

Comparison of eSports and Traditional Sports Consumption Motives

by Donghun Lee, Ball State University and Linda J. Schoenstedt, Xavier University

Abstract

With recognition of the need for studying eSports in this interactive digital communication era, this study explored 14 motivational factors affecting the time spent on eSports gaming. Using a sample of 515 college students and athletic event attendees, we further compared eSports game patterns to their non-eSport or traditional sport involvements (game participation, game attendance, sports viewership, sports readership, sports listenership, Internet usage specific to sports, and purchase of team merchandise). Multiple regression results indicated that competition and skill had a statistically significant impact on the time spent on eSports games while peer pressure had marginal significance. Related to the overall findings, developing tailored messages that drives consumption behaviors of target audiences to specific eSports games will provide a better chance for marketers to fulfill their strategic goals of increased purchasing and larger market shares. Understanding that the interest in competition and skill are critical to eSports gamers may influence marketers to focus on creating games and opportunities for gamers to compete against each other and give tangible rewards to the winner. The use of peer pressure may be another motivational factor for playing. Consequently, those marketing dollars could be spent more on the interactive nature of game design. The subsequent analysis on cross-validation check suggests that the results of the regression analysis could be generalized.

Keywords: Video Games, eSports Playing

Based on the history of eSports (sports video or electronic sports) game playing, eSports may be classified into two eras: the arcade era and the Internet era. During the early arcade era (from the 1980's to 1990's), popular eSports games included NBA Jam and Virtua Racing (Electronic sports, 2009). Other eSports games gained their popularity with the evolution of the Internet through local area networks (LAN). The advancement of LAN technology changed the mode of eSports consumption from human-versus-machine to human-versus-human (Griffiths, Davies, & Chappell, 2003). Many popular tournaments have drawn hundreds of participants from various continents. Approximately 800 gamers from 78 countries participated in the 2008 World Cyber Games (WCG) that was held in Cologne, Germany (World Cyber Games, 2009). This emerging sports genre has also been recognized as a good spectator sport. For example, several countries have begun regular televising of eSports games through both regional network channels and national broadcasting companies such as the Ongamenet and MBC Game in South Korea, GIGA Television in Germany, XLEAGUE.TV in the UK, and Game One in France (Electronic sports, 2009).

The growth of the Internet and information technology (IT) has accelerated the popularity of interactive digital communications,

and in turn, has boosted eSports consumption. Consequently, multimedia outlets cover more eSports games and potential investors have paid more attention to this market segment as a growing sponsorship opportunity. Global companies such as Samsung and Microsoft have been sponsoring the World Cyber Games at event and team levels. Corporate sponsors have jumped into the online advertising industry because online games have become a common promotional venue in which brands get repeated exposure to an avid target market (Chaney, Lin, & Chaney, 2004).

Electronic sports have, in recent years, become a more popular form of leisure activity for many people. Based on the units sold in 2007, sports video games (including auto racing) comprised more than 22% of the entire video game industry (Entertainment Software Association, 2008). This number rose to 44.7% if 'action' genre was included. Among the list of the top 20 popular video games (based on the units sold in 2007), Madden NFL '08 was the 7th ranked purchase for PlayStation 2 and the 12th ranked purchase for Xbox360.

According to the 2008 Entertainment Software Association (ESA) report, nearly 270 million computers and video game consoles were sold within the US, generating close to \$10 billion in 2007, and it is estimated that video games are a \$20 billion industry in the US alone (Nagle, 2009). The eSports industry is also booming in other countries like South Korea in that professional gaming teams have corporate sponsors (e.g., Samsung) and tens of thousands of spectators gather and cheer for their favorite teams to win (Nagle). A popular online gaming network such as battle.net has over 12 million active users while the largest online gaming network on consoles, *Xbox Live*, has over 17 million subscribers (Electronic sports, 2009). Although these numbers do not provide precise information in terms of how much of the entire game industry is specifically about eSports, it is clear that this emerging market segment produces billions of dollars and contributes economically to the growth of the sport industry as a whole.

