Abstract

The primary purpose of this study was to explore the importance of types of learning sport rules which could influence sport enjoyment and future consumption. This study aimed to find strategies which could prevent crisis from challenges in sports industry with saturated market and declining attendance. Secondly, the researcher could seek to examine the influence of learning sport rules on sport fan behavior. Among many factors, knowledge was considered as a significant element during the initial stage of becoming a sport fan. People that ‘know’ or ‘recognize’ a sport, team, and players by being exposed and learning the rules of play increase awareness, which was a fundamental and basic step for becoming a sport fan for enjoyment. However, learning sport rules was considered a minor aspect of knowledge and little attention has been paid to it as a factor of fan development. Based on 260 respondents, the present study explored the relationship among learning sport rules, enjoyment, and future consumption behavior of sport fans. Structural Equation Modeling (SEM) was used to test the model and examine the more meaningful relationships among learning sport rules, enjoyment, and future consumption behavior.

The results showed that the proposed structural model has shown a good fit based on the result of Confirmatory Factor Analysis (CFA) and SEM which indicated that learning types of sport rules influence enjoyment of sport and enjoyment has a significant influence on future intention of sport-related consumption. This finding would aid practitioners in sport-related fields by making it possible to build efficient marketing strategies which could prevent several challenges and crisis of sports industry. Also, the findings of the current study would offer implications for academic and practical personnel by providing specific evidence of how knowledge of sport rules and learning paths impact the understanding of sport fan behavior.

Keywords] Sports Industry Crisis, Sport Rules Learning, Sport Rules Acquisition, Sport Enjoyment, Sport Consumption

1. Introduction

How did you become a fan of your favorite sport? To answer the above questions, people would consider their past experiences. Many researchers and previous studies have tried to find significant factors that explain how people become a sport fan for enjoyment. Various factors (i.e., motivation, loyalty, commitment, socialization, knowledge, etc.) have been found and considered as critical factors that explain how people become a sport fan for enjoyment. Among those important factors, knowledge is considered during the initial stage to explain how people become a sport fan for enjoyment [1]. By being exposed to a sport, team, league, and players, people are able to ‘know’ and ‘recognize’ these factors such as sport, team, league, and players[1]. Funk and James(2001) argued that learning rules of play increases awareness which is an initial process to become a fan of and enjoy a sport[1]. Also, Zhang et al.(1996) claimed...
that educating people about sport itself, which included rules of play might be one of key elements in game promotion of teams and confirmed that knowledge of sport rules critically influences attendance and ticket consumption[2]. That is, rule knowledge positively affects leisure behaviors and participation[3]. Despite the importance of learning rules of play, it is merely considered as one of the knowledge factors of sport(i.e., existence of sports and teams, different levels of play, distinguishing sport and teams) and little attention has been given to it as a factor for explaining the process of fan development[1]. Further, no research has examined the relationship between specific path of learning types of sport rules and its influence enjoyment and future behavior of sport fans.

1.1. Features of sport fan behaviors

There has been a myriad of research done on various sport fan behaviors[1][4][5][6], and most of the research focuses on the loyal or highly identified fan[7]. Also, previous research has paid attention to factors related to the individual's psychological state[8][9][10]. In other words, numerous sport fan studies have focused on unique features of sport fan behavior which is explained by various motivating factors, including entertainment[11][12][13], eustress[14][15], self-esteem[16][17], escape[11][13], learning[12][15], aesthetic[18][19], release[11], companionship[20][21], group affiliation[16][18], family[20][22], and economics[23]. Among those factors, knowledge has been considered significant with regard to its ability to influence consumption behaviors. Previous literatures regarding knowledge has indicated that knowledge, in this context, has to do primarily with information pertinent to sport teams, coaches, players, team history, etc. However, the importance of sport rules as a core factor of knowledge motivation has largely been ignored even though knowledge itself is a key motivating factor for sport fans[2][24]. Previous studies have suggested that knowledge is measured in terms of a fan’s knowledge of team history, player/coach information, team records(e.g., statistics), game strategy, skillset pertinent to sport, and general information about the game and related personalities[6][25]. Most knowledge factors that have been measured were external factors of sport and sport events. Although the rules of sport are an internal factor of enjoying sport, the approach to understand the importance of rules was not sufficient.

