

Comprehensive Performance Measurement System (CPMS) and Satisfaction of Malaysian Football Players: A Mediating Role of Coaching Leadership Style

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Abstract

This study to examine the relationship between Comprehensive Performance Measurement (CPMS) and football player satisfaction that mediated by the role of coaching leadership style. Structural Equation Model (SEM) through the PLS Smart Modeling is used to verify the construct and reliability as well to test the hypothesis. There were 330 professional football players from the Super League and Malaysia Premier League involved in this study.

This finding showed the autonomy-supportive coaching leadership style acts as a social factor was fully internalized towards intrinsic motivation has a positive and significant impact on the relationship between CPMS and the satisfaction of the football players. This is based on the self-determination theory, comprising three basic psychological needs namely autonomy, relatedness, and competence that can influence players' satisfaction and enhance their individual performance. This research may help the football club and state association to standardize control over the football players' behaviour by preparing various sets of regular physical activity measurements and performance evaluation records that may be able to help produce quality players with high discipline. The coaching style may raise the players' satisfaction and increase the performance of the football team.

Keywords: Comprehensive Performance Measurement System, Football Player Satisfaction, Coaching Leadership Style, Self-Determination Theory

Introduction

The effectiveness of the Performance Measurement System (PMS) is one of the important factors that carry the success of an organisation. PMS is a set of processes and mechanisms used by an organisation to identify the main objectives and support the implementation of the action, planning, measurements, control, rewards and learning (Ferreira & Otley, 2009). PMS plays two main roles which are (1) as an instrument for strategic implementation and to ensure the planned actions are concurrent with the organisation's goal achievements (Anthony & Govindarajan, 2007; Chenhall, 2005; Tuomela, 2005), and (2) as a motivation control device to affect the individual's peak behaviour, which will ease the organisation's goal achievement (Chenhall, 2003; Hall, 2008; Lau & Solihin, 2005). PMS is widely used in the industrial, service, and government sectors, and has shown that it impacts not only the organisation's performance (Adams et al., 2014; De Geuser et al., 2009; Grafton et al., 2010; Lee & Yang, 2011; Zaitul et al., 2014) and

even influences individual worker's performance (Aboshnaf, 2015; Burney & Widener, 2007; Hall, 2011, 2008; Zarinah & Che Ruhana, 2015, 2014). However, in the sports sector, empirical PMS research is very limited even though there is a high level of need, especially for football.

In this research, the high demand for PMS in football is motivated by the uncertain performance factor that is related to the various emotions of the player such as worry, frustration, pressure, and feeling unmotivated which affect individual performance (Séve et al., 2007), which leads to influencing the entire team's performance during competition. PMS is seen as important in an unpredictable environment as a mechanism to reduce uncertainty in decision making (Chenhall, 2007). The usage of PMS helps managers to control behaviour, communicate, and motivation so that there is an effort to maintain peak form (Simons, 2000; Ubada & Santos, 2007). As a motivational control tool, PMS can influence the football players' behaviour to strive for the best and consequently ease their teams' success. The

uncertain performance of Malaysian players is filled with weak players, uncertain team position, frequent changing of coaches, emotions and pressure due to pay backlog where some are not even paid, and these are seen as signs that player dissatisfaction contributes towards the decline of players' performance. CPMS is seen as a system that is capable of providing performance information based on the behaviour and needs of the football players. The CPMS characterised by the basic psychological needs of autonomy, competence and relatedness can raise the self-determination of the player (which is intrinsically motivated), when these needs are fulfilled concurrently with more comprehensive performance information can be provided. Next, it encourages the increase of the happiness and satisfaction of the players. Self-determination theory and the integrated motivational approach such as the proposed model by Vallerand and Losier (1999) is used in this research to explain the relationship between CPMS and the football player's satisfaction which is also influenced by the mediating variable which is the social factor of the leadership style of the coach.

Self-determination Theory

The self-determination theory asserts that humans have the natural tendency towards the intrinsic growth and motivation, where this intrinsic motivation and wellbeing require the fulfilment of three basic psychological needs namely (1) autonomy (2) competency and (3) relatedness (Deci & Ryan, 2000; Gagne & Blanchard, 2007; Gagne & Deci, 2005; Ryan & Deci, 2002). Players' wellbeing in this study is measured with a positive effect and the satisfaction in sports which is player satisfaction. When CPMS containing comprehensive information of players' performance characterising needs of autonomy, competency and relatedness is used more comprehensively, the players' self-determination increases in line with the fulfilment of the needs. Next, it encourages the players' increased satisfaction. Thus, it is expected that there is a direct relationship between CPMS and player satisfaction.

