

In Pursuit of Satisfaction and Fortification: Stakeholder Perceptions of NCAA Wrestling Rules and Regulations

Coyte G. Cooper and Erianne A. Weight

Abstract

During the past 25 years, NCAA wrestling has experienced a significant decline in the number of programs offered at the intercollegiate level. Amid the current economic landscape facing intercollegiate athletics, it appears that the only sure way to enhance the longevity of college wrestling is through increased fan support and revenue. The purpose of the research was to survey stakeholders of college wrestling to determine their level of satisfaction with the rules and regulations implemented in NCAA wrestling competitions. Utilizing customer satisfaction theory, a national survey was conducted and completed by 1,095 respondents. Regression analysis is used to examine the impact of age and sport affiliation on group satisfaction with current rules and regulations. In addition, open-ended responses are explored. Results indicate that current stakeholders are not satisfied with many of the current rules and regulations. Significant findings and implications are explored.

Introduction

In today's intercollegiate athletic environment, athletic departments have the unique challenge of balancing Title IX compliance issues while attempting to maximize the revenues realized by their department. In an effort to maintain financial sustainability, several athletic directors have publically stated that the elimination of men's non-revenue programs is the only way to balance their athletic budgets (Arizona State, 2008; Steinbach, 2007). Despite this claim, Marburger and Hogshead-Makar (2003) have instead argued that the trend to eliminate men's nonrevenue sport teams in Division I athletics is

"While there were 363 wrestling programs at the NCAA level in 1981, the number of men's wrestling programs offered by the NCAA had diminished to 234 programs in 2005."

driven primarily by profit-motivated athletic programs and not by tight budgets. Regardless of the reasoning for program eliminations, with rising costs in men's basketball and football (Marburger & Hogshead-Makar, 2003), coupled with state budget deficits and higher education cut-backs which may reduce the amount of institutional support available to sustain unprofitable athletic programs (Brady, 2009), it is clear that men's nonrevenue sport teams will be facing declining financial support in future generations (James & Ross, 2004).

The direct examination of past men's nonrevenue program eliminations at the National Collegiate Athletic Association (NCAA) level provides insight into the dire circumstances facing college wrestling. While there were 363 wrestling programs at the NCAA level in 1981, the number of men's wrestling programs offered by the NCAA had diminished to 234 programs in 2005 (Student-athlete, 2006). Similarly, during the 24-year time frame, there was not one year where there was a positive net program gain realized by college wrestling (Student-athlete, 2006). This trend of program discontinuation does not appear to be slowing as 18 programs have been eliminated throughout the 2007-08 and 2008-09 academic years alone, (Carlson, 2008; Frauenheim & Skoda, 2008; Moyer, personal interview, January 26, 2009).

As the financial support provided to men's nonrevenue sport teams is likely to diminish in the future, one might argue that the sustainability of this sport is contingent upon its ability to seek additional, and increase existing, sources of revenue in order to supplement athletic department allocations. As a strong fan base is paramount to the raising of additional funds, it is imperative that current consumers are satisfied with the core product being offered so that new supporters of the sport can be generated. As such, an investigation into the current rules and regulations being utilized within college wrestling is warranted to

Coyte Cooper, PhD, is an assistant professor in sport administration at the University of North Carolina at Chapel Hill. His research interests include issues in college athletics, with an emphasis on the challenges facing non-revenue sport teams.

Erianne A. Weight, PhD, MBA, is an assistant professor of sport management at Bowling Green State University. Her research interests include entrepreneurship within college athletics and financial implications of Title IX.

inquire whether they are delivering a product with maximum consumer appeal. Thus, the purpose of the research was to survey stakeholders on their level of satisfaction with the rules and regulations currently implemented in college wrestling.

Conceptual Framework

When focusing on the potential influences of rule changes on consumer interest, several scholars have illustrated the point that "in game" regulations must be implemented to enhance the entertainment value realized during sport events (Aylott & Aylott, 2007; Partovi & Corredoira, 2002). In particular, to maximize the marketability of a sport product, Hanning (2007) explained that it is essential to eliminate rules that threaten to diminish the quality of an event by confusing coaches and players. When athletes and coaches do not understand the implementation of rules or regulations, there is a significant chance that the quality of the competition can suffer due to the fact that the participants may become less engaged in the sport competition (Hanning, 2007). Thus, when creating a product to maximize consumer appeal, there is a strong need to implement rules that simplify the game for sport participants.

