

ORIGINAL RESEARCH ARTICLE

The Relationship between Perceptions of Cohesion and Individual Performance among Professional Players of the National Basketball League Indonesia

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ABSTRACT

This research sought to reveal perceptions of cohesion amongst professional athletes who play at the highest level of basketball in the National Basketball League (NBL) Indonesia, and the relationship of those perceptions with individual performance. The participants comprised 131 professional players from all 12 teams of the league. The Group Environment Questionnaire (Carron et al., 1985) was translated into Indonesian and used to measure the perception of cohesion, while notational analysis of individual game statistics provided data on the players' individual performance levels. Statistical correlation analysis found no significant relationship between perceptions of cohesion and individual performance among the sampled players, $r = 0.066$, $n = 131$, $p < 0.05$, one tail. This finding suggests that perceptions of cohesion and individual performance are not necessarily related for professional basketball players in Indonesia and that other factors influence the two variables.

Keywords: Perception of cohesion, Individual performance, Professional athlete, National Basketball League Indonesia, Basketball.

INTRODUCTION

A twist of the NBL Indonesia Final Championship Series Season III 2013/2014 presented an interesting result that showed how dynamic a basketball game could be. Team Aspac beat Team Satria Muda, the champion of the regular season by 16 points. Indonesian star players supported Satria Muda while Aspac could not perform to its potential due to injuries of their main players during the regular competition season. However, team Aspac successfully won the Championship title over the strongest team in the league. A similar case occurred in the United States NBA during the 2004 Championship Series when the Detroit Pistons surprisingly won against the Los Angeles Lakers. One of the comments from an NBA senior player, Oscar Robertson (2004) as quoted in Cox (2012) stated:

“When the Pistons won, I thought there might be hope yet for the National Basketball Association. A group of virtual unknowns who played together as a team beat a more talented team built around four superstars. How old-school can you get? There's an art to putting together a team. It isn't just a matter of having talent at each position, or matching up with other teams position by position. The players have to be able to play the game, to want to play together, to be willing to pick one another up and to be capable of making intelligent decisions.”

The above statement clearly accentuated how compelling and unpredictable a game could be with lots of different elements that affect players' performance. As indicated previously, a team does not necessarily consist of star players to win competitions; it is as important to consider building a team into a cohesive

unit to pursue the team's objectives. Basketball as a team sport falls under the interactive dependent type of sport, characterized by a high dependency among the team players in achieving success, as success is a result of team effectiveness (Widmeyer and Williams 1991; Hodge, 1995; Hagger and Chatzisarantis, 2005).

Furthermore, due to its collective nature, it is assumed that team performance consists of the individual performances of its players. According to Bray and Whaley (2001), individual performance is an objective and sensitive measurement that effectively shows the level of performance. Moreover, there are various factors that affect performance. According to Ramzaninezhad et al. (2009), there are interpersonal factors such as concentration and attention (Hutchinson and Tenenbaum, 2007; Stanley et al., 2007; Tenenbaum and Connolly, 2008), anxiety (Cazenave et al., 2007), mood (Lane et al., 2004) and situational factors such as cohesion (Carron et al., 1998), social facilitation (Zajonc, 1965, in Cox, 2012), and collective efficacy (Kim and Sugiyama, 1992, in Cox, 2012) that influence performance.

This research focused on cohesion as one of the situational factor that influences performance. Carron et al. (1985) defined cohesion as a dynamic process that is reflected in the tendency of a group to stay together and unite in achieving the group's instrumental objectives and/or for the satisfaction of team member affective needs. Carron and Dennis (2001) proposed that the multidimensional perception of a team is constructed and integrated into two dimensions: Group Integration (GI) and Individual Attraction to Group (ATG). GI represents an individual's perception of the team as a whole unit, set, or group while ATG represents an individual's attraction to other members of the group. Moreover, there are two dimensions to see the level of unity in a group that are shown in two ways: the relationship with a group's task and social aspects of the group. According to Cox (2012), task cohesion is how far can team members cooperate to achieve specific objectives while social cohesion is how team members favor each other and feel personal satisfaction at being a part of the team. Furthermore, the conceptual model of team cohesion (Carron et al., 1985) consists of four dimensions: (1) GI-S (Group Integration – Social); (2) GI-T (Group Integration- Task); (3) ATG-S (Attraction to Group – Social); (4) ATG-T (Attraction to Group – Task). However, there are factors that influence perception of cohesion such as personal, team, leadership, and environmental factors (Carron, 1982 in Cox, 2012). For personal factors, personal satisfaction is the strongest predictor that influences perception of cohesion (Widmeyer and Williams, 1991). For team factor: several things such as communication, team goals, and the importance of achieving the team goals (Cox, 2012).

