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Influence of contemporary leadership on job satisfaction, organizational commitment, and turnover intention: A case study of the construction industry in Thailand

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Abstract

This empirical research investigates the influence of the construction project managers' contemporary leadership (CL) on the job satisfaction (JS), organizational commitment (OC), and turnover intention (TI) of the civil engineers in the Thai setting. A sequential explanatory mixed method was used in the study whereby the quantitative research was carried out with a sample of 450 civil engineers using a validated questionnaire and a structural equation model. An in-depth interview with another 10 civil engineers was subsequently conducted and the qualitative findings compared against the quantitative results. The quantitative results revealed that CL exerted a direct positive influence on JS and OC and a direct negative influence on TI. The qualitative findings were mostly agreeable with the quantitative results except for the OC aspect where the interviewees attached the greatest value to the OC's monetary components, as opposed to the quantitative results.

Keywords

Contemporary leadership, job satisfaction, organizational commitment, turnover intention, structural equation model, construction, civil engineer, project manager, Thailand

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Introduction

Effective leadership is crucial to the success of an organization.[1] According to Yulk,[2] successful organizations require the effective leaders with relevant leadership skills. Among the essential leadership skills is the ability to visualize the future changes that impact the business operations and then conceive the countermeasure strategies. The effect of globalization, demographic changes, shifts in social structures, and technological advancements enables people to work together which needs the contemporary leaders to bridge social identity boundaries among groups of people with very different backgrounds, perspectives, values, and cultures. The contemporary leadership (CL) is the moral leadership qualities and traits necessary to be successful in today's competitive environment.[3] Both transformational leadership and authentic leadership offer the conceptual framework for dynamic leadership that have been well researching and have become popular in practice of CL.[4–8] Contrary to the task-oriented traditional leadership, CL attaches importance to both tasks and employees. CL

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also serves as a source of inspirations for subordinates to commit and contribute to the organization as well as to be socially responsible. According to El-Nahas et al.,[9] CL influences employees' job satisfaction (JS), organizational commitment (OC), and turnover intention (TI).

The construction industry has greatly contributed to the development of countries since the postindustrial era to the present.[10] Nevertheless, the construction business is persistently plagued by the high employee turnover.[11] To remediate, one possible solution is for the managers to establish an understanding of the contributing factors of the high employee turnover, particularly that of civil engineers who are highly skilled, confident, creative, and independent but at the same time less disciplined and occasionally insubordinate.[12]

Globally, prior research on leadership in the construction business is very limited, and it is nonexistent in the context of Thailand. Furthermore, the existing studies have focused on the quantitative aspect based on the traditional trait and behavioral leadership theories. On the other hand, this current research concerns CL[13] and focuses on both the quantitative and qualitative dimensions. Specifically, this empirical research endeavors to investigate the influence of the construction project managers' CL on the JS, OC, and TI of the civil engineers in the context of Thailand.

The objective of this empirical research was to investigate the influence of the construction project managers' CL on the JS, OC, and TI of the civil engineers in the Thai setting. Moreover, it investigates both direct and indirect influences of the variable factors on the TI. Finally, it proposes courses of action to mitigate the high turnover rates of engineers in the construction business. To this end, the sequential explanatory mixed method was used, whereby the quantitative research was first carried out with a sample of 450 civil engineers throughout the country using a content-validated questionnaire and a construct-validated structural equation model (SEM). The qualitative research was then conducted using an interview guide and the findings compared against the quantitative results.

Theoretical review

Leadership

The definitions of leadership are numerous and vary considerably. Thus, this research defines leadership as the process by which an individual (i.e. leader) exerts influence over another individual and/or a group of individuals such that the latter are energized and keen to contribute to the attainment of the organization's goals.[2,14,15] Leadership theories are typically categorized by the aspect that most defines the leader. The most common theories of leadership are the trait theory, the behavioral theory, the contingency or situational theory, and the transformational theory.[16] The different leadership styles play a significant role in promoting both employee well-being and organizational outcomes.[17] Earlier researchers have shown significant relationships among the leadership behavior, employees well-being, and organizational outcome such as JS, OC, and TI.[4,9,18–22] However, there is no one best style of leadership. Leaders must attempt to construct vigorous, energetic collective job condition and become more concerned regarding satisfaction of employees, loyalty for organizational, and leadership styles in order to reduce TI.

