

Adapting the distributive justice scale to a professional sports setting: A case study of the Korean Baseball Organization (KBO)”

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Abstract:

While prior research has predominantly concentrated on distributive justice in the context of collegiate athletics in the United States, limited attention has been devoted to distinct sport segments across diverse countries. It is expected that perceptions of fairness regarding resource allocation decisions in intercollegiate athletics would differ significantly from those in professional sports due to the contrasting structures and priorities inherent in these two segments of the sports industry. Consequently, the aim of the current research project was to adapt a distributive justice scale originally designed for intercollegiate athletics to the context of professional sports and examine its validity and reliability. Data for Study 1 ($N = 447$) were collected from spectators of three professional baseball teams located at southern area of South Korea, while data for Study 2 ($N = 391$) were collected from spectators of three professional baseball teams located in the Seoul Metropolitan area of South Korea. Overall, the distributive justice scale adapted in the current research demonstrated itself as a psychometrically reliable and valid measurement tool suitable for a professional sport context across two separate studies. Specifically, the distributive justice scale comprised three factors with 10 items (subprinciples): equality (3 item), equity (4 items), and need (3 items). The results of CFAs in both Study 1 and Study 2 indicated that factor loadings, Average Variance Extracted (AVE), and Cronbach's alpha coefficients were consistent with expectations. In the future, it would be essential to apply the distributive justice scale adapted in the current research to various professional sports leagues.

Key Words: Distributive justice, Scale adaptation, Validity, Reliability, Professional sport

Introduction

In contemporary society, fairness holds significant importance within any group an individual engages with, and it is particularly accentuated when distributing resources within an organization or group. Among the diverse array of organizations, perhaps no other emphasizes the concept of fairness as profoundly as sports organizations do, given that fairness stands as the paramount core value pursued by sports (Kim, Ha, Cho, Oh, & Ha, 2019).

Scholarly research on individual perceptions of fairness has predominantly been explored within the framework of organizational justice (Ha & Ha, 2015). Academic interest in organizational justice can be categorized into three dimensions: distributive justice, procedural justice, and interactional justice (Colquitt, Greenberg, & Zapata-Phelan, 2005). Among these three dimensions of organizational justice, the scholarly focus in the field of sport management has primarily centered on distributive justice, given its critical relevance in resource allocation within sports organizations (Mahony, Hums, Andrew, & Dittmore, 2010). While research on distributive justice in sport management contexts began approximately 30 years ago (Hums & Chelladurai, 1994a), the majority of this research has primarily been conducted within the realm of intercollegiate athletics in the United States. For instance, Hums and Chelladurai (1994a, 1994b) initially devised an instrument for distributive justice based on the conceptual framework of Tornblom and Jossion (1985) and examined perceptions of fairness during the allocation of resources in collegiate athletic departments among coaches and administrators. Following Hums and Chelladurai's pioneering work, numerous studies have investigated variations in fairness perceptions based on factors such as gender, job positions, levels of sports, and more (Hums & Chelladurai, 1994b; Kim, Andrew, Mahony, & Hums, 2008; Mahony, Riemer, Breeding, & Hums, 2006; Mahony, Hums, & Riemer, 2005; Patrick, Mahony, & Petrosko, 2008).

While the previous studies on distributive justice have provided valuable insights into comprehending resource allocation in a sports context, there are several limitations that warrant attention. First, as previously noted, the majority of distributive justice studies have predominantly focused on intercollegiate athletics. However, the sports industry encompasses a much broader spectrum, including professional sports, recreational sports, health and fitness, sport marketing, and more. Notably, fairness perceptions regarding resource allocation

decisions in amateur sports, such as intercollegiate athletics, may be different from those in professional sports due to the heightened emphasis on commercialism and contributions in professional sports when allocating resources. Therefore, a distributive justice scale developed in the context of intercollegiate athletics may not be directly applicable to diverse sports segments, such as professional sports. Second, Mahony et al. (2010) highlighted the issue of scale development in distributive justice by discussing the feasibility of using single-item measures for distributive justice constructs. While it is statistically conventional to employ multiple items for measuring a particular construct, most prior studies have attempted to measure each of the distributive justice constructs with a single item. Hence, a more valid and reliable measurement tool is essential. Lastly, as mentioned previously, a significant proportion of research on distributive justice in sports has been conducted in the U.S. However, individuals from different countries and cultures may possess varying perceptions of fairness when it comes to resource allocation. Consequently, exploring differences in fairness perceptions among culturally diverse individuals and contexts would broaden the scope of research on distributive justice in sports.

