Research Article

A Structural Equation Model-Based Study of the Effect of Perceived Risk of Performance on the Consumption Behaviour of Soccer Spectators

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The purpose of this research is to examine the intentions of sports consumption of viewers of two Chinese Super League soccer teams and to determine whether changes in behaviour are related to the teams' league standings. Spectators from both teams participate in the study voluntarily. The study employs descriptive statistics and fieldwork, and the questionnaire used in the study has a reliability coefficient of 0.87. Experts in sports management determine the content validity, while validation factor analysis is used to determine the structural validity. The statistical population is composed of two Chinese Super League teams (one team is relatively successful and one less successful). Six hundred and seventy-eight valid questionnaires are distributed randomly. Following data collection, the link between consumption behaviour and perceived risk is examined. The findings show that performance risk has an effect on game watching intention, $t = 0.04$, with a standard solution of 1.99, on recommending others watch the game, $t = 0.11$, with a standard solution of 0.98, on team licenced merchandise consumption, $t = −0.05$, with a standard solution of $−0.41$, and on the consumption of media, $t = 4.21$, with a standard solution of 1.19. Therefore, performance perceived risk significantly affects game watching and media consumption intention has a significant effect but has no significant effect on recommending others to watch the game and licensed merchandise consumption.

1. Introduction

The majority of research on sports consumption over the last two decades has focused on sports consumption behaviours and intentions. Numerous variables influencing intentions and actions have been examined in these studies. Consumer behaviour research has concentrated on how customers behave.

Chula describes behavioural intention as a signal indicating an individual's readiness to conduct a certain behaviour [1]. Numerous variables affect customer behaviour and buying choices. As a result, the behavioural intention may be used to predict future consumption. In addition, the consumer choice model is among the most complete models for describing consumer behaviour. External elements such as product, pricing, promotion, and network marketing activities are used as inputs to the model. Internal aspects such as perception, motivation, learning, attitude, and personality comprise the model's processing components. The purchasing decision-making process is comprised of three stages: (1) need identification; (2) information search; (3) choice assessment. Following that, the buying decision and after-buying behaviour occur. Consumers' perception is a significant internal component that impacts consumers' behaviour. It is divided into three components: perceived price, perceived quality, and perceived risk. The purpose of this research is to examine perceived risk as a significant predictor of sport consuming behaviour. Carroll defines perceived risk as a subjective assessment of the real risk of an individual that exists at any one moment, which may vary for each service, activity, or product [2]. People make purchasing choices based on perceived risk, no real risk,

according to studies. Any purchase has some degree of risk. The perceived risk may be classified into a variety of categories, including physical, performance, financial, temporal, social, and psychological. The perceived level of risk affects purchasing behaviour. There have been studies on the impact of perceived risk on consumer behaviour, travel, and entertainment, but from the literature, there are few studies on the impact of perceived risk on sports consumption.

The primary product of the spectator sports sector is athletic events [3, 4]. Sports events, on the other hand, are consumer-driven and associated with a high amount of perceived risk. Risk perception operates as a disincentive to participation and other behavioural objectives. As a result, the research examines the influence of performance risk on the behavioural intention of sports consumers through a survey of viewers of two Chinese Super League soccer teams.

2. Method

Shanghai Shenhua club finished in the first half of the 2016-2017 season with 8 wins, 5 draws, and 2 losses for a total of 29 points and located in the first half of the 2016-2017 season in the 6th. Shandong Luneng reached the top 8 of the 2016 AFC Champions League, but their results in the Chinese Super League have been disappointing, with the team winning two games, drawing 5, losing 8, and accruing 11 points in the first half of the 2016-2017 league, finishing second last and in the relegation zone. In the first half of the previous league season, Shanghai Shenhua defeated Tianjin Teda 3-0, while Shandong Luneng fell to Guangzhou Evergrande 0-2 before and after the questionnaires were distributed. The disparity in team performance accentuated the disparity in team viewers' perceived performance.