Therefore, the first goal of the current study was to conceptualize and test the relationship and determine influence between learning sport rules on behavioral factors. Specifically, the researcher explored the influence of individual differences on subjects’ emotional responses and purchase intentions by learning types of sport rules to provide more practical evidence regarding the relationship between the process associated with learning types of sport rules, enjoyment, and intentions regarding future consumption. Consequently, by examining sport rules as they relate to sport fans’ behaviors, scholars will come to recognize the significance of sport rules and the value they have with regard to marketing practitioners who will be in the position to design more effective marketing strategies to prevent reality and crisis of sports industry.

2. Literature Review

2.1. Conceptual framework and hypotheses

Among various literatures, the current study employed the Stimulus-Organism-Response(S-O-R) Model because it confirmed that influence of personal predispositions on the relationship between environmental influence, emotional responses, and behavioral reactions[26].

First, the proposed conceptual framework was utilized to test the relationship between specific types of learning or understanding of sport rules, enjoyment, and intention of sport consumption. Environmental stimuli are related to the level of pleasure(enjoyment) and this leads positive consumption behavior[27]. A research support this relationship that “information or salient beliefs affect intentions and subsequent behavior(p.3)[28]. Furthermore, in related to theory of planned behavior, confidence people have in their ability to perform the behavior critically influences behavior of peo-
ple[29]. Also, sport enjoyment has a positive influence on sport commitment [30]. Furthermore, individual’s knowledge level influences behavior[31][32]. Based on S-O-R model, it was necessary to modify the proposed model in order to apply the concept to the current study. Accordingly, the present study examined the influence of four different types of learning sport rules (i.e., by playing, by watching/listening, by attending, and by playing sport video game) on enjoyment. Then, enjoyment and future intention of consumption of sport paths were measured. Therefore, this led to the following research hypotheses.

H1a: Individuals who learn sport rules by playing sports will have a positive influence on enjoyment of sport.

H1b: Individuals who learn sport rules by spectating at a stadium and/or arena will have a positive influence on enjoyment of sport.

H1c: Individuals who learn sport rules by watching television will have a positive influence on enjoyment of sport.

H1d: Individuals who learn sport rules by playing sports video game will have a positive influence on enjoyment of sport.

H2: The enjoyment of sport will have a positive influence on sport related consumptions (i.e., purchasing sporting equipment/tickets and attending sporting events/watching television/purchasing sport-related video games).

2.2. Knowledge and sport

In general, knowledge is defined as “the information stored within memory”(p.281)[33]. Knowledge can be considered one way to determine expertise over experience level[31], and the level of knowledge may influence the information evaluation process. Knowledge influences perception toward initiation of behaviors[2]. Also, prior studies have focused on the relationship between product involvement and knowledge[34][35], between spectator knowledge as a significant predictor and game attendance[2], and between product knowledge and the amount of information used in decision making[36]. Perhaps most notably, the relationship between consumers’ decision-making processes and product familiarity, which is based on past experiences with a certain product[37]. That is, the future consumption and behavioral intentions of a sport consumer are influenced by the consumer’s knowledge and information, both of which have been acquired and stored by way of personal experience. Kwak[2009] asserted that sport knowledge predicts attitudes and behavioral intentions toward sport. His findings indicated that when people perceive they are more knowledgeable about a sport, they have more
favorable attitudes towards related sport consumption, and feel more comfortable\[38\]. Also, past experience makes it possible to predict the behavioral intention of enjoyment. Additionally, his finding shows that positive experience and attitude about sport are significantly associated with their future behavioral intentions.