As mentioned earlier, while prior research has predominantly concentrated on distributive justice in the context of collegiate athletics, limited attention has been devoted to distinct sport segments across diverse countries. It is envisaged that perceptions of fairness concerning resource allocation decisions in intercollegiate athletics would diverge substantially from those in professional sports due to the contrasting structures and priorities inherent in these two sport industry segments. For instance, intercollegiate athletics encompasses numerous sports within the same organization, all vying for shared resources. Additionally, one sport may generate resources to support other sports within the same collegiate setting. In a professional sports context, however, each team operates as an autonomous entity, actively seeking resources from their respective league or external sources, and teams possess the capability to independently generate substantial resources that are not shared with other teams. Consequently, it becomes increasingly implausible that distributive justice scales developed or utilized within the context of U.S. intercollegiate athletics could be directly applicable to professional sports in other countries. Given these disparities, the current research project endeavors to address this void by adapting a distributive justice scale within a distinct sport setting, with a specific focus on professional sports rather than intercollegiate athletics. This approach is integral to gaining insights into the nuanced perceptions of fairness associated with resource allocation within the unique framework of professional sports, thereby shedding light on an area of distributive justice research that has remained largely unexplored.

Theoretical Background

Three perspectives of organizational justice

Over the past 50 years, research on the perceptions of fairness has been conducted within the framework of organizational justice. As previously mentioned, organizational justice comprises three dimensions: (a) distributive justice, (b) procedural justice, and (c) interactional justice. Firstly, distributive justice pertains to the perceived fairness in the distribution of resources. This concept was originally based on Adams' Equity Theory (Adams, 1963, 1965). According to the Equity Theory, individuals compare the ratio of their inputs (contributions) to their outputs (rewards) with the ratios of others, and individuals will consider the outcome fair if they believe these ratios are equal. This principle is known as equity or contribution. In other words, individuals who contribute more should receive greater rewards (Mahony et al., 2010). In addition to the principle of equity, two other principles of distributive justice have been suggested: equality and need (Deutsch, 1975; Tornblom & Jonsson, 1985). Equality means that each individual or group is treated equally when resources are allocated. The principle of need simply means that individuals or groups with fewer resources receive more when resources are distributed.

Secondly, procedural justice pertains to the perception of fairness in the process or procedures used to determine outcomes, irrespective of the outcomes received by individuals or groups (Thibaut & Walker, 1975). The final dimension of organizational justice is interactional justice. Interactional justice is rooted in the interpersonal treatment an individual receives from decision-makers or authority figures, as well as the quality of information they receive (Bies & Moag, 1986). In essence, interactional justice underscores the human aspect of organizational practices (Cohen-Charash & Spector, 2001).

Among the three dimensions of organizational justice mentioned above, distributive justice is the concept most closely related to the perceived fairness of the outcomes one receives. Therefore, as the current research investigates how individuals perceive fairness when allocating financial resources in a professional sports context, this study will primarily focus on distributive justice.

Sub-principles of distributive justice in a sport setting

Since numerous sports scholars have commenced the examination of distributive justice in the context of resource allocation, three main principles, derived from the conceptual framework of Tornblom and Jonsson (1985), have been employed over the past three decades: (a) equality, (b) equity, and (c) need. Within each of these main principles, there exist several sub-principles. Firstly, the equality principle comprises three sub-principles, which include equality of treatment, equality of results, and equality of opportunity (Hums & Chelladurai, 1994a, 1994b). Equality of treatment denotes that distributions to each individual or group are genuinely equal in a given situation, while equality of results dictates that distributions to everyone or every

group should be equal over time. As for the equality of opportunity, it ensures that everyone has an equal chance to receive resources.

Concerning the equity principle, there are five sub-principles applied in the sport management context: productivity, effort, ability, spectator appeal, and revenue generation (Hums & Chelladurai, 1994b; Mahony, Hums, & Riemer, 2002; Mahony et al., 2002, 2006). Specifically, resource allocation should be based on the extent to which an individual or group contributes. For example, an individual or group may receive a larger share of the resources than others if they have contributed more to an organization in terms of productivity (i.e., achieving more wins), effort (i.e., working diligently), ability, spectator appeal (i.e., drawing more people), and revenue generation (i.e., generating higher revenue).