The self-determination theory also states that intrinsic motivation can be increased (or weakened) by social factors (which is the environmental variable) encouraging all the three needs (Deci & Ryan, 2000). In this study, the environmental variable is a coach leadership style that influences the extrinsic motivation. Based on the integrated motivation approach, Vallerand dan Losier (1999) state that this social factor can

facilitate the organismistic integration process (the continuum of extrinsic motivation internalisation to intrinsic motivation) towards increasing self-determination and satisfaction of the psychology basic needs of autonomy, competency and relatedness are fulfilled. Coach leadership style is identified as the identification regulation extrinsic motivation (Mageau & Vallerand, 2003) which, through full internalisation can increase players' self-determination. In this vein, the self-determination that has existed with the availability of the comprehensive performance information based on basic psychological needs in CPMS can be increased with the environmental variable through the internalisation process, making the external behaviour (for example extrinsic motivation) more autonomous (intrinsic motivation) leading to player satisfaction at the same time achieving the best performance. Thus, it is expected that the coach leadership style becomes the mediating variable between CPMS and player satisfaction.

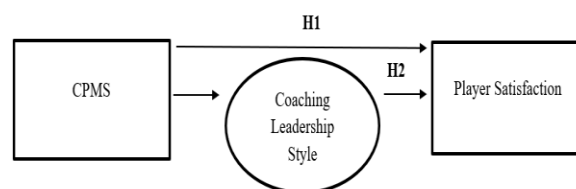


Figure 1: Conceptual Framework and Hypothesis

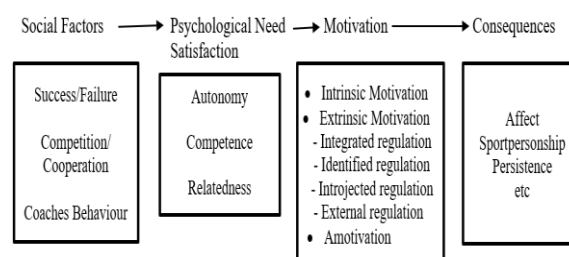


Figure 2: Model of Integrated Motivation based on Self-Determination Theory

Sources: Vallerand and Losier (1999)

CPMS and Player Satisfaction

Player satisfaction is closely linked with their performance. According to Fraser et al. (2008), the players' level of satisfaction influences their involvement in sports, where players are more satisfied with the entire experiences and the performance that is less likely to be eliminated from the sports. According to Chelladurai et al. (1988) and Petty et al. (1984) performance is the most important resource to player satisfaction where the standard performance will be different according to their level of satisfaction. Extensive studies on the satisfaction of the athletes have shown that there is a high correlation between players' satisfaction and performance. Among

them, Cranny et al. (1992) measure the level of players' satisfaction that is related to excellent performance and effective organisational management, and also Lorimer (2011) that shows a significant relationship between player satisfaction and performance. Eichas (1992), Hardy and Crace (1991), Klint and Weiss (1987), and Williams and Hacker (1982) state that player satisfaction is found to be linked with the effort, willingness and performance, and Riemer (1995) maintains that the main beneficiary of sports organisations is the athletes/players and their satisfaction is seen as the prerequisite that displays higher performance.

Various issues in the football sports industry have been topic for heated debate among the people in the society, especially related to the abandoned players' welfare, lack of compatibility and cooperation among the players in the team also the coaching aspect that is distracting that they become the causes for the performance uncertainty, and further leading to them failing to display the best actions. The failure in fulfilling the needs of the players is the precursor for the dissatisfaction and this affects performance. According to Chalofsky (2003), the satisfaction level will decline when emotional disturbances come into the picture, such as the threat from the management – this steals the fun or enthusiasm for the players to perform well. Thus, players must strive to have positive emotions like happiness and calm in increasing their satisfaction to achieve optimal performance, rather than having negative emotions leading to dissatisfaction or weak performance (Lane et al., 2010). Players who are happy with the acknowledgement, progress, responsibility, hospitality, coach and teammates' support and work environment are likely to work harder and improve the performance. Happy players will also reduce their absence from training, fatigue and surrender. The outcome of empirical studies shows that players' performance is very much influenced by coaches leadership behaviour, team cohesion and athletes' satisfaction (Coffman, 1999).

To date, there has yet to be a study that sees the use of PMS on athletes' or players satisfaction. Only empirical studies involving PMS and job satisfaction have been carried out where PMS preparation with feedback and complete information has given a positive impact on every individual's motivation and satisfaction at work (Aboshnaf, 2015; Haslina et al., 2012; Lau & Martin-Sardesai, 2012; Lau & Oger, 2012; Lau & Sholihin, 2005). Lau and Martin-Sardesai (2012) show that the CPMS through the Balance Score

Card (BSC) and the additional dimension covering all important aspects in business has increased job satisfaction and motivation that have become the main prerequisite in the increased work performance. CPMS used has helped enhance the efforts of the employees and reduce uncontrollable situations that can influence the satisfaction and performance of the employees in achieving organisational goals. The study by Lau and Sholihin (2005) also proves that PMS based on financial and non-financial measurements is equally important to job satisfaction. The right PMS and complete preparation of information can give a positive impact on every individual's work motivation and satisfaction. The study by Haslina et al. (2012) also shows that financial measurement relates significantly with job satisfaction and it also influences individual performance. The study by Lau and Oger (2012) shows that the effect of justice in evaluating the employee's procedure towards job satisfaction is indirect through the justice and trust of the superiors. Also, according to Kalgin (2017), the employees from civil servants with implemented of PMS are more satisfied with their jobs, demonstrate lower turnover intention, and are more result-oriented. These employees also show higher organisational identification and have a clearer vision of organisational goals. While Souza and Beuren [2018] also stated that the use of an enabling PMS could contribute to the balance needed in companies between levels of formal controls to obtain employee job satisfaction and task performance. Based on the previous findings of the above studies involving individual employees shows that PMS has been used by varieties of company and organisation around the globe had enhanced the efficiency and the productivity of the employees with a greater level of satisfaction.