"... an investigation into the current rules and regulations being utilized within college wrestling is warranted to inquire whether they are delivering a product with maximum consumer appeal."

In addition to creating a simplified product for athletes and coaches, it is also critical that sport governing bodies develop rules that encourage action between participants and teams at sport events (Aylott & Aylott, 2007; Partovi & Corredoira, 2002). In particular, research has illustrated that consumers have a strong preference for sport events that feature a high amount of scoring between athletes and teams (Paul & Weinbach, 2007). Thus, with this concept in mind, it is no surprise that several sport leagues have changed their rules in an effort to cater to both their current and potential fan segments (Allen, 2008; Brooks, 2009; NCAA wrestling rule, 2004). For example, the National Hockey League (NHL) recently downsized their goal-tending equipment in order to increase the scoring opportunities realized during games (Allen, 2008).

While there are a variety of fundamental motives for rule changes, one of the most common reasons for sport organizations in today's competitive entertainment environment is to ensure that consumers are satisfied with the product being offered (Greenwell, Fink, & Pastore, 2002; Kelly & Turley, 1999; McDonald, Sutton, & Milne, 1995; Wakefield & Sloan, 1995). As

previous research has illustrated, when consumers have a positive experience with a product, sport organizations have a significantly greater chance to succeed from a financial standpoint because satisfied customers are more likely to demonstrate repeat consumption habits (Anderson, Fornell, & Lehmann, 1994; Anderson & Mittal, 2000; Hawkins, Best, & Coney, 1997; Laverie & Arnett, 2000). Further, the ability to deliver a strong product to highly satisfied customers also extends the consumer reach of sport organizations by attracting new customers through word-of-mouth advertising (Kotler, 1994). Thus, as a result sport organizations are afforded an opportunity to increase their market share in a competitive industry (Anderson et al., 1994).

As previously illustrated, the rules and regulations play a fundamental role in sport organization's ability to attract consumers to sport events (Hanning, 2007; Partovi & Corredoira, 2002). In order for the National Wrestling Coaches Association (NWCA) to enhance the financial profitability of the sport, there needs to be an emphasis on creating a simplified set of rules and regulations for athletes and coaches in college wrestling (Hanning, 2007). Further, the organization could enhance the consumer interest in the core wrestling product by implementing "in match" rules that increase the action and scoring realized within wrestling competitions. Thus, with an emphasis on creating a unified set of rules with maximum consumer appeal, the National Wrestling Coaches Association (NWCA) could improve the long-term profitability of college wrestling programs throughout the United States (Anderson et al., 1994; Greenwell et al., 2002; Kotler, 1994).

Purpose of Research

The purpose of the research was to survey stakeholders of college wrestling to determine their level of satisfaction with the rules and regulations implemented in NCAA wrestling competitions. Within the context of the current research, stakeholders were defined as the individuals with an interest or stake in the college wrestling product. Because of the importance of consumers in today's competitive entertainment industry (Greenwell et al., 2002), wrestling fans were included as a primary target in the assessment of rules and regulations in intercollegiate wrestling. Further, with the goal of creating a simplified college wrestling product (Hanning, 2007), college wrestling athletes and coaches were also included as an important target group within the research. Based on a review of related literature, the following research questions were utilized to guide the study:

[RQ 1] What are stakeholders' level of satisfaction with the various rules and regulations currently implemented in college wrestling?

[RQ 2] Are there variations in stakeholders' levels of satisfaction with the rules and regulations when focusing on the participants' wrestling affiliation?

[RQ 3] Are there any potential improvements in the rules and regulations to make college wrestling more marketable in future years?