Based on the definition of a general rule, sport rules indicate what people who are related to sport contests can do and cannot do in the sport game environment. A sport is a kind of play organized by rules, which makes the game fair and exciting, and without rules, it is not a sport game\[39\]. As previously mentioned, the understanding of sport rules is a significant step to becoming involved, enjoying, and consuming sport. However, even though there are various paths or routes to learn and understand sport rules, no research exists to find those specific types of learning and understanding. That is, there has been no effort to examine how and which path sport fans utilize to learn and understand sport rules.

2.3. Sport consumption

In the sport management field, various consumption behaviors (i.e., purchasing sporting goods, attending and watching sport games at stadiums or arenas; media consumption via television, radio, and internet; video game or movie consumption, and participating in sport via fitness clubs and the like) exist.

Among them, sporting goods and the consumption of sporting goods are significant within the sport industry. One unique feature of sporting goods consumption is that it influences other sport consumption behaviors. For example, purchasing sport apparel means the consumer is participating in active sport\[40\]. That is, purchasing sporting equipment means that the consumer is simultaneously participating in sport. However, to better explain and predict sporting goods consumption behaviors, a new approach is necessary.

Also, regarding media consumption, there are numerous ways to consume sport media. However, although there has been rapid change and development of the media environment, media consumption behaviors are explained by general motivation factors such as emotional, cognitive, and behavioral factors\[41\].

Attending sporting events in person at stadiums or arenas is an activity representative of sport consumption, and researchers have studied it extensively. According to the previous studies, various variables that influence sporting event attendance were examined via previous studies\[42\]\[43\], and the examined variables were game attractiveness (e.g., individual skills, team records, standing, entertainment), economic factors (e.g., ticket price, income, promotions, substitute activity of entertainment), socio-demographics (e.g., age, gender, education, occupation), and audience preference (e.g., schedule, convenience, weather, quality of stadium)\[44\]. Regarding sporting event attendance, quality, satisfaction, and loyalty are considered important factors\[45\]. However, there is no established approach to finding a core factor that encourages consumers to attend sporting events.

The playing of sport video games, as a form of sport fan consumption, is rapidly growing in the United States\[46]\[47]\[48\]. By participating in sport video games, people can enjoy well-organized tournaments with other users from all over the world who also enjoy games. It is considered a new form of participatory experience in the sport field because of the unique feature of video game attractiveness, which is a bit different from enjoyment of traditional sport media\[49\]. A study considered sport knowledge a factor in their study, but they still did not consider a very fundamental factor (e.g., rules) with regard to sport knowledge. Generally, most researchers studying sport consumption have focused on overall motivation of sport fans and consumers. Those efforts have failed to consider core factors of sport management, sport itself. Therefore, more in-depth efforts to find a core factor which influences sport consumption behaviors are necessary\[49\].

2.4. Enjoyment

Enjoyment in relation to sport is defined as “a positive affective response to the sport experience that reflects generalized feelings such as
pleasure, liking, and fun”(p.6)[30]. Previous literatures found that enjoyment is an important motivation for participation of sport[50][51]. Also, enjoyment is a key motivational variable to participate in sport programs for fun or drop out sport programs[52][53][54]. Further, enjoyment is emotional responses and it is associated with factors such as how enjoyable, exciting, involving, and interesting the sport[55].

To clarify the various dimensions of sport enjoyment, it is very helpful to review various literatures which are related motivation. There are several motivations to enjoy sport: emotional, cognitive, behavioral and social motivation. Among above motivations, cognitive motivation means people enjoy sport to learn about sport, league, teams, player, and even strategies[41]. That is, individuals tune in for cognitive stimuli. The Learning motivation and Aesthetic Motivation are the examples of cognitive motivation. Further, a central component of enjoyment concept is the experience of and need for hedonic satisfaction[56]. Therefore, the level of enjoyment is totally different and depends on the environment(e.g., the level of fanship, gender, social norms, personality, etc.) that individuals are exposed[57][58], and enjoyment is a significant key and central reason for people to enjoy sport[59].

3. Methodology

3.1. Sample

The target population of the current study was people 18 years of age or older who are interested in sport-related consumption activities in the United States. A total of 260 usable responses were collected via QUALTRICS which is one of external online survey providers.