Based on the previous findings of the above studies involving individual employees, the use of PMS in the sports sector as the tool of performance evaluation is expected to monitor and motivate individual players to help achieve satisfaction and excellence in sports. The formation of CPMS based on the definition by Hall (2008) is seen to suit the studies done in the sports sector. CPMS in football prepares comprehensive information in the performance evaluation that can increase the players' self-motivation the basic fulfilment of the autonomy, competency and relatedness. The readiness of the performance information is more comprehensive in PMS and its use in the performance evaluation can encourage footballers to behave and to become motivated, and this increases satisfaction.

CPMS characterising needs of autonomy, competency and relatedness, when the information is more comprehensive, it can fulfil the basic needs and further increase the players' self-determination leading to their increased satisfaction. Thus the following hypothesis is formed:

H1: There is a positive relationship between CPMS and the football players' satisfaction

CPMS, Coaching Leadership Style, and Player's Satisfaction

Previous research based on the industrial, business and service industries shows that PMS influences the style of leadership of the management which has an impact on the workers' performance. Abernathy et al. (2010) found that the usage of PMS as a control tool and planning in giving reparation and recognition has a relationship with the structural emphasis on leadership style by being responsible in giving the order to operational workers to perform their specific task until the goal has been reached. Bititici et al. (2004) found that organisational culture, leadership style, and performance measurement are interlinked among one another. Companies need an organisational culture that focuses on continuous improvement and measuring strategic performances. The results of their study show that the success from PMS implementation brings about an increase in leadership style participation and consultation, leading to a change in the organisational culture that brings about improvement in performance. Ukko et al. (2007) on the other hand found that even though the usage of performance measurement is successful, it does not guarantee a betterment in leadership style. The findings of this research show that using PMS will increase internal activity between the management and workers that allow for an increase in performance. PMS, however, needs to take into account social aspects and leadership cultures.

In the sports field, coaches play an important role in the development of the athlete's performance (Mallet, 2003; Lim et al., 2013) and they exert a big influence in creating enjoyment, satisfaction, and the athlete's continued participation (Ehsani et al., 2013; Lim et al., 2014). The study by Karim (2019) indicate that feedback given by coaches gives the players the opportunity to learn something. Furthermore, Lameiras (2017), stated that coaching behaviors congruent with the athletes' individual needs and adapted to the situational demands may promote prosocial behavior. As the upper management or

supervisors, coaches are also responsible for the performance appraisal for individuals under their care where the players and the coaching leadership style is expected to influence the usage of PMS on the player's satisfaction. According to Karim (2018) the performance of the athletes is indirectly affected by the coach attitude towards his roles and responsibilities.

The coaching leadership style in the sports industry refers to a process whereby the coach's behaviour influences the individual players and team as a whole in achieving their target. Coaching leadership style and effectiveness of the message delivery needs to be suited to each player in the team (Karim et. al, 2019). Previous empirical studies have shown a positive and significant correlation between the coaching leadership style and the player's satisfaction in the sports sector (Anuar et al., 2015; Ali Gouya et al., 2014; Lindberg, 2013; Yeganeh et al., 2014).

There are two behavioural dimensions identified in coaches under the self-determination theory, which are autonomy-support style and controlling style (Deci & Ryan, 1987). Autonomy-support coaches are seen to be more understanding, rational, and encourage athletes to make their own decisions (Deci & Ryan, 1987; Mageau & Vallerand, 2003), and this interactional style is assumed to provide satisfaction for basic psychological needs. Coaches that practice a more controlling style, however, show a more pushy and autocratic attitude where this obstructs the athlete's need to fulfil their basic needs which can then eventually lead to negative behaviour (Bartholomew et al., 2010; Deci & Ryan, 2000). The four types of leadership styles by coaches that are pinpointed by Chelladurai and Saleh (1980) under the autonomy-support style are the coaching leadership style in training and instructing, democratic behaviour, positive feedback, and social support. Autocratic behaviour fits the controlling style. Autonomy-support coaches are found to increase the athlete's self-determination and vice versa; controlling coaches weakens the athlete's self-motivation (Amorose & Anderson-Butcher, 2007; Conroy & Coatsworth, 2007; Gagne et al., 2003; Pelletier et al., 2001).

In the context of evaluating the player's performance, CPMS is pictured as a performance information system and setting trusted standards that can fulfil a basic psychological needs of autonomy, competence and relatedness. These psychological needs can increase intrinsic motivation which is the self-determination of players that will lead to increase their satisfaction.