The research used descriptive analysis and collected data through two surveys. After fine-tuning the surveys, the researcher and management professionals verified the questionnaires' surface and content validity. The first questionnaire featured nine questions that assessed spectators' perceived risk of performance, while the second questionnaire assessed spectators' consuming behavioural intentions via the use of four 16-item subscales (4 items for spectator intentions; 4 items for recommending others to attend the game; 4 items for licenced merchandise purchases; and 4 items for media consumption). A 5-point Likert scale was used to construct the questionnaire. The research included a convenience sampling technique. The research surveyed 678 viewers of two Chinese Super League clubs. 54.3% ($n = 368$) of viewers were from Shandong Luneng clubs, while 45.7% ($n = 310$) were from Shanghai Shenhua clubs. The audience's mean age was 26 years (25.71 ± 10.88). Males constituted 73.1% (496) of the population, while females constituted 29.6% (209). The Kolmogorov–Smirnov-Z test was used to determine the questionnaire subscales' normal distribution and discovered that not all subscales had a normal distribution (i.e., $p < 0.05$). Following that, the Mann–Whitney U test was utilised to compare individuals' attitudes and teams pre- and postgame. The data were evaluated using the structural equation modelling (SEM) software LISREL 9.2 to determine the model's structural validity. The standard error of the mean was calculated using path analysis (PA) and validated factor analysis (CFA).

3. The Experiment and Results

Descriptive analysis revealed that 125 participants were between the ages of 18 and 25 years, 157 were between the ages of 26 and 30 years, 61 were between the ages of 30 and 37 years, and 37 were above 37 (approximately 9%). 75 were business unit personnel (approximately 20%), 99 were civil servants (26%), 82 were career unit personnel (about 22%), and 124 were students (about 33%).

Table 1 shows concern for team league standings (mean = 3.66 ± 1.15), concern for expected results achieved by supporting the team (mean = 3.53 ± 1.30), and concern for athlete performance (mean = 3.33 ± 1.16) ranked in the top three performance risks, respectively.

As shown in Table 2, there is a statistical significant difference between the two teams' intentions to watch matches and consume licenced merchandise. At the 0.05 level of statistical significance, the mean rank of Shanghai Shenhua spectators in the "match-watching" subscale was higher than that of Shandong Luneng spectators ($z = -10.737$; $p < 0.05$). In addition, Shanghai Shenhua's mean rank on the subscale "intention to consume licenced goods" was statistically significantly higher than Shandong Luneng's ($z = -13.630$; $p < 0.05$). However, even though the mean rank of Shanghai Shenhua viewers was higher than that of Shandong Luneng viewers, there was no statistically significant difference between the two teams on the subscales of "media consumption" and "recommending others to watch the match." The Shanghai Shenhua audience scored higher on all three subscales of the questionnaire than the Shandong Luneng audience.

Table 3 shows the responses of Shandong Luneng spectators to the SCB questionnaire before and after the match. In this instance, there was a significant variance between the pre and postmatch intentions of Shandong Luneng spectators ($z = -3.696$; $p < 0.05$). At the statistically significant level, postmatch spectator intention was less than prematch intention. The other four subscales did not show statistically significant differences ($p > 0.05$). However, for all subscales, the mean postrace rank was lower than the mean prerace rank.

Table 4 shows the difference between the prematch and postmatch responses of Shanghai Shenhua spectators to the SCB questionnaire. Only the "media consumption intention" subscale was statistically significantly different when comparing Shanghai Shenhua spectators before and after the match ($z = -2.909$ and $p < 0.05$). The postgame intention of spectators was higher than the pregame intention at the statistical significance level. There were no significant differences for other subscales ($p > 0.05$). However, the postrace evaluation rank was higher than the mean prerace rank for all subscales.

Figures 1 and 2 present the effect of the performance risk (an independent variable) on behavioural intention (a dependent variable). In the case of significant coefficients, the

TABLE 1: Means and standard deviations of performance risk questionnaire terms.

No.	Performance risk	Frequency					Exponents	Mean value	SD
		Totally agree	Agree	Neutral	No	Not at all			
1	Athletic performance	86	132	121	20	21	Performance risk 1	3.33	1.16
2	Organizational perfection	73	144	67	52	44	Performance risk 2	3.28	1.24
3	Core player	66	133	106	53	22	Performance risk 3	3.30	1.09
4	League ranking	76	89	106	73	36	Performance risk 4	3.66	1.15
5	Expected result	98	123	76	35	48	Performance risk 5	3.53	1.30
6	Referee performance	67	63	77	72	101	Performance risk 6	2.34	1.37
7	Degree of brilliance	59	132	69	63	57	Performance risk 7	3.27	1.20
8	Degree of satisfaction	68	76	124	76	36	Performance risk 8	3.26	1.22
9	Order in the arena	80	136	62	58	44	Performance risk 9	2.98	1.38

TABLE 2: Comparison of SCB subscale between teams.