In an attempt to determine the relationship between perception of cohesion and performance, various researches have been done. Lenk (1969) found that perception of cohesion could only be found in small groups that have low level of conflicts or in the case of a very integrated group. Landers and Lüschen (1974, in Carron et al., 2002) as well as Carron and Chelladurai (1981, in Carron et al., 2002) suggest that types of sport act as a moderating variable in the relationship between perception of cohesion and success, due to their finding that cohesion was associated with team success, and associated with team success in interactive sports (such as volleyball, football, basketball). Furthermore, Peterson and Martens (1972, in Heuzé et al., 2006) undertook a study with 1200 male basketball athletes from 144 teams. The result revealed that teams with high perception of cohesion won more matches compared to teams with low perception of cohesion. Therefore, it can be assumed that in an interactive sport like basketball, the relationship between the perceptions of cohesion (independent variable), with success measured from an individual performance (dependent variable) was assumed to be stronger.

However, according to Gill (1980), empirical evidence does not consistently support the assumption that perception of team cohesion will win more matches. Gill (1980) stated that several studies have found a positive relationship, but other studies have failed to support this relationship. Several studies have

reported that there are negative relationships between perception of cohesion and team success (Gill, 1980). Consequently, in order to understand the complexity of the relationship between cohesion and success, a significant study was undertaken by Carron, Coleman, Wheeler, and Stevens (2002, in Heuzé et al., 2006). They published a meta-analysis that supported the relationship between perception of cohesion and performance. This meta-analysis was an important milestone as it successfully showed the power of the relationship between perception of cohesion and athletic performance in various situations and conditions from 1967 up to 2000 (Cox, 2012).

According to the meta-analysis: (1) a study that uses the General Environment Questionnaire (Carron et al., 1985) as an instrument shows stronger results in the relationship between perception of cohesion and performance in men than women; (2) there is a slightly stronger relationship in task cohesion than social cohesion towards performance; (3) there is a stronger relationship with subjective performance evaluation rather than objective performance evaluation (Cox, 2012). Thus, Carron et al. (2002, in Heuzé et al., 2006) concluded that there is a significant positive relationship between perception of cohesion and performance, as both perception of task and social cohesion was found related with performance. Furthermore, it is believed that there is a stronger relationship between perceptions of cohesion with performance in interactive sports compared to coactive sports (rowing, golf, and bowling). However, the relationship was not shown clearly in the meta-analysis (Cox, 2012). In addition, perception of cohesion was concluded as a vital aspect of team performance effectiveness despite the inconsistent findings of the relationship between perception of cohesion and performance (Carron, 1988 in Hodge, 1995).

Therefore, based on the literature, this study aimed to determine whether athletes' perception of cohesion has a relationship with an athlete's individual performance. This study focused on Indonesian professional basketball players' who play in the highest level of the national league, NBL Indonesia. Garcia et al. (2013) stated that limited research has analyzed performance in a competition phase and never at the highest level of competition in basketball. In addition, professional athletes were considered a unique group as their quality of performance differs from the nonprofessionals (Heuzé et al., 2006; Jarvis, 2006). Mullen and Cooper (1994) add that the effect of cohesion on performance is enhanced in situations occurring within real/actual group setting compared to a group created for experimental purposes. Accordingly, this study was undertaken with professional basketball teams in Indonesia. Moreover, as pointed out by Carron et al. (2002), a small sample size with fewer than eight teams can compromise the statistical strengths of the research. Hence, this study was carried out with all 12 teams that participated in the league.

