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The Effect of Distribution Project Manager Leadership and Performance of Project Team Members with the Mediation Role of Self-Efficacy

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Abstract

Purpose: The purpose of this study to determine the effect of distribution transformational and transactional project manager leadership style on the extra-role performance of project team members using multi-level modelling analysis. **Research design, data and methodology:** The role of psychological factors as the mediating variable namely is self-efficacy in the effect of project manager's leadership style on the project team members' performance was also studied using the Monte Carlo bootstrapping method. The sample of the study consisting of 370 project team members from 74 contractors registered with the Construction Industry Development Board in the Klang Valley was selected using a simple random sampling and a survey using a questionnaire. **Results:** The findings showed that the transformational leadership of project managers was a dominant predictor of extra-role performance of project team members. Furthermore, the study show the self-efficacy of project team members acted as a mediator in the relationship between transformational and transactional leadership of project manager leadership on the extra-role performance of project team members. **Conclusions:** The findings are expected to be used by the relevant parties in planning, arranging and implementing efforts to improve the work performance and ensure that projects are implemented according to the specified specifications.

Keywords : Distribution Project Manager Leadership, Transformational Leadership, Transactional Leadership, Performance, Extra-Role Performance, Project Team Members, Self-Efficacy

JEL Classification Code : C12, C13, J24, L74, M00

1. Introduction

In this new era of development, the construction industry is one of the most important sectors that contribute to the national economy (Siew et al., 2021). The construction industry also plays an important part in giving major support to the aggregate economy with the assistance of other economic sectors (Ofori, 2015), as well as contributing to

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the creation of many job opportunities in a country (Khan et al., 2014). Thus, an efficient, high-quality, and high-capability construction industry is critical for establishing an economy capable of attracting investment and achieving ideal socioeconomic levels.

Over the last decade, many studies have been undertaken by researchers to discover the critical success factors of a construction project (Gudiene et al., 2014). However, past studies have shown that the distribution leadership factors are commonly employed and discussed. This situation discusses and demonstrates how the distribution leadership qualities become one of the most important factors impacting the success of a construction project (Saleem et al., 2021). This distribution leadership factor refers to the project manager's ability to manage the members of his project team to ensure that the project is completed on time, within budget, and according to requirements.

Previous distribution leadership research has concentrated solely on the direct effect, namely examining the idea of leadership on employee performance (Yammarino & Dansereau, 2008) or even just concentrate on the direct relationship of leadership style on employee behaviour (Lim & Ployhart, 2004; Yammarino & Dansereau, 2008). Most past studies did not thoroughly examine how distribution leadership at upper-level affects employees at lower-level. There is a lack of information which can explain how distribution leadership at upper-level affects lower-level results (outputs) (Liao, 2017; Schaubroeck et al., 2012). Thus, by using a multi-level modelling approach, this study was able to identify the effects of transformational and transactional leadership of project managers at the team level on the extra-role performance of project team members at the individual level.

Although past studies have found that different distribution leader leadership styles have different effects on organizations (Hurduzue, 2015; Michie & Zumitzavan, 2012), it stresses that effective leadership styles can promote employee excellence in an organization depending on a specific situation. Most past studies have shown that distribution leadership style has a significant impact on employee attitudes toward work (Holtz & Harold, 2010; Wang et al., 2014). However, it was found that there was a lack of studies conducted to test the different distribution leadership styles practiced by leaders affecting employee performance. As a result, this study aimed to bridge the gap by examining the distribution types of leadership styles used by project managers, namely transformational and transactional leadership, to identify which distribution leadership style is more dominant in influencing job performance and involving the extra-role performance of project team members. This study aimed to find the differences distribution between the two leadership styles, although it is known that these distribution two leadership styles are considered to improve extra-role performance of project team members.

Next, there are a few studies that test psychological factors as mediators in explaining the relationship between leadership and employee performance (Walumbwa et al., 2008). Therefore, this study was conducted to bridge this gap by examining the psychological factor, i.e., self-efficacy, in explaining the distribution relationship between transformational and transactional leadership of project manager in influencing extra-role performance of project team members.

