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Research article

Psychological Capital's impact on the leadership-organizational climate preference relationship in potential leaders ~ A study comparing teachers and sportsmen~

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HIGHLIGHTS

- Leadership and organizational climate influence each other.
- The direction of the influence may be impacted on by occupational setting and psychological capital.
- 42 pre-tertiary teachers and 112 sportsmen seen as potential future leaders were compared.
- Psychological capital and occupational setting were indeed found to affect the direction of the influence.

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ABSTRACT

Previous studies have demonstrated to some extent that the psychological capital of employees affects how they respond differently to leadership and organizational climate, but research has yet to investigate this in leaders, whether existing or potential. Studies in this area have also not made comparisons across occupational contexts. Hence, this research was initiated. The participants of our study consisted of 42 pre-tertiary teachers and 112 sportsmen nominated as potential future leaders, with the small group size of teachers being due to the more reserved tendency of their current leaders to elect fewer potential future leaders. The results of the study's survey confirmed the moderating influence of perceived psychological capital on the relationship between leadership style preference and organizational climate preference. However, under the moderating influence of perceived psychological capital, leadership style preference tended to influence organizational climate preference for the teachers while the opposite was the case for the sportsmen, indicating the possible influence of occupational culture.

1. Introduction

Organizational climate has been found to play a crucial role in strengthening organizations. Defined as the shared perceptions and the interactive behaviors among its members, and usually developed through organizational policies, member's prominence, and leadership (Schneider et al., 2011), it has been found to be a focal variable in enhancing organizational harmony and efficiency and individual and team efficacy (Hui et al., 2007).

Leadership is another variable perceived of as crucial in facilitating a team's achievement (Yukl, 2006). For achievement enhancement, both transformational and transactional leadership styles are extensively utilized in various contexts and scenarios (Chemers, 2002; McCallum and O'Connell, 2009). These two leadership styles create some derivative benefits and different effects including different senses of value and accordingly diverse natures of organizational climate.

In educational and industrial settings, empirical studies claim that, in addition to leadership, organizational climate also seems to reflect the

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importance of another variable, namely psychological capital, which generally represents employees' psychological status and attribution such as self-efficacy (Luthans et al., 2008). It has been found that employees with various psychological capitals differently perceive the importance of organizational climate and differently respond to leadership (Shanker et al., 2017).

Two points can be inferred from the above: First, organizational climate relies on appropriate and affable leadership but could also be influenced by the psychological status of members. Second, employees in different contexts will respond differently to leadership and organizational climate because of differences in psychological capital so that a group of employees working in one organizational setting will differ in their fundamental orientation from another group of employees working in another organizational setting. In other words, the relationship between leadership and organizational climate might not be as simple as previously thought. Subsequently, it is worth understanding the interactional relationship and structure of influence of these three factors—leadership, organizational climate, and psychological capital— and also how this relationship differs from one organizational context to another. By comparing different contexts, it can be reasonably expected that leaders in one organizational setting will be able to learn much from leaders in another, significantly different, organizational setting on how to use psychological capital to influence the leadership-organizational climate relationship.

This study aimed to identify the impacts of psychological capital on leadership and organizational climate. Two groups of elites with various community cultures were selected as research samples: teachers regarded as elites in the academic field and sportsmen regarded as elites in the athletic field. The former, highly socialized, usually work individually in their own classroom heavily relying on personal professional knowledge. On the other hand, sportsmen, typically belonging to a team, usually receive training collectively and pursue team achievement. Alliance with the team and interpersonal collaboration consequently overwhelm any individual performance. One crucial issue of interest is whether these two groups with various individual characteristics and group atmospheres might expect and\or recognize different leadership styles. What is more, how does their psychological capital moderate the influences of leadership styles on group climate?

Consequently, the following questions were investigated in this study:

1. What is the moderating influence of psychological capital on the relationship between leadership and organizational climate?
2. How does the moderating influence of psychological capital on the relationship between leadership and organizational climate differ from one organizational context to another?

2. Literature review

2.1. Organizational climate

Organizational climate has continued to receive a broad attention from both the academic and business worlds because of the implications it has for achieving organizational objectives. The shared perceptions among members of an organization with regard to policies, procedures, and practices (Guo, 2018) has been identified as a constructive element facilitating organizational achievement and individual members' performance (Schneider et al., 2012). Organizational climate, for instance, has been proven to have a positive effect on innovation and efficiency in organizations (Nybakk et al., 2011; Shanker et al., 2017), two factors that highly facilitate the proactive work behavior and vital attitudes of employees and assist organizations in achieving a competitive performance (Kissi et al., 2012; Nybakk and Jenssen, 2012; Shih and Susanto, 2011).

Organizational climate was approved as a significant factor intensively affecting teachers' job performance (Balkar, 2015; Raza, 2010; Selamat et al., 2013), teachers' job satisfaction (Pan and Qin, 2007), and their commitment (Khan, 2019). Organizational climate, meanwhile, created the direct and positive relationships associated with the sportsmen's performance (Escamilla-Fajardo et al., 2019, 2021; Ivantchev and Stoyanova, 2016). Organizational climate is subsequently recognized as an important predictor of employee behaviors on the job for creativity, innovation, affiliation, and service quality (Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, Robinson1 & Wallace, 2005).

Conceptually, at an individual level, organizational climate includes the inner mindsets (i.e., personal psychological climate) of employees (Kath et al., 2010), and at a broader level, the atmosphere in an organization created through, for example, the employees' attachment to both the team and their team members (Wallace et al., 2013). To make sure that it is working for the benefit of the organization and all the members that comprise the organization, organizational climate has to rely only on the psychological status and well-being of employees, that is, their psychological capital, and but also on leadership and the policies, practices, and procedures that result from it (Ali and Patnaik, 2014; Iljins et al., 2016). These three variables of organizational climate, psychological capital, and leadership, however, stand in a triadic relationship with each other and exhibit a reciprocal influence on one another (Shanker et al., 2017).