3.2. Measures

Rule recognition process types.

The rule recognition process was comprised of four subscales with twelve items. The items were developed and revised from previous studies[60][61]. Respondents rated how much each type of rule recognition influenced their understanding of the rules of their favorite sport using a five-point Likert scale. The four types of recognition types are ‘by playing their favorite sports’, ‘by attending their favorite sporting event’, ‘by watching/listening their favorite sport through TV/radio, and ‘by enjoying their favorite sport through video game play’.

Sport consumption behavior.

Sport consumption behaviors were measured with four subscales(i.e., purchasing sporting goods, purchasing/attending sporting event, media consumption, purchasing sports video game) with twelve items[62].

Attitude toward the sport enjoyment.

Attitude toward sport enjoyment was measured via the questions to rate participants’ general affective enjoyment toward sport using a five-point Likert scale. A total of five-items on the attitude scale(i.e., fun, exciting, delightful, thrilling, and enjoyable) were employed[62].

Demographic information

General demographic information was investigated after modification based on the items of a previous study[63]. Participants were asked to answer their age, gender, ethnicity, household incomes, education levels, and marital status.

3.3. Data analysis

To test the hypotheses, a confirmatory factor analysis(CFA) was conducted[64][65]. The χ² and df, the comparative fit index(CFI), the root-mean-square error of approximation(RMSEA), and standard root-mean-squared residual(SRMR) were checked to assess the overall model fit. Second, structural equation modeling was used to examine the structural relationship among variables. The reliability(Cronbach’s alpha) of each subscale was checked. Further, based on the correlation result, the validity of each construct was determined. Additionally, the average variance extracted(AVE) values were checked, as they indicate whether each item contributes to the basic construct of the scales. Based on the result of above analysis, the final items and factors were decided.
4. Results

4.1. Sample

Among the 260 respondents, males were 155 (59.6%) and females were 105 (40.4%). Regarding favorite sports, 82.7% of samples chose football, basketball, ice hockey, and baseball; football (n=117, 45%), basketball (n=43, 16.5%), baseball (n=41, 15.8%), and ice hockey (n=14, 5.4%). The average age of the participants was 49 years old (M=48.84, SD=12.50) and the distribution of the age groups were as follows: 18-25 (n=16, 6.2%), 26-35 (n=53, 20.4%), 36-45 (n=44, 16.9%), 46-55 (n=47, 18.1%), 56-65 (n=50, 19.2%), and over 65 (n=50, 19.2%). With regard to education level, 67.6% of participants had college level or higher degree. In terms of income, 47.2% of respondents had over $50,000. Regarding the marital status of respondents, the majority of respondents were married (n=127, 48.8%) and 29.6% were single. Also, a majority of the respondents in the current study were Caucasian (n=196, 75.4%), followed by African American (n=29, 11.2%).

4.2. Variables

Table 1. Descriptive statistics and correlations among variables of main study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attending</td>
<td>.371**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching</td>
<td>.209**</td>
<td>.306**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videogame</td>
<td>.349**</td>
<td>.443**</td>
<td>.161**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sporting goods</td>
<td>.355**</td>
<td>.346**</td>
<td>.193**</td>
<td>.465**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spectating</td>
<td>.307**</td>
<td>.381**</td>
<td>.221**</td>
<td>.264**</td>
<td>.523**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media consumption</td>
<td>.255**</td>
<td>.257**</td>
<td>.313**</td>
<td>.218**</td>
<td>.228**</td>
<td>.261**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video game</td>
<td>.204**</td>
<td>.305**</td>
<td>.157**</td>
<td>.664**</td>
<td>.575**</td>
<td>.368**</td>
<td>.177**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Enjoyment</td>
<td>.334**</td>
<td>.339**</td>
<td>.341*</td>
<td>.286**</td>
<td>.438**</td>
<td>.432**</td>
<td>.539**</td>
<td>.271**</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>3.74</td>
<td>3.85</td>
<td>3.77</td>
<td>3.34</td>
<td>3.43</td>
<td>3.75</td>
<td>4.21</td>
<td>2.89</td>
<td>4.28</td>
</tr>
<tr>
<td>SD</td>
<td>0.85</td>
<td>0.88</td>
<td>0.82</td>
<td>0.99</td>
<td>0.99</td>
<td>1.00</td>
<td>0.66</td>
<td>1.17</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01.