The coaching leadership style, however, is an extrinsic motivation that can increase or decrease the athlete's self-determination. The chosen leadership style by the coach can increase the athlete's self-determination when the athlete's basic psychological needs are met by giving coaching and team supervision, and this is known as identified regulation where activities that are run are appreciated and worthwhile when good performance is achieved. The autonomy-support leadership style characteristics include being considerate, understanding the athlete's emotions, and giving chances during the decision making process as suggested under the coaching leadership style by Chelladurai and Saleh (1980) as extrinsic motivation is a fully welcomed engagement value in activities by the players. Further on, the internalisation process is directed towards intrinsic motivation with the increase in the self-determination motivation, thus reaching the satisfaction and happiness of the players. However, the controlling style is characterised as giving commands and is intolerant just as how autocratic leadership styles cause athletes to be depressed and forced to endure the said activity. This controlling style decreases the athlete's self-determination and is classified as an extrinsic motivation for external regulation (Deci & Ryan, 1985, 2000).

CPMS that is based on the basic psychological needs of autonomy, competence, and relatedness is expected to be able to control behaviours and motivate the players as well as accompanied by catalytic motivational leadership style by the coach to help improve their self-determination as well as to influence their satisfaction to ensure overall excellence. This is because the CPMS is expected to be useful for football players to increase their self-determination and motivate themselves, alongside effective coaching behaviours to ensure football players can achieve maximum satisfaction and desired performance. A coach with autonomy-supportive leadership style is shown to be able to fully internalise their ability to stimulate the player's basic psychological needs with CPMS to become a part of their intrinsic motivation that increases the level of the player's self-motivation leading to a rise in their level of satisfaction. On the other hand, controlling leadership styles obstruct the fulfilment of the player's basic psychological needs by decreasing their self-determination which is then shown in their lower level of satisfaction. Due to this, the following sub-hypotheses are formed:

H2a: Autonomy-support leadership coaching style mediate the positive relationship between CPMS and football players' satisfaction

H2b: Controlling leadership coaching style mediate the negative relationship between CPMS and football players' satisfaction

Research Methodology

Research Design

This research uses the quantitative approach with reviews through questionnaires. This research uses the sampling technique as opposed to probability by using directed techniques whereby a target group has specific characteristics and the most suitable ones are chosen as research respondents. Football players from clubs or state associations who compete in Super League and Premier League are chosen as research respondents. Both leagues are the main professional football leagues playing in Malaysia. Every football league has 12 teams that have to undergo a process involving players' professionalism and infrastructure facilities to ensure that professional standard game patterns are displayed by the competing teams. Seeing the Super League and Premier League are the main football leagues in Malaysia, there is a need for PMS to provide comprehensive information to ensure that each team from either clubs or state associations succeeds in giving their best performance through the control and motivation given to the football players. Furthermore, professional players from the club or state association that compete are under a payroll, making their performance evaluation a form of control mechanism using PMS as an example for something which is critical and is expected to be fully utilized.

Table 1 shows a list of clubs and state association football teams that competed in Super League and Premier League. Every club/state association has a total of 25 registered players that encompass main and reserve players. There are 11 main players and 14 reserves. Therefore, it is estimated that there is a total of 600 football players when taking into account both main and reserve players. From this total, 330 football players have responded to the questionnaire that was distributed, all together getting 55% rate of response. The questionnaires were distributed to each player, and the researcher oversaw the entire process of answering the questionnaires and helped confused players and those who did not understand items in the questionnaire. Each player was given 45 minutes to complete the questionnaire and the researcher

ensured that each player returned the completed questionnaire.

Table 1: List of Super League and Premiere League football teams

No	Super League	Premiere League
1.	Pahang FA	Polis Diraja Malaysia (PDRM) FA
2.	Selangor FA	KL Felda United FC
3.	Johor Darul Ta'zim FC	Negeri Sembilan FA
4.	Terengganu FA	Kedah FA
5.	Perak FA	Johor Darul Ta'zim II FC
6.	Sarawak FA	Sabah FA
7.	KL Sime Darby FC	KL S.P.A PutraJaya FC
8.	Kelantan FA	KL DRB-Hicom FC
9.	Selangor PKNS FC	UiTM FC
10.	Terengganu PBDKT/ T-Team FC	Perlis FA
11.	Angkatan Tentera Malaysia FA	Pulau Pinang FA
12.	Lions XII FC	Pulau Pinang PBAPP FC

Instrument

The CPMS instrument in this research sees how far the PMS used provides performance information concerning important aspects needed to increase motivation and behavioural control towards the football players. The items used in this instrument which were adapted to the sports field by using CPMS instrumentation by Hall (2008) include elements of basic psychological requirements needed by a player to increase his self-determination towards a better performance. Among them are providing an autonomous performance measurement such as muscle endurance test, flexibility, speed, and mental strength to ensure the player's peak performance. The player's competency is measured through monitoring and continued comparison which is recorded from time to time during the player's performance to reach the predetermined set level and objective. Good and positive relatedness between players, coaches, and management staff by providing basic living necessities and effective training infrastructure will help players to be more focused and can help to increase their performance. The CPMS items that were adapted to the sports industry were measured using a Likert scale between 1 (not at all) to 5 (to a great extent) where respondents will provide their views when taking into consideration performance evaluation.