2.2. Leadership in organizations

Leadership usually affects and prevails over organizational climate and employees' performance (Ahmad et al., 2014; Franke and Felfe, 2011). Leadership in organizations is typically categorized as either transformational or transactional in nature based on intentions and practices (Boamah et al., 2018).

2.2.1. Transformational leadership

Over the past two decades, transformational leadership has emerged as one of the most popular and effective approaches for steering organizations toward mission fulfillment and achievement enhancement (Piccolo and Colquitt, 2006). A transformational leader is determined to convince his members, by means of his charisma and vision, to make fundamental changes in their perceptions and sense of value so that they can transcend from being motivated by self-interests and a job salary to higher levels of achievement and self-actualization (McCleskey, 2014).

Transformational leadership inspires members from the inside out through emotional incentives rather than material ones in four ways: idealized influence (attributed/behavioral), inspirational motivation, intelligence stimulation, and individual consideration (Avolio et al., 2009). These are described below:

2.2.2. (A) Idealized influence

Idealized Influence refers to transformational leader behaviors and attributions involving highly ethical principles and values (Bass and Riggio, 2006; Hassan et al., 2019) and personal charisma (Hassan et al., 2019; Williams et al., 2018) which enable the leader to gain his members' admiration, respect, and trust (Ahmad et al., 2014). Idealized influence usually results from the leader's long-term vision, intense responsibility, self-confidence, and self-esteem.

2.2.3. (B) Inspirational motivation

Inspirational motivation is another characteristic of transformational leaders and refers to their ability to inspire in their staff recognition, confidence, and motivation in their pursuit of personal career goals and\or institutional goals (Avolio et al., 2009). A transformational leader usually outlines a visible future, fully discusses plans and approaches with his team members, and demonstrates his\her dedication to goals. Inspirational motivation allows transformational leaders to possess optimism, enthusiasm, and efficacies to lead the team positively.

2.2.4. (C) Intellectual stimulation

Intellectual stimulation refers to the leaders' encouragement for both individual employees and the organization to innovatively face challenges

and think outside the box (Orabi, 2016). Leaders usually deliberate a wide varieties of opinions in searching for inventive solutions and making decisions (Boamah et al., 2018), give positive feedbacks for good performance, and make members feel like they are making contributions toward the team goals (Anthony and Schwartz, 2017).

2.2.5. (D) Individualized consideration

Transformational leaders usually possess individualized consideration in a friendly and supportive manner, show intense concern, and look out for members' well-being (Cherry, 2020). They treat members individually, mentor them personally, enhance their motivation, and build up supportive relationships, in order to further enhance their future achievement and work values (Schieltz, 2019; Wang and Howell, 2010).

A distinctive characteristic of the transformational leader is his active involvement with and engagement with team members' personal values through these four approaches (Jung et al., 2009). That is, transformational leaders lead members to focus on transcendent and far-reaching goals and achievement, create greater effects on each individual's contribution and collective achievements as compared to transactional leadership. Transactional leadership focuses on promoting self-interests but is inevitably limited in scope and impact (Day and Antonakis, 2012).

Despite the importance attached to either leadership style, the variable of psychological capital may well play a very important role in deciding employees' recognition of any leadership style and consequently the impact of leadership style on organizational climate (Shin and Zhou, 2003).

2.2.6. Transactional leadership

In contrast to transformational leadership, transactional leadership is a leadership style concerned with promoting members' acquiescence by means of both relative rewards and punishments in order to persuade members for immediate, possibly short-term, goals (Bycio et al., 1995). More than being concerned with personal achievement and value enhancement, transactional leadership usually employs effective supervision, power exertion, and an exchange of benefits for mission implementation. Consequently, a transactional leader usually provokes members on the basis of their existing personal values and provides rewards that are attractive to their current value framework, while a transformational leader, in contrast, actively seeks to transform members' personal values and stimulates them to strive for advanced goals beyond their self-interests (Bass, 1985; Jung et al., 2009).

In practice, transactional leadership usually imposes on members an acceptance and\or compliance with the leader in exchange for praise, rewards, and other resources, or the avoidance of disciplinary punishment (Bass et al., 2003). Predictable rewards and subsequent recognition are provided according to members' performance in carrying out their roles and assignments (Podsakoff et al., 1982).

Previous studies indicated that leadership was employed and recognized by group members depending on their characteristics as well as community cultures. Team alliance on the part of the sportsmen, habitually exploring their team and teamwork, was manifestly associated with their coaches' leadership style (Ardua and Márquez, 2007; Galić et al., 2017) whereas teachers' job satisfaction and organizational commitment (Aydin et al., 2013) were highly effected by their leaders' administration style (Astuti et al., 2020).

2.3. The influential relationship between leadership and organizational climate

Organizations usually possess multifarious value systems and dynamic relationship, thus differing in their ecological natures (Omonlayo and Ajila, 2012). Within the context of different ecological systems, transformational and transactional leadership styles attempt to influence workers' behaviors as well as their perceptions, tacitly leading to their expectations and conceptual norms as they go through the process of selecting the "appropriate conduct" and finally participate in an ingrained organizational climate (McMurray et al., 2010; Omonlayo and Ajila, 2012). Leadership styles are therefore recognized as an important factor affecting members' perceptions and the organizational climate (Hamidianpour et al., 2015), with many studies providing more support for a transformational leadership style. It is claimed that leaders with high emotional intelligence can create a positive climate leading to intelligent, loyal and committed employees (Maamari and Majdalani, 2017). Studies continue to prove that transformational leadership favorably facilitates the development of a harmonious climate benefitting the performance of both members and the organization itself (Choudhary et al., 2013; Wang and Howell, 2010). Additionally, many studies have found support for a positive relationship between transformational leadership and organizational performance (e.g., Barling et al., 1002; Choudhary et al., 2013; Howell and Avolio, 1993; Wang and Howell, 2010).

