

A Study on Leadership Styles of Construction Site Managers on Building Construction Projects in Thailand

Worley Co.

Pornchai SUMPUWEJAKUL*

Kochi University of Technology

○Tsunemi WATANABE**

The construction site manager (CSM) is a key actor in the construction phase to cope with various kinds of dynamic resource constraints and to fulfill required project goals. Many leadership studies have been conducted in the manufacturing industry, but a little is known in the construction industry. In this paper an attempt is made to investigate current practices in leadership styles of CSMs in building construction projects in Thailand.

It is found that the studied CSMs are perceived to use the directive styles most and the supportive style least by their subordinates. At the sites where the participative style is perceived to be taken, performance of the subordinate group is high. At the sites where the supportive style is perceived to be taken, the subordinates' job satisfaction is high. As determinants of leadership style, quality of finished products and ethics are particularly important. Personal attributes of an immediate subordinate such as work experience and knowledge are also significant.

【Keywords】 leadership, Thai construction site manager, building projects

1. Introduction

The construction site manager, which is referred to as the CSM hereafter, is a key actor in the construction phase to cope with various kinds of dynamic resource constraints and to fulfill required project goals. In order to achieve the best project outcomes from his/her subordinates, the CSM has to be an expert in utilizing proper leadership styles in on-site workforce management.

Many leadership studies have been conducted in the manufacturing industry, but a little is known in the construction industry. There is a gap between leadership theory and its application in construction practice.

In this paper an attempt is made to investigate current practices in leadership styles of CSMs in building construction projects in Thailand.

2. Model Development

(1) Definition of leadership

There are many definitions of the leadership. In this study the leadership is defined as a process of social interaction between the leader and his or her subordinates, in which the leader seeks to influence his or her subordinates to achieve the objective of the organization (Petzall et al, 1991).

Figure 1 represents research model in this study. The

model consists of demands, behavior, and effectiveness of the leadership.

The objectives of this paper are to study what leadership styles are taken, what is effectiveness of each leadership style, and what are important leadership demands.

(2) Model composition

Hersey and Blanchard (1982) and others claim that leadership (L) is a dynamic process, which is a function of the leader (l), the follower (f), and other situational variables (s): $L = f(l, f, s)$. Thus, these three components compose the leadership demand.

For the leadership behavior, the actual leadership styles are assumed to be categorized into the four styles:

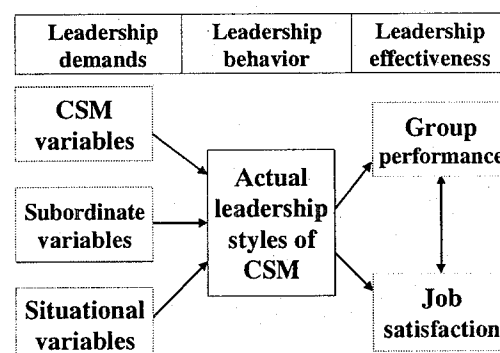


Figure 1. Research model for this study

* Field Engineer

** Department of Infrastructure Systems Engineering, 0887-57-2408

directive, supportive, participative, and achievement-oriented. This notion is adopted through the Path-Goal Leadership Questionnaire by Indvik (1988), which is based upon the work of House and Dessler (1974) and House (1976).

There is little agreement on definition and measurement of the leadership effectiveness (Cameron and Whetten 1983). Fiedler (1967) employs the group performance on the group's primary task. Stogdill (1974) claims that performance, integration, and job satisfaction are the criteria to measure the effectiveness. Since the definition of leadership in this study emphasizes social interaction between the leader and his or her subordinates, the group performance and job satisfactions of the CSM's immediate subordinates are employed as measures of the leadership effectiveness.

3. Questionnaire Development

(1) Leadership demands

CSM variables and subordinate variables include personal attributes of those such as work experience or knowledge.

Situational variables include leader-member relations, task structure, and position power of the CSM. Project characteristics such as project value and completion percentage are also included.

(2) Leadership styles

Here, it is assumed that CSM's leadership styles are measurable through perception of his/her immediate subordinates. To what degree each of the four leadership styles is perceived to be taken is given by the total score of five questions with 7-point scale ranging from "never" to "always." Thus, the score for each leadership style ranges from 0 to 35.

The same questions are also asked to the CSM to find perception gap between the CSM and the subordinates.

(3) Leadership effectiveness

Measures for the group performance are developed by Szilagi and Wallace (1983), Sharma (1986), and Schuler and Youngblood (1986). In this study there are four assessment items: accuracy of work, work speed, cooperation within fellow workers, and the overall effectiveness of the team on the delegated jobs. The CSM is asked to assess the performance of his/her

immediate subordinate group with respect to the four items. Each item is assessed with five-point scale ranging from "very poor" to "very good". Thus, the score for the group performance ranges from 0 to 20.