Purpose of Study

This research explored the relatively new phenomenon of eSports gaming by focusing on both motivational and behavioral patterns of eSports consumption to determine whether eSports consumption stands alone as a distinct market or whether it is similar or compliments traditional sports consumption. Using regression analysis, the extent to which motives impact time spent on eSports game playing was examined. Using a correlation technique, comparisons were made between eSports and non-eSports (or traditional sports). These included the seven involvements in traditional sports of game participation, game attendance, sports viewership, sports readership, sports listenership, Internet usage specific to sports, and purchase of team merchandise. In addition, a cross-validation check was performed to increase generalization of the findings in the current study. This study may allow researchers to determine which behaviors motivate the desire to play eSports and subsequently, if similar marketing tactics may be used for both

traditional sports and eSports marketing.

Theoretical Background

General definitions of motives imply that individuals have certain needs and these unfulfilled needs become a driving force for future behaviors. Maslow's (1943) seminal work of need hierarchy theory indicated that there are five hierarchical stages of human needs that act as motivating forces for various behaviors. Those needs include, from low to high, physiological needs, safety needs, love needs, esteem needs, and self-actualization needs. In essence, the lower level of needs must be fulfilled in order to move up to the higher levels of needs. In more recent theories, there are various other types of motives that represent various personal, social, structural, and game-related features giving individuals a chance to gratify unfulfilled needs by engaging in eSports games (Lee, Cianfrone, Byon, & Schoenstedt, 2010).

The uses and gratifications theory can be another theoretical framework that provides explanations for an individual's tendency to engage in eSports games. This audience-centered approach requires that individuals take an active role in selecting and integrating media to fulfill needs such as entertainment, relaxation, diversion, escape, knowledge acquisition, interaction, social acceptance, and self-esteem (Katz, 1987; Rubin, 1994; Zillman & Bryant, 1985).

Factors affecting eSports Consumption

The 2008 Entertainment Software Association report indicated that approximately 65% of American households play computer or video games and over 40% of Americans either have purchased or plan to purchase one or more game(s). Electronic sports consumers also demonstrate unique patterns in their game playing behaviors. It is estimated that approximately 16% of the online gamers play a type of action/sports/strategy/role-play game. Nearly half (49%) of these game players are between 18 and 49 years old, and nearly one third (26%) of them are considered mature players (over age 50). While it is still a male-dominated activity, many females (approximately 40%) play eSports games. The 2008 ESA report further indicated that more than one fifth (22%) of the most frequent game players paid to play online games (this is an increase from 19% in 2007). Other types of wireless devices such as cellular phones or personal digital assistants (PDAs) are becoming more popular platforms on which to game, and thus further accelerating the consumption of eSports (Entertainment Software Association, 2008).

This relatively new sports genre tends to appeal to video gamers' psychological and social drives such as excitement, social interaction, competition, achievement, diversion/escape, knowledge application, identification with sport, and fantasy (Kim & Ross, 2006). More specifically, according to the ESA's 2008 report, nearly 60% of the game users play with or against others. The number of gaming participants has steadily increased as evidenced by a 51% rate in 2006 to 56% in 2007 indicating that online gamers often seek opportunities for social bonding while they play video games. The same report indicated that approximately 38% of American households own at least one video game console. Parents are likely to play video games with their children to have fun, socialize with their children, or to monitor

the game content (Entertainment Software Association, 2008; Griffiths, 1993). As well, online eSports games are becoming more popular because they are fun, convenient, unpredictable and/or provide an opportunity for skill mastery (Electronic sports, 2009).

While it is known that playing video games is a psychological and social phenomenon, others have found that specific game features may also draw more individuals to play video games. For example, Wood, Griffiths, Chappell, and Davies (2004) found that video game players consider certain features as more vital when playing such as sound, graphics, background setting, duration of game, rate of play, use of humor, control options, game dynamics, winning/losing features, character development, brand assurance, and multiplayer features. Game formats also seemed to play an important role in that a standalone PC/Mac format was more popular than other types such as game consoles, mobile phones, PC/Mac online/multiplayer, and portable consoles, respectively (Wood et al.). That more males tend to play video games on a frequent basis may be because game content is seen as masculine (Morlock, Yando, & Nigolean, 1984), requires visual and spatial skills (Kiesler, Sproull, & Eccles, 1983), and is driven toward social interaction (Griffiths, 1993).