To bridge the gaps left by past studies, this study also tested the effects of distribution transformational and transactional leadership of the project manager at the team-level on the extra-role performance of project team members at the individual level by using a multi-level modelling approach. The goal of this study was to see if the psychological factor of self-efficacy may mediate in examining the relationship between distribution transformational and transactional leadership of project manager on the extra role performance of project team members.

2. Literature Review

2.1. Transformational Leadership

Transformational leadership is an approach in which leaders use personal traits and leadership behaviours to influence employee behaviour as well as their ability to change subordinates' attitudes, motivations, morals, and commitment to the organization through interaction to achieve organizational goals and interests (Farahnak et al., 2020; Kouzes & Posner, 2007). Transactional leadership emphasizes manager coordination and control and is regarded as directing leadership and takes a top-down approach. The interaction between leaders and employees is more formal, with a significant separation between management and employees. Transactional leaders will reward their staff for meeting defined performance goals (Bass & Avolio, 1995; Thite, 2000; Yang et al., 2013) and will punish them if they fail to complete such objectives (Eagly et al., 2003).

2.2. Self-efficacy

Self-efficacy refers to an individual's belief in his or her own ability to do a task or responsibility well and effectively (Bandura 1997; Chen et al., 2001; Lee & Mendlinger, 2011). On the other hand, employee self-efficacy is defined as an employee's appraisal of their ability to plan and implement actions to attain the appropriate degree of success, such as

meeting the work performance standards stated in their essential tasks (Bandura, 1997). Studies show that individuals with high self-efficacy consider the problems that exist as challenges, are highly committed to the activities they do, and are willing to spend more effort and time on their daily activities (Bandura, 2001).

2.3. Extra-role Performance

Extra-role performance is defined as the behaviour of employees performing tasks that are not enshrined in the employer-specified task list (Bakker et al., 2004). Next, MacKenzie et al. (1991) describe extra-role performance as activities or behaviours performed more than the formal job descriptions that contribute to an organization's effectiveness. Among the examples of extra-role performance displayed are helping colleagues solve work related problems, tolerating discomfort in the workplace, not complaining when given a new task, maintaining cleanliness in the workplace, and caring for organization property.

2.4. Project Manager

A project manager refers to an individual who is fully responsible for a project that has been set by the top manager, completes it on schedule, and adheres to agreed cost and quality allocations (Young, 2010). Next, Cleveland and Ireland (2002) describe a project manager as someone who oversees planning, organizing, motivating, directing, and regulating the people and resources needed to complete a project successfully.

2.5. Project Team

A project team is defined as the collection of interpersonal relationship structures created to achieve a certain goal. It may also refer to "a small group of individuals that have common goals, skills, and are highly committed to common goals, performance objectives, and approaches for which they share responsibility" (Proehl, 1997). According to Young (2010), a project team is a human resource that completes all the tasks planned in the project schedule. Following that, project team members are the individuals who have been assigned to a certain project team. Members of a project team are chosen based on their experience and the demands of the project to be implemented. Members of the project team are accountable for completing all assignments within the timeframes specified in the planning and schedule.

2.6. Hypothesis Developments

Three meta-analyses performed in past studies confirmed the existence of a positive relationship between transformational leadership and individual performance (DeGroot et al., 2000; Lowe et al., 1996). The findings of such studies have clarified how leadership styles influence individual values, beliefs, and attitudes as well as the collective interests of groups and organizations (Podsakoff et al., 1990). A meta-analysis study also confirmed that transformational leadership also influenced and affected in-role and extra-role performance (Banks et al., 2016; Chan, 2020).

Transformational leadership has a relationship with employee self-efficacy (Bayraktar & Jiménez, 2020). According to previous research (Shamir et al., 1993), one of the processes that helped transformational leaders improve employee attitude change was self-efficacy, which provided employees with confidence that such change will achieve desired results.