2.4. Psychological capital

2.4.1. Definition of psychological capital

Organizational competitiveness and achievement highly rely on members' intensive involvement and commitment which usually result from and\or represent their psychological capital (Ohlin, 2020). Psychological capital is defined as: (A) an individual's psychological status, such as self-efficacy and optimism, facilitating his\her performance on the job and career success (Newman et al., 2014), (B) a complement of personal and organizational features which could be developed and directed through people's life stories and work experiences (Cavus and Gokcen, 2015), and (C) an individual's inner mindset reflecting his\her psychological development in life history and subsequent features (Sihag and Sarikwal, 2014; Luthans and Youssef-Morgan, 2017). Like the financial, structural/physical and technological capitals of a company, psychological capital is perceived of as a major form of capital. These different forms of capital collectively promote organizational achievement (Luthans and Youssef, 2004).

Psychological capital is a comprehensive and underlying inner capacity which is critical to individuals' cognitive development and career motivation and their intrapersonal and interpersonal performance (Peterson et al., 2011). Psychological capital can be developed through positive attitudes, constructive feedback, and favorable criticism contributing to individuals, groups, and\or organizations (Cavus and Gokcen, 2015).

In professional settings, personal psychological capital has been continuously proven as vital to teachers' motivation and satisfaction (Viseu et al., 2016), job performance (Clarence et al., 2021), and teaching effectiveness (Wang et al., 2014). Additionally, psychological capital has also been shown to enhance the personal performance and team achievement of sportsmen (Jannah et al., 2018; Lai et al., 2020).

2.4.2. The construct of psychological capital

Psychological capital progressively develops through continuous life histories and psychological transformation (Luthans et al., 2007). Positive psychological capital usually manifests in the characteristic performance of: (A) having high confidence (self-efficacy) in taking on and undertaking the necessary effort in challenging tasks; (B) possessing a positive attribution (optimism) in striving for better results and leaving out difficulties; (C) persevering toward goals and, when necessary, redirecting one's path to long-term goals (hope); and (D) sustaining and bouncing back and going beyond resilience to attain success when encountering overwhelming problems and adversity (Cavus and Gokcen, 2015; Zubair and Kamal, 2015).

Research indicates that psychological capital alleviates individuals' stress and facilitates organizations in undertaking positive transformations (Avey et al., 2008), and also mediates the relationship between organizational climate and employees' performance (Luthans et al., 2008). That implies employees' personal psychological capital

nurtures their recognition of good leadership and contributes to organizational harmony.

2.5. The moderating effects of psychological capital on the relation between organizational climate and leadership

A moderating factor affects the influential relationship between an independent variable and a dependent one (Judd, 2015; Mahmood et al., 2017). Psychological capital is crucial for individuals to maintain a highly competitive performance (Luthans et al., 2007) and for a team and\or organization to sustain harmonious and effective interactions (Newman et al., 2014). A progressive and congenial organizational climate is established on the basis of effective leadership while its members possess positive natures and a focal commitment (Jaffery and Qadeer, 2014; Shanker et al., 2017). Individuals in a vigorous and constructive organizational climate usually present a respect and gratefulness for leadership and manifest high self-efficacy and hopes for a better future, optimism about rewards, and resilience to turnover (Jaffery and Qadeer, 2014). This fact implies that both leadership and members' psychological capitals separately facilitate organizational climate, however, psychological capital may also seem to moderate the effect of leadership on organizational climate.

Previous studies have claimed that both transformational and transactional leadership were integral contributors to enhance employees' self-efficacy, hope, resilience, and optimism (McMurray et al., 2010). Psychological capital, however, facilitates members' recognition of leadership and authority. Scholars have recognized that leadership and psychological capital both independently relate to trust in management, which in turn has also been theorized to have an impact on the performance of both individuals and organization (Clapp-Smith et al., 2009; Mayer and Gavin, 2005). As a result, psychological capital is proposed as a moderating variable influencing the interactional relationship leadership and organizational climate. Yet, given that organizations differ in their settings, it is reasonable to expect that the three variables of leadership, organizational climate, and psychological capital will relate to each other differently in different contexts. Hence the following two hypotheses were investigated in this study:

Hypothesis 1. Psychological capital has a critical moderating influence on the relationship between leadership and organizational climate.

Hypothesis 2. The moderating influence of psychological capital on the relationship between leadership and organizational climate differs from one organizational context to another.

3. Research methodology

3.1. Conceptual framework

This study was conducted to identify the influential effects of leadership styles, (transformational leadership versus transactional leadership) on organizational climate and proposed that psychological capital could have a significant moderating influence on their relationship. Figure 1 depicts the conceptual framework of the study:

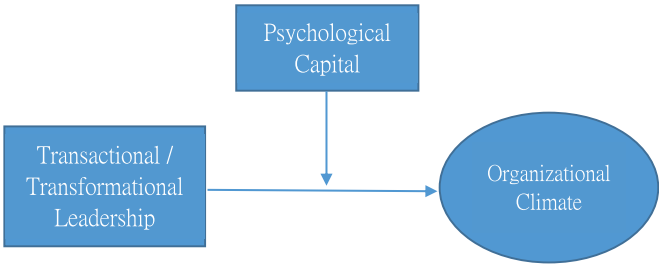

Figure 1. Conceptual framework.