The job satisfaction is measured with the 36-item indices developed by Spector and Wimalisiri (1985), which represents the extent to which workers feel generally satisfied or dissatisfied with their current job from nine perspectives.

4. Conduct of Survey

Due to economic slowdown in Thailand, there is currently a limited number of on-going building construction projects. Thus, there are not many similar project sites in terms of contract value, project duration, percentage of completion, and so on. By using the non-probability approach for cross-sectional survey, 23 ongoing building construction sites were selected as target groups of the study with higher than its contract value of 100 Million Baht.

Complete and valid responses were obtained from 17 construction sites with the response rate of 73.9%. The respondents in each site consist of one construction site manager (CSM) and a few of his/her immediate subordinates who work closely along with the CSM. The number of samples of the CSM and the subordinate are 17 and 43, respectively.

5. Results of Survey

(1) Leadership styles taken in the projects

Table 1 shows to what degree each leadership style is perceived to be taken by the subordinates. The studied CSMs seem to use the directive and achievement-oriented styles most.

According to Indvik (1988), who explored the meanings of Path-Goal Leadership, leadership taken by the CSM group is perceived by the subordinate group as medium directive, low supportive, medium participative, and medium achievement-oriented as compared with most leaders in other industries.

Table 1. Perceived leadership styles in this study

	Mean	Std. deviation	Min	Max	Rank
1. Directive	23.421	3.743	17.000	31.000	1
2. Supportive	21.412	4.048	13.330	26.000	4
3. Participative	21.961	3.336	15.000	26.670	3
4. Achievement	22.235	4.180	11.000	29.000	2

Table 2. Leadership styles perceived by the CSM and subordinate

Variable	Mean		Std. Deviation		Significance (two-tailed)
	CSM	Subordinate	CSM	Subordinate	
Directive	24.529	23.421	3.243	3.743	0.243
Supportive	24.706	21.412	2.756	4.048	0.001**
Participative	22.412	21.961	3.874	3.336	0.647
Achievement	24.000	22.235	3.742	4.180	0.134

Note) **: significant difference at 0.01 level

It is found that project leaders in the Hong Kong construction industry tend to use the supportive style in the feasibility and pre-contract stage, and the directive style in the construction phase (Rowlinson et al., 1993). Likhitwonnawut (1996) found, however, that in his study CSMs in Thailand tend to be more supportive in the construction phase because of complicated task structure but more participative in the feasibility and pre-contract stages. Results of this study seem consistent with studies by Indvik and Rowlinson et al. but inconsistent with Likhitwonnawut.

Table 2 shows difference in leadership styles perceived by the CSM and subordinate.

The CSMs think that they employ the supportive leadership style as the primary style. The immediate subordinates perceive, however, that the CSMs utilize the supportive style least. Their perception gap is statistically significant at 0.01 level.

(2) Leadership effectiveness

a) Group performance

In this study the leadership effectiveness is measured with the group performance assessed by the CSMs and the job satisfaction assessed by the subordinates.

Table 3 shows overall group performance scores. If the all four items are assessed to be "average," the total score would be 12 (=3×4). Since the mean value, 13.353, is larger than 12, the overall group performance of the 17 subordinate groups are higher than general standard.

The next question is then under which leadership styles the group performance becomes high.

Table 4 shows the correlation coefficients between the CSM's leadership perceived by the subordinate and the group performance. At the sites where the Participative style is perceived to be taken, the group performance becomes high.

Table 3. Overall group performance

Mean	Std. Deviation	Minimum	Maximum
13.353	1.730	11.000	17.000

Table 4. Correlation coefficients between the leadership style and group performance

Directive	Supportive	Participative	Achievement
0.188	0.197	0.672**	0.097

Note) **: significant at 0.01 level (two-tailed)

Bresen et al. (1986) shows that relationship-oriented CSMs tend to enhance the project performance than the task-oriented ones. Fraser (2000) found the similar result that CSMs in Australia have high effectiveness as they use the participative style, and have low effectiveness as they use the directive style.

b) Job satisfaction

Table 5 shows the correlation coefficients between the CSM's leadership perceived by the subordinate and the job satisfaction of subordinate.

The coefficients between the job satisfaction and three leadership styles, directive, supportive, and achievement-oriented, are highly positive. Especially seven coefficients associated with the supportive style are statistically significant at 0.05 level.