CL and leadership in engineering field

Leadership theory has a long history and an enormous amount of experience. The main task of CL is to consolidate those different dimensions in a more complex of leadership. According to Tsigu[18] and Chiaramonte,[16] CL comprises the transformational and authentic leadership. The transformational leadership entails idealized influence (II), individualized consideration (IC), inspirational motivation (IM), and intellectual stimulation (IS), while the authentic leadership encompasses self-awareness (SA), balanced processing of information (BPI), internalized moral perspective (IMP),[23] and relational transparency (RT). Specifically, this current empirical research has utilized these CL attributes in the hypothesized SEM.

Existing research on leadership in the engineering field has focused on the trait theory of leadership, the behavioral theory of leadership, and the situational theory of leadership.[24–26] Despite more recent studies based on the transformational leadership theory, the scope and extent are still very limited.[27–29]

Job satisfaction

JS or employee satisfaction refers to how content an individual is with his or her job and/or the individual aspects of the job, for example, the nature of work, supervision, and coworkers. The commonly used theories in the study of employees' JS are *Maslow's* hierarchy of needs theory, Alderfer's Existence, Relatedness, Growth Needs (ERG) theory, and Herzberg's two-factor theory.[15] However, this current research has focused on five contributing factors of JS: the remunerations (PAY), the job per se (JOB), the supervision (SUP), the coworker relation (CWR), and the promotion opportunity (PRO).[20,30–34] Chaudhry,[22] Mosadeghrad and Ferdosi,[35] El-Nahas et al.,[9] and Rader[5] argued that leadership aimed to manage employee behavior to achieve JS, thus, we hypothesize that:

H1: The construction project managers' CL directly influences the JS of the civil engineers.

Organizational commitment

OC refers to an individual's psychological attachment to the organization or a sense of oneness with the organization.[22] According to Morin et al.,[36] Yamazakia and

Petchdee,[37] and Ghosh and Swamy,[36] OC has three different components that correspond to different psychological states: affective commitment (AC), continuance commitment (CC), and normative commitment (NC). OC has been widely and deeply examined as a crucial factor associated with human behaviors and performance in organizations. Randeree and Chaudhry,[22] Mazarei et al.,[38] and Miao et al.[39] found that leadership can motivate and increase followers' motivation and OC by getting them to solve problems creatively and also understanding their needs. Alkahtani[40] further suggests that employees are far more likely to be committed to the organization if they have confidence in their leaders. Hence, the hypothesis is formulated as follow:

H2: The construction project managers' CL directly influences the OC of the civil engineers.

Turnover intention

TI is a measurement of whether an employee plans to leave his/her position or whether the organization plans to remove employees from positions.[41] The focus of this empirical research is on the employees' TI. In this research, TI comprises three different components: turnover thinking (TT), opportunity for a new job (ONJ), and intention to quit.[19,36,42,43] An employee's TI is likely to depend on his or her commitment to the organization as well as to his or her satisfaction with supervision and HR policy.[37] Long and Thean,[44] Landman,[45] and Al-Hummadi[46] argued that leadership is the key factor in reducing and mitigating turnover. Chahardeh and Chegini[19] found that higher degrees of leadership were associated with lower intention to leave. Furthermore, leadership exhibited direct and positive relationships with OC and JS, an indirect and negative relationship with the TI,[9,47,48] thus, we hypothesize that:

H3: The construction project managers' CL directly influences the TI of the civil engineers.

H4: The construction project managers' CL indirectly influences the engineers' TI through JS.

H5: The construction project managers' CL indirectly influences the engineers' TI through OC.

H6: The proposed SEM is consistent with the empirical data.

Structural equation model

Figure 1 illustrates the hypothesized SEM with the following research hypotheses.

Research sample and methodology

This empirical research has utilized the sequential explanatory mixed method was used, whereby the quantitative research was first carried out to test the hypothesis regarding quantitative data. The qualitative research was then conducted using an interview guide and the findings compared against the quantitative results.[49] The research processes were as follows.

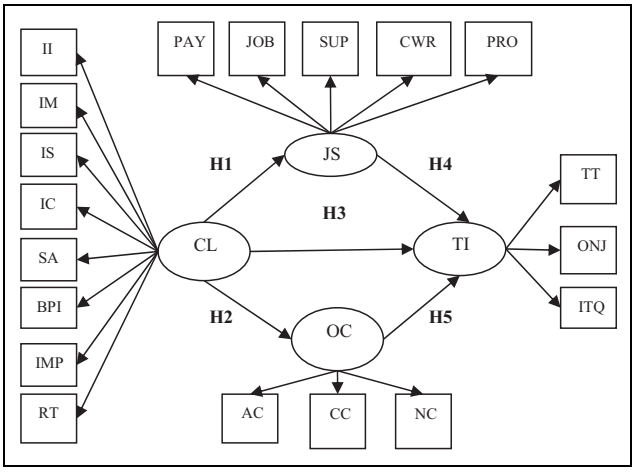


Figure 1. The hypothesis model of the influence of CL on JS, OC, and TI of civil engineers in Thailand. CL: contemporary leadership; JS: job satisfaction, OC: organizational commitment; TI: turnover intention.