3.2. Research approach

This study employed a survey method to identify the influential relations among leadership, psychological capital, and organizational climate and examine the proposed hypotheses of the study. The survey method was used to identify possible associations between the three variables of the study in lieu of more detailed and controlled investigations and workshops to be held between future leaders in the teaching profession and sports field.

3.3. Instruments

The instrument used in this study consisted of three major sub-instruments as follows:

3.3.1. Multifactor Leadership Questionnaire (N = 20 items)

This study employed the Multifactor Leadership Questionnaire (MLQ Form 5X), which was developed by Avolio and Bass in 1995 and revised by Franco & Matos in 2013, to assess people's perception on both transformational and transactional leaderships toward their leaders. This instrument consists of 5 subscales of transformational leadership, but in this study, only 3 subscales (idealized influence, intellectual stimulation, and individualized consideration) (n = 12 items), were highly related to the research purpose of this study and were therefore adopted to examine transformational leadership. In addition, for the assessment of transactional leadership, this study selected 2 subscales (contingent reward and management-by-exception) (n = 8 items) of the Multifactor Leadership Questionnaire to measure participants' perception on Transactional leadership (Asghar and Oino, 2017; Franco and Matos, 2015).

3.3.2. Organizational climate measurement (n = 26 items)

The Organizational Climate Measure, refined by Patterson et al. (2005), consists of four climate scales (Floyd, 2016; Imran & Anis-ul-Haque, 2011), but for the study's purpose, the researchers only utilized three of them, namely human relations, open systems, and rational goal (n = 26 items).

3.3.3. Psychological capital (12 items)

The short version of the Psychological Capital Questionnaire (PCQ-12), consisting of 12 items (Luthans et al., 2007), was adapted to assess the participants' psychological capital. This PCQ-12 focused on the four major dimensions of hope (n = 4), self-efficacy (n = 3), resilience (n = 3), and optimism (n = 2).

This instrument took a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), to assess participants' perception on each question item.

3.4. Population and sample

This study selected elite teachers and elite sportsmen in Indonesia as the major research population. In the context of the present study, 'elite' merely refers to 'high performing' members in both occupations with a high performance in their chosen career and also high potential for becoming future leaders in their profession as assessed by their present supervisor. Leadership, organizational climate, and psychological capital are important factors in the career settings of all workers, but 'elite' employees are able to maneuver through constraints and outperform others in their professional scenarios. In any case, their self-perceptions regarding leadership, organizational climate and psychological capital are important because as possible future decision-makers and shapers of their career settings their beliefs will fundamentally decide the outcomes of those they are installed to lead.

The researchers delivered the instruments to the sample under the assistance of the Indonesian researcher in this study, a lecturer in the Psychology of Physical Education and Sport. Because of his association with members of both the teaching and sports professions he was able to

contact the participants' current supervisors on whom he relied for the identification of elite members from each field. After a 2-time follow-up with the sample in one month, this study obtained **154** respondents with complete and valid data, including 112 sportsmen and 42 teachers.

From the demographic profile of the participants (Tables 1 and 2), we identified our participants as follows: The sportsmen came from tennis (N = 24, 15.58 %), basketball (N = 25, 16.23%), volleyball (N = 25, 16.23%, track and field (N = 19, 12.34 %), and badminton teams (N = 19, 12.34 %). As for the teachers, they were classified as either elementary school teachers (N = 8, 5.19%), junior high school teachers (N = 5, 3.25 %), senior higher school teachers (N = 8, 5.19 %), or vocational high school (N = 21, 13.64% teachers. This sample also included males (N = 79, 51.30%) and females (N = 75, 48.70%).

3.5. Data collection

The instrument was validated for readability and appropriateness of each question item (how) by having it examined by Indonesian academics, namely scholars in the pre-tertiary education field and scholars in the sports field. After a discussion and then approval of the content, the revised instrument was uploaded as an electronic google form. The school administrators of the teachers and the team managers of the sportsmen, considered as their respective leaders, were contacted for research assistance. They helped to identify the elite members in their career setting based on the internal performance appraisals carried out by their respective institutes. In order to encourage participation in the study, the leaders were not required by the researchers to submit details of their organization's performance appraisals. Concerns regarding information security and privacy and the organizations' rights to protect themselves were issues that were raised by both the school administrations and the coaches and required some flexibility on the part of the researchers. The main reason for utilizing the leaders' recognition of a teacher or sportsman as an elite member of the profession and as a potential future leader based on performance appraisals was that it represented an authentic means of evaluating the teachers' and sportsmen's capabilities since it is these evaluations that play a fundamental role in the naturalistic setting in determining career promotions.

Once the elite members from both occupations were identified, the researchers provided a consent option in the instrument for all participants to indicate their intention to or not to participate in this study. Finally, 42 out of 46 teachers and 112 out of 124 sportsmen chose to participate in the study and completed their questionnaires for this study.

3.6. Data analyses

Based on study's purpose and central questions, the collected data were statistically analyzed by undertaking the following approaches using SPSS and AMOS:

A. Descriptive statistical methods to understand the participants' perception;
B. SPSS and AMOS to measure reliabilities and validities:
   (A) Cronbach's alpha to measure instrument reliability;
   (B) Confirmatory Factor Analysis to measure construct validity.
C. ANOVA identify the differences among all variables, such as genders, sport teams, and status;
D. General Linear Model Analyses to test interaction effects and correlation;
E. AMOS and Excel to realize how factors influence each other.

Table 2. Research sample (genders).

	Male	female
numbers	79	75
percentage	51.30%	48.70%

N = 154.