Relationship between Non-eSports and eSports Consumption

Today, there are constant changes in people's lifestyles and there has been some speculation for this shift in behavior from traditional or non-eSports to eSports gaming. To add some clarification for this research topic, the current study used a correlation technique to create Venn diagrams to illustrate the difference (or overlap) between eSports consumption and seven other types of involvements in traditional sports (i.e., game participation, game attendance, sports viewership, sports readership, sports listenership, Internet usage specific to sports, and purchase of sport merchandise). This research may provide empirical evidence that gives some insights into the market composition of the sports industry when considering non-eSports or traditional consumption and eSports consumption. It is worth noting that this study may allow researchers to determine if any marketing tactics used to successfully market traditional sports could also be applied to eSports. If there is not much overlap between eSports and non-eSports consumption, the results would suggest that eSports is a distinct market compared to traditional sports, which would require a new perspective for a better understanding of consumers in both areas.

Method

Sample and Procedure

Using a convenience sampling method, data was collected from students in sport management related courses (e.g., sport marketing, sport finance, and human resource management) and attendees at athletic events on campuses in three US Division I Mideast universities. This population was deemed appropriate for this type of research because Deerickson's (2005) research reported that while 75% of heads of households play computer or video games, the average game player's age is 30 years old. Not surprisingly, a significant percentage of gamers are teenagers with 35% of gamers under 18 years old. Forty-three percent of gamers are in the 18-49 year old age bracket and 19% are over 50 years

of age.

Prior to distributing the questionnaires, brief instructions were given to the respondents about the purpose of the study and the request for voluntary participation. Institutional review boards approved the instrument at all institutions, and the surveyors took social and behavioral research training prior to data collection. Initially, 587 questionnaires were collected. After excluding incomplete questionnaires, 515 surveys were deemed acceptable. The sample consisted of 82.9% male and 16.1% female participants (1% missing). The majority of respondents were between 16 and 32 years old ($M_{age} = 20.02$). The ethnic background was 80.8% White, 10.5% Black, 2.3% Asian, 1.7% Hispanic, and 3.3% Other (1.4% missing).

Instruments

The survey instrument was borrowed from Lee, Cheon, Judge, Shin, and Kim’s (2010) study and also included the use of existing scales from Kim and Ross (2006) and Sherry, Lucas, Greenberg and Lachlan (2006). Lee, Cheon, et al. added newly developed items representing 14 eSports consumption motives: *Social interaction, Fantasy, Identification with Sport, Diversion, Competition, Entertainment, Sport Knowledge Application, Arousal, Design/Graphics, Pass Time, Control, Skill Building for Playing Actual Sport, Permanence, and Peer Pressure*. To compare eSports consumption with non-eSports, seven items measuring involvements in traditional sports were added: game participation, televised sports viewing, purchase of team merchandise, use of the Internet specific to sport, using print media about sport, listening to the radio specific to sport, and game attendance. In Lee, Cheon, et al.’s study, the scale had Cronbach’s alpha ranging from .63 to .87 that used an American sample. In their study, discriminant validity was established in that all factor correlations were equal to or below .71 and met Kline’s 2005 criterion. In the current study, the scale was pilot tested prior to the main data collection (refer to ‘Pilot Test Results’ section).

Data Analysis

Using the SPSS 18.0 program, descriptive statistics, correlation analysis, and multiple regression analysis were conducted. Multiple regression analysis was used to examine the extent to which the chosen factors influenced the amount of time spent on eSports game playing. For cross-validation purposes, the data set was divided into two random sub-samples. Based on Tabachnick and Fidell’s (2001) recommendation, the main data set had 70% (n = 356) of the original data set and the remaining 30% (n = 159) was used as the cross-validation subsample. Predicted scores were created for the cross-validation subsample using the regression equation from the analysis that used the larger sample. Then, predicted scores and actual scores for the subsample were correlated to find R squares. According to Tabachnick and Fidell, “a large discrepancy between R2 for the smaller and larger samples indicates overfitting and lack of generalizability of the results of the analysis” (p. 135). To illustrate similarity/difference between eSports and non-eSports, correlation values were used to create Venn diagrams.

Results

Pilot Test Results

Seventy-one university students from business and sport management classes participated in a pilot study. Twenty participants indicated no or very minimal experience in eSports games (who spent no more than half an hour per week) and thus were excluded in the data analysis. Cronbach’s alpha for 13 out of 14 factors ranged from .71 to .86. *Control* had alpha value of .57, but the alpha value increased to .70 with only two items. Item-to-total correlation for 13 out of 14 factors ranged from .40 to .81. This value for *Control* factor ranged from .21 to .51. Due to low reliability, the third item in *control* was excluded in the main data analysis.