The relationship between self-efficacy and job performance is very clear, especially towards extra-role performance (Caillier, 2016; Salanova et al., 2011). This is because the self-efficacy controls and capabilities let workers grasp a larger definition of employee duties, allowing colleagues and the business as a whole to move beyond the formal demands of their employment (Rodriguez et al., 2020).

Bass and Avolio (1990) found that transformational leadership had a positive correlation with self-motivation. Employee self-motivation would satisfy the psychological needs of personal motivation and interpersonal relationships. According to Deci (1975), based on intrinsic motivation theory, transformational leadership is an active behavioural engagement to seek benefits and facilities to support individuals. Intrinsic motivation is the key reason for the key role played by leaders in influencing individual performance. Transformational leaders can utilize a motivating approach to encourage their staff to share their experiences and to empower them to do well on the job. Brown et al. (2005) stressed on the impact of self-efficacy on people's intrinsic drive to complete prescribed activities. Transformational leadership has also been demonstrated in studies to promote self-efficacy, which in turn increases individual commitment, motivation, and work satisfaction (Stajkovic & Luthans, 1998). A transformational leader who expresses high expectations on the ability of his employees to achieve the goals that need to be achieved will indirectly increase the self-efficacy of his employees.

Transactional leadership is not like transformational leadership, which only motivates employees to meet performance-related expectations (Bass, 1999). There are two components of transactional leadership, namely reward and management through exception (Eagly et al., 2003; Bass, 1999). Rewards positively influence in-role and extra-role performance, autonomy, and daily work engagement (Breevaart et al., 2014).

A study conducted by Turner et al., (1997) showed that specific behaviours inherent in transactional leadership can be associated with increased self-efficacy. According to Bass (1998), transactional leadership can be considered fundamental in transformational leadership. Gassemi et al. (2021) considered transactional leadership to be related to future orientation and at the same time it was also associated with self-efficacy.

Based on the Path Goal Theory of Leadership, managerial support can influence employee motivation and performance by assisting them in determining direction and achieving goals (Evans, 1970). As transactional leader behaviours provide support for developing employee behaviours to achieve goals, transactional leaders increase the positive influence of employee self-efficacy on in-role and extra-role performance, (Vieira et al., 2018). Managers must apply the good benefits of self-efficacy to employee performance as they offer feedback to employee teams from the perspective of appreciation (MacKenzie et al., 2001) by showing the right path needed for goal achievement (Vieira et al., 2018). Positive feedback helps trust employees to succeed and be on the right path. Past studies have confirmed the interrelated relationship of self-efficacy with positive outcomes for individuals and organizations (Klongthong et al., 2020), including in-role and extra-role performance (Rodriguez et al., 2020). Based on the explanation described above, the following are the hypotheses constructed in this study:

H1: The transformational leadership of project managers at the team level is positively and significantly related to extra-role performance of project team members at the individual level.

H2: The transformational leadership of project managers at the team level is positively and significantly related to the self-efficacy of project team members at the individual level.

H3: Self-efficacy is positively and significantly related to extra-role performance of project team members at the individual level.

H4: Self-efficacy mediates the relationship of transformation leadership of project manager at the team level on extra-role performance of project team members at the individual level.

H5: The transactional leadership of project managers at the team level relates positively and significantly to extra-role performance of project team members at the individual level.

H6: The transactional leadership of project managers at the team level is positively and significantly related to the self-efficacy of project team members at the individual level.

H7: Self-efficacy mediates the relationship of transactional leadership of project manager at the team level with extra-role performance of project team members at the individual level.

3. Research Methods

3.1. Sample

This study only focused on contractors registered in the Klang Valley with the Malaysian Construction Industry Development Board. A total of 370 project team members from 74 project teams were involved as the sample of this study. The project team consisted of different contractors registered in the Klang Valley and each project team (contractor) must be represented by at least five project team members in a same project. Since this study applied a multi-level modelling analysis approach, the number of samples was adequate and sufficient because it only required a minimum of 30 organizations or teams (Kreft & De Leeuw, 1998) and a minimum of 5 samples from each organization or team (Maas & Hox, 2005).The data were obtained through a questionnaire distributed (Maçada, 2022) by mail to selected contractor. To minimize common method variance bias effects, data was collected from multiple sources (Podsakoff et al., 2003; Ramdan et al., 2022). Two sets of questionnaires were prepared where one set would be answered by the project manager and another set would be answered by other project team members. The project manager would evaluate self-efficacy and extra-role performance of his or her project team members. Then, project team members would evaluate the transformational and transactional leadership styles of their project managers. The assessments used in this questionnaire were based on the same projects they were involved in as a project team.