Method

Sample

Data were collected from 1,095 wrestling stakeholders via snowball sampling utilizing a stratified sample of message boards as the primary points for survey dissemination. Among the 1,095 completed questionnaires, 72 were discarded due to incomplete responses. Thus the data analysis was completed with 1,023 respondents. Within the sample, 95.0% (n=972) were males, and 5.0% (n=51) were females. While a large portion of the stakeholders were fans of college wrestling, the following wrestling affiliation categories were included in the study to segment the participant responses: current or former intercollegiate coaches, current or former high school coaches, current or former intercollegiate wrestlers, and relatives of intercollegiate wrestler. These individuals ranged in age categories between under 18 to over 76 with the mean age category being 26-35 and the median category 36-45 with a standard deviation of 1.325 on a 7-category scale.

Instrument

For the purpose of this study, we developed and utilized the wrestling consumer satisfaction scale. The instrument was patterned after those utilized in similar inquiries measuring consumer satisfaction of current sport offerings (Tsuji, Bennett, & Zhang, 2007); however, the specific target of wrestling had not been examined by any of the previous scales. Thus, the construct validity of the instrument was addressed utilizing a panel of experts including four collegiate wrestling coaches, four collegiate wrestlers, four professors, and a survey compilation specialist. This panel was consulted to review and modify the instrument's content. After several rounds of revisions, the panel unanimously supported the instrument validity.

In order to provide evidence of instrument reliability, a random selection of respondents were asked to re-take the survey in an effort to garner test-retest reliability scores. A one-month period lapsed between their initial test and the follow-up to minimize potential invalidity due to a learning/practice effect. Additionally, because of the timing of the initial and follow-up tests, with no significant changes in the wrestling landscape, the stability of the measured variables was deemed

high, thus reducing a potential maturation effect (McKelvie, 1992). Sixty respondents were contacted to re-take the test based on a convenience sample. Upon initial contact, 40 individuals complied with the request to retake the survey, and this number was sufficient for analysis. Utilizing this data, the test-retest reliability was sustained as the correlation between forms was .64, with a Spearman-Brown Coefficient of .782, providing support toward a conclusion that the instrument holds a relatively high degree of reliability.

The scale consisted of two general parts: Section A consisted of basic demographic information, and Section B focused on 11 specific elements of stakeholder satisfaction related to the rules and regulations currently employed within intercollegiate wrestling. Participants were asked to indicate their satisfaction with the current product offering utilizing a 5-point Likert scale (1 = very dissatisfied and 5 = very satisfied). Following Section B, an open-ended follow-up question was asked in order to assess how they would like to see the rules and regulations altered.

Data Analysis

Descriptive statistics were generated for scale items in Section B (see Table 1). In addition, the authors utilized regression analysis to examine the impact of age and sport affiliation on group satisfaction with current rules and regulations. Due to the large sample size, effect size calculations using Cohen's *d* were related to all significant findings. Open-ended question responses were also reviewed independently in an effort to triangulate the quantitative data and uncover additional data associated with the attitudes expressed by respondents relative to the rules and regulations currently utilized within the sport. Upon initial independent analysis, the comparisons revealed a percent of change agreement of 93% and an Adjusted Scott's *Pi* of .922. Thus, as explained by Riffe, Lacy, and Fico (2005) the results were sufficient for ensuring that the two coders were collecting highly similar data.

Results

Utilizing scale responses in Section B, means and standard deviations are presented in Table 1. Several results are worth noting. There were only two means within the rules and regulation scale that were below the neutral level (3): "implementation of stalling" and "consistency of referees." All other item means were between neutral (3) and satisfied (4) except "the length of matches," which had a mean of 4.01. Thus, there was only one item with a mean just over the "satisfied" level; however most were close with means ranging between 3.3 and 3.77.

