of their overall skill on the game was minimal. The challenge that is sure to arise from the game designers' perspective is allowing for skill, challenge and decision making to play a more pivotal role in the slot gameplay, while having a firm control on the math and house advantage of the game.

APPENDIX

IN-DEPTH INTERVIEW QUESTIONS

- (1) What do you enjoy about watching esports?
- (2) Do you tend to watch esports alone, with peers, or with strangers?
 - a. If with friends, what activities do you partake in while watching?
 - b. What platforms do you typically watch esports on (TV, mobile, PC)?
- (3) What do you like about the video games you play?
- (4) What are your main purposes when playing games (ie completing collections, blowing up buildings, seeing how high of a level you can get to)?
- (5) Have you ever wagered on the outcome of a video game match? Was it for real money or something else?
 - c. If you have not, would you consider wagering on the outcome of a video game match?
- (6) Have you ever entered a tournament where you paid an entry fee?
 - d. If so, what was the experience like?
- (7) Have you ever participated in skins wagering?
 - e. If so, what did you enjoy or not enjoy about it? Can you describe the experience?
- (8) Have you ever placed any wager in a casino?
 - f. If so, what do you usually wager on?
 - g. How did you place a wager?
- (9) Do you feel casinos are doing enough to earn your business?
 - h. If not, what else could they do?

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CURRICULUM VITAE

ACCOLADES:

INTERNATIONAL GAMING INSTITUTE, Las Vegas, NV

- Named Top Gaming Innovator of UNLV by the International Gaming Institute in 2014 for the game *Million Dollar Fantasy*, a fantasy football game created for sports books.
- Panelist on “Finding Talent on College Campuses” for the iGaming Conference, April 2016
- Featured in the article “Living up to its Promise” In the Spring 2016 issue of UNLV Magazine.

PROFESSIONAL EXPERIENCE:

INTERNATIONAL GAMING INSTITUTE, UNLV, Las Vegas, NV (August 2016 – Present)

- Graduate/Research Assistant: Responsible for assisting UNLV’s Gaming, esports, and Hospitality Innovation programs. Duties include administrative tasks, intellectual property development, and teaching assistance for Gaming, esports, and Hospitality Innovation courses.

GOLDEN GATE CASINO & HOTEL, Las Vegas, NV (November 2015-September 2016)

- Table Games Supervisor: Supervised all dealers on every game offered. Trained dealers to deal games. Issued player cards, ensured players were properly rated for their play. Reported shift reports to management.

GLOBAL GAMING BUSINESS MAGAZINE, Henderson, NV (December 2014-present)

- Staff Writer/Freelance Writer: Compiled and wrote articles on the casino and gambling industry, covering Las Vegas, regional, Native American, and international markets. Served as liaison between GGB and the IGI at UNLV. Conducted interviews with industry leaders.

BANC LLC, Gardena, CA (January 2012 – June 2013)

- Third party propositional player: Bonded and licensed by the State of California. Oversaw casino table games (Blackjack, 3-card poker, Ultimate Texas Hold 'em, Pai Gow Poker, and Baccarat). Maintained integrity of each game, ensuring dealers follow proper protocol and procedures, and players were paid accordingly. Responsible for upwards of \$250,000 each shift.

INTERNSHIPS:

UNION GAMING GROUP, Las Vegas, NV

(June 2015-August 2015)

- Gaming Analyst: Co-created RFIs, RFCs, and RFPs for projects in regional U.S. markets and international markets. Co-created market feasibility projects in regional U.S. markets and international markets. Created databases for all gaming regulators and gaming/trade associations in every state. Used models to accurately project both gaming and non-gaming revenue for regional casinos.

RIVIERA HOTEL & CASINO, Las Vegas, NV

(January 2015-May 2015)

- Table Games Operations/Slot Operations/Marketing, Promotions and Player Development:
 - Table Games Operations: Assisted in the supervision of all table games, ensuring fairness and integrity of each game dealt. Ordered, oversaw, and signed off on chip fills for all games. Approved money dropped for each game. Rated each player, determined theoretical loss, actual loss, and issued comps. Oversaw and assisted with Title 31 claims.
 - Slot Operations: Oversaw and assisted in optimal slot machine layout. Analyzed PAR sheets to determine optimal setting for machines. Assisted with the removal of progressive funds and slot machines for the property's closing. Projected slot performance for executives. Assisted in the coordination of and operation of slot tournaments.
 - Marketing/Promotions/Player Development: Oversaw and assisted with redevelopment of Riviera Rewards, the company's loyalty club for customers. Served as project manager for all April promotions, St. Patrick's Day slot tournament, banquet, and promotions.

EDUCATION:

UNIVERSITY OF NEVADA LAS VEGAS, Las Vegas, NV

M.S. - Hotel Administration, August 2017

WAYNE STATE UNIVERSITY, Detroit, MI

B.A. - Media Arts and Studies, May 2007