Psychometric Properties of the Scale

Hair, Anderson, Tatham, and Black (1998) suggested that the variance inflation factor should be less than 10 and tolerance should be greater than .10 to be free from multicollinearity, which was the case in the present study. Cronbach’s alpha ranged from .71 to .86 (Table 1-Page 45). Item206 to-total correlations ranged from .40 to .80 (Table 1). Discriminant validity among the factors was established in that all factor correlations were lower than .85 (Kline, 2005; Table 2-Page 45).

Descriptive Statistics and Correlation Analysis

In the main subsample, entertainment had the highest mean of 5.01 while peer pressure had the lowest mean of 3.33. Correlations for the fourteen motives e ranged between .06 and .69. Correlations between eSports consumption and seven traditional sports involvements ranged between -.03 (eSportsgame attendance) and .27 (eSportsInternet). Among the seven correlation-values, five were statistically significant. Based on these findings, five Venn diagrams were created (Figure 1) to illustrate overlaps between eSports consumption and the chosen involvements in traditional sports.

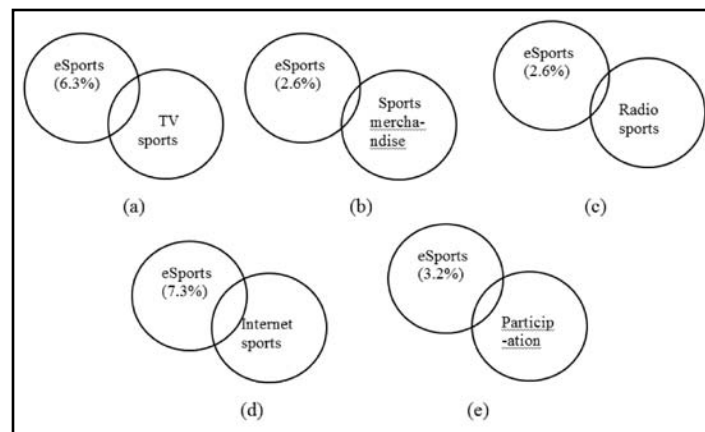


Figure 1. Relationship between eSports and Non-eSports Consumption

Multiple Regression Analysis

Multiple regression analysis revealed a number of significant findings. At the univariate level, *competition* and *skill* had a statistically significant impact ($p = .03$ and $.02$, respectively) on the time spent on eSports games while *peer pressure* had marginal

Table 1. Means, Standard Deviations, Item-To-Total Correlations, and Cronbach's Alpha