Table 1.**Descriptive Statistics for Wrestling Stakeholder Satisfaction with Current Rules and Regulations**

Factor Responses	Cronbach's Alpha	Mean	Standard Deviation	Open-Ended
Rules & Regulations (N = 1,023)	.721	3.48	.092	635
Stalling implementation within matches		2.68	1.053	
Individual/team ranking systems		3.68	.795	
Tournament seeding methods		3.67	.761	
NCAA Qualification System		3.30	1.007	
Consistency of referees		2.87	1.035	
Length of matches		4.01	.772	
Weigh-in procedures		3.66	.917	
Length of season		3.56	.935	
Post-season schedule		3.47	1.044	
Style of wrestling		3.77	1.058	
Overall rules and regulations		3.62	.816	

Table 2.**Satisfaction with Current Rules and Regulations: One-Sample T-Test and Effect Size Utilizing Test Value 4 (Satisfied)**

Rules & Regulations (N = 1,023)	t	Mean Difference	p	Cohen's d
Stalling implementation within matches	-40.49	-1.31	.000	1.24
Individual/team ranking systems	-13.22	-.32	.000	.40
Tournament seeding methods	-14.11	-.33	.000	.43
NCAA Qualification System	-22.47	-.70	.000	.69
Consistency of referees	-35.25	-1.13	.000	1.09
Length of matches	.48	.01	.633	.01
Weigh-in procedures	-11.96	-.34	.000	.37
Length of season	-15.33	-.44	.000	.47
Post-season schedule	-16.27	-.53	.000	.51
Style of wrestling	-7.06	-.23	.000	.22
Overall rules and regulations	-15.02	-.38	.000	.47

A one-sample T-Test was also conducted on Section B scale responses in order to test the hypothesis that wrestling stakeholders are satisfied with the rules and regulations currently utilized within the sport: $\mu \geq 4$. Each of the categories were significantly lower than 4, "satisfied," at the $p=.000$ level except for length of matches. Due to the large sample size, effect sizes were

also calculated to measure the magnitude of the differences between the sample and the category 4 indices. Effect sizes included a range from large to small. "Large" (.80+) effect sizes were found in the categories *Consistency of referees* (1.09) and *Stalling implementation* (1.24). The percentages of nonoverlap in this category respectively ranged from 58.9%-62.2%.

Table 3.**Analysis of Variance for Age and Rules and Regulation Satisfaction**

Factor (N = 1,023)	F	p	Mean Difference	Cohen's d
Stalling implementation within matches	9.163***	.000		
18-25 v 46-55		.000	.481***	.50
18-25 v 56-65		.006	.495**	.51
18-25 v 66-75		.003	.864**	.90
26-35 v 46-55		.000	.435***	.42
26-35 v 56-65		.015	.449*	.44
26-35 v 66-75		.005	.818**	
Individual/team ranking systems	1.567	.167		
Tournament seeding methods	1.233	.291		
NCAA Qualification System	.712	.614		
Consistency of referees	2.131	.060		
Length of matches	5.525***	.000		
18-25 v 56-25		.000	.447***	.58
26-35 v 56-65		.000	.447***	.59
36-45 v 56-65		.034	.314*	.44
Weigh-in procedures	.441	.820		
Length of season	2.248*	.048		
Post-season schedule	5.456***	.000		
18-25 v 36-45		.000	.402***	.44
18-25 v 56-65		.004	.528**	.58
Style of wrestling	.954	.445		
Overall rules and regulations	7.293***	.000		
18-25 v 46-55		.016	.251*	.32
18-25 v 56-65		.000	.484***	.61
18-25 v 66-75		.005	.638**	.81
26-35 v 56-65		.001	.432**	.55
26-35 v 66-75		.013	.585*	.74
* <i>p</i> < .05 ** <i>p</i> < .01 *** <i>p</i> < .001				

“Medium” (.50 - .79) effect sizes were found in the categories of *Post-season schedule* (.51) and *NCAA Qualification System* (.69) with percentages of nonoverlap ranging from 33%-43%. All other effect sizes were “small.” Results are listed in Table 2.

