

# CEO특성과 경영통제간의 적합성에 관한 연구

## A Fitness between CEO Characteristics and Management Control

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### 요약

본 연구는 상황분석이론을 적용하여, 최고경영자(CEO)의 특성과 경영통제시스템간의 적합성이 존재할 때 기업의 조직성과에 유의적인 영향을 미치는 가를 구조방정식을 적용하여 실증 분석하고자 하였다. 이를 위해 한국의 제조기업들을 대상으로, CEO의 특성을 크게, 위험감수성향과 성취동기로 구분하였고, 경영통제시스템을 행동통제와 결과통제로 구분하였다. 그리고, 조직성과의 경우, 주로 재무적 특성을 지닌 성과를 적용하여 분석하였다. 각 변수들간의 관계에 대해 개별적 또는 종합적으로 분석하기 위해 구조방정식을 적용하여 분석하였다. 본 연구의 결과, 성취동기와 위험감수성향 중 위험감수성향은 행동통제와 결과 통제에 유의적인 양의 영향을 미치고, 위험감수성향은 행동통제에 음의 영향을 미치는 것으로 나타났다. 위험감수성향에 음의영향과 성취동기에 양의 영향을 받은 행동통제는 조직성과에 유의적인 양의 영향을 미치는 것으로 파악되었다.

■ 중심어 : | CEO특성 | 경영통제 | 위험감수성향 | 성취동기 | 행동통제 | 결과통제 | 조직성과 |

### Abstract

In order to improve organization performance by CEO's leadership, the control systems have to be designed in accordance with CEO's strategic orientation. A management control systems (MCS) is a system which gathers and uses information to evaluate the performance of different organizational resources like human, physical, financial and also the organization as a whole considering the organizational strategies.

The current study is conducted with the objective to explore the effects of CEO's Characteristics (Risk-taking tendency, and Achievement motivation) and control types (Behavioral control, and Result control) on organization performance.

The characteristics of ceo - behavior control and risk-taking propensity - results in significantly positive effect on management control. On the other hand, risk-taking propensity has influence negatively on behavior control. The behavioral control is received negative influence from risk-taking propensity. and it received positive influence from motivation. and then it has effect on organization performance(indirect effect).

To achieve the purpose of this study, Structural Equation Model (SEM) has been applied.

■ keyword : | CEO' s Characteristics | Behavior Control | Result Control | Financial Performance |

## 1. Introduction

The Contingency theory has become one of the dominant paradigms for research on management control design [6]. The central premise of the contingency theory is that there is no universally appropriate control system that applies in all circumstances.

Management control systems are viewed typically as tools of strategy implementation. The extensive literature on the control is related to the contingent design, and the contingent variables that are relevant to organizational design are likely to be important for control [4]. Businesses today exhibit a highly complex structure. Research articles on contingent control focus on understanding interactions between multiple contingent and control factors, and may be essential in determining the effectiveness of control system design. The ultimate goal of contingent control research should be to develop and test a comprehensive model that includes multiple control systems, multiple contingent variables, and multiple outcome variables [8].

Management control systems are viewed typically as tools of strategic actions by managers. Top managers use formal control systems interactively in different strategic settings to focus on organizational attention and resources. The interactive application of management control systems by top managers bring about a substantial improvement in performance.

Through intensive and focused top-management attention on a specific control system, the signals of top-managers attention are spread to the entire organization to guide member gathering information, acting through plans and strategies. Thus, by using a control system interactively, CEOs can make the members understood the goals and objectives of organization. And they can make them led to acquire

knowledge to achieve their goal [16].

The current study is conducted with the following research purposes. First, it is that measure the influence of top management characteristics (Risk taking, and Achievement motivation) on management control system types (Behavior control, and Result control). Second, it is that evaluate the effects of management control system types on organizational performance.

## 2. Theoretical underpinnings

### 2.1 Management control system

In general, 'Control' means that it functions as confirming the plan which is established to achieve the purpose of organization is actually into action and modifying when outlier is found.

Management control system should be built to be fitted for characteristics of top management to improve the performance of the organization. Management control systems are usually described as information feedback systems [18]. Goals are set in advance, outcomes are compared with preset objectives, and significant variances are reported to managers for remedial action and follow-up [8]. The management control processes are approved by top managers, plans are communicated down-through the organization, and formal systems are used to inform top managers if actions or outcomes are not in accordance with intended plans.