| Items | M | SD | r ^a | α |
|---|------|------|----------------|-----|
| Entertainment | 5.01 | 1.32 | | .84 |
| I play sport video games because it is enjoyable | | | .71 | |
| I play sport video games because it is a fun way to spend my time | | | .69 | |
| I play sport video games because of their entertainment value | | | .73 | |
| Knowledge | 4.71 | 1.44 | | .80 |
| I simulate my strategies at the video game | | | .40 | |
| I use my knowledge about players and teams while playing the games | | | .80 | |
| I apply my knowledge to select players and teams | | | .70 | |
| I use my sport knowledge in general while playing the games | | | .60 | |
| Control | 4.43 | 1.43 | | .73 |
| The ability to modify the game set up enhances sport video game playing | | | .57 | |
| I enjoy the controlling aspect of sport video games | | | .57 | |
| Identification with sport | 4.41 | 1.48 | | .73 |
| My favorite sport is a sport the sport video game is modeled on | | | .57 | |
| I like any video game related to my favorite sport | | | .63 | |
| To continue to enjoy the sport I like, I also play sport video games | | | .47 | |
| Design/graphics | 4.38 | 1.44 | | .78 |
| I enjoy virtual aspects of sport video games with vivid graphics | | | .64 | |
| I play sport video games because of realistic graphics | | | .60 | |
| I often play sport video games because of the way they are designed | | | .64 | |
| Competition | 4.33 | 1.55 | | .79 |
| I like to play to prove to others that I am the best | | | .76 | |
| When I lose to someone, I immediately want to play again in an attempt to beat him/her | | | .48 | |
| It is important to me to be the fastest and most skilled person playing the game | | | .69 | |
| Permanence | 4.32 | 1.36 | | .86 |
| I tend to play sport video games because they are readily available | | | .75 | |
| I tend to play sport video games because I can play them at my convenience | | | .72 | |
| I often play sport video games because I can play them as long as I want | | | .77 | |
| To pass time | 4.26 | 1.37 | | .77 |
| I often play sport video games because there is nothing else to do | | | .64 | |
| Playing sport video games can be a good way of passing time | | | .65 | |
| Passing time is my primary goal to play sport video games | | | .53 | |
| Fantasy | 4.22 | 1.58 | | .83 |
| Sport video games allow me to pretend to be a sport star or team member | | | .79 | |
| I like to do something that I could not normally do in real life sport through a sport video game | | | .62 | |
| I enjoy the excitement of assuming an alter ego in a sport game | | | .67 | |
| Social interaction | 4.19 | 1.26 | | .82 |
| Because it provides opportunities to be connected with others | | | .56 | |
| I will spend time playing sport video games with others | | | .55 | |
| An important reason for playing sport video games is spending time with others | | | .81 | |
| I use video games as a reason to get together with others | | | .70 | |
| Diversions | 4.08 | 1.44 | | .75 |
| Playing sport video games gives me a break from my regular routine | | | .57 | |
| Video gaming provides a change of pace from what I regularly do | | | .62 | |
| I play sport video games instead of other things I should be doing | | | .57 | |
| Arousal | 4.08 | 1.37 | | .79 |
| I find that playing sport video games raises my level of adrenaline | | | .54 | |
| I play sport video games because they excite me | | | .78 | |
| Sport video games keep me on the edge of my seat | | | .69 | |
| I play sport video games because they stimulate my emotions | | | .40 | |
| Skill | 3.62 | 1.48 | | .86 |
| Playing sport video games helps me learn skills for real games | | | .78 | |
| I play sport video games to build real game skills | | | .73 | |
| Playing sport video games can be a good way of learning skills for real games | | | .72 | |
| Peer pressure | 3.33 | 1.47 | | .71 |
| Knowing many others playing sport video games makes me play more | | | .48 | |
| I feel I need to play sport video games because others play | | | .68 | |
| My friends forces me to play sport video games | | | .46 | |

Note. r^a indicates item-to-total correlation.

Table 2. Factor Correlations

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| Entertainment (1) | 1 | | | | | | | | | | | | | |
| Knowledge (2) | .64 | 1 | | | | | | | | | | | | |
| Control (3) | .53 | .57 | 1 | | | | | | | | | | | |
| IDSport (4) | .55 | .66 | .57 | 1 | | | | | | | | | | |
| DeGraph (5) | .62 | .64 | .58 | .59 | 1 | | | | | | | | | |
| Competition (6) | .43 | .54 | .59 | .53 | .43 | 1 | | | | | | | | |
| Permanence (7) | .69 | .58 | .65 | .62 | .62 | .49 | 1 | | | | | | | |
| To pass time (8) | .44 | .39 | .44 | .38 | .44 | .32 | .56 | 1 | | | | | | |
| Fantasy (9) | .34 | .38 | .53 | .44 | .39 | .48 | .47 | .38 | 1 | | | | | |
| SocialInter (10) | .41 | .40 | .42 | .43 | .46 | .42 | .51 | .35 | .31 | 1 | | | | |
| Diversions (11) | .53 | .48 | .30 | .47 | .50 | .27 | .56 | .52 | .21 | .36 | 1 | | | |
| Arousal (12) | .55 | .60 | .65 | .62 | .59 | .62 | .63 | .36 | .54 | .53 | .34 | 1 | | |
| Skill (13) | .35 | .47 | .58 | .52 | .48 | .49 | .48 | .31 | .51 | .39 | .21 | .62 | 1 | |
| Peer pressure (14) | .22 | .26 | .51 | .39 | .34 | .43 | .44 | .34 | .54 | .48 | .06 | .58 | .59 | 1 |

Note. All correlations are significant at the .01 level (2-tailed).

significance ($p = .05$). All selected factors collectively explained 10.1% of the variance on the dependent measure. Overall, it was found that for every one unit that motive for *competition* increased among eSports gamers, the degree in spending time on eSports games was predicted to increase by approximately .561 units. For every one unit that *peer pressure* increased among eSports gamers, the degree in spending time on eSports games was predicted to increase by approximately .561 units. In contrast, for every one unit that motive for *skill building for actual playing of sport* increased among eSports gamers, the degree in spending time on eSports games was predicted to decrease by .594 units.