Quantitative phase

The quantitative research was first carried out with a sample of 450 civil engineers using a questionnaire that was using the cluster and purposive random sampling techniques and the proposed SEM. The sample size was 10 times the number of the SEM parameters (i.e. 45 parameters).[50] The research questionnaire contains five sections. The first section is the demographics of the respondents. The second section deals with the construction project managers' CL styles, and the third section concerns the participating engineers' JS. The fourth and fifth sections concern the levels of OC and TI of the participating engineers. The questionnaire questions in sections 2–5 are of the four-point Likert-type scale questions.[51]

Prior to the data collection, the questionnaire questions were reviewed by a panel of five qualified experts and have satisfied the content validity requirements with the questions' index of item-objective congruence (IOC) in the range of 0.6–1.0. According to Rovinelli and Hambleton,[52] the IOC greater than 0.5 is regarded as statistically significant. The questionnaire questions were then trialed with a group of 30 civil engineers to determine the internal consistency reliability. Cronbach's α coefficients of the questionnaire were 0.76–0.8. According to Hee,[53] the α coefficient greater than or equal to ($\geq$) 0.6 is regarded as statistically significant.

Furthermore, the questionnaire was tested for the construct validity using confirmatory factor analysis (CFA), with the resulting factor loadings (λ) of the 19 observable

Table 1. The CFA results of the model variables in relation to the empirical data.

Test	χ^2	df	χ^2/df	*p* Value	GFI	AGFI	RMR	RMSEA	TLI	CFI
Fit values[54]	—	—	<2	>0.05	>0.90	>0.90	0	>0.05	>0.9	>0.9
Hypothesis model	825.138	146	5.652	0.000	0.837	0.788	0.023	0.102	0.887	0.903
Adjusted model	239.370	122	1.965	0.000	0.948	0.919	0.015	0.046	0.976	0.983

CFA: confirmatory factor analysis; GFI: goodness of fit index; AGFI: adjusted goodness of fit index; RMR: root mean square residual; RMSEA: root mean square error of approximation; TLI: Tucker and Lewis index; CFI: comparative fit index.

variables in the range of 0.65–0.91, where the factor loading in excess of 0.3 is statistically significant.[54] The composite reliability[49] was in the range of 0.82–0.95, where the composite reliability (CR) in excess of 0.7 is regarded as statistically significant.[50] The average variance extracted (AVE) was in the range of 0.62–0.87, where the AVE in excess of 0.5 is regarded as statistically significant.[55] The questionnaire is thus statistically valid and applicable to this empirical research.

In the quantitative analysis, this empirical research examined *the Pearson* correlation coefficients between the questionnaire questions. The CFA of the SEM variables was then carried out and the path analysis of the SEM performed. The goodness of fit (GOF) of the proposed SEM was finally determined.

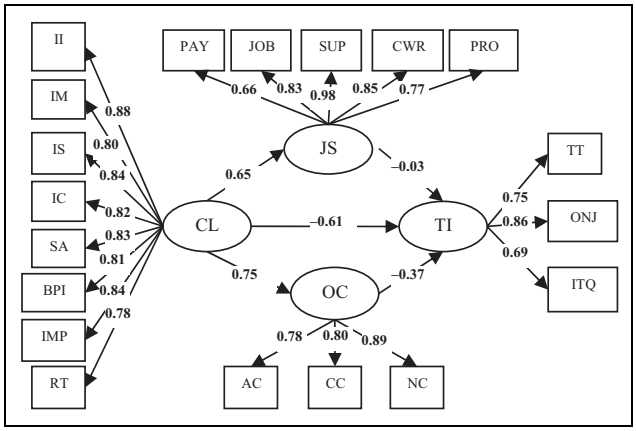


Figure 2. The GOF of the SEM with the empirical data ($p < 0.01$). GOF: goodness of fit; SEM: structural equation model.