	Audience attributes	n	Average rank	U	Z	P
Intention to watch the race	Shandong Luneng	368	266.32	30.10	−10.73	≤0.001
	Shanghai Shenhua	310	426.38			
Media consumption intention	Shandong Luneng	368	326.28	52.17	−1.93	0.053
	Shanghai Shenhua	310	355.2			
Consumption intention of licensed goods	Shandong Luneng	368	246.61	22.85	−13.63	≤0.001
	Shanghai Shenhua	310	449.77			
Recommend others to watch the game	Shandong Luneng	368	432.12	53.12	−2.31	0.034
	Shanghai Shenhua	310	425.31			

TABLE 3: Comparison between SCB subscales before and after the match for Shandong Luneng spectators.

	Pre/postrace	n	Average rank	U	Z	P
Intention to watch the race	Prerace	210		12.88	−3.69	≤0.001
	Postrace	158	161.03			
Media consumption intention	Prerace	210	186.26	16.22	−0.36	0.713
	Postrace	158	182.16			
Consumption intention of licensed goods	Prerace	210	186.13	7.77	−0.25	0.797
	Postrace	158	183.27			
Recommend others to watch the game	Prerace	210	182.63	9.68	−0.26	0.724
	Postrace	158	183.83			

TABLE 4: Comparison of prematch and postmatch SCB subscales for Shanghai Shenhua spectators.

	Pre/postrace	n	Average rank	U	Z	P
Intention to watch the race	Prerace	180	149.96	10.70	−1.33	0.181
	Postrace	130	163.18			
Media consumption intention	Prerace	180	143.09	11.19	−2.90	0.004*
	Postrace	130	172.68			
Consumption intention of licensed goods	Prerace	180	152.02	8.97	−0.61	0.538
	Postrace	130	158.01			
Recommend others to watch the game	Prerace	180	163.21	9.32	−1.89	0.625
	Postrace	130	172.46			