The final principle concerning resource allocation in distributive justice is the need principle. Initially, when the need principle was introduced, it simply meant that those with fewer essential resources should receive a greater amount of resources than others (Mahony et al., 2010). However, the need principle was subsequently redefined in a different manner (Mahony et al., 2002; Mahony, Hums, & Riemer, 2005). Specifically, individuals or groups lacking resources should receive more resources (referred to as "need due to a lack of resources"). Furthermore, individuals or groups should receive a larger share of resources if they have higher costs due to the nature of the activity (referred to as "need due to high costs") or because it costs more to achieve competitive success (referred to as "need to be competitively successful").

Scale Adaptation Approach

Before delving into the specific procedures of scale adaptation, it is important to note that the current research project was conducted using the broadcasting rights of the Korean Baseball Organization (KBO) as its foundation. Baseball is presently the most popular professional sport in South Korea, with nearly 10 million annual spectators. Given the sport's immense popularity, revenue from broadcasting rights has been rapidly increasing each year, becoming one of the primary income sources for each team. Consequently, the question of how the Korean professional baseball league fairly allocates this income to each team has become an increasingly important issue.

To adapt a distributive justice scale in a professional sports context, the current research project was conducted through two separate studies, employing four procedures that encompass both qualitative and quantitative data collection methods: (1) generation of potential items and domains; (2) establishment of content validity; (3) initial investigation of psychometric properties (reliability, validity, and factor structure); and (4) cross-validation of the confirmed factor structure. More specifically, in Study 1, potential items and domains for the scale were generated by reviewing relevant literature. The content validity of these generated items and domains was then established with input from experts in the field of sport management. Towards the conclusion of Study 1, preliminary investigations into the psychometric properties of the scale were carried out. In Study 2, the confirmed factor structure of the scale, as identified in Study 1, underwent cross-validation.

Study 1

Domain and item generation. Based on a review of relevant literature (e.g., organizational justice, distributive justice), three domains that encompass essential facets of fairness perception have been identified: (a) equality, (b) equity, and (c) need. First, equality entails that the distribution of resources to each team is genuinely equal in a given situation (referred to as equality of treatment). However, there are other possible interpretations of equality, such as distributing resources equally to each team over time (referred to as equality of results) and ensuring that each team has an equal chance to receive resources (equality of opportunity; Tornblom & Jonsson, 1985). In other words, within the domain of equality, three principles may be applied. For example, in a given situation, every team should receive the same amount of resources (equality of treatment); although varying amounts of resources may be allocated to each team in the short term, the total amount of resources remains the same for every team in the long term; and every team has an equal opportunity to receive a certain amount of resources.

Secondly, equity implies that those who contribute more should receive a greater share of resources. Within the realm of equity, there are several potential contributing factors when allocating resources. These factors encompass productivity, effort, ability, revenue generation, and spectator appeal (Dittmore et al., 2010; Hums & Chelladurai, 1994a, 1994b; Mahony, Hums, & Riemer, 2002; Mahony et al., 2006; Patrick et al., 2008). In essence, a sports team may receive a larger allocation of resources compared to others due to its capacity to achieve more wins (productivity), exert more effort, generate increased revenue, draw larger audiences, or possess superior ability. Furthermore, popularity can be considered a contributing factor in a sports context when distributing resources. This means that the more popular a team is, the greater the resources it should receive. Although popularity conceptually aligns with spectator appeal, this study introduces it as a potential contributing factor in resource allocation because spectator appeal is just one way of gauging a team's popularity.

Thirdly, when need was initially introduced, it signified that those with fewer essential resources should receive a greater allocation of resources than others (termed "need due to a lack of resources"; Mahony, Hums et al., 2002). Nevertheless, need can be further defined in various ways, such as "need due to high costs" and "need to be competitively successful" (Mahony et al., 2005). In essence, a team may be perceived as having greater needs if it incurs higher costs due to its inherent nature (for instance, a team with its own stadium has lower

operating costs than one that does not) or because it requires more resources to maintain competitiveness in the league, particularly when other teams in the league are spending more and, consequently, need more resources to stay competitive. Operational definitions of the three distributive justice domains and their sub-domains were assessed by a panel of three expert researchers in the field of sport management (See Table 1).

The majority of items in the distributive justice scale for professional sports were derived from a thorough review of pertinent literature, with operational definitions provided in Table 1. Specifically, 3 items for equality, 6 items for equity, and 3 items for need were initially adapted from existing literature (refer to the sources in Table 1). These items were originally developed for intercollegiate athletics and were adjusted to better suit the context of the current research. Only one item for popularity (a sub-dimension of equity) was newly created based on discussions among the authors of the current study. In total, 12 items were initially generated (as shown in Table 2).