3.2. Instrument

In this study, transformational and transactional leadership of project manager was measured using the Multi-factor Leadership Questionnaire (MLQ Form 5X) (Bass & Avolio, 2000). Eight dimensions were involved where five dimensions represented transformational leadership while three dimensions represented transactional leadership. The five dimensions that represented transformational leadership were idealized influence-attribute, idealized influence-behaviour, inspirational motivation, intellectual stimulation, and individual consideration. On the other hand, the three dimensions representing transactional leadership were represented by reward, active exception management and passive exception management. Each dimension each had four items of measurement questions using a 5-point Likert scale where the values were 0 (Never) and 4 (Always). Thus, there were 32 items used in this study to measure the

leadership style of the project manager of which 20 items were used to measure the transformational leadership. The next 12 items were used to measure the transactional leadership of the project manager.

Self-efficacy was measured using item translation from the study of Chen et al. (2001). Specifically, there were eight items that measured dimensions of self-efficacy. Each item used a 5-point Likert scale where scale 1 represented "strongly disagree", while scale 5 represented "strongly agree". For extra-role performance, this study used an instrument which had been used from the study conducted by Goodman and Svyantek (1999) which had seven items. All the items used a 5-point Likert scale where the values were 1 (Strongly disagree) and 5 (Strongly agree).

3.3. Statistical Analysis

Since the data of the study were multi-level where the data of individuals were nested in organizations, therefore the multi-level modelling approach (HLM) version 7.0 (Raudenbush et al., 2005) was used for analysis purposes. In this study, variables at the individual level referred to the project team members (Level 1) while variables at team level (Level 2) referred to the project manager. Variables of the study from different levels were standardized between these two levels (individual and team) as suggested by Mathieu and Taylor (2007).

Next, we needed to test the indirect effects or mediator of hypotheses proposed based on the basic principles of testing based on three conditions (Baron & Kenny, 1986)

a) (Y).

There are two methods to test and confirm the existence MacKinnon et al., 2004) which must be observed having the existence of:

b) Significant relationship between the independent variable (X) over the dependent variable/outcome (Y).
c) Significant relationship between the independent variable (X) over the mediator variable (M).

The relationship between the mediator variable (M) on the dependent variable/outcome of mediator effects in a study, namely using the Monte Carlo Bootstrapping method (Selig & Preacher, 2008) and Sobel test. Nevertheless, the researchers had chosen to use the Monte Carlo Bootstrapping method at the 95% confidence interval level with 20 000 repetitions by Selig and Preacher (2008) as a further analysis to prove and confirm the existence of mediator effects in this study. The selection of the Monte Carlo Bootstrapping method (Selig & Preacher, 2008) was said to be better than the Sobel test for a study that used multi-level modelling analysis (MacKinnon et al., 2004).

When using the Monte Carlo Bootstrapping method, the way to verify the significant value of the mediator where the lower level (LL) and upper level (UL) must not contain zero values, i.e., either both positive and negative. If one of the values differs i.e., one positive value and one negative value or vice versa, then it indicates that the variable does not function as mediator on relationship (MacKinnon et al., 2004).

3.4. Aggregation Procedure

To determine whether the transformational and transactional leadership of the project manager can be aggregated to the team level, then first three tests needed to be performed, namely ICC (1), r(wg) dan F-tests (FIII). After the analysis was carried out to fulfil the three tests stated above, then further analysis could be carried out by applying the hierarchical linear modelling approach in this study. To test hypotheses of the study which had used multi -level modelling approach analysis, the researchers used the procedure recommended by Mathieu and Taylor (2007) which is done by conducting with three types of analyses. First, we ran an analysis for lower-level effects, followed by cross-level analysis and finally tested the mediation effects.