4.3. Data analysis

Confirmatory factor analysis (CFA).

The measurement model indicated reasonable fit ($\chi^2$/df = 845.850/341 = 2.48, CFI = .91, RMSEA = .07, SRMR = .05). Each factor loading value of latent variables is greater than .50. Also, the reliability values showed adequate levels from .79 to .93, which is greater than .70 which is acceptable level of Cronbach’s alpha [66]. In terms of AVE, all constructs exceeded the mini-
mum criterion of .50 (ranged from .57 to .83) indicating that a large portion of the variance was explained by the constructs[67][68]. Regarding a validity issue, the values of correlation are less than .85 which is considered acceptable to secure the validity of constructs[69].

Table 2. Summary results for measurement model.

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>λ</th>
<th>α</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Playing sports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Playing my favorite sport helps me to understand the rules of my favorite sport game.</td>
<td>.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- It is hard to say that one way that I could learn the rules of my favorite sport is by playing the sport.</td>
<td>.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I feel that playing my favorite sport adds to my understanding of the sport rules.</td>
<td>.860</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attending</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Attending my favorite sport at an arena or stadium helps me to understand the rules of my favorite sports game.</td>
<td>.896</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- One way that I could learn the rules of my favorite sport is by attending games at an arena or stadium associated with my favorite sport.</td>
<td>.916</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I feel that attending my favorite sports at an arena or stadium adds to my understanding of the rules of my favorite sport.</td>
<td>.893</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Watching</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- It is hard to say that watching my favorite sport helps me to understand the rules of my favorite sport game.</td>
<td>.782</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- One way that I could learn the rules of my favorite sports is by watching my favorite sport.</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I can’t feel that watching my favorite sport adds to my understanding of the rules of my favorite sport.</td>
<td>.873</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Video game</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Playing a video game related to my favorite sport helps me to understand the rules of my favorite sport.</td>
<td>.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- One way that I could learn the rules of my favorite sport is by enjoying and playing video games related to my favorite sport.</td>
<td>.954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I feel that playing video games related to my favorite sport adds to my understanding of the rules of my favorite sport.</td>
<td>.922</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sporting good consumption</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I am likely to purchase my favorite sport’s sporting goods to enjoy in the future.</td>
<td>.873</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- In the future, purchasing my favorite sport’s sporting goods is something I plan to do.</td>
<td>.932</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- In the future, I don’t intend to purchase my favorite sport’s sporting goods.</td>
<td>.603</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spectating</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I intend to attend my favorite sport’s game(s).</td>
<td>.853</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- The likelihood that I attend my favorite sport’s game(s) in the future is high.</td>
<td>.984</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I won’t attend my favorite sport’s game(s) in the future.</td>
<td>.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Media consumption</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I will track news regarding my favorite sports game through the media(e.g., TV, Internet, Radio, etc.).</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I will watch or listen to my favorite sports game through the media(e.g., TV, Internet, Radio, etc.).</td>
<td>.866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- I will support my favorite sport by watching or listening to game(s) through the media(e.g., TV, Internet, Radio, etc.).</td>
<td>.738</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Playing video game .856 .576
- I am likely to purchase video games related to my favorite sport in the future. .956
- In the future, purchasing video games related to my favorite sport is something I plan to do. .930
- In the future, I intend to purchase video games related to my favorite sport. .594

Enjoyment .920 .822
- To enjoy sports is fun. .792
- To enjoy sports is exciting. .899
- To enjoy sports is delightful. .816
- To enjoy sports is thrilling. .847
- To enjoy sports is enjoyable. .836

Structural Equation Modeling.