Contingency theory argues that the design and use of control systems is contingent upon the context of the organizational setting in which these controls operate. A better match between the control system and the contextual contingency variable is hypothesized to result in increased organizational (individual) Performance. Contingency theory arose in

response to the universalistic approach that argues that optimal control design applies in all settings and firms.

## 2.2 CEO's Characteristics

Concentration and explicit involvement of top management who is responsible for the fate of the organization is necessary to make all programs working successfully for achievement of goal of the organization. A Chief Executive Officer (CEO) is the highest-ranking corporate officer (executive) or administrator in charge of total management of an organization. An individual appointed as a CEO of a corporation, company, organization, or agency typically reports to the board of directors. The responsibilities of an organization's CEO are set by the organization's board of directors or other authority, depending on the organization's legal structure. They can be far-reaching or quite limited and are typically enshrined in a formal delegation of authority. A number of studies show that Chief Executive Officer of the demographic characteristics, psychological characteristics, and behavioral characteristics have a direct impact on corporate performance [27]. In particular, the study on the relevance of the psychological characteristics of the chief executive officers and corporate performance, the need for achievement, risk-taking propensity, tolerant of ambiguity, and location of internal control has been studied as major variables [15]. The needs for achievement, risk-taking propensity, and openness to change play a very important role in the management innovation [4].

## 2.3 Management Control and CEO's Characteristics

CEOs could have a significant impact on their firm

structure and environment. Furthermore, the personality of CEO is critical factor that can give influence to strategy, structure and environment. There is some relationships between the personality of the CEO and his behavior to control the organization and these in turn have implications for structure and environment [11].

In essence, Aggressive, and active CEO will tend to undertake more innovative, risky, and proactive strategies. In contrast, other CEOs who are more given to feelings of helplessness and passivity will be more conservative, reactionary, and risk averse. Diversification and innovation, for example, may require decentralization, differentiation, and a more organic structural orientation and also might move the firm toward more heterogeneous and turbulent environments.

Rotter's [9] internal-external scale measures an individual's perception of how much control he is exerting over the events in his life. An internal person is convinced that the outcomes of his behavior are the results of his own efforts. In contrast, the external person believes that the events in his life are beyond his control and should be attributed to fate, luck, or destiny. Depending on these perceptions, it is assumed that there will be a considerable difference in behavior. The superior performance was achieved most often by internal leaders and by groups led by internals. Moreover, it appeared that internal managers were more task oriented and functioned better in stress situations than did externals [17].

External leaders were more likely to resort to coercive power, in contrast to internals, who would rely on more persuasive forms of power. In addition, according to these studies, internals seem to be more considerate supervisors and more satisfied in a participative work environment [12].

Through the above studies, we could see that the

control types preferred by CEO might vary depending on the characteristics of the CEO. There may expect a relationship between personality of CEO and control system. The CEO who has innovational personality may prefer internal control system. So they would like to make organizational climate more "organic"[6]. In this state, the internal control system that CEO Accepted to achieve more aggressive innovation let the members ensure a lot of autonomy.

To apply the contingency theory to CEO characteristics, you need to be classified CEO characteristics to some types. So, in this study, CEO characteristics would be classified into two types. that is 'risk-taking propensity' and 'achievement motivation'.

### 3. Hypotheses Development

#### 3.1 The Characteristics of CEO and Behavior control

Management control system should be built to be fitted for characteristics of top management to improve the performance of the organization. The Management control system (MCS) is a process that is accepted formally and it is a system to use information that is needed to manage the organizations. The Purpose of MCS is to present the information to do decision making, plan, control and evaluation for organization [14].

MCS can be divided into various categories [12][16]. It is common to distinguish result control and behavior control. So MCS in this study were classified as 'behavior control' and 'result control'.

The Behavior control structuralizes and regulates employee's behavior to achieve the goal of organization [22][26]. So the CEO, in order to ensure that employees follow established procedures, are

closely monitored and will evaluate the behavior of the employees. In order to apply behavior control, the organization must possess at least an agreement, if not true knowledge, about means-ends relationships. The process through which in-puts are transformed into outputs must be felt to be known before supervisors can rationally achieve control by watching and guiding the behavior of their subordinates [26]. The benefit of behavioral control is that the control is used to employees directly. In other words, the behavioral control can be used as a tool correcting deviant behavior of employees. However, there are disadvantages of behavioral control that they should employ too many managers due to Limited control scope of individual managers [18]. The Manager, at his discretion, does to instruct for desirable behavior in certain situations. On the other hand, the subordinates must comply with the instructions and supervision. Therefore, the ideas, creative approach of subordinates are not necessary.