4. Results

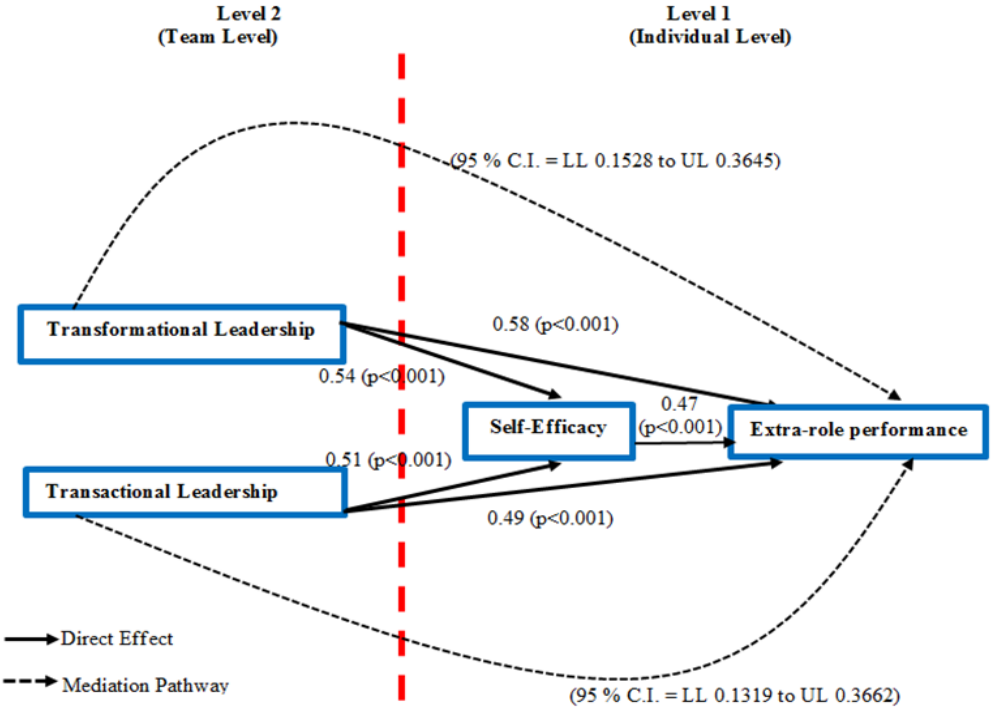
The findings of the analysis for mean values, standard deviation, correlation, FIII, ICC(1), and R(wg) for each study variable are shown in Table 1. The mean values for each variable of the study were in the range of 3.6455 to 4.2879. While the values of standard deviation for each variable of the study were in the range of 0.4901 to 0.6588. Correlation analysis also needed to be done because when a study is performed using multi-level modelling analysis, it has followed the "rules of thumbs" (MacKinnon et al., 2004) and there must be a correlation for each variable to continue further analysis. The findings of the analysis are shown in Table 1 indicating that all the conditions had been fulfilled for the aggregate procedure before conducting the analysis by multilevel modelling.

Table 2 shows the findings of the analysis of lower-level outcomes and cross level effect on lower-level outcomes by using a hierarchical linear modelling approach. Hypothesis 1 proposed that transformational leadership at the team level would be positively related to extra-role performance at the individual level. We found that hypotheses 1 was supported ($\gamma = 0.58$, SE = 0.04, $p < 0.001$). Next for hypothesis 2, we found that transformational leadership at the team level would be positively related to self-efficacy at the individual level ($\gamma = 0.54$, SE = 0.05, $p < 0.001$). Hypothesis 3 proposed that self-efficacy would be positively related to extra-role performance at the individual level ($\gamma = 0.47$, SE = 0.09, $p < 0.001$). Then hypotheses 4 was supported as the finding

indicated that the relationship between transformational leadership and extra-role performance was mediated by self-efficacy (95 % C.I. = LL 0.1528 to UL 0.3645).