The player's satisfaction is measured using an instrument that was developed by Riemer and Chelladurai (1998). Known as the Athlete Satisfaction Questionnaire (ASQ), this is an established instrument and is widely used for research in the sports field and sports management by Burns et al. (2012) and Anuar et al. (2015). This instrument measures the respondent's level of satisfaction towards 42 items that cover 11 dimensions using the 5-point Likert scale which

are 1 (very dissatisfied) until 5 (very satisfied). However, after running exploratory analysis factors on the players' satisfaction, this research used only five dimensions, which are ability utilization and individual performance, team performance, personal treatment and training instruction, team task contribution, and personal dedication.

As for coaching leadership style, a Leadership Scale for Sport (LSS) questionnaire that was designed and developed by Chelladurai and Saleh (1980) was used to measure autonomy-supportive coaching leadership style and controlling coaching leadership style with a total of 40 items. An autonomy-supportive style encompasses four items which are 1) training and instruction, 2) democratic behaviour, 3) positive feedback, and 4) social support. Autocratic behaviour, however, is referred to as the control style. Leadership Scale for Sport is an established measurement instrument and the five coaching leadership styles are frequently used in team sports such as football (Hassani Sangani et al., 2013; Mohades et al., 2015; Ramzaninezhad & Keshtan, 2009).

Data Analysis

The data received was analysed using Statistical Package for Social Sciences (SPSS) version 17 and SmartPLS version 3.0 SPSS version 17. The research hypothesis was tested using SmartPLS software using a measurement model and study the structuring model. The measurement model aims to strengthen and confirm measurements as well as the relationship between the variables which are made of confirmatory analysis, convergent and discriminant validity test, and reliability test. These tests are carried out at different stages of the measurement model. The structural model is implemented to determine the significant difference for every path coefficient between the independent variables and the dependant variables by using the research hypothesis.

Findings

The demographic representation of the respondents is shown in Table 2. A total of 330 football players from 18 clubs and state associations returned the questionnaire, making the rate of return at 73.33%. Players between the ages of 21 and 25 and those between 26 and 30 were shown to have almost similar percentages, each at 39.4% and 40.3%. Players over the age of 30 were at 14.2%, and those below the age of 20 were at 6.1%. The majority of the players were between

the ages of 21 and 30 (79.7%) which seem to be the normal age range of professional football players. The education level shows that the majority of the respondents finished high school, at 78.2%. Diploma holders were at 13.0%, 7.9% were shown to be degree holders, and 0.9% held masters degrees. Player category indicated that the majority of the respondents are local players at 95.2%, with only 4.8% being imported players. The massive percentage gap between local and imported players is due to the limitation imposed whereby each team is allowed only four imported players. Besides, some imported players are not fluent in English, let alone Bahasa Malaysia, making it harder for them to answer the questionnaires.

Table 2 shows that from a player position aspect, defenders have the highest rate at 37%. This is followed by mid-fielders with 29.7%; attack at 20.9%, and goalkeepers 12.4%. This percentage distribution between players' positions is almost similar to the usage of the tactical dimension system 4-4-2 to determine each player's playing position where four defenders, four midfielders, and two attackers are needed. More than half of the respondents (55.8%) have been playing football since the ages of 6-11. Respondents with less than five years of experience, between the ages of 12-17 and over 18 years are respectively at 19.1%, 18.2%, and 3.9% each. As the majority of the respondents were between the ages of 21-30, rationally their involvement in football is between 6-11 years.

Table 2: Respondents' demographic profile

Demographic characteristics	Category	No (n)	Percentage (%)
Age [Mean (SD) = 2.63 (0.801)]	≤20 years	20	6.1
	21 – 25 years	130	39.4
	26 – 30 years	133	40.3
	≥ 30 years	47	14.2
Level Of education [Mean (SD) = 1.32 (0.6550)]	School	258	78.2
	Diploma	43	13.0
	Bachelor Degree	26	7.9
	Master Degree	3	0.9
Player Category	Local	314	95.2
	Import	16	4.8
Player position	Striker	69	20.9
	Defender	122	37.0
	Midfielder	98	29.7
	Goalkeeper	41	12.4
The number of years playing football [Mean (SD) = 2.07 (0.726)]	≤ 5 years	63	19.1
	6 – 11 years	194	58.8
	12 – 17 years	60	18.2
	≥ 18 years	13	3.9
The number of years playing with current team [Mean (SD) = 1.61 (0.829)]	≤ 2 years	186	56.4
	3 – 4 years	102	30.9
	5 – 6 years	26	7.9
	≥ 7 years	16	4.8

Game status	Main player	134	40.6
	Injured player	19	5.8
	Reserve	138	41.8
	Others (Replacement player)	39	11.8
Total number of training hours per day [Mean (SD) = 1.38 (0.487)]	≤ 2 hours	204	61.8
	3 – 4 hours	126	38.2
Chief coach experience [Mean (SD) = 2.81 (0.985)]	≤ 5 years	22	6.7
	6 – 11 years	131	39.7
	12 – 17 years	65	19.7
	≥ 18 years	112	33.9