Table 5. Correlation coefficients between the leadership style and job satisfaction

Variable	Directive	Supportive	Participative	Achievement
Pay	0.307	0.698**	0.52*	0.082
Promotion	0.107	0.294	0.603**	-0.102
Supervision	0.268	0.780**	0.410	-0.059
Benefits	0.065	0.559*	0.139	-0.090
Contingent Rewards	0.587*	0.600*	0.461	0.263
Operating Procedure	0.425	0.544*	0.379	0.256
Co-workers	0.301	0.355	0.034	0.232
Nature Of work	0.393	0.405	0.372	0.425
Communication	0.351	0.621**	0.379	0.122
Overall job satisfaction	0.417	0.782**	0.564*	0.156

Note) Correlation coefficients with * and ** are statistically significant at .05 and .01 level (2-tailed), respectively.

Effectiveness of the supportive style into the job satisfaction has been discussed in various studies. House et al. (1974) found that there is mixed evidence about its effectiveness when subordinates work on stressful, frustrating, or dissatisfying tasks. On the other hand, Borchering (1975) pointed out that the alienating effect of greater specialization and administrative rigidity such as elaborate planning and scheduling systems, which is conducive to enhance productivity in some situations, is a major cause of subordinates' dissatisfaction. The supportive style may mitigate the dissatisfaction rather than enhance productivity directly (Fiedler, 1967). According to Yukl (1994), most studies find a positive effect of supportive style on the subordinates' satisfaction, regardless of the situation.

According to the Path-Goal theory, the directive leadership has a positive association with subordinates' satisfaction when the tasks are structured, and has a negative correlation with it when the tasks are ambiguous (House et al., 1974).

Mitchell, Smyser, and Weed (1975) found that follower satisfaction was not directly correlated with the degree of participative behaviors of leaders, and that the external-locus-of-control followers were more satisfied with directive leader behaviors.

On the other hand, Yukl (1994) pointed out that the participative leadership might increase the intrinsic valence of work and thus satisfaction of the subordinates with a high need for achievement and autonomy. Mitchell, Smyser, and Weed (1975) concluded that the internal-locus-of-control followers are more satisfied with the participative leader behavior. Miller and Monge (1988) suggest that "participation fulfills needs, fulfilled needs lead to satisfaction, satisfaction strengthens motivation, and increased motivation improves workers' productivity."

(3) Leadership determinants

Table 6 shows the most important determinants of CSM's leadership behavior. According to Fiedler (1967), the leader-member relations, task structure, and position power of leader are generally the most important determinants of leadership behaviors, especially in the manufacturing industry. These three factors are, however, not included in the top nine factors.

Instead, quality of finished products is ranked first, and ethics is ranked second. Ethics is probably considered because of personal power, justice, fairness, and the Thai culture of "saving face" concept. Experience, job knowledge, growth and development, and professional orientation of an immediate subordinate are also considered significant.

Table 6. The most important determinants of CSM's leadership behavior

Rank	Factor	Description	Mean Value	Std. Dev
1	IO15	Quality of finished products	4.41	0.51
2	L10	Ethics	4.35	0.70
3	F6	Experience, job knowledge of an immediate subordinate	4.24	0.75
4	F10	Growth and development of an immediate subordinate	4.18	0.73
5	IO14	Cost or budgetary constraint	4.18	0.88
6	IO17	Safety	4.18	0.95
7	L5	Project manager's job Knowledge	4.06	0.75
8	IO13	Time constraint	4.00	0.71
9	F8	Professional orientation of an immediate subordinate	4.00	0.94

Note)

Lxx = Leader variable, Ixxx = Internal organizational variable

Fxx = Follower variable, Exxx = External organizational variable

6. References

- [1] Yukl, Gary, 1994. *Leadership in Organization*. Englewood Cliffs, NJ, Prentice-Hall.

タイ国建築工事における現場代理人のリーダーシップに関する研究

Pornchai SUMPUWEJAKUL, 渡邊 法美

リーダーシップは製造業を中心に多くの研究がなされているが、建設に関するものは少ない。ここでは、タイの建築工事の現場代理人を対象として、①どのリーダーシップスタイルを採用しているか？②それらの効果、③リーダーシップスタイルの決定要因、を調査することを目的とした。その結果、①指揮命令型を採用していると部下に認知されている代理人が多いが、代理人自身の多くは部下支援型を採っていると思っていること、②部下参加型の現場では部下の成果は高く、部下支援型の現場では部下自身の仕事への満足度は高いこと、③スタイルの決定要因として、品質、倫理の他に経験・知識など部下の属性が重要であることが明らかとなった。