Hypothesis 5 proposed that transactional leadership at the team level would be positively related to extra-role performance at the individual level. We found that hypotheses 5 was supported ($\gamma = 0.49$, SE = 0.07, $p < 0.001$).

Next for hypothesis 6, we found that transactional leadership at the team level would be positively related to self-efficacy at the individual level ($\gamma = 0.51$, SE = 0.08, $p < 0.001$). Finally, hypotheses 7 was supported as the finding indicated that the relationship between transactional leadership and extra-role performance was mediated by self-efficacy. The final model is show in Figure 1.



Source: Author

Figure 1: Final Model

Table 1: Means, Standard Deviations, Pearson Bivariate Correlations, FIII and ICC (1) Values for Each Variables Study

Variable	M	SD	1	2	3	4	F_{III}	ICC(I)	R(wg)
Transformational leadership	3.7931	0.4975	1				2.5610***	0.2379	0.9325
Transactional leadership	3.9244	0.5313	0.666***	1			2.8580***	0.2709	0.9228
Self-efficacy	3.6455	0.6588	0.788***	0.625***	1		3.2860***	0.2937	-
Extra-role performance	4.2879	0.4901	0.624***	0.876***	0.579***	1	2.5990***	0.2423	-

Note: Bivariate correlations only between lower level variables. N (individuals) = 370; N (teams) = 74, M = Mean; SD = Standard Deviation.
*** $p < 0.001$

Table 2: HLM Analyses of Lower Level Outcomes and Cross-Level Effect on Lower Level Outcomes Study

Effect	Extra-role performance	Extra-role performance	Extra-role performance	Extra-role performance	Self-efficacy	Self-efficacy
Model	**1**	**2**	**3**	**4**	**5**	**6**
Lower-Level Effect:						
Self-efficacy	0.47 (0.09) ***					
Cross-Level Effect:						
Transformational leadership		0.58 (0.04) ***		0.52 (0.05) ***	0.54 (0.05) ***	
Transactional Leadership			0.49 (0.07) ***	0.07 (0.05) ^{ns}		0.51 (0.08) ***

Note: The first value is the parameter estimate; the value in parentheses is the standard error (SE) and followed by p value.
N (individuals) = 370; N (teams) = 74
*** $p < 0.001$, ns = not significant

5. Discussion and Conclusion

Distribution of transformational and transactional leadership of the project manager at the team level were able to influence the extra-role performance of project team members at the individual level significantly. However, when the analysis was conducted simultaneously on distribution transformational and transactional leadership project manager on extra-role performance of project team members, it was found that distribution of transactional leadership at team level was not positively and insignificant. While distribution of transformational leadership at the team level was found to be positively and significantly related to extra-role performance of project team members at the individual level. Furthermore, the results of the analysis also explained that the distribution of transformational leadership of the project manager had a bigger influence on the extra-role performance of the project team members. In other words, these findings explained that distribution of transformational leadership at the team level was a more dominant predictor factor to the extra-role performance of project team members who were at the individual level compared to distribution of transactional leadership.

Leaders who adopt distribution of transformational leadership can inspire team members to perform a given task together and thus increase productivity (Kouzes & Posner, 2007; Yukl, 1999), performance (Yukl, 1999) and team skills (Yukl, 1999). Further studies from Khan et al. (2013) as well as Vigoda-Gadot (2007) proved that distribution of transformational leaders were able to influence the extra-role performance among their employees. The results of this study reinforce the statement that the practice of distribution of transformational leadership style by project managers can improve the performance of project team members in line with the study of Kouzes and Posner (2007) as well as Amin et al. (2016).

Our study also supports that the self-efficacy of project team members indirectly mediated the relationships between distribution of transformational and transactional leadership of the project manager on the extra-role performance of project team members. The findings in this study were consistent with certain studies (Buil et al., 2018) as the authors found that self-efficacy was the psychological factor that mediated the relationships between distribution of transformational and transactional leader on extra-role performance

In conclusion, this research provided evidence and justification in the specific area of construction by showing that the distribution of transformational leadership of the project manager was positively significant and dominant to the extra-role performance of project team members and with the mediator role of project team members' self-efficacy. These results provided important guidance especially for project managers to practice distribution of transformational leadership styles to help create a good and positive environment and to ensure that projects can be set up according to a set time.