hypothesis is agreed or rejected (significance of the relationship) based on the model evaluation. Significant values less than -1.96 or higher than 1.96 show the link is significant. The results of structural equation analysis revealed that the effects of performance risk on intention to watch the game, recommend others to watch the game, intention to purchase team merchandise and media consumption were 0.04 (significance level [SL] = 1.99), 0.11 (SL = 0.98), −0.05 (SL = −0.40), and 4.21 (SL = 1.99), respectively. Thus, performance risk has a statistically significant negative impact on the intention to watch the game, a statistically significant negative impact on the intention to consume media, a statistically significant positive effect on the intention to recommend the game to others, and a statistically insignificant effect on the intention to purchase team licenced merchandise. The SEM results indicate that relationship
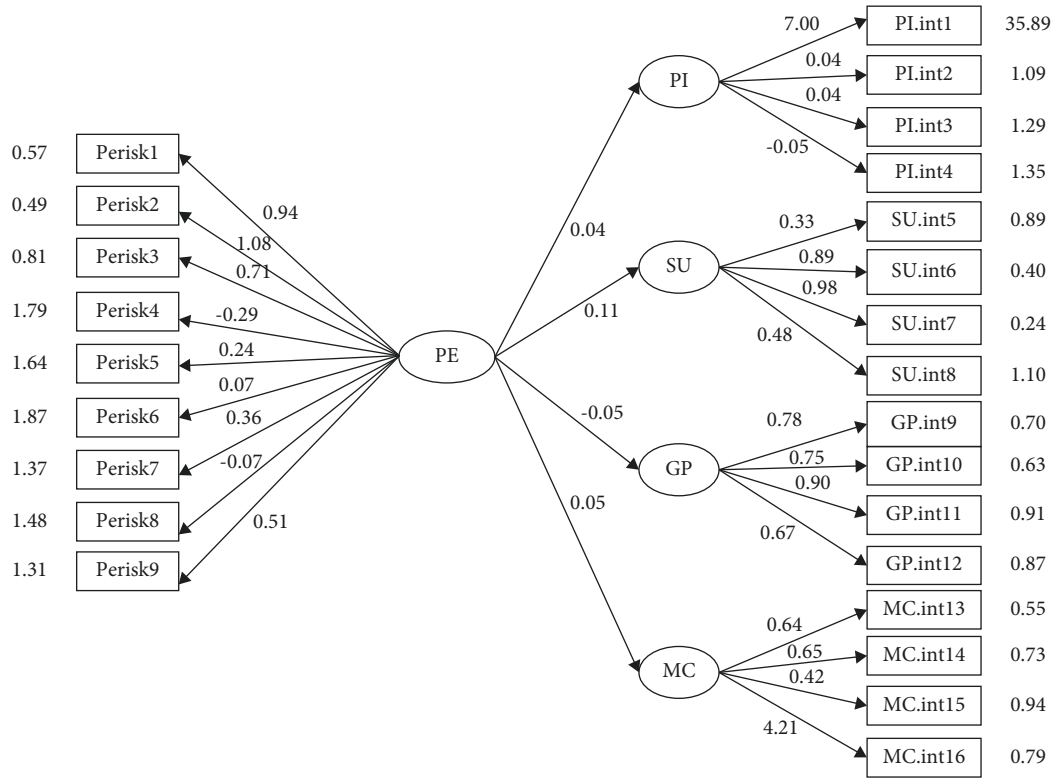
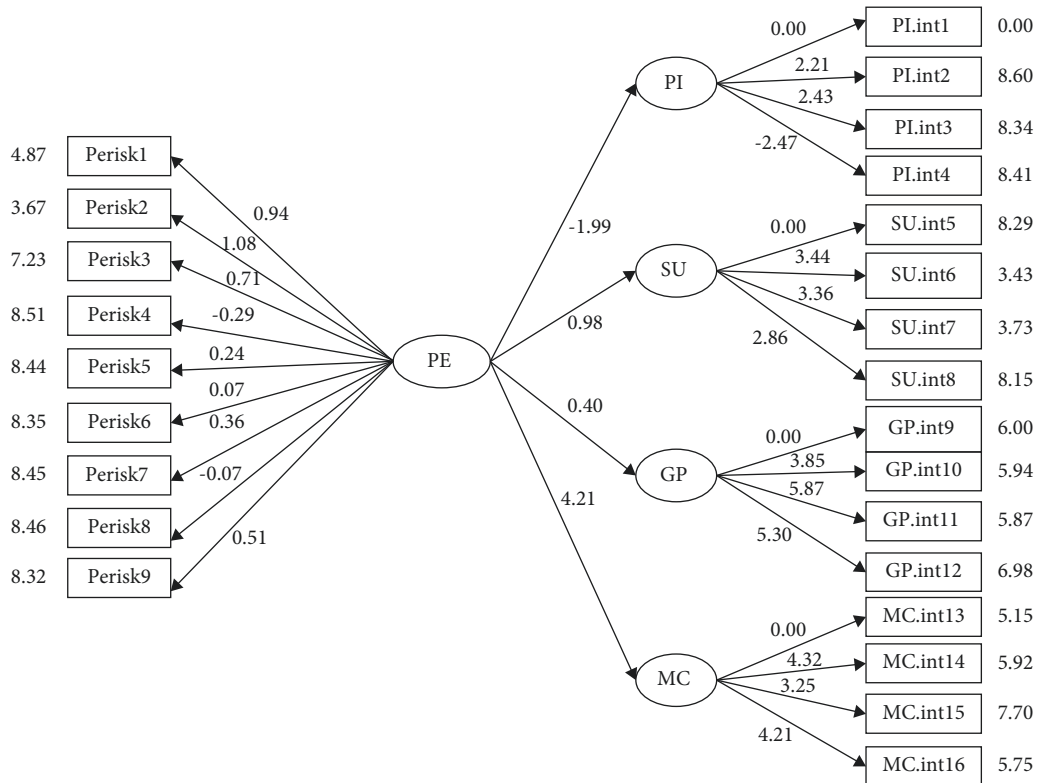FIGURE 1: Effect of performance risk on behavioral intention (small value at PErisk).