4. Results

4.1. Instrument reliability and validity

Cronbach's alpha measures how closely a set of assessment items are related as a group (reliability). And Confirmatory Factor Analysis is a commonly used method to investigate the construct validity of the instrument (Atkinson et al., 2011; Suhr, 2006). In structural equation modelling, Confirmatory Factor Analysis has been usually used to measure construct validity (Alarcón and Sánchez, 2015; Jö;reskog, 1969).

The statistical analyses indicated this instrument possessed high reliabilities and validities (Table 3), including a high Cronbach's alpha on multifactor leadership (.960), organizational climate (.897), and psychological capitals (.918). That fact indicated a high level of internal consistency for this specific sample. The validities were also reported as KMO of .899 (>.6). And the significant relationship of the study was measured by undertaking the Bartlett's Test of Sphericity (chi-square = 7448.438, $p < .001$). That means the instrument as used in this study possessed high reliabilities and validities (see Table 4).

Campbell and Fiske (1959) proposed convergent validity and discriminant validity to measure the construct validity of an assessment. Convergent validity is used to analyze factor and variables correlations. And discriminant validity indicates the correlation between each factor. In Figure 2, it is evident that the convergent validity (green part) averages above .70. In conclusion, the hypothesized model possessed construct validity.

4.2. Correlations among variables

The Pearson Correlation analyses also resulted in highly significant correlations between the proposed variables (Table 5). This indicates that leadership, organizational climate, and psychological capital possessed significantly positive correlations with each other. These high

Table 3. Reliabilities (N = 154).

Reliability	Cronbach's Alpha	Number of items in the scale
Instrument		
Transformational Leadership	.937	12
Transactional Leadership	.919	8
Multifactor Leadership	.960	20
Organizational Climate	.897	26
Psychological Capital	.918	12

Table 1. Research sample.

	Students with Sports major					Teachers			
	Tennis	Basketball	Volleyball	Track & field	Badminton	Elementary School	Junior High School	Senior Higher school	Vocational High school
N	24	25	25	19	19	8	5	8	21
%	15.58	16.23	16.23	12.34	12.34	5.19	3.25	5.19%	13.64

N = 154.

Table 4. KMO and Bartlett's Test for validities (N = 154).

Validity	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
		Approx. Chi-Square	Df	Sig.
Instrument				
Transformational Leadership	.931	1222.450	66	.000
Transactional Leadership	.923	742.008	28	.000
Multifactor Leadership	.944	2337.728	190	.000
Organizational Climate	.908	2731.994	325	.000
Psychological Capital	.924	988.767	66	.000
Total	.899	7448.438	1653	.000

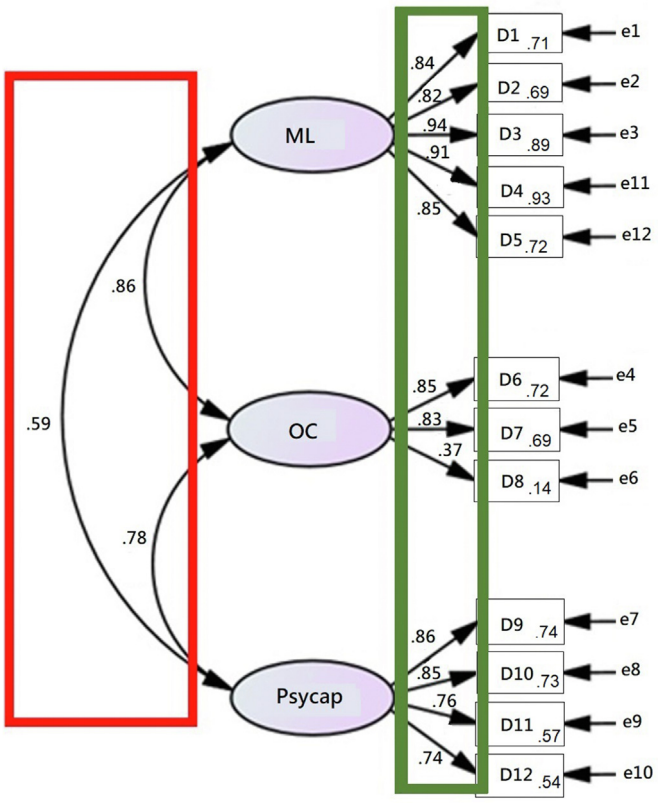

Figure 2. Results of confirmatory factor analyses.

Table 5. Pearson coefficients of five variables (N = 154).

Correlation coefficient (Pearson correlation)					
	(1)	(2)	(3)	(4)	(5)
(1) Transformational Leadership	1				
(2) Transactional Leadership	.863**	1			
(3) Multifactor Leadership	.976**	.953**	1		
(4) Organizational Climate	.742**	.758**	.775**	1	
(5) Psychological Capital	.496**	.541**	.533**	.649**	1

** Correlations are significant at the 0.01 level (2-tailed).

correlations imply that these variables might share some interlocking inner constructs. In addition, these high correlations imply that any change occurring in one variable might subsequently create manifest chain effects, such as a butterfly or snowball effect.

4.3. Performance on all variables (teachers and sportsmen)

Teachers in Indonesia generally possess acceptable multifactor leadership and its relative styles of leadership (M ≥3.73) (Table 6). Comparatively, they seemed to lean toward transformational leadership (3.80) more than transactional leadership (3.61). In addition, these teachers performed moderately on psychological capital (M = 3.57) and organizational climate (M = 3.58). They seemed to be moderate, modest, placid, not 'hyper' people in their community.

On the other hand, the sportsmen presented comparatively higher multifactor leadership and its two styles of leadership (M ≥4.25) (Table 7), including transformational leadership (4.25) and transactional leadership (4.27). They also possessed high psychological capitals (4.04) and scored on a higher than moderate level on organizational climate (3.88).