METHODS

Participants

The participants were professional basketball players from the 12 teams that participated in the NBL Indonesia. "Professionals" were defined as players who had official contracts and received a salary from their team. All respondents were males ranging in age from 18 to 38 with mean age of 25.59 years old ($n = 131$, $SD = 3.967$) with a total of 61 participants who were 21-25 years old; 43 participants were 26-30 years old; 17 were 31-35 years old; 9 were in the 18-20 year group; and 1 player was in the 36-37 year bracket. Data were collected from those who had played more than five games during the competition season in the period that preceded data collection. Information of the participants' playing experience based on the number of years they had been playing for their current team was gathered. Overall, 29 players (or 22.1%) had one year of experience; 37 participants (28.2%) had played for 2 years; 15 participants (11.5%) had played for 3 years; 12 players (9.2%) had been with their team for 4 years; and 38 players (29%) had been with their team for 5 years.

There are 12 teams in NBL Indonesia, and each team has a minimum of 12 main players on the roster. From 144 respondents, 139 questionnaires were used for data analysis because 5 respondents do not have their individual statistics data posted in the NBL Indonesia website. Furthermore, from the 139 questionnaires, 8 respondents had to be eliminated since they had played less than 5 games preceding the data collection period; hence unfit with the participant's criterion of the research. Therefore, 131 questionnaires were used in this research. In the sample of participants, 12 players (or 9.2%) were recruited from each of Aspac, Bandung Utama, CLS Knights, Garuda, Pelita Jaya, and Satria Muda; 11 players (8.4%) were members of Hangtuah; 10 players (7.6%) came from each of Bimasakti, GMC, Pacific, and Stadium; and 9 participants (6.9%) played for Satyawacana. According to Guilford and Fruchter (1978), the number of respondents has fulfilled the minimum respondents criteria to reduce the skewed distribution in data frequency distribution.

Measures

Cohesion

The Group Environment Questionnaire (GEQ: Carron et al., 1985) was used to measure the players' perception of cohesion. This questionnaire consists of 18 items that address four aspects of cohesion: (1) individual attraction to the group-task (ATG-T) which contains four items, such as "I do not like the minutes of play that were given to me"; (2) individual attraction to the group-social (ATG-S), which consists of 5 items such as "a few of my best friends are in this team"; (3) group integration-task (GI-T), which has 5 items such as "all members of the team are responsible for lost games or bad team performances"; and (4) group integration-social (GI-S), with 4 items such as "our team members want to spend time together during the off season". The questionnaire uses a Likert-type scale with the range of response options from 1-9, where (1) equals "Strongly Agree" and (9) Strongly Disagree".

Performance

In order to measure the players' performances, measures based on individual statistical scores accumulated within one half of the regular competition season of NBL Indonesia were utilised. The part of the season that was used in the analysis began on 3 December 2014 and ended on 12 April 2015. The regular season is comprised of ten series that are held in different cities across Indonesia: Jakarta, Bandung, Malang, Surabaya, Batam, Solo, Semarang, Yogyakarta, Bandung, and Surabaya. Data collection was done after the fifth series in the middle of the regular competition season. Performance analysis was measured by the researcher by gathering each player's game notational statistics provided in the NBL Indonesia website. Data was computed to Microsoft Excel and analysed with the performance effectiveness equation formulated by Heuze et al. (2004). It analyses an individual's notational statistics to derive a total score of performance effectiveness as follows. $\text{Performance} = (4 \times \text{successful 3-points shot} + 3 \times \text{successful 2-points shot} + 2 \times \text{successful free throws}) - (\text{number of 3-points shot attempted} + \text{number of 2-points shot attempted} + \text{numbers of free throw shot attempted}) + (\text{number of offensive rebound} + \text{number of defensive rebound} + \text{number of steals per game}) - \text{number of turnovers per game}$. A higher total score means a higher performance level by the player. According to Lorenzo et al. (2010, in Garcia et al., 2013), basketball is one of the sport disciplines that is frequently analyzed through notational analysis, as underlined by the popularity of game statistics analysis coaches, players, and researchers.