Table 1. Operational Definitions of Distributive Justice Domains and Sub-domains

Main Domains	Definition	Sub-domains	Definition	Source
Equality	Each team is treated equally when resources are allocated.	Equality of Treatment	Every team in a given situation receives the same amount of resources.	Tornblom & Jonsson (1985), Hums & Chelladurai (1994a, 1994b), Mahony et al. (2002, 2006), Mahony et al. (2006), Patrick et al. (2008), Dittmore et al. (2009)
		Equality of Results	Resources distributed to every team are equal over time.	
		Equality of Opportunity	Each team has an equal chance to receive resources.	
Equity	It refers to the notion that resource allocation is determined based on the extent to which each team contributes to a league.	Productivity	It refers to the notion that resources are allocated based on athletic performance of a team.	
		Effort	It refers to the notion that resources are allocated based on how much athletic performance is improved.	
		Spectator appeal	It refers to the notion that the more spectators a team attracts, the more resources are distributed.	
		Ability	It refers to the notion that a team having more ability receives more resources.	
		Revenue generation	It refers to the notion that resources are allocated based on how much a team generates revenues for a league.	
		Popularity	It refers to the notion that the more popularly a team is, the more resources are distributed.	
Need	It refers to the notion that resource allocation is determined based on how scarce a team is.	Need due to lack of resources	It refers to the notion that the less resources a team has, the more resources are distributed.	
		Need due to high costs	It refers to the notion that the more operating costs are, the more resources are distributed.	
		Need to be competitively successful	It refers to the notion that the more a team needs to be competitively successful, the more resources are distributed.	

Item evaluation. The primary objective of item evaluation was to guarantee the content validity of the items generated in the previous stage. In the current study, the evaluation of these items comprised two phases. During the initial phase, seven graduate students majoring in sport management at a university in the Southeastern region of South Korea reviewed and discussed the items. This phase aimed to identify any redundancy, assess item clarity, address any vagueness, and determine appropriateness. Participants were provided with the study's purpose, as well as definitions of the domains and sub-domains. They subsequently highlighted ambiguous items and recommended revisions. The items were then revised based on their feedback.

In the second phase, a panel of three scholars with expertise in sport consumption behavior reviewed the revised items from the initial item evaluation phase. The expert panel recommended the removal of two items designed to measure equity. Specifically, this suggestion was made because each professional baseball team operates as a separate organization that must maintain financial independence, unlike sports teams in intercollegiate athletic settings where revenue generated by one team can support other teams. As a result, the

item related to revenue generation was removed. Additionally, it was assumed that all professional baseball athletes would have very high levels of ability, leading to the removal of the item assessing ability. Consequently, through the item evaluation procedure, the authors decided to eliminate two items, leaving a total of 10 items for the subsequent stage of scale adaptation.

Table 2. Initial Items for Distributive Justice Scale

Factors	Items	
Equality	EQUAL 1	The money should be equally distributed among all teams (Treatment).
	EQUAL 2	Teams which have received less money in the past should receive more money (Results).
	EQUAL 3	The money should be distributed based on random selection (Opportunities).
Equity	EQUIT 1	The team that had the best winning percentage should receive the largest share of the money (Productivity).
	EQUIT 2	The team which has the most improved compared to last year should receive the largest share of the money (Effort)
	EQUIT 3	The team drawing the most spectators should receive the largest share of the money (Spectator appeal).
	EQUIT 4	The most popular team should receive the largest share of the money (Popularity)
Need	NEED 1	The largest amount of money should be distributed to the team with the largest deficit (Need due to lack of resources)
	NEED 2	The largest amount of money should be distributed to the team that need the most operating expenses (Nee due to high costs).
	NEED 3	The most money should be distributed to the team that need to be competitive. (Need to be competitively successful)

Preliminary analysis of items.

To initially analyze the reliability and validity of the generated items, data was collected from fans of three professional baseball teams located in the southeastern area of South Korea. Participants in almost all previous studies on distributive justice were direct stakeholders who could influence resource allocation decisions, such as board members, coaches, sports administrators, athletes, and others.

While baseball fans participating in the current study may not directly influence revenue distribution from professional baseball broadcasting rights, they are still considered suitable participants. This is because the quality of service fans receive may vary depending on the amount of revenue received from broadcasting rights. Therefore, baseball fans are regarded as appropriate study participants.