4.4. One-way ANOVA for teachers versus sportsmen

The results of a one-way ANOVA for each construct indicated that the sportsmen reported significantly higher perceptions than the teachers on all constructs (p-value < 0.05) (Table 8). These sportsmen were much more convinced about their leadership, and they possessed higher psychological capital and enjoyed a better organizational climate. Obviously, the teachers and sportsmen have significantly different experiences and\or impressions being formed in their career contexts.

4.5. One-way ANOVA for sportsmen

The results of the one-way ANOVA for the sportsmen's on each construct revealed that there was no significant difference among the sports teams (p-values > .05) (Table 9). The different sportsmen possessed similar experiences and perceptions with each other no matter which kind of sports team and\or training style they belonged to. These sportsmen still reflected equivalent perceptions on the three constructs when they were differentiated by gender (p-values > .05) (Table 10). These results imply that the sportsmen shared similar perceptions and formed similar impressions regarding leadership, organizational climate, and psychological capital.

4.6. Structural equation modeling of interaction effects

In the realistic world, all factors coexist simultaneously and interactively influence each other. That is, some latent variables are linearly related while some endogenous variables create effects on the exogenous variable with interactional effects as a moderating factor (Klein and Moosbrugger, 2000). In this study, the SPSS general linear model was conducted to examine the interactional effects, proposing psychological capital as the moderating factor on the influential relation between leadership (transformational and transactional leadership) and organizational climate for both the teacher group and the sportsmen group.

4.6.1. A. Teacher group's interaction model (N = 42)

The general linear model (GLM) revealed that the teachers' transactional leadership significantly influenced their organizational climate with the moderating effect of psychological capital (Sig = .04 < .05, R-squares = 0.873; Figure 3, Table 11). On the contrary, this interaction effect did not occur with regard to the influential effect of the teacher group's transformational leadership (Sig = .384 > .05, R-squares = .973, Adj. R-Square = .727). That is, when considering the three factors simultaneously in the realistic workplace, only the teachers' transactional leadership could significantly influence their organizational climate; in this context, their psychological capital played a crucial role as a moderating factor.

This study subsequently further investigated the moderating effects of psychological capital by dividing the sample into participants with high

Table 6. Teachers' overall performance.

	Transformational Leadership	Transactional Leadership	Multifactor Leadership	Organizational Climate	Psychological Capital
Mean	3.80	3.61	3.73	3.58	3.69

Table 7. Sportsmen's overall performance.

	Transformational Leadership	Transactional Leadership	Multifactor Leadership	Organizational Climate	Psychological capital
Mean	4.25	4.27	4.26	3.88	4.04

Table 8. One-way ANOVA for sportsmen and teachers.

		Teachers (N = 42)	Sportsmen (N = 112)	F-value	Prop.
Transformational Leadership	Mean	3.80	4.25	15.79	0.00
Transactional Leadership	Mean	3.61	4.27	31.28	1E-07
Multifactor Leadership	Mean	3.72	4.26	23.19	3.5E-06
Organizational Climate	Mean	3.58	3.88	12.45	0.0005
Psychological Capital	Mean	3.69	4.04	10.94	0.0012

Table 10. T-test results for sportsmen by gender.

	Male (n = 69)	Female (n = 44)	T-value	Prop.
Transformational Leadership	4.21	4.31	-0.83	0.41
Transactional Leadership	4.25	3.29	-0.28	0.78
Multifactor Leadership	4.23	4.30	-0.69	0.39
Organizational Climate	3.96	3.83	1.36	0.18
Psychological Capital	4.10	3.94	1.48	0.14

and low psychological capital, which then resulted in regression lines (Figure 4). The teachers' psychological capital reflected a negative moderating effect **(regression coefficient = -.273)** on the relationship between transactional leadership and organizational climate (Table 12). This study revealed that in contrast to the group of teachers with higher psychological capital, for teachers with comparatively lower psychological capital, transactional leadership could have a more powerful influence on organizational climate (Figure 4).

4.6.2. B. Sportsmen group's interaction model (N = 112)

In order to further understand if the sportsmen possessed similar psychological traits, their interactional model was separately examined from those of the teacher group. Subsequently, the statistical analysis identified the moderating effect of psychological capital did not occur with regard to the influence of leadership, transformational (sig = .542 > 0.05, Table 13) or transactional one (.069 > .05), on organizational climate (Table 14). What is more, it appeared that, for the sportsmen, organizational climate, in reverse, had a significant influence on both transactional leadership (Sig. = .001, R-square = 0.885; Table 15; Table 16; Figure 5) and transformational leadership (Sig. = .000, R-squares = 0.959; Table 17; Table 18; Figure 6). That is to say, the organizational climate in sports teams significantly influenced their recognition of leadership. These psychological traits and subcultural incidents were the exact opposite to the teachers who might be flatteringly but grudgingly socialized into their particular occupational contexts.

In order to further illustrate the moderating effect of psychological capital on the influence of organizational climate on transactional leadership (Figure 7) and transformational leadership (Figure 8) for the sportsmen, the group was divided, like the teachers, into two groups: low versus high psychological capital. From Figure 7 and Figure 8, it is apparent that for sportsmen with low psychological capital, organizational climate and transformational leadership shared a stronger relationship. In other words, once sportsmen were in a higher organizational climate, their psychological capital created a negative effect on the relationship between organizational climate and transformational leadership, and even organizational climate and transactional leadership.