Table 2 shows that the majority of the duration in which the players are with their current team is less than 2 years or 56.4%. The period of 3 to 4 years is 30.9%, 5 to 6 years is 7.9% and 7 years above is 4.8%. A brief period with a club or state association is consistent with the profession where most of the professional players including those in Malaysia are often brought into new teams when the league season comes to its close. For the game status, the main players 40.6%, reserve players 41.8%, injured players 5.8% and others or those serving as substitutes 11.8%. Every club/state association is only allowed to register 25 players for every club and state association; 11 main players and 14 reserve players. It is found that two hours of training per day has the highest percentage which is 61.8%. Less than two hours of training is practised by most clubs/state football association because when the match season begins, players will only undergo low-intensity training to avoid injury and to keep having high stamina level, with the tight schedule every week. Football players are guided by qualified and experienced coaches where almost all coaches (93.3%) have more than five years of experience.

In general, the study respondents comprise of professional players from clubs/state associations competing in the Malaysian professional league. Most experienced respondents play professionally and they are guided by qualified and experienced coaches. The distribution of respondents is also consistent with the structure of the field play position and the player status. Thus, the respondents should be able to give correct answers to portray the use of CPMS in the club/state association, also the influence of coaching leadership style on their self-satisfaction.

The next study outcome shows that the hypothesis testing with the Structural Equation Modeling, SEM uses the software Partial Least Square (PLS). Five models are being tested. Model 1 was used to test Hypothesis 1 which is to test the direct relationship between the CPMS and the five dimensions of football players' satisfaction,

derived from the exploratory factor analysis. The mediating variable hypothesis for hypotheses 2a and 2b refers to Model 2, 3, 4 and 5. The mediating effect of the coach leadership style was tested on the relationship between CPMS and every player satisfaction dimension. The summary of the study hypothesis is presented in Table 3.

Table 3: The summary of the study outcome of the hypothesis testing on coach leadership style mediates between CPMS and football players' satisfaction

H1: There is a positive relationship between CPMS and football players' satisfaction					
Model	Path	Path Coefficient	Standard Error	t-value	R ²
Model 1	CPMS → Personal Treatment & Training Instruction Satisfaction	0.384	0.052	7.336***	0.147
	CPMS → Ability Utilization & Individual Performance Satisfaction	0.188	0.045	4.149***	0.035
	CPMS → Team Performance Satisfaction	0.284	0.051	5.588***	0.080
	CPMS → Personal Dedication Satisfaction	0.333	0.056	5.948***	0.111
	CPMS → Team Task Contribution Satisfaction	0.375	0.055	6.823***	0.140
H 1 is supported. CPMS as the behavioural control and motivational tool that provides various performance information is able to influence and enhance the satisfaction of the football players.					

*t-value > 1.96, $p < 0.05$. **t-value > 2.58, $p < 0.01$. ***t-value > 3.29, $p < 0.001$

H2a: Autonom-supportive coaching leadership style mediate the positive relationship between CPMS and football players' satisfaction					
H2b: Controlling coaching leadership style mediate the negative relationship between CPMS and football players' satisfaction					
Model	Path (a): CPMS and Leadership Style	Path coefficient	Path (b): Leadership style and Player Satisfaction	Path Coefficient	Path (c'): Indirect effect of the mediating variable
Model 2	CPMS → T&I	0.425	T&I → PT & TI Satis	0.273	VAF = 50.43% Sobel z=3.676 Partial Mediating
Model 2	CPMS → DB	0.346	DB → PT & TI Satis	0.293	VAF = 46.98% Sobel z=3.240 Partial Mediating
Model 3	CPMS → T&I	0.426	T&I → AU & IP Satis	0.139	VAF=59% Sobel z=2.039 Partial mediating
Model 4	CPMS → PF	0.284	PF → TP Satis	0.156	VAF=22.22% Sobel z=2.162 Partial mediating
Model 4	CPMS → DB	0.346	DB → TP Satis	0.172	VAF= 28.04% Sobel z=2.096 Partial mediating
Model 5	CPMS → T&I	0.426	T&I → PD Satis	0.337	VAF=53.93% Sobel z=4.309 Partial mediating
H2a is partly supported. All coaching leadership styles except for the social support and autocratic behaviour act as the mediating variables between CPMS and certain aspects of player satisfaction. It is found that the training and instruction dimensions have the highest effect and influence on the relationship between CPMS and football players' satisfaction. This is followed by democratic behaviour and positive feedback dimensions.					
H2b is rejected where the coach's control leadership style from the autocratic behaviour does not act as the mediating variable between CPMS and football players' satisfaction.					