Based upon the notion that there could be a difference in stakeholder satisfaction based on age and/or sport affiliation, ANOVAs were conducted utilizing age and affiliation as independent variables. Based on the ANOVA measuring the interaction between age and

Table 4.**Analysis of Variance for Sport Affiliation and Rules and Regulations Satisfaction**

Factor (N = 1,023)	F	p	Mean Difference	Cohen's d
Stalling implementation within matches	.511	.727		
Individual/team ranking systems	1.075	.368		
Tournament seeding methods	.227	.923		
NCAA Qualification System	1.693	.149		
Consistency of referees	2.173	.070		
Length of matches	.127	.973		
Weigh-in procedures	.873	.480		
Length of season	.541***	.000		
HS Coach v College Wrestler		.023	.259*	.33
HS Coach v College Coach		.000	.498***	.63
Fan v College Coach		.006	.348**	.92
Post-season schedule	1.777	.131		
Style of wrestling	3.794**	.005		
HS Coach v College Wrestler		.002	.364**	.97
HS Coach v College Coach		.059	.341	.97
Overall rules & Regulations	2.180	.069		

* $p < .05$ ** $p < .01$ *** $p < .001$

rules and regulation satisfaction, four factors were found to have significant difference at the $p < .001$ level. Interestingly, there appears to be homogeneity among the stakeholders in terms of age with a few factors differing between the younger (35 and under) and the older (46 and over) subsets of the sample population. Each of the factors that differed significantly between these groups demonstrated that the younger subset was more satisfied than the older subset with mean differences varying from .251 to .864. Table 3 lists the ANOVA results and includes post-hoc measures for significant between-group differences.

Based on the second ANOVA measuring the interaction between sport affiliation and rule and regulation satisfaction, two factors were found to have significant differences at the $p < .001$ level. Thus, there appears to be general homogeneity among the stakeholders in terms of affiliation. The two factors found to be significantly different were *Length of Season* and *Style of Wrestling*. The primary sample populations that differed were High School Coaches versus College

Coaches and Wrestlers. Both of the factors that differed significantly between these groups demonstrated that the High School Coaches were more satisfied than the College Coaches and Wrestlers with mean differences varying from .259 to .498. Table 4 lists the ANOVA results and includes post-hoc measures for significant between-group differences.

The examination of the open-ended questions demonstrated that stalling-related responses made up the largest portion of the stakeholders' suggestions. Furthermore, when examining the breakdown of the open-ended responses, the results illustrated that three of the top five categorical responses fell within the stalling category: consistency of calls (17.8%), increase in the number of calls (17.3%), and the implementation of a push-out rule (10.2%). Additional analysis showed that the elimination of riding time (10.4%) and the adjustment of scoring to improve action (4.9%) made up the other two categories receiving the highest number of responses. As illustrated in Table 1, the stakeholders also suggested the implementation of

Table 5.**Categorical Responses to Open-Ended Questions on Rules and Regulations (Frequencies and Percentages)**

Category of Response	Frequency (N)	Percentage (%)
Stalling (N = 296 [46.6%])		
Consistency of calls	113	17.8%
Increase number of calls	110	17.3%
Implement push-out rule	65	10.2%
Choice for stalling	8	1.3%
Match Rules (N = 159 [25.1%])		
Eliminate riding time	66	10.4%
Adjust scoring – improve action	31	4.9%
Implement freestyle/Greco rules	27	4.3%
Overtime – eliminate ride-out	25	3.9%
Less stalemates	10	1.6%
Schedule (N = 32 [5.0%])		
Avoid men's March Madness	22	3.4%
Adjust season length	10	1.6%
Other Areas (N = 148 [23.3%])		
Increase aggressiveness	20	3.1%
Adjust weigh-in procedures	14	2.2%
NCAA qualification	12	1.9%
Like rules "as is"	10	1.6%
Other general comments	92	14.5%

Freestyle/Greco rules (4.3%), the elimination of ride-out in overtime (3.9%), and the adjustment of the post-season to avoid NCAA men's March Madness (3.4%).

Discussion

Within the context of enhancing the financial profitability of college wrestling in future years, there are several findings within the current research that are worth discussing (see Table 6). When focusing on the stakeholders' level of satisfaction with the rules and regulations, the data identified several potential areas of concern for college wrestling and its programs. In particular, while the results supported the notion that stakeholders were not satisfied with 10 of the 11 rules included on the questionnaire, the following two rules with the lowest mean values were the areas most deserving of attention: (1) the consistency of referees,

and (2) the implementation of stalling. The consistency of referees is a vital area for consideration due to the fact that referees dictate the overall flow that occurs within wrestling matches. When referees are inconsistent with their calls, there is a significantly greater chance that athletes and coaches will become frustrated, and as a result they may be less engaged with the competition aspect of the sport (Hanning, 2007). Further, when key participants cannot understand the referees' decisions within matches, it can be very difficult to attract and retain customers because discrepancies in calls can make the product too difficult to follow. Thus, for the NWCA and college wrestling to realize their full financial potential, there must be adjustments in the rules to shore up the consistency of referees within competition.