Procedure

Before a test of the questionnaire was undertaken, it was translated from English to Indonesian by two experts in the field through back-to-back translation, as one expert translated the questionnaire into Indonesian, then the other back-translated the first expert's Indonesian version to English to derive a final version. Furthermore, the translated version underwent validity testing of expert judgment by two experts

in the field and the feedback ranged from advice to revision of the wording, simplifying the format, and improving the questionnaire to make it easier to understand. Next, in order to test readability, the questionnaire was given to five professional basketball players who met the eligibility criteria of the research. The purpose was to see whether the instrument was clearly understood by the respondents, so that it could measure the perception of cohesion correctly. Feedback from the readability test was used to correct the instructions and the wording of the items.

Before the questionnaire was distributed to the players', the researcher contacted team management from the 12 teams to explain about the research and ask permission for player participation. After permission being granted, the researcher distributed the questionnaire to the players; the results were collected and entered in Microsoft Excel along with the players' individual statistics gathered from the website of NBL Indonesia. The result of the questionnaires underwent reliability testing to test cohesion, and showed a Cronbach Alpha score of 0.821 from the eighteen items in the questionnaire. This indicated that the instrument had a high internal consistency for perception of cohesion. Furthermore, the collected data that was entered in Microsoft Excel was processed with the SPSS 13.0 software package. Statistical methods used in the data analysis included descriptive statistics to reveal frequency, standard deviation, and mean from each variable. This was followed by Pearson product-moment correlation analysis to determine the significance of the relationship between the two variables—perception of cohesion and individual performance.

RESULTS

The Pearson product-moment correlation test was used to determine the relationship between perception of cohesion and individual performance. The analysis indicated that there was no significant relationship between the two variables, $r=0,066$, $n=131$, $p>0,05$, one tailed. As a result, the null hypothesis was accepted and the alternate hypothesis rejected. The finding suggests that perception of cohesion has no relationship with individual performance in professional players of the NBL Indonesia. As a delimitation of this study, these findings only apply to the professional athletes who play in the NBL in Indonesia.

DISCUSSION

The main objective of this research was to examine the relationship between perception of cohesion and individual performance amongst professional basketball players. A correlational analysis was undertaken and the result of this study provided no evidence of a relationship between perception of cohesion and individual performance in Indonesia's professional basketball players'. This result is inconsistent with theory and research that supported the relationships between individual performance and perception of cohesion (Carron et al., 1985, 2002), suggesting that other factors influence personal performance ratings instead of feelings of cohesion.

This research supports the argument that the relationship between success and perception of cohesion is more complex than what it appears to be, as previous research found that assumptions were not always valid (Gill, 1980; Hodge, 1995). In addition, basketball was stated to be the most complex sport discipline for its group interdependency aspect (Pescosolido dan Saavedra, 2012). Furthermore, the direction of causality of relationship between perception of cohesion and performance were considered a difficult issue to solve (Cox, 2012). Both possibilities of cohesion resulting in performance or successful performance creates cohesion contributing to the complexity of its causality. Besides, as mentioned earlier, professional athletes were considered a unique group that has different quality of performance compared to the non-professionals and limited research has been done to analyze performance in the highest level of competition in basketball (Heuzé et al., 2006; Jarvis, 2006; Garcia et al., 2013).

Therefore, this research contribution suggests that in Indonesia's professional players who played at the highest level of competition during the ongoing regular competition season, perception of cohesion was found to have no significant relationship with performance.

CONCLUSION, FUTURE PERSPECTIVES AND LIMITATIONS

In conclusion, this research found no significant relationship between perception of cohesion and individual performance for this sample of professional basketball players. However, there are limitations that leave room for improvement in future research. The validity of the perception of cohesion instrument was done through the expert judgment method only. No other validity testing techniques that could provide a validity coefficient were undertaken; therefore future research should consider including other methods of validity testing. Moreover, as the collected data is based on actual conditions, the researcher did not control other factors that might affect this research. Further research could apply control over variables that might affect the relationship between individual performance and perception of cohesion, for example players' individual skills. Therefore, this research only collected data in the middle of the regular season. There was no measurement of cohesion and performance in the beginning and the end of the competition season; hence the research does not showcase the dynamics of perception of cohesion and individual performance during the entire competition season. This could also be addressed in future research. In addition, further study could also expand the level of participants, such as semi-professionals and non-professional players and using individual and team-level performance evaluations.

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