Notes:

CPMS- Comprehensive Performance Measurement System	AU – Ability Utilization	PD – Personal Dedication
PT – Personal Treatment	IP – Individual Performance	TTC – Team Task Contribution
TI – Training Instruction	TP –Team Performance	Satis – Satisfaction
PF – Positive Feedback	DB – Democratic Behavior	T&I – Training and Instruction

The Table 3 shows that for Model 1, there is a positive and significant relationship between CPMS and the satisfaction of football players from the dimension of personal treatment and training

instruction satisfaction ($\beta=0.384$; $t=7.336$, $p<0.001$), ability utilization and individual performance ($\beta=0.188$; $t=4.149$, $p<0.001$), personal dedication satisfaction ($\beta=0.333$; $t=5.948$, $p<0.001$), team performance satisfaction ($\beta=0.284$; $t=5.588$, $p<0.001$) and the team task contribution satisfaction ($\beta=0.375$; $t=6.823$, $p<0.001$). Based on the determination of the path coefficient value by Cohen (1998), it is found that CPMS gives a moderate positive effect (between 0.31 and 0.50) towards personal treatment and training instruction satisfaction, personal dedication satisfaction and team task contribution satisfaction. However, for team performance satisfaction and ability utilization and individual performance, the positive effect is small (between 0.05 and 0.30). The outcome of the hypothesis testing finds that Model 1 used to test hypothesis 1 is supported, showing that CPMS influences and enhances the satisfaction of football players.

The quality of Model 1 is based on the variant value (R^2). The outcome of the study finds that CPMS has contributed 3.5% to the change in the ability utilization and individual performance satisfaction, 14.7% to the change in the personal treatment and training instruction satisfaction, 11.1% to the change in the personal dedication satisfaction, 8% to the change in the team performance satisfaction and 14% to the change in the team task contribution satisfaction. CPMS is found to have a small effect on all five dimensions of player satisfaction based on the indicator determined by Cohen (1988); where R^2 in the range of 0.02 and 0.15 and it refers to a small value.

The hypotheses 2 testings using Sobel test finds that for Model 2, Sobel test outcome establishes that there is an indirect effect between CPMS and the personal treatment and training instruction satisfaction through the coach's leadership style of training and instruction (path c') 0.116 (0.425×0.273) and the leadership style of democratic behaviour (path c') 0.101 (0.346×0.293) are significant with the value $z=3.676$ $p<0.001$ and 3.240, $p<0.01$. In line with Preacher and Hayes (2004), Sobel test outcome finds that both styles play the role as the partial-mediator on the relationship between CPMS and the personal treatment and training instruction satisfaction when the z value is significant and exceeds 1.96. The same outcome is obtained when the strength size of the variable using the VAF value is violated. The VAF value for training instruction and democratic behaviour is 50.43% [$0.116/(0.116+0.114)$] and 46.98% [$0.101/(0.101+0.114)$]. According to Hair et al. (2014), the VAF

between 20% and 80% is regarded as partial-mediator.

In Model 3, the Sobel test outcome also finds that there is an indirect effect between CPMS and the ability utilization and individual performance satisfaction through coach's leadership style of training and instruction (path c') 0.059 (0.426×0.139) which is significant with the value $z=2.039$, $p<0.05$. Therefore, the leadership style training and instruction takes the role of the partial-mediating variable when the z value is significant and exceeds 1.96. However, the mediating effect of the coach's leadership style of autocratic behaviour is positive and this is opposed to the direction as hypothesised. Therefore, only the leadership style training instruction takes the role of the partial-mediating variable when the z value is significant and exceeds 1.96. The VAF value for the leadership style of training and instruction is 59% [$0.059/(0.059+0.041)$], in the range from 20% to 80% as the partial-mediator as proposed by Hair et al. (2014). In terms of the Sobel test, the leadership style of training and instruction partial-mediate the relationship between CPMS and the ability utilization and individual performance satisfaction.

For Model 4 outcome of the Sobel test shows that there is an indirect effect of CPMS on the team performance satisfaction through the leadership style of positive feedback (path c') 0.044 (0.284×0.156) and the leadership style of democratic behaviour (path c') 0.060 (0.346×0.172) is significant with the value of $z=2.162$, $p<0.05$ and 2.096 , $p<0.05$. Both the coach's leadership styles are the partial-mediating variables when the z value is significant and is more than 1.96. The VAF calculation finds that the VAF value is for the positive feedback and the democratic behaviour which is 22.22% [$0.044/(0.044+0.154)$] and 28.04% [$0.060/(0.060+0.154)$]. Being in the range of 20% and 80% thought of as the partial-mediator according to Hair et al. (2014), the result is consistent with the Sobel test outcome

Then, Model 5 Sobel test also finds that there is an indirect effect of CPMS on the personal dedication satisfaction through the leadership style of training and instruction (path c') 0.144 (0.426×0.337) and it is significant with the z value= 4.309 , $p<0.001$. With a significant z value which is more than 1.96, the leadership style training and instruction is found partial mediate the relationship between CPMS and the personal dedication satisfaction. The value of VAF for the mediator training and

instruction is 53.93% [$0.144/(0.144+0.123)$] showing the partial mediation for the outcome similar to Sobel test.

Overall, the testing of both hypotheses 2a and 2b using Sobel test and VAF calculation find that generally, the coaching leadership style plays the role as the partial mediator. The training and instruction leadership style, democratic behaviour and positive feedback categorised as the autonomy-support coaching leadership style are found to mediate the partial relationship between CPMS and certain dimensions of player satisfaction.