Qualitative phase

An in-depth interview with another 10 civil engineers for the qualitative research that was carried out using the cluster, purposive, and snowball random sampling techniques. A 10-question interview guide and a voice recorder were conducted. The trustworthiness was established by triangulation whereby the interview guide was first validated by a panel of three experts and applied to interviewing 10 civil engineers, followed by the member checking. In addition, a complete audit trail is provided. The interview conversations were transcribed and the data analyzed using the coding method.[56]

Research results and discussion

Quantitative results

The quantitative samples were 358 males and 92 female between the ages of 25 and 45 years. The levels of education included bachelor's degree (84%) and master's degree (16%). The length of work experience encompassed less than 1 year (9%), 1–5 years (33%), 5–10 years (24%), and more than 10 years (34%). The levels of income included below THB 20,000 (28%), THB 20,000–29,999 (24%), THB 30,000–40,000 (26%), and above THB 40,000 (22%), where 1 USD is equal to THB 35. The company size included fewer than 20 employees (19%), 20–50 employees (27%), 51–100 employees (18%), and more than 100 employees (36%). The length of operation included less than 1 year (4%), 1–5 years (19%), 6–10 years (12%), and longer than 10 years (65%).

The *Pearson* correlation coefficients of the 19 observable variables were in the range of 0.27–0.77, indicating no multicollinearity. According to Byrne,[54] *Pearson's* correlation coefficient must be below 0.8. In Table 1, the post-adjusted CFA results, for example, chi-square value (χ^2), degree of freedom (df), probability value (*p* value), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean square residual (RMR), root mean square error of approximation (RMSEA), Tucker and Lewis index (TLI), and comparative fit index (CFI) of the latent (i.e. CL, JS, OC, and TI) and observable variables are consistent with the empirical data.[54]

Figure 2 illustrates the post-adjusted factor loadings (λ) of the *latent-latent-variables* path analysis. The results revealed that CL had a direct positive influence on JS ($\lambda = 0.65$) and on OC ($\lambda = 0.75$). By comparison, CL exerted more influence on OC than on JS. The CL–JS and CL–OC findings confirmed hypotheses 1 and 2, respectively. The project managers' CL also had a direct negative influence on the TI of the engineers ($\lambda = -0.61$), thus confirming hypothesis 3. Furthermore, CL negatively, indirectly influenced the engineers' TI through JS ($\lambda = -0.03$), confirming hypothesis 4. The findings also showed that CL exerted a negative influence on the TI of the engineers through OC ($\lambda = -0.37$), confirming hypothesis 5. The total influence of CL on TI was −0.90.

In Figure 2, the post-adjusted factor loadings (λ) of the *latent-observable-variables* path analysis were in the range

Table 2. GOF of the proposed SEM in relation to the empirical data.

Test	χ^2	df	χ^2/df	*p* Value	GFI	AGFI	RMR	RMSEA	TLI	CFI
Fit values[54]			<2	>0.05	>0.90	>0.90	0	>0.05	>0.90	>0.90
Hypothesis model	842.608	147	5.732	0.000	0.833	0.784	0.024	0.103	0.885	0.901
Adjusted model	255.047	128	1.993	0.000	0.946	0.919	0.015	0.047	0.976	0.982

GOF: goodness of fit; SEM: structural equation model; GFI: goodness of fit index; AGFI: adjusted goodness of fit index; RMR: root mean square residual; RMSEA: root mean square error of approximation; TLI: Tucker and Lewis index; CFI: comparative fit index.

of 0.66–0.98. According to Byrne,[54] the factor loading in excess of 0.3 is statistically significant. Specifically, the II attribute of CL exhibited the greatest factor loading (0.88), indicating that the engineers attached the greatest significance to this leadership attribute.[57] The supervision (SUP) component of JS exhibited the largest factor loading (0.98), indicating that the employees derived more satisfaction working with the ability of the supervisor to provide emotional and technical support as well as guidance with work-related assignments.35 Meanwhile, the NC component of OC had the highest factor loading (0.89). According to Leung,[20] the higher the NC, the lower the employee turnover. As for the TI, the ONJ exhibited the highest factor loading (0.86), indicating that the employees who were presented with more employment opportunities were more likely to quit.[58]

Table 2 tabulates the fit values and the statistical values of the pre- and post-adjusted proposed SEM. In the table, the post-adjusted values, for example, χ^2, df, and *p* value, achieve the GOF with the empirical data, confirming hypothesis 6.