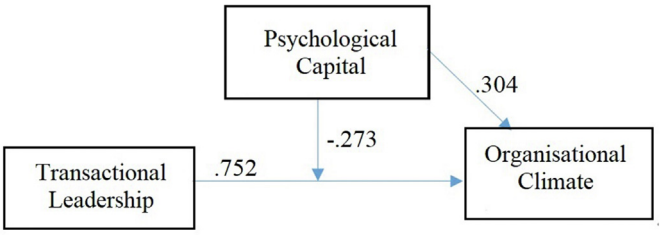

Figure 3. Transactional leadership influence organizational climate with psychological capital as the moderating variable.

Table 11. Interactional effects on organizational climate.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
T2	2.956	11	.269	6.460	.043
PC	2.087	17	.123	2.950	.152
T2 * PC	1.489	5	.298	7.158	.040

R-Square = .988(Adj. R-Square = .873).
T2: Transactional leadership; PC: Psychological capital.

Table 9. One-way ANOVA for sportsmen.

	Tennis (n = 24)	Basket-ball (n = 25)	Volley-ball (n = 25)	Track & Field (n = 19)	Badminton (n = 19)	F-value	Prop.
Transformational leadership	4.04	4.41	4.23	4.24	4.33	1.17	0.33
Transactional Leadership	4.05	4.43	4.25	4.26	4.36	1.30	0.27
Multifactor Leadership	4.06	4.41	4.22	4.24	4.36	1.37	0.25
Organizational Climate	3.87	3.98	3.85	3.85	4.01	0.50	0.73
Psychological Capital	4.02	4.13	3.98	4.03	4.04	0.24	0.92

N = 113.

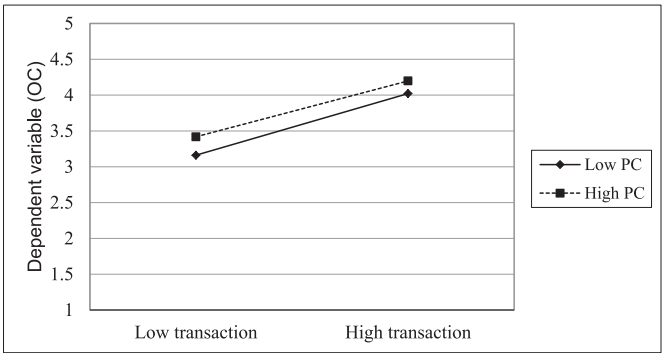

Figure 4. Regression lines of interaction effects with psychological capital as a moderating factor.

Table 12. Standardized regression weights of the general linear model of the teacher group's organizational climate.

Parameter			Estimate
Organizational climate	<—	transaction	.752
Organizational climate	<—	Psychological capital	.304
Organizational climate	<—	transaction X Psycap	-.273

Table 13. Interactional effects on organizational Climate for sportsmen group.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
T1	2.162	23	0.094	1.565	0.153
PC	3.725	25	0.149	2.48	0.019
T1 * PC	2.402	41	0.059	0.975	0.542

1. R-Square = .939(Adj. R-Square = .679).
2. T1: transformational leadership.
3. PC: psychological capitals.

Table 14. Interactional effects on organizational climate for sportsmen group.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
T2	3.219	16	0.201	7.107	0
PC	3.038	25	0.122	4.294	0
T2 * PC	2.174	44	0.049	1.746	0.069

1. R-Square = .966(Adj. R-Square = .849).
2. T2: transactional leadership.
3. PC: psychological capitals.

Table 15. Interactional effects on transactional leadership for sportsmen group.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
OC	11.631	37	0.314	7.316	0
PC	3.989	24	0.166	3.868	0.004
OC * PC[a]	6.501	32	0.203	4.728	0.001

a R-Square = .983 (Adj. R-Square = .885).

5. Discussion, conclusions, and suggestions

This study was conducted to identify the influential relationship among three variables: leadership, psychological capital, and organizational climate. Two groups comprising the research sample, elite teachers and elite sportsmen, were empirically surveyed and examined to further understand the relationship among these variables in different occupational contexts under different subcultures. Three validated instruments were employed to measure the participants' perceptions. After a series of

Table 16. Standardized regression weights of interactional effects on transactional leadership for sportsmen group.

Parameter			Estimate
Transactional leadership	<—	Organizational climate	.732
transactional leadership	<—	Psychological capital	.385
transactional leadership	<—	Organizational climate X psycap	-.486

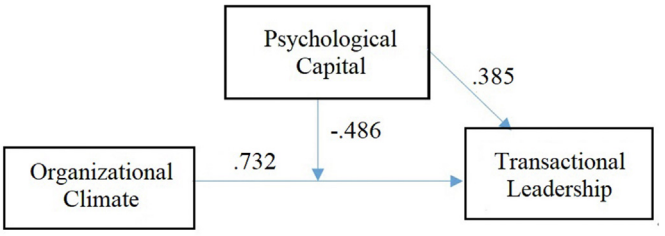

Figure 5. Organizational climate influence on transactional leadership with moderating effect of psychological capital.

Table 17. Interactional effects on transformational leadership for sportsmen group.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
OC	9.604	37	0.26	17.852	0
PC	4.902	24	0.204	14.046	0
OC * PC[a]	10.156	32	0.317	21.827	0.000

a R-Square = .994 (Adj. R-Square = .959).

Table 18. Standardized regression weights of interactional effects on transformational leadership for sportsmen group.