Discussion

Model 1 SEM is used to test the relationship between CPMS and player satisfaction. The findings of Model 1 establishes that CPMS gives a positive and significant path coefficient effect towards five dimensions of player satisfaction namely personal treatment, and training and instruction; individual performance and ability utilization; personal dedication; team performance; and team task distribution. Thus, Hypothesis 1 is accepted.

The acceptance of hypothesis 1 shows that CPMS as a tool of behaviour control and motivation that provide various performance information, influences and increases the satisfaction of football players. CPMS has a moderate influence on the satisfaction of personal treatment and training instruction, team task contribution and personal dedication. Meanwhile, CPMS has a small influence on the satisfaction of team performance, individual performance and ability utilization. CPMS that fulfils the psychological basic needs plays an important role in controlling the behaviour and motivating players through various aspects of performance measurement and target and linked with the strategy and operation of the club/state association, to the point that the intrinsic motivation and self-determination of the players can be increased. This will further impact the players' satisfaction. These findings are consistent with previous studies in the sector of business industry and individual services (Aboshnaf, 2015; Burney & Swanson, 2010; Haslina et al., 2012; Lau & Oger, 2012; Lau & Solihin, 2005) in which PMS preparation with feedback and complete information has given a positive impact towards the individual motivation and job satisfaction. Lau & Martin-Sardesai (2012) also assert that the use of CPMS through Balance Score Card and

additional dimension that covers all important aspects in business has increased job satisfaction and motivation, the two prerequisites in work performance. In sports, several previous studies find that individual athletes achieve intrinsic motivation when the psychological basic needs (autonomy, competency, relatedness) have become satisfactory (Banack et al., 2011). Apart from that, intrinsic motivation is also the best predictor to the overall performance of the athletes as they display high determination and spirit (Coon, 2015; Joessar et al., 2011).

For the mediating variable coaching leadership style, the outcome of the analysis finds that H2a shows a significant and positive relationship between CPMS and the different dimension of player satisfaction through the autonomy-supportive coaching leadership style of certain coaches. In turn, H2b shows no relationship between CPMS and the satisfaction of the footballers through the controlling leadership style. Thus, H2a is partly accepted and H2b is rejected.

The finding supports the previous studies in the business industry and services that state when measuring the performance of an individual, the leadership role will be emphasised as in Abernethy et al. (2010), Bititci et al. (2004) also Ukko and Rantanen (2007). The effective use of PMS in previous studies depends on upper management/manager/supervisor to ensure that the operation and strategy of the organisation can be done effectively. Consistent with the manager/supervisor, the coach practising the autonomy-supportive leadership style, influences the use of PMS as the catalyst of motivation to ensure that the players' sports excellence is in line with the goals of the club/state association. The autonomy-supportive coaching leadership style, especially in the form of training and instruction, has been proven in sports studies to have a great influence on the satisfaction and achievement of the athletes (Anuar, 2015; Hassani Sangani et al., 2013; Lindberg, 2013 dan Yeganeh et al., 2014).

The mediating outcome of the autonomy-supportive coaching leadership style on the relationship between CPMS and the satisfaction of football players is at par with the motivation integration approach in the theory of self-determination. CPMS characterised by the psychological basic needs (autonomy, competency and relatedness) can influence the autonomy-supportive leadership style of the coaches that acts as the extrinsic motivation (identified regulation) through full internalisation towards the players'

intrinsic motivation, and further increases the self-determination of football players to the point that they reach the satisfaction by doing the best, display efficacy and high level of fighting spirit. The influence of the autonomy-supportive leadership style will further increase the psychological basic needs of the football players in the performance evaluation because it is the role of the coach to give autonomy to the players to make decisions and build their skills, guidance and training and instructions that can increase players' competency, and support the players by forming close cooperation, leading to the high level of satisfaction and performance. This is supported by Mageau and Vallerand (2003) and Smith et al. (2007) stating that the coach as the individual who is closest to the players in the team plays an important role in fulfilling the basic needs of autonomy, competency and relatedness in increasing self-determination and player satisfaction. The studies by Adie et al. (2008), Alvarez et al. (2009), Taylor and Bruner (2012) also show that coach's autonomy-supportive relates positively with all three psychological basic needs on the activities of team players. Edmunds et al. (2006), Hagger et al. (2007) and Standage et al. (2006) in the field of physical education and exercises state that the autonomy-supportive style of the coach is important in increasing the motivation of self-determination (which is the full internalisation, extrinsic motivation (identified regulation) towards intrinsic motivation).

Conclusion

CPMS is a tool for control and effective monitoring in influencing the behaviour of football players like individual workers or managers in the industrial sector, towards a congruent goal achievement for the club or state association. As a behavioural motivation tool, CPMS needs to fulfil the basic needs of psychology, namely autonomy, competency and relatedness that have become the main aspects of the enhanced football players' self-motivation level, and further contributes towards players' wellbeing in the form of satisfaction. CPMS's effectiveness on football players' satisfaction also depends on the capability of the autonomy-supportive leadership style to fulfil the basic psychological needs determined in CPMS. The use of CPMS since the early involvement of the players is used occasionally where it can increase players' self-determination from time to time. The implementation of CPMS that is more proactive in the national football development

program will be able to bring back the supremacy of this sports in this country.

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