Qualitative results

The participants for the qualitative research were 10 males between the ages of 25 and 45 years. All of them have levels of education in bachelor's degree. The length of work experience encompassed 1–5 years (70%), 6–10 years (20%), and more than 10 years (10%). The levels of income included below THB 20,000 (20%), THB 20,000–29,999 (60%), THB 30,000–40,000 (10%), and above THB 40,000 (10%). The company size included 20–50 employees (10%), 51–100 employees (20%), and more than 100 employees (70%). The length of operation included 1–5 years (10%), 6–10 years (20%), and longer than 10 years (70%).

The qualitative result is consistent with the quantitative finding in that the project managers should be knowledgeable, experienced, decisive, and also possess managerial skills. For the JS finding, the engineers derived more satisfaction working with the open-minded, accessible, and resourceful supervisors or managers. Interestingly, the quantitative result is incongruous with the qualitative finding since the interviewed engineers attached greater value to the AC and CC variables without reference to the NC, suggesting that the financial compensations played a more crucial role in their organizational attachment and commitment. As for the TI, the qualitative finding in that the engineers who were presented with new employment and owner's opportunities was more likely to quit.

Descriptively, the construction project managers exhibited all of the CL attributes (II, IC, IM, IS, SA, BPI, IMP, RT) with the corresponding high-factor loadings (Figure 2), consistent with Ofori and Toor[29] and Bhangale and Devalkar.[29] According to Hair et al.,[50] the factor loading in excess of 0.3 is regarded as statistically significant. In this research, the quantitative and qualitative findings revealed that the construction project managers' CL positively influenced the JS and OC of the engineers but negatively influenced their TI. This is consistent with Koesmono,[59] who documented that the high rates of employee turnover were attributable to their job dissatisfaction, which was directly linked to the leadership.

The quantitative and qualitative findings also revealed that the engineers attached greater value to the "intangible" aspect of JS than the "tangible" one, as evidenced by the higher factor loadings of SUP (0.98) and CWR (0.85) vis-à-vis those of PAY (0.66), JOB (0.83), and PRO (0.77). The SUP and CWR are the intangible JS attributes while the PAY, JOB, and PRO are the tangible features. To strengthen the intangible JS aspect, the organization needs to encourage the managers and employees to engage in the informal work-unrelated activities, for example, sporting events, outings, and potluck party.

Interestingly, the quantitative and qualitative results are incongruous with regard to the OC of the engineers. Quantitatively, the NC exhibited the highest factor loading (0.89), indicating that the employees felt obliged and morally right to commit and remain with the organization. Nevertheless, the qualitative (interview) finding revealed that the engineers attached greater importance to the AC and CC without reference to the NC, indicating that the monetary compensation and rewards played a significant part in their organizational attachment and commitment. To address this issue, the organization is required to instill in the employees a sense of unity, integrity, and morality through, for example, volunteering and social activities with a good cause.

Conclusions and implications

This research has investigated the influence of the construction project managers' CL on the JS, OC and TI of

the civil engineers in the Thai setting. In the study, the sequential explanatory mixed method was utilized, whereby the quantitative research was carried out with a sample of 450 civil engineers using a questionnaire and a SEM. An in-depth interview with another 10 civil engineers was then conducted and the qualitative findings compared against the quantitative results. The quantitative results revealed that CL had a direct positive influence on JS ($\lambda = 0.65$) and OC ($\lambda = 0.75$); and that CL had a direct negative influence on the TI of the engineers ($\lambda = -0.61$). The quantitative results were mostly agreeable with the qualitative findings except for the OC in which the interviewers attached the most value to the AC and CC components (i.e. the monetary components) while the quantitative results indicated otherwise.

The research findings are expected to shed light on the influence of CL on JS, OC, and TI in the context of the construction industry in Thailand, given that the existing research on this topic is nonexistent. Furthermore, the findings verify the effectiveness of CL in remediating the high employee turnover problem, particularly of the civil engineers, that has plagued this industry.

This empirical research nevertheless encounters certain limitations. Since this research made no distinction between the small, medium, and large construction firms, similar future research should thus account for the variable sizes of the organizations. In addition, this current research was concerned with the functional-level leadership (i.e. the project manager–engineer dynamics), future research could entail the corporate-level leadership (i.e. the top management–engineer dynamics) for the multilevel comparison. Furthermore, while this research utilized the sequential *explanatory* method, subsequent research could adopt the sequential *exploratory* methodology to examine the relationship between the leadership, JS, OC, and TI.

Declaration of Conflicting Interests

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