The CEO who has high risk-taking propensity or high Achievement Motivation tends to focus on the outside of the firm. So the CEO's characteristics would infect on employee behavior control negatively. Thus, the following hypotheses can be constituted.

**Hypothesis 1:** CEO's risk-taking propensity will have a negative effect on the control of behavior.

**Hypothesis 2:** CEO's achievement motivation will have a negative effect on the behavioral control.

#### 3.2 The Characteristics of CEO and Output control

The CEO of organizations could infect on the results that were produced by the employees. This is the result control [26]. The behavior control represents the degree that a manager monitors and evaluates the behavior of the employees, but the

result control can be told as the extent to which managers monitor and evaluate the results that employees produced [7]. The result control can be quantified typically and can compare clearly between the organization and the functions. The results control is permitted at the discretion of the employee, also provides incentives for organizational performance and all responsibility. Therefore, self-motivated employees themselves will be able to do productive behaviors [9][22].

There are some disadvantages on the result control. First, it does not have any system to prevent errors before the error. According to the agency theory, the result control may lead to excessive risk-averse behavior of the employees. So it is need to construct a more sophisticated performance evaluation system that can be used to elicit the desirable results evaluation [10]. Even if the employees behave opportunistically to achieve only his profit, but doing so can affect the enhancement of performance by the result control. The control system can lead the organization to do preferred action for achieving the goals of the organization [6]. The People who tend to be high internal control as suggested by Rotter [9] and show a higher level of self-esteem, are relatively active and adaptive. They tend to be turning to own responsibility for the good or bad results [15].

The CEO's characteristics (risk-taking propensity, high motivation) that have a direct impact on result control, thus, the following hypothesis has been constituted.

**Hypothesis 3:** CEO's risk-taking propensity will have a positive effect on the output control.

**Hypothesis 4:** CEO's achievement motivation will have a positive effect on the output control.

### 3.3 The Management control and Financial Performance

The Control system is used to create conditions that motivate the organization to achieve desirable or predetermined outcomes. Because of the ambiguity and contradiction in defining control, comparing and integrating control studies is difficult. Organizational control has been defined as any actions or activities taken to influence the probability that people will behave in ways that lead to the attainment of organizational objectives [6].

The Contingency theory argues that the design and use of control systems is contingent upon the context of the organizational setting in which these controls operate. A better match between the control system and the contextual contingency variable is hypothesized to result in increased organizational performance. Many of the portfolio models of strategy formulation and implementation are based on the universalistic view [3].

As noted by both organizational and agency theorists, in performance evaluation, a signal from a worker or business unit is measured, evaluated and rewarded. The signal measured can be the action of the employee or the outcome of those actions. The former implies behavior control, the latter implies output control. Observability (of behavior or outcomes) implies that control can be placed only on variables that are observable by the evaluator [5]. But this contingency list should not be considered exhaustive since all contingent factors may not be identified.

Cybernetic control system includes formal financial budgeting systems and incentive compensation systems that tie to the control systems. The performance measures used in a formal control system may include financial measures such as net income, revenue and expense targets, as well as

nonfinancial measures such as headcount, cycle time, on-time delivery and scrap [10]. In many cases, the incentive compensation system is tied to performance measure attainment and is a feedback component of the control system. The contingent control literature is based on the premise that a correct match between a contingent factor and a firm's control package will result in desired outcomes (i.e., higher performance). The system then feeds back into future strategy and operational decisions. This feedback loop is consistent with the notion that the control system can affect organizational learning and influence strategy interactively [10]. On the basis of the above theoretical study, the following hypothesis has been constituted.

**Hypothesis 5:** behavioral control will have a positive effect on the financial performance.

**Hypothesis 6:** output control will have a positive effect on the financial performance.

[Figure 1] reflected the research model to test the study hypotheses mentioned above.