Once it was confirmed that the measurement model had a reasonable fit, SEM was conducted to examine the structural relationship between constructs. The model indicated reasonable fit ($\chi^2/df = 686.869/340 = 2.02$, RMSEA = .06, CFI = .94, SRMR = .09). Also, the structural model provides a good basis for testing the hypothesized paths based on the regression weights, standard error, and critical ratio(t-value). The hypotheses 1a, which hypothesized a positive relationship between the learning sport rules by playing and enjoyment, was supported($\gamma=.139$, S.E=.051, C.R(t-value)=2.757, p=.006). Hypothesis 1b, for predicting a positive relationship between the learning sport rules by attending at a stadium or arena and enjoyment, was not supported($\gamma=.094$, S.E=.050, C.R(t-value)=1.871, p=.061). As predicted hypothesis 1c, learning sport rules by watching television, significantly influenced enjoyment positively($\gamma=.171$, S.E=.043, C.R(t-value)=3.963, p<.001) and it was supported. As expected in hypothesis 1d, learning sport rules by playing video game had a significant impact on enjoyment($\gamma=.081$, S.E=.040, C.R(t-value)=2.022, p=.043). The results of the first four different hypotheses showed that learning sport rules by playing sports, watching, and playing video game had positive influences on enjoyment. While, learning sport rules by attending at a stadium or arena didn’t have a positive influence on enjoyment.

For predicting a positive relationship between enjoyment and purchase intention of sporting goods(H2a) was supported($\gamma=.695$, S.E=.102, C.R(t-value)=6.810, p<.001), for linking positive enjoyment and intention of spectating at a stadium or arena(H2b) was supported($\gamma=.723$, S.E=.105, C.R(t-value)=6.872, p<.001), the relationship between enjoyment and intention of media consumption(H2c) had a positive impact ($\gamma=.637$, S.E=.080, C.R(t-value)=8.018, p<.001), and enjoyment had a positive impact on purchasing intention of sport-related video game (H2d)($\gamma=.472$, S.E=.108, C.R(t-value)=4.365, p<.001).

| Table 3. Regression weights, standard errors, critical ratio(t-value), and p-value for the relationship between sport rules learning types and enjoyment of proposed model. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 | Standardized regression weight | Unstandardized regression weight | S.E. | C.R. | P   | Results     |
| Enjoyment ← Playing | .200 | .139 | .051 | 2.757 | .006 | Supported |
| Enjoyment ← Attending | .142 | .094 | .050 | 1.871 | .061 | Not supported |
| Enjoyment ← Watching | .272 | .171 | .043 | 3.963 | .001 | Supported |
| Enjoyment ← Video game | .142 | .081 | .040 | 2.022 | .043 | Supported |
| Sporting goods ← Enjoyment | .495 | .695 | .102 | 6.810 | .001 | Supported |
| Spectating ← Enjoyment | .468 | .723 | .105 | 6.872 | .001 | Supported |
| Media consumption ← Enjoyment | .616 | .637 | .080 | 8.018 | .001 | Supported |
| Video game ← Enjoyment | .299 | .472 | .108 | 4.365 | .001 | Supported |
5. Discussion

5.1. Overview of the study findings

Overall, the result of Confirmatory Factor Analysis (CFA) indicated that the measurement model had a reasonable fit. Also, the proposed structural model has shown a good fit based on the result of Structural Equation Modeling (SEM). These findings indicate that learning types of sport rules influence enjoyment of sport and enjoyment has a significant influence on future intention of sport-related consumption.

Types of learning rules and enjoyment.