Parameter			Estimate
Transformational leadership	<—	Organizational climate	.632
Transformational leadership	<—	Psychological capital	.421
Transformational leadership	<—	Organizational climate X Psy. Cap.	-.657

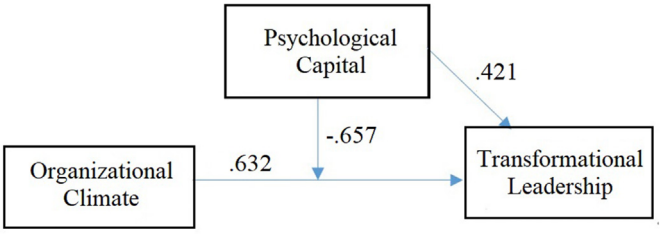

Figure 6. Organizational climate influence on transformational leadership with moderating effect of psychological capital.

statistical analyses of the collected data, this study drew the following conclusions:

1. In this study, the teachers possessed comparatively lower internal psychological capital and external organizational climate. This result differed from those of Pan and Qin's (2007) and Balker's studies (2015) which indicated a significant organizational climate and job satisfaction in teachers' communities were due to self-efficacy and social expectation. Additionally, the teachers in this study presented a lower recognition toward their leadership while this instrument provided an option for them to or not to answer this questionnaire. For school teachers, their transactional, rather than transformational

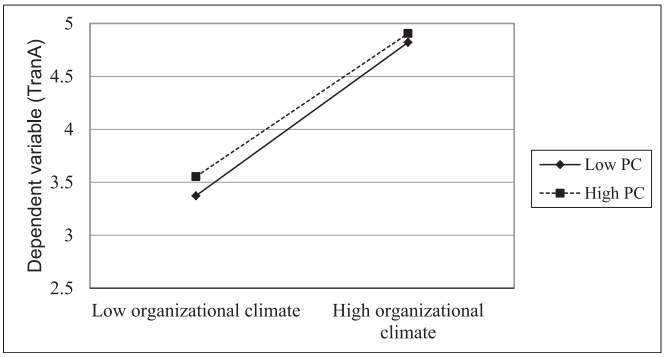

Figure 7. Regression lines of interaction effects by sportsmen with low versus high psychological capital.

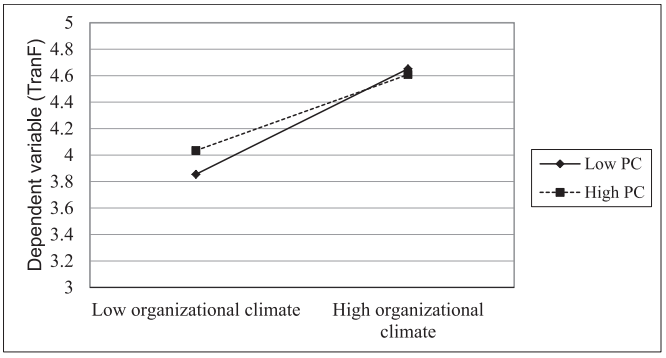

Figure 8. Regression lines of interaction effects by sportsmen with low versus high psychological capital.

leadership, significantly influenced their organizational climate while their psychological capital acted as a moderating factor.

2. On the contrary, the sportsmen presented a higher recognition of their leadership, their internal psychological capital, and external organizational climate. This corresponded to the studies conducted by Ardua and Marquez (2007) and Galić et al. (2017), confirming the significance of the coach's leadership style in affecting team members' self-confidence and teamwork and collaboration. Additionally, instead of leadership influencing organizational climate, organizational climate, reversely, had a significant influence on both transactional leadership and transformational leadership, with psychological capital acting as the moderating variable.
3. Interaction effects were found among the three variables. Psychological capital obviously plays the crucial role of a moderating factor negatively influencing relations among leadership and organizational climate in both groups of the sample. Generally speaking, in both groups individuals with comparatively lower psychological capital could be influenced more easily. For instance, for the teachers with comparatively lower psychological capital, their organizational climate could be more easily influenced by their recognition of transactional leadership; for the sportsmen with comparatively lower psychological capitals, their leadership recognition could be more influenced by their organizational climate. Psychological capital is an essential psychological factor to both individuals and organizations.

The above results can probably be explained by the different general occupational contexts that teachers and sportsmen find themselves being socialized in. Teachers in Asian countries, including Indonesia, are typically socialized as employees to work in hierarchical and authoritarian contexts where meritocratic ideologies and a dictatorial administration prevails. Subsequently, they are committed to transactional leadership, which powerfully dominates their organizational climate, typically teachers with lower psychological capital. On the contrary, the sportsmen are socialized into occupational contexts that facilitate their autonomy and team-oriented. The high recognition they place on organizational climate might be the result of the cohesion and affiliation typical in their teams, which, in reverse to the teachers, dominates their perceptions of leadership, typically transformational leadership. Their mutual reliance, team belongingness, friendship, and striving for each other, which were collectively referred as comradeship and which is more important to them than leadership. Their comradeship may explain the results sportsmen achieved in this study.

Important cultural traits and influential structures in realistic scenarios create school teachers who are habitually exposed to authoritarian communities and who are passively and even hopelessly committed to transactional leadership. On the contrary, these traits and structures create sportsmen who are highly immersed in their teams and who are reliant on each other's comradeship to help them train for the aggressiveness and proactivity demanded in games and competitions. Their training formulates their optimistic personality and autonomous spirits, and, what is more, incomparable comradeship which could be presented in their high psychological capital and organizational climate.

It should be noted, however, that our study relied on the survey method of research. Our purpose was merely to discover relations between three variables and how this relation might differ from one occupational context to another. Our study sets the stage for us and other researchers to conduct more experimental, detailed, and even more longitudinal studies. These would be better in verifying the postulated explanations made above and uncovering more knowledge enabling a comparison and transfer of knowledge from one occupational context to the next.

Declarations

Author contribution statement

Mingchang Wu: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Farhad Abdul Kader Cassim; Anung Priambodo: Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Chenju Ko:Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data.

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Data availability statement

The data that has been used is confidential.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

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