FIGURE 2: Effect of performance risk on behavioural intention (high value at PErisk).

between performance risk and intention to watch the game ($r = 0.03$ at a SL of -1.99), and intention to consume media ($r = -1.19$ at a SL of 1.19), is statistically significant. Alternatively, performance risk significantly and negatively impact both intent to watch the game and intent to consume media.

4. Discussion

Getz and Page [5] assert that spectator behaviour is motivated by social and psychological needs. Knowing the role of motivation for sports participation requires an understanding of the many kinds of sports consumption, and sports spectators exhibit distinct inclinations based on their traits. These distinctions result in disparate sports consumption (e.g., game watching, television viewing, or purchase of sports products). The primary pillars of audience motivation in sports are strongly connected to the team's performance and success throughout the game.

According to Cater, verbal advertising like repurchasing is a critical influence in determining customer behaviour [6]. Verbal advertising occurs when consumers promote a service or product to future customers that they have earlier utilised [7]. The current research results are consistent with several previous studies in that verbal recommendations had no significant impact on consumer behaviour and perceived performance risk had no significant impact on these behaviours because many consumers who perceived performance risk continued to support their favourite team, discussed the team frequently, and recommended the team's games to others [8, 9]. Fans may improve their confidence via the purchase and usage of club items since this path is related to sports identity [10]. According to studies, college sports fans often demonstrate their support for their favourite teams by buying team items [11]. Similarly, Fuchs et al. investigated the impact of perceived risk on customers' online purchase choices and discovered that perceived risk was a major factor influencing purchase decisions adversely [12].

The study compared media consumption intention, viewing intention, licenced merchandise consumption intention, and recommending others watch the game among viewers of two Chinese Super League teams and discovered that performance perceived risk affected these subscales. It showed that the more successful team's spectators had a greater consumption intention. According to Funk et al., winning or losing a game affects team spectators' consumption behaviour [13]. The current study demonstrated that perceived risk of performance has a significant negative impact on the intention to attend games. This is in line with the observations of Kaplanidou and Gibson who examined consumer intentions to watch college field hockey games and discovered that perceived risk has a significant impact on college sports viewing [14]. The more risk-averse viewers are, the less likely they are to watch games and more likely to engage in other consumption behaviours such as watching television or learning about team news via television, radio, or the Internet. As a result, performance risk significantly

and negatively affects game viewing and media consumption intentions.

Given the viewership's general characteristics, the fact of winning and losing games is critical. Unfavourable emotions and reactions are displayed immediately following a game loss. While team success and failure affect sports consumption, a decline in team performance does not affect the team's viewer loyalty [15, 16]. However, research indicates that poor team league performance alters viewers' attitudes toward the team and their intentions to consume sports. Previous research has found little difference in sports viewers' intentions to consume sports as a result of a game's loss or win, which they attribute to their level of team identification and different value judgments about the team [17–19]. In contrast to these studies, the study found that a statistically significant decrease occurred in the intention of spectators to watch the remaining games live, especially following a game loss.

Further research may examine the difficulties associated with identifying unsuccessful and successful teams, as well as their viewers and consuming intentions, and the differences in the features of their teams and those of other teams, as perceived by spectators, in order to determine how such variances impact consumption intentions. In addition, it may be necessary to examine the factors that have the greatest impact on the consumption intentions of viewers of comparable teams in the same league.

5. Conclusion

In summary, the study studied the two teams' spectators' consumption behaviour intentions (one more productive than the other based on the first half of the Chinese Super League results) and discovered that spectators of the more dominant team scored higher on the subscales "match watching" and "intention to consume licenced merchandise." The more successful clubs' fans scored higher on the subscales "game watching" and "intention to spend on concessions." In addition, viewers of the winning team showed higher postgame viewing intentions than pregame viewing intentions, while losing team's spectators exhibited lower postgame media consumption intentions than pregame media consumption intentions.

Data Availability

The data supporting the conclusions of this research are accessible upon request from the corresponding author.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

[1] C. Aieophuket, I. Kutintara, and N. Tungtham, "Application of analytical hierarchy process for investigating satisfaction factors in organizing a marathon running event," *Shika Kiso Igakkai zasshi = Japanese journal of oral biology*, vol. 37, no. 6, pp. 481–483, 2014.