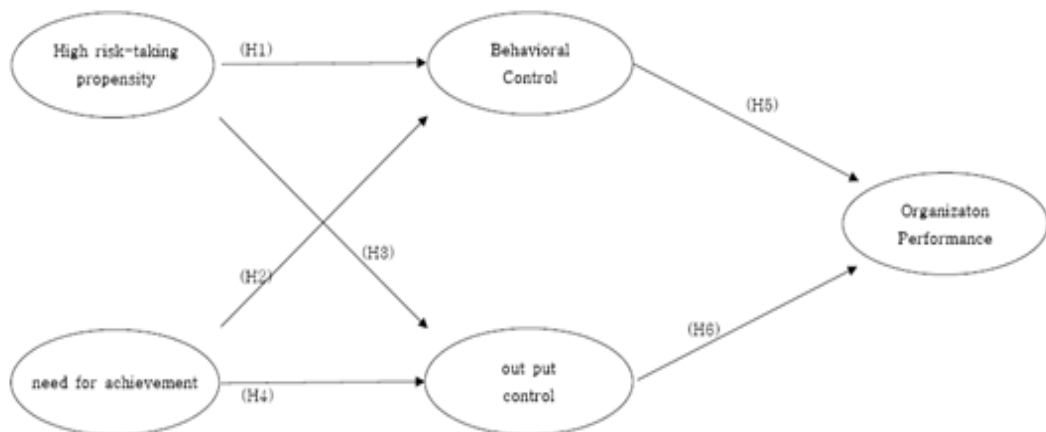


Figure 1. Hypothesized Research Model

## 4. Research method

### 4.1 Data Collection Method

The study was conducted in the manufacturing sector of Korea (ROK). Data were collected from the firms that are listed on the Financial Supervisory Service, the Small Business Administration in 2007. Survey was conducted in the business unit of the company, and the targets of response are CEOs, division managers that can understand the strategies and management control system of the company. In order to collect data, this research both administered questionnaires and conducted interviewed with the participating persons. The survey was conducted during a 4-month period between May and August 2008. [Table 1] summarizes the sample characteristics according to the industrial type of the firms. The variables in this paper were measured by the items around 3-7 developed by previous studies. And all the items have been measured on six point Likert scale format.

Table 1. Sample characteristics

Type of industry		No. of firms	Ratio			
F & B		18	9.5%			
Manufacture of basic metals		7	3.7%			
Fabricated Metal Products		9	4.8%			
Machinery and equipment manufacturing		11	5.8%			
Secretary, Accounting and computing machinery		9	4.8%			
Video, Television and communication equipment and		6	3.2%			
Electrical machinery and apparatus		14	7.4%			
Car and trailer		11	5.8%			
Free Other Transport Equipment		9	4.8%			
Medical Precision Optical Instruments, Watches and Clocks		13	6.9%			
Furniture and other manufacturing		16	8.5%			
Textile products		5	2.6%			
Clothing fur leather shoe products		12	6.3%			
Timber wood products		8	4.2%			
Pulp, paper and paper products		7	3.7%			
Chemicals and chemical products		15	7.9%			
Refined petroleum products		5	2.6%			
Rubber Plastic Products		6	3.2%			
Non-metallic mineral products		8	4.2%			
Total		189	100			
No. of employees	Below 100	100 – 300	300 – 500	500 – 1,000	1,000 –	Total
No. of firms	86	44	29	13	17	189

Table 2. Mean, Standard Deviation and Correlation Matrix

St. No.	Variable	M	SD	1	2	3	4
1	High risk-taking	3.603	1.049	–			
2	Need for Achievement	4.168	0.885	0.459**			
3	Behavioral Control	3.658	0.841	0.280**	0.560**		
4	output Control	3.715	0.811	0.386**	0.644**	0.791**	
5	Financial Performance	3.855	0.920	0.295**	0.444**	0.509**	0.511**

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

[Table 2] reflected the results of analysis that computed by spearman correlation, means and standard deviation of all variables accepted in this study. All the variables show their levels are more than neutral stage. It is further reported that all other variables are positively associated with each other at the 99% confidence level. This shows the high correlation between studied variables.

#### 4.2 Validity and Reliability Testing

To check the validity of all measurement scale, this study applied confirmatory factor analysis (CFA). Through CFA, and checked the factor loading of each item statements towards its respective scale. The

CFA model yielded good fitness ratios as mentioned with CFA model in [Figure 2] No ratio is beyond the fitness limit as prescribed by different statisticians. Thus, all measurement scales are found to be reliable. This shows the same result with the suggestions of Nunnally, D'Angelo, & Craig [12].