In addition to the "consistency of referees," there were several findings within the current research that

Table 6.
The Highlighted Findings from the Study and Their Implications on College Wrestling

Area	Finding	Implications on College Wrestling
Mean values	Low values illustrated for the implementation of stalling and consistency of referees	Dissatisfaction of “action” based rules can lead to boring matches and less satisfied customers
ANOVA’s	Younger generations more satisfied with rules than older generations	Potential impact on future generations interest in college wrestling product
Open-Ended	Suggest “push-out” rule	Increase action by rewarding aggressiveness during matches
	Suggest eliminating riding time	Reduce confusion during matches and aid in attracting casual fans
	Suggest an adjustment in scoring	Reward offensive attempts and improve the entertainment value of matches

suggested an increase in the amount of action realized within matches. In particular, the “implementation of stalling” was a critical consideration due to the fact that stalling can completely dictate the amount of action realized within college matches. In fact, if stalling is not called properly, the entertainment value of the competition can plummet significantly, and as a result the consumer interest can suffer from a lack of scoring within matches (Paul & Weinbach, 2007). Thus, with a growing emphasis on scoring in today’s competitive sport environment (Allen, 2008; Brooks, 2009), it is essential that the NWCA develops rules to increase the action between competitors.

Further investigation of the open-ended responses confirmed the previous findings by categorizing the most important suggestions for improving the action based rules in college wrestling. In addition to suggesting increased stalling calls and a stronger implementation of stalling, the stakeholders also felt that a creation of a “push-out rule” (with a reward of one point) would improve the entertainment value realized within competition. In addition to increasing the scoring in matches, this rule is critical because it also affords the opportunity to control the inconsistency of referees in future years. Thus, the implementation of this rule would not only bring potential benefits realized through increased action (Paul & Weinbach, 2007), it would also encourage fan retention by simplifying the rules within college wrestling (Hanning, 2007).

Within the remaining open-ended results, there were several other categorical responses that were notable. Within the match rules category, the “elimination of riding time” was the most common response offered

by the participants. In principle, the eradication of riding time would be a tactic to decrease the amount of stalling that takes place when wrestling on the mat (i.e., in the top position). With no incentive to ride to earn an extra point, the expectation would be that wrestlers in the top position would either attempt to turn their opponent or return to the neutral (both opponents on their feet) position. Similar to previous suggestions, this adjustment would offer increased action because a return to neutral position would be a helpful step in increasing the number of takedowns occurring in dual meets and tournaments.

In addition to rule changes within matches, the results of the open-ended questions also suggested that fans would be interested in an adjustment in the current schedule utilized in college wrestling. Several respondents voiced a strong concern over the scheduling of the NCAA Wrestling Championships during the first round of the men’s NCAA basketball tournament. In order to increase the interest in the NCAA Wrestling Championships, the NCAA committee should consider positioning the tournament so it is not in direct competition with the men’s March Madness activities. The adjustment in post-season tournaments could potentially accommodate individuals who may watch the NCAA Wrestling Championship if it was not televised during the first round games of March Madness. Thus, an adjustment from March to April, as suggested by fans, could improve the spectator appeal and television ratings at the NCAA Wrestling Championships.

When examining responses based on background information, the results demonstrated several key dif-

ferences in responses when segmenting individuals based on their age and sport affiliation. In general, the comparison of responses based on age illustrated that the younger generations of fans (i.e., ages 18-35) were significantly more satisfied with the current rules and regulations in college wrestling than the older generations of fans (i.e., ages 56-75). Taking into consideration that all fans were unsatisfied with 10 of the 11 categories, this finding is even more critical considering that younger generations of fans make up a large portion of the future revenue streams for college wrestling. Thus, the results seem to illustrate a need to understand the level of satisfaction experienced by individuals from different age generations.