Before responding to distributive justice items, research participants first read a scenario created specifically for this study. This scenario was formulated based on two broadcasting rights contracts recently signed by the Korean Baseball Organization (KBO). More precisely, the scenario stated, "The KBO earned a total of 76 billion won (approximately 70 million US dollars at the time of data collection) from broadcasting rights. The items below pertain to the fairness of distribution principles when allocating this income to the teams." All items related to distribution principles were assessed using a 7-point Likert-type scale, ranging from Strongly Unfair (1) to Strongly Fair (7).

In April and May 2022, six research assistants visited stadiums belonging to three professional baseball teams to gather data from fans. While 500 survey questionnaires were distributed, 447 questionnaires were utilized for statistical analysis, excluding 53 that were filled out insincerely, such as those where 10 or more questions were uniformly answered, or where 3 or more questions were left unanswered. The participants included 316 males (70.7%) and 131 females (29.3%). The average age of the participants was 32.68 years old ($SD = 9.13$), with an age range from 20 to 57. In terms of educational background, 264 participants (59.1%) had graduated from college, 120 were college students (26.8%), 48 had less than a high school education (10.7%), and 15 had graduate degrees (3.4%).

A confirmatory factor analysis (CFA) was conducted using Amos 18.0 to initially assess the reliability and validity of the factors/items. The use of CFA was appropriate since the three factors identified in this study had previously been proposed in the literature. The results of the CFA revealed that the three-factor (10-item) measurement model demonstrated a suitable fit to the data ($\chi^2/df = 2.364$ [84.376/32], RMSEA = 0.06 [CI: Confidence Interval: 0.05–0.07], CFI = 0.94, TLI = 0.94, SRMR = 0.04). The confirmed model established the reliability and validity of the distributive justice scale.

All factor loadings, ranging from .36 to .81 ($p < .01$), were significant in the expected direction (see Table 3). Moreover, all Cronbach's alpha coefficients exceeded .60, ranging from .66 to .89, and all AVE values were greater than .50, ranging from .54 to .67 (see Table 3), confirming strong convergent validity and reliability. Additionally, AVE values for all factors exceeded the corresponding squared inter-construct correlations, providing evidence of discriminant validity. In summary, the overall results indicate that the scale possesses adequate psychometric properties.

Table 3. Results of the Measurement Model in Study 1

Factors	Items	β	M	SD	AVE	α
Equality	EQUAL 1	.89	4.92	.84	.54	.66
	EQUAL 2	.84	4.22	.95		
	EQUAL 3	.36	2.09	1.45		
Equity	EQUIT 1	.88	5.48	.87	.67	.85
	EQUIT 2	.58	3.81	.96		
	EQUIT 3	.86	4.96	1.09		
	EQUIT43	.91	5.57	.81		
Need	NEED 1	.82	4.46	.83	.55	.89
	NEED 2	.62	3.74	.87		
	NEED 3	.78	4.12	.84		

Study 2

Participants and procedures. To evaluate the generalizability of the results for the scale from Study 1, the confirmed factor structure of the scale elicited in Study 1 were cross validated with a different sample of population.

Before responding to distributive justice items, research participants first read the same resource allocation scenario used in the Study 1 (broadcasting rights income). Data were collected from 500 spectators at three professional baseball teams' stadiums located in Seoul Metropolitan area at South Korea. A total of 429 spectators responded to the survey questionnaire. After deleting 38 incomplete surveys, 391 useable surveys were finally used for data analysis. The confirmed three-factor (10 items) scale were answered on a 7-point Likert-type scale, ranging from *Strongly Unfairness* (1) to *Strongly Fairness* (7). An analysis of demographic variables indicates 71.9% ($n=281$) were males and 28.1% ($n=110$) females with age ranging from 19-58 years ($M=30.50$, $SD = 10.28$). In terms of educational background, there were 228 participants (58.3%) graduated from college, 103 college students (26.3%), 34 people less than high school (8.7%), and 25 graduated from graduate school (6.4%).