 [2] M. S. Carroll, *Development of a Scale to Measure Perceived Risk in Collegiate Spectator Sport and Assess its Impact on Sport Consumption Intentions*, University of Florida, Gainesville, FL, USA, 2009.

 [3] P. Karo Karo and A. Rahman, "Analisis pengaruh experiential marketing terhadap tingkat kepuasan peserta sports event jakabaring wonderful run palembang," *PUSAKA (Journal of Tourism, Hospitality, Travel and Business Event)*, vol. 2, no. 2, pp. 127–135, 2020.

 [4] s. Hasibi and v. Shojaei, "Strategic analysis of sports tourism marketing mix in mazandaran with 7P's approach," *Journal of Applied researches in Geographical Sciences*, vol. 20, no. 57, pp. 169–186, 2020.

 [5] D. Getz and S. J. Page, *Event Studies: Theory, Research and Policy for Planned events*, Routledge, London, UK, 2016.

 [6] T. Čater and B. Čater, "Product and relationship quality influence on customer commitment and loyalty in B2B manufacturing relationships," *Industrial Marketing Management*, vol. 39, no. 8, pp. 1321–1333, 2010.

 [7] K. Vashyst, "Verbal innovations of advertising messages in tourist discourse," *Humanities Science Current Issues*, vol. 1, no. 36, pp. 111–115, 2021.

 [8] C. H. Kuo and S. Nagasawa, "Deciphering luxury consumption behavior from knowledge perspectives," *Journal of Business and Management*, vol. 26, no. 1, pp. 1–21, 2020.

 [9] M. Ariani, A. Gantina, A. Mauludyani, and A. Suryana, "Environmentally friendly household food consumption behavior," *IOP Conference Series: Earth and Environmental Science*, vol. 892, no. 1, Article ID 012023, 2021.

[10] M. Masud-Ul-Hasan, M. H. Rahman, and M. Rana, "Identifying service quality attributes and measuring customer satisfaction of dhaka-pabna route public bus service," *Asian Business Review*, vol. 5, no. 2, p. 72, 2015.

[11] J. S. W. Spinda, "The development of basking in reflected glory BIRGing) and cutting off reflected failure (CORFing) measures," *Journal of Sport Behavior*, vol. 34, no. 4, p. 392, 2011.

[12] G. Fuchs and A. Reichel, "An exploratory inquiry into destination risk perceptions and risk reduction strategies of first time vs. repeat visitors to a highly volatile destination," *Tourism Management*, vol. 32, no. 2, pp. 266–276, 2011.

[13] D. C. Funk, K. Filo, A. A. Beaton, and P. P. Mark, "Measuring the motives of sport event attendance: bridging the academic-practitioner divide to understanding behavior," *Sport Marketing Quarterly*, vol. 18, no. 3, p. 126, 2009.

[14] K. K. Kaplanidou and H. J. Gibson, "Predicting behavioral intentions of active event sport tourists: the case of a small-scale recurring sports event," *Journal of Sport & Tourism*, vol. 15, no. 2, pp. 163–179, 2010.

[15] J. Toogood, P. Allison, P. McMillan, and J. Michael, "Analysing constraints to participation in snowsports for pre-service teachers: a qualitative study of tourism for alpine (downhill) skiing," *Current Issues of Tourism Research*, vol. 4, no. 1, pp. 11–24, 2014.

[16] E. J. Arruda-Filho, J. A. Cabusas, and N. Dholakia, "Social behavior and brand devotion among iPhone innovators," *International Journal of Information Management*, vol. 30, no. 6, pp. 475–480, 2010.

[17] K. H. Hyllegard, J. P. Ogle, R.-N. Yan, and K. Kissell, "Consumer response to exterior atmospherics at a university-branded merchandise store," *Fashion and Textiles*, vol. 3, no. 1, p. 4, 2016.

[18] S.-K. Kim, K. K. Byon, J.-G. Yu, J. J. Zhang, and C. Kim, "Social motivations and consumption behavior of spectators attending a Formula one motor-racing event," *Social Behavior and Personality: An International Journal*, vol. 41, no. 8, pp. 1359–1377, 2013.

[19] J. W. Kim, J. D. James, and Y. K. Kim, "A model of the relationship among sport consumer motives, spectator commitment, and behavioral intentions," *Sport Management Review*, vol. 16, no. 2, pp. 173–185, 2013.