“... the results of the open-ended questions also suggested that fans would be interested in an adjustment in the current schedule utilized in college wrestling. Several respondents voiced a strong concern over the scheduling of the NCAA Wrestling Championships during the first round of the men's NCAA basketball tournament.”

Implications of Research

The results of the study offer a unique opportunity to create a unified college wrestling product with rules and regulations to maximize consumer interest in future years. In particular, the data provides a strong foundation to improve the rules implemented during competition. For example, the findings supported the notion that college wrestling would benefit a great deal from the implementation of rules that encourage action between wrestlers (e.g., increase in stalling, elimination of riding time). For example, the basic incorporation of a push-out rule would not only improve scoring in matches, it would also enhance fan retention by minimizing the inconsistencies of calls by referees during competition. Ultimately, the suggested adjustments to the “in match” rules could serve as a core foundation to enhance the marketability of the sport to all generations of consumers in future years.

Following the modification of the “in match” rules within the core wrestling product, college wrestling could benefit a great deal from an adjustment in the format of the season. In particular, with a slight modification to avoid the men's and women's March Madness activities, the NCAA Wrestling Championships would be offered the opportunity to expand their fan base by reaching segments not previously interested in consumption at the event. Further, when combining this with the fact that there would be more action realized during matches, college wrestling would have a significantly greater chance of retaining

customers (Lavarie & Arnett, 2000) illustrating an initial interest in the NCAA Wrestling Championships.

With the suggested changes in the current research, college wrestling is afforded with necessary information to build interest in dual meets and tournaments in future years. As previously explained, the implementation of action-based rules is imperative because highly entertaining events are more likely to encourage repeat consumption among customers (Anderson & Mittal, 2000; Hawkins, Best, & Coney, 1997). Further, with an emphasis on rules that encourage high scoring matches, college wrestling is more likely to extend its reach to new fan segments through a proliferation of positive word-of-mouth advertising (Kotler, 1994). Thus, in addition to making the suggestions in the research, college wrestling would be wise to invest in a regular assessment of the rules and regulations being implemented in college wrestling.

Limitations and Future Research

The purpose of the research was to gain an understanding of stakeholders' perceptions of the rules and regulations implemented in college wrestling. While the inclusion of athletes and coaches is useful for identifying rules to simplify the sport, it is also important to point out that these individuals may have some biases attached because of their closeness to the sport. Thus, it is important to take these differences into consideration when making adjustments in the rules and regulations utilized in college wrestling. Further, scholars could also expand on the sample utilized in the research by collecting responses from potential consumer segments attending the following three types of wrestling events: high school state championships, USA Wrestling National Championships, and youth state and national championships.

In the future, it will be imperative for college wrestling to expand on its current research initiatives if it is going to be financially profitable in future years. In addition to identifying improvements in the core wrestling product, scholars should also carry out studies to improve the marketability of wrestling events at the local, regional, and national levels. Further, research should also focus on the identification of grassroots marketing strategies for coaches to implement at the local levels.

References

- Allen, K. A. (2008). NHL back on the offensive as new scoring rules take hold. *USA Today*. Retrieved March 2, 2009, from: http://www.usatoday.com/sports/hockey/nhl/2008-11-05-nhlscoring_N.htm
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53-66.