Results. The results of the confirmatory factor analysis (CFA) revealed that the measurement model, comprising 10 items distributed across three factors, exhibited a satisfactory fit to the data ($\chi^2/df = 2.791$, RMSEA = 0.062 [CI: 0.054–0.072], CFI = 0.93, TLI = 0.92, SRMR = 0.059). Moreover, all Cronbach's alpha coefficients exceeded 0.60, ranging from 0.66 to 0.81. The AVE values also exceeded 0.50, ranging from 0.50 to 0.64, as presented in Table 4, thereby affirming strong convergent validity and reliability. Furthermore, the AVE values for each factor surpassed the respective squared inter-construct correlations, substantiating discriminant validity. In summary, these comprehensive results attest to the scale's robust psychometric properties.

Furthermore, a multiple regression analysis (MRA) was carried out to assess the concurrent validity of the cross-validated scale with the outcome variable: overall satisfaction with the KBO. It is reasonable to assume that an individual's satisfaction with the KBO would be higher if financial resources are distributed fairly among the baseball teams. A single question ("Overall, I am satisfied with what the KBO does") was rated on a 7-point Likert scale (1=*very unsatisfied*, 7=*very satisfied*). The results of the MRA demonstrates that the regression model was significantly and positively related to satisfaction with KBO, $F(3, 387)=39.52$, $p<.001$. The three factors (principles) of the scale accounted for approximately 33.9% of the variance in satisfaction with the KBO ($R^2 = .339$). In terms of specific influences, all three factors were significant predictors of satisfaction (refer to Table 5).

Table 4. Results of the Measurement Model in Study 2

Factors	Items	β	M	SD	AVE	α
Equality	EQUAL 1	.84	5.12	1.01	.50	.66
	EQUAL 2	.73	4.32	1.12		
	EQUAL 3	.51	2.35	1.21		
Equity	EQUIT 1	.92	5.52	.74	.64	.81
	EQUIT 2	.44	3.36	.98		
	EQUIT 3	.88	5.21	1.00		
	EQUIT43	.87	5.32	.88		
Need	NEED 1	.78	4.38	.93	.52	.79
	NEED 2	.56	3.94	.94		
	NEED 3	.81	4.44	.81		

Table 5. Relationship between the Distributive Justice Scale and Satisfaction

Factors	B	SE	β	t
Equality	.349	.048	.321	7.27***
Equity	.401	.043	.389	9.24***
Need	.274	.049	.241	5.59***

** $p < .01$; *** $p < .001$

Discussion

Since Hums & her colleagues (1994a, 1994b) first initiated research on whether resources are distributed fairly in the sports environment in the early 1990s, research on distribution justice has been actively progressing. Most of the earlier research was conducted within the realm of collegiate athletics. However, it is anticipated that perceptions of fairness concerning resource allocation decisions in intercollegiate athletics will significantly diverge from those in professional sports. This discrepancy primarily arises from the distinct structures and priorities inherent in these two segments of the sports industry. Consequently, the present research aimed to adapt a distributive justice scale originally designed for intercollegiate athletics to the context of professional sports and examine its validity and reliability.

Based on the obtained results, it is evident that the distributive justice scale, adapted in the current research, maintains its psychometric validity and reliability even in the context of professional sports. This consistency aligns with the findings of most previous studies within the realm of sports (Dittmore et al., 2009; Kim et al., 2008; Mahony Riemer, Breeding, & Hums, 2006). Moreover, the scale retains its multidimensional, three-factor structure, affirming the characteristics of the earlier distributive justice scale, even though the number of subprinciples (items) has been reduced following an item evaluation process. Subprinciples which were not applied in the current study such as ability and revenue generation were related to equity principle. However, in the future research, it is necessary to include these two principles as well, as it is reasonable for sport teams that contribute more financially to the professional league or have greater capabilities to receive more financial support from the league.

Next, the subprinciples concerning equality and need, which were incorporated in this study, mirror those found in prior research. However, aside from these, considering the potential for additional subprinciples, future research should endeavor to identify any potential new subprinciples related to equality and need. Lastly, fairness perceptions can be measured from three perspectives within the framework of organizational justice: distributive justice, procedural justice, and interactional justice. Therefore, future research may need to consider the other two perspectives of organizational justice when measuring perceptions of fairness in resource allocation.

Conclusions

It is concluded that the distributive justice scale adapted in the current research was a psychometrically reliable and valid measurement tool suitable for a professional sport context. The distributive justice scale consisted of three factors with 10 items. It is plausible that different principles of distribution justice can be applied based on the characteristics of each professional sport. Taking this into account, it is necessary to apply the distributive justice scale adapted in the current research to various professional sports leagues, which can potentially generalize the research findings.

Conflicts of interest

No potential conflict of interest was reported by the authors.

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