Leaders who adopt distribution of transformational leadership can inspire team members to perform a given task together and thus increase productivity (Kouzes & Posner, 2007), performance and team skills (Yukl, 1999). This statement also supported the views expressed by (Bacha, 2014) that distribution of transformational leadership practiced by leaders influenced the performance and activities of team members and teams' pro-activity (Wu & Wang, 2015). Furthermore, Williams (1994) found that distribution of transformational leaders influenced the extra-role behaviours among followers. The results of this study reinforced the fact that the practice distribution of transformational leadership style by project managers strived to improve the performance of the project team members in line with the study (Amin et al., 2016).

Our study also supports that the work engagement of project team members indirectly mediated the relationships between distribution of transformational leadership of the project manager and the extra-role performance of project team members. The findings in this study were consistent with certain studies (Aryee et al., 2012) as the authors found that work engagement was the psychological factor that mediated the relationships between distribution of transformational leader and job performance. In conclusion, this research provided evidence and justification in the specific area of construction by showing that the distribution of transformational leadership of the project manager was positively significant to the extra-role performance of project team members with the mediator role of project team members' work engagement. These results provided important guidance especially for project managers to practise distribution of transformational leadership styles to help create a good and positive environment and to ensure that projects can be set up according to a set time.

6. Research Implications

This research aims to provide an understanding of how the leadership of the project managers at the team level influences extra-role performance of project team members at the individual level. In addition, this study also participated to test the indirect effects of psychological factors of project team members namely is self-efficacy on extra-role performance of the project team at the individual level. Thus, the findings from the findings of this study can provide implications and contributions through three aspects, namely policy and practice, theory and methodology.

There are several practical and policy implications that can be considered from this study. The project manager's transformational leadership styles have indeed been proven to influence on extra-role performance of project team members as compared to transactional leadership practices. These findings are particularly important because the performance of project team members in the construction sector has a significant impact on the performance of implemented projects. The effect can be seen on the success of a project can be completed on time, quality and cost set. Therefore, it is the responsibility of the contractor management to plan various programs that need to be attended by project managers such as courses and seminars related to leadership aspects to ensure that each project manager has sufficient knowledge related to leadership in leading a project team member.

This study fills the gap of existing studies and has several theoretical aspects contribution especially in the development of leadership disciplines in the construction sector. This study supports the Social Cognitive Theory, Bandura (1997, 2001). This theory explains that the performance produced by an individual is the result or effect of a combination of various internal and external factors. Internal factors or internal forces refer to factors from one-self while external factors result from other individuals or outsiders.

This study also contributes from the aspect of research methodology where based on a review of the latest literature, the lack of studies tested both simultaneously variables transformational and transactional leadership of project managers at team level extra-role performance of team members projects that are at the individual level.

7. Limitation and Future Direction

The limitation of this study is more to the involvement of the respondents. This study was conducted on contractors registered with CIDB in the Klang Valley only and was not conducted on all registered contractors in all states in Malaysia. Therefore, the findings of this study cannot be generalized to represent the context of the construction sector in Malaysia. Therefore, a further study is proposed by increasing the study population by involving all contractors in Malaysia who are registered with CIDB. When further study is done by involving all contractors in Malaysia who are registered with the CIDB, then the findings of the study can be generalized to represent the context of the construction sector in Malaysia.

This study examines the direct and indirect relationship between transformational and transactional leadership of project manager at the team level on extra-role performance of project team members at the individual level. The findings of this study are limited to two levels, namely the individual and team level only and are not able to explain the importance of leadership at all levels in the context of construction. Therefore, further research is recommended to expand this research model by adding other variables making the multi-level study possibly three or four levels and finally making the study more interesting and comprehensive to further highlight the importance of leadership at all levels in construction context.

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