- Anderson, E. W., & Mittal, V. (2000). Strengthening the satisfaction-profit chain. *Journal of Service Research*, 3, 107-120.
- Arizona State University cites economics in reducing number of varsity sports. (2008, May 23). The Online Resource for the National Collegiate Athletic Association (NCAA). Retrieved May 18, 2008, from <http://www.ncaa.com/tennis-mens/article.aspx?id=239282>
- Aylott, M., & Aylott, N. (2007, March). A meeting of social science and football: Measuring the effects of three points for a win. *Sport in Society*, 10(2), 205-222. Retrieved March 1, 2009, from SPORTDiscus with Full Text database.
- Brady, E. (2009, February 18). Recession forces colleges to find ways to cut spending. *USA Today*. Retrieved March 2, 2009, from http://www.usatoday.com/sports/college/2009-02-18-colleges-economy-cover_N.htm
- Brooks, L. (2009, February 14). NHL considers plans to increase scoring. *New York Post*. Retrieved March 2, 2009, from http://www.nypost.com/seven/02142009/sports/rangers/nhl_considers_plans_to_increase_scoring_155134.htm
- Carlson, K. (2008, March 12). United they stand: Despite loss of collegiate problems, West Coast wrestling will go on. *The Wrestling Mall*. Retrieved May 18, 2008, from <http://www.wrestlingmall.com/htmls/news.asp?Cat=4&View=17096>
- Frauenheim, N., & Skoda, J. P. (2008, May 14). Loss of wrestling, swimming hits hard. *The Arizona Republic*. Retrieved May 18, 2008, from <http://www.azcentral.com/arizonarepublic/sports/articles/0514asureax0514.html>
- Greenwell, C. T., Fink, J. S., & Pastore, D. L. (2002). Perceptions of the service experience: Using demographic and psychographic variables to identify customer segments. *Sport Marketing Quarterly*, 11(4), 233-241.
- Hanning, J. (2007, October). Can the new rules save rugby as a spectacle? *New Zealand Rugby World*. Retrieved March 1, 2009, from SPORTDiscus with Full Text database.
- Hawkins, D. I., Best, R. J., & Coney, K. A. (1997). *Consumer behavior: Building marketing strategy*. New York: Prentice Hall.
- James, J., & Ross, S. (2004). Comparing sport consumer motivations across multiple sports. *Sport Marketing Quarterly*, 13(1), 17-25.
- Kelly, S., & Turley, L. (1999). Consumer perceptions of service quality attributes at sporting events. *Journal of Business Research*, 54(2001), 161-166.
- Kotler, P. (1994). *Marketing management: Analysis, planning, implementation, and control* (8th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Laverie, D. A., & Arnett, D. B. (2000). Factors affecting fan attendance: The influence of identity salience and satisfaction. *Journal of Leisure Research*, 32(2), 225-246.
- Marburger, D. R., & Hogshead-Makar, N. (2003). Is Title IX really to blame for the decline in intercollegiate men's non-revenue sports? *Marquette Sport Law Review* (14), Rev. 65.
- McDonald, M., Sutton, W., & Milne, G. (1995). TEAMQUAL: Measuring service quality in professional sport teams. *Sport Marketing Quarterly*, 4(2), 9-15.
- McKelvie, S. J. (1992). Does memory contaminate test-retest reliability? *Journal of Gen Psychology*, 119(1), 59-72.
- NCAA wrestling rules for scoring. (2004). Collegiate Wrestling Statistics. Retrieved May 19, 2008, from <http://www.wrestlingstats.com>
- Paul, R. J., & Weinbach, A. P. (2007). The uncertainty of outcome and scoring effects on Nielsen ratings for Monday Night Football. *Journal of Economics and Business*, 59(3), 199-211.
- Partovi, F. Y., & Corredoir, R. A. (2002). Quality function deployment for the good of soccer. *European Journal of Operational Research*, 137(3), 642-656.
- Riffe, D., Lacy, S., & Fico, F. G. (2005). *Analyzing media messages: Using quantitative content analysis in research*. Mahwah, NJ: Lawrence Erlbaum.
- Steinbach, P. (2007, September). Pinned hopes. *Athletic Business*. Retrieved May 18, 2008, from: <http://athleticbusiness.com/articles/article.aspx?articleid=1624&zoneid=28>
- Student-athlete participation rate reaches all-time plateau. (2006, February 13). *The NCAA News*, 43(4), 9-10.
- Tsuji, Y., Bennett, G., & Zhang, J. (2007). Consumer satisfaction with an action sports event. *Sport Marketing Quarterly*, 16(4), 199-208.
- Wakefield, K. L., & Sloan, H. J. (1995). The effects of team loyalty and selected stadium factors on spectator attendance. *Journal of Sport Management*, 9, 153-172.

Copyright of *Sport Marketing Quarterly* is the property of Fitness Information Technology, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.