Table 3. Regression Analysis of the Factors Impacting eSports Game Playing

| Independent Variables | B | t | Sig. |
|---------------------------|-------|--------|------|
| (Constant) | | | |
| Social interaction | -.331 | -1.177 | .24 |
| Knowledge | .091 | .280 | .77 |
| Fantasy | .228 | .965 | .33 |
| Competition | .561 | 2.142 | .03* |
| Entertainment | .010 | .032 | .97 |
| Diversions | -.180 | -.628 | .53 |
| Identification with Sport | .374 | 1.334 | .18 |
| Arousal | -.108 | -.315 | .75 |
| Control | .036 | .107 | .91 |
| Peer Pressure | .561 | 1.925 | .05* |
| Skill | -.594 | -2.200 | .02* |
| To Pass Time | .282 | 1.031 | .30 |
| Permanence | .006 | .016 | .98 |
| Design/Graphics | -.032 | -.106 | .91 |

Note. indicate significance at the .05 level.
* Indicates marginal significance.

Cross-Validation of Regression Analysis Results

From the regression analysis for the main subsample (n = 356), the following regression equation was obtained: 1.211 + 0.561*Competition + 0.561*Peer Pressure- 0.594*Skill. Using this equation, predicted scores for the smaller subsample were calculated for a cross-validation check. The Pearson correlation between the predicted scores and actual scores of the time spent on eSports games for the smaller subsample was .31 (significant at

the .05 level). Based on Tabachnick & Fidell's (2001) guideline, a small discrepancy between the 9.6% of the squared correlation for the validation subsample and the 10.1% of the main subsample validates generalizability of the findings in the current study.

Table 4. Correlation between Predicted and Actual Scores on eSports Consumption

| | Predicted eSports | eSports |
|-------------------|-------------------|---------|
| Predicted eSports | 1.0 | |
| Sports | .31 | 1.0 |

Note. Number of observations: predicted = 125, eSports = 131.

Table 5. Correlations between eSports and Non-eSports Consumption

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|-------------------|------|-----|-----|------|-----|-----|-----|-----|
| eSports (1) | 1 | | | | | | | |
| Attendance (2) | -.03 | 1 | | | | | | |
| TV (3) | .25 | .12 | 1 | | | | | |
| Merchandise (4) | .16 | .19 | .14 | 1 | | | | |
| Print (5) | .09 | .02 | .38 | .09* | 1 | | | |
| Radio (6) | .16 | .07 | .18 | .13 | .27 | 1 | | |
| Internet (7) | .27 | .02 | .53 | .07 | .37 | .20 | 1 | |
| Participation (8) | .18 | .20 | .26 | .23 | .16 | .12 | .08 | 1 |

Note. All correlations are significant at the .01 level (2-tailed).

Discussion

The overall results of regression analysis show that there is a personal and social element to game playing and that the specific features of a game positively influence an individual's interest in eSports game playing. More specifically, three motives (i.e., *competition*, *peer pressure*, and *skill building for actual playing of sport*) had a statistically significant impact on the amount of time spent on eSports game playing. Consistent with Kim and Ross' 2006 study, our finding indicates that competition is one of the three impact factors for eSports game playing and indicates that it is important for eSports gamers to be better than others, to win over others, and to be faster and more skilled in their game experience. This finding further implies that the competitiveness of eSports games needs to be continuously cultivated and optimized.

The designers/producers of eSports games may need to utilize the concept of team/institution/player rivalries to accomplish their mission of attracting more players and buyers. Knowing many other people playing eSports games (peer pressure) is likely to encourage individuals to play eSports games. Assuming that eSports game playing was a voluntary action by the participants in this study, it is reasonable to assume that eSports games have become a socially accepted leisure activity. It is critical for marketers to take advantage of this trend and secure market share especially in several other developing global markets like BRICKs (Brazil, Russia, India, China, and South Korea). The findings of this study are consistent with current trends in the video game industry in that the Entertainment Software Association estimated that sales of computer and video game consoles generated approximately \$10 billion within the US in 2007. This was a 270% increase in total sales compared to just a decade ago (\$3.7 billion in 1997).