The SEM results found that three types of sport rules learning (i.e., by playing, by watching, and by playing video game) had statistically significant relationships with the enjoyment. However, learning sport rules by spectating at a stadium or arenas showed an insignificant relationship with enjoyment. These findings were consistent with previous literatures, supporting learning rules of sport as knowledge is associated with enjoyment[38][58][70]. Regarding H1b, learning rules by spectating at a stadium and/or arena was different compared to other learning types. This is a completely contrary result to the other learning types based on the previous literature. As a matter of fact, previous studies have indicated that the enjoyment is greatly influenced by rule knowledge[2][8][38]. One possible explanation for this result can be attributed to the differences in commitment level. Generally, spectating at a stadium and/or arena requires more economical and physical efforts when compared to other types of sport consumption (i.e., watching television, playing video game). In other words, spectating requires considerable effort such as time, money, and physical demands. Also, in regards to playing video games, people enjoy playing video games for the purpose of experience, which elicits fun and enjoyment[71]. When it comes to hedonic framework, the relationship between the product and consumer requires dynamic interaction[72], and as an example, video game players have complex reciprocal effects on both performance and the level of enjoyment[73]. That is, enjoyment of sport which is related to spectating is not only to be influenced by various factors such as satisfaction of service quality, product, etc., but also measured and interpreted by individual background, direct and indirect experiences[57][58]. Therefore, this finding suggests that generally learning the rules of a sport has a significant effect on enjoyment.

Enjoyment and future consumption.

The results of SEM showed that the relationship between enjoyment and four different types of sport-related consumption had a statistically meaningful relationship. These results are consistent with previous studies that enjoyment plays an important role to predict and explain the behaviors of fans[50][51][52][53][54][59]. One explanation for these results might be due to the accessibility and economic factors. Depending on the economic and accessibility, media consumption is the easiest and most convenient or common consumption behavior compare to other sport-related consumption behaviors (i.e., purchasing sporting goods or merchandizing products, spectating at a stadium and/or arena and etc.)[74]. There are four perspectives to understand enjoyment and media use; hedonic perspective, tripartite perspective, functional perspective, and appraisal perspective[59]. To be specific, with the hedonic perspective, enjoying media is hedonistically oriented and seeks fun in their media usage[75]. In other words, hedonic perspective plays a central role of the enjoyment aspect[76]. The experiences of pleasure in media consumption are important factors in enjoyment and watching mediated sports[41]. Regarding the tripartite perspective, it is necessary to understand the concept of affective and cognitive responses in order to better understand the relationship between enjoyment and media consumption[77]. That is, media enjoyment should be considered as one of the satisfaction types of intrinsic human needs[59]. Finally, enjoying media is a very significant sport-related consumption and meaningful behavior of a human being who seeks enjoyment. The result indicated that media consumption is more importantly considered than other types of sport-related consumption behavior and it was determined that the findings with regard to enjoyment provided important meaning for sport-related consumption behavior of sport fans.
5.2. Implications

Based on the findings of the present study, an important theoretical and practical implications could be considered. Even though many studies have investigated the sports knowledge to find an influence on future consumer behaviors such as game attendance, process becoming a loyal fan, commitment, and enjoyment of sport,[2][30][38][41][70], the importance of sport rules, its importance, and specific process of learning rules of sport has been overlooked. As aforementioned, a core product of sport management is the game itself and understanding sport rules is a prerequisite to enjoy the core product. Therefore, it is suggested that the role of understanding sport rules should be considered an important factor for understanding and predicting the sport fan’s development process and future behaviors.

5.3. Limitations and recommendations for future research

Even though the present study contributes to academic and practical fields, it has several limitations which should be considered with regard to future research.

First of all, this study didn’t consider the demographic characteristics(i.e., gender, income, education, etc.). Previous studies indicated that there are huge gaps between males and females regarding their efforts to have more sport-related knowledge.[12][78]. Therefore, it would be more meaningful if future studies considered demographic characteristics in order to have better understandings and generalizations of the results of the study.

Second, the current study employed general sport fans. However, depending on the fans’ preference such as sports(i.e., football, baseball, basketball), type of sports(i.e., team sports, individual sports, ball games, combat sports), and preferable league levels(i.e., collegiate level, professional level), the results might be totally different. Therefore, it is necessary to consider more variables that could have influenced the result.

6. References

6.1. Journal articles

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6.2. Thesis degree


6.3. Books


6.4. Additional references


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