While *competitiveness* and *peer pressure* had a positive influence

on eSports game playing, skill building for actual playing of sport had a negative influence on the amount of time spent on eSports. No literature exists that allow us to compare this finding. Although use of a convenience sample may limit its generalizability, this type of finding introduces a different perspective in explaining eSports consumption patterns. We first interpret this finding from the measurement perspective. For example, because the items in this factor measured whether playing eSports games helped to build real game skills, this result implied that there is a large discrepancy in the perception of skill building by game playing in a virtual environment versus real game settings. In addition, it is reasonable to say that virtual gaming such as eSports gives individuals a good opportunity to vicariously achieve what they cannot accomplish in a real sports setting (e.g., power fade or draw shots in golf). This finding further suggests that adequate instructions for eSports game buyers should be developed and supplied with the games when sold. Such instructions should also be detailed enough for experienced players but easy enough to follow for new users. Sellers of eSports games may also consider establishing a 'consumer interactive Q&A team' that can readily provide feedback on consumer inquiries.

Inconsistent findings were also revealed in the current study. For example, unlike in the general literature, factors that are related to game features did not have statistically significant impact on the dependent measure in the current study. More specifically, Wood et al., (2004) indicated that game features including graphics (design/graphics in the current study), duration of game (permanence in the current study), and/or control options are important when enjoying video games. However, that was not the case in the current study. Future research will need to focus on explaining this type of behavior among eSports consumers.

Correlation between eSports consumption and the seven traditional sports behavior (non288 eSports) involvements (i.e., game attendance, game participation, sports viewership, sports readership, sports listenership, Internet usage specific to sports, and purchase of team merchandise) indicated the similarities and differences that exist between the very different forms of sport consumptive behaviors. Answering the question as to whether eSports games may be an alternative but similar form of traditional sports or a different consumption behavior among this study population can be seen in the Venn diagrams. The Venn diagrams that were created based on correlation results from this study is evidence of the overlap between eSports consumption and the chosen involvements in five of the seven traditional sports behaviors. Varying portions of the overlap between eSports and non-eSports illustrate that televised sports viewing and Internet usage specific to sport are more related to eSports. Less similarity was found between eSports and three other traditional sports consumption behaviors (i.e., game participation, radio listenership, and team merchandise purchase). Interestingly, there was no significant overlap between eSports and two other involvements in traditional sports (i.e., game attendance and using print media about sports). Because there has been no, if any, attempt to empirically compare eSports with traditionally popular sports consumption behaviors, this type of finding introduces a new perspective in gaining a better understanding of eSports consumption and marketing emphases.

Related to the overall findings, it is essential for marketers to

develop effective marketing strategies for eSports to reach specific target audiences. By developing tailored messages that drives consumption behaviors of target audiences to specific games, there will be a better chance for marketers to fulfill their strategic goals of increased purchasing and larger market shares. For example, understanding that the interest in competition and skill are critical to eSports gamers may influence marketers to focus on creating games and opportunities for gamers to compete against each other and giving tangible rewards to the winner. The use of peer pressure may be another motivational factor for playing and consequently, those marketing dollars should be spent more on the interactive nature of game design. Clearly, from the result of this study, skill building for actual playing of sport inversely motivates eSports gamers and thus would not be a strong impact for behavior at which to target marketing dollars. Lastly, the subsequent analysis on cross-validation of the findings indicated that the results of the regression analysis could be generalized. This type of cross-validation test may make the current study more worthwhile as a result.

Limitations and Future Research

Some limitations and recommendations are acknowledged. Due to low reliability, one control item was excluded in the data analysis. Face/content validity of the item needs to be improved and then used in future studies. The chosen 14 factors only explained a total of 10.1% of the variance on eSports game playing. To implement the cross-validation test, 30% of the entire sample was used. While the sample size (n = 515) satisfies the minimum sample size required, the population size could be increased in further research. Due to the use of a convenience sample, the current findings are limited in their generalizability to all populations. Future research in this area should test the models on larger, independent samples. Opening the study to wider and more diverse demographic groups that would include younger and older players, more girls and women, and additional geographic populations will make the research analysis more robust. Comparing the results of this study to current marketing strategies would also be of interest as this research was clear in the motivations and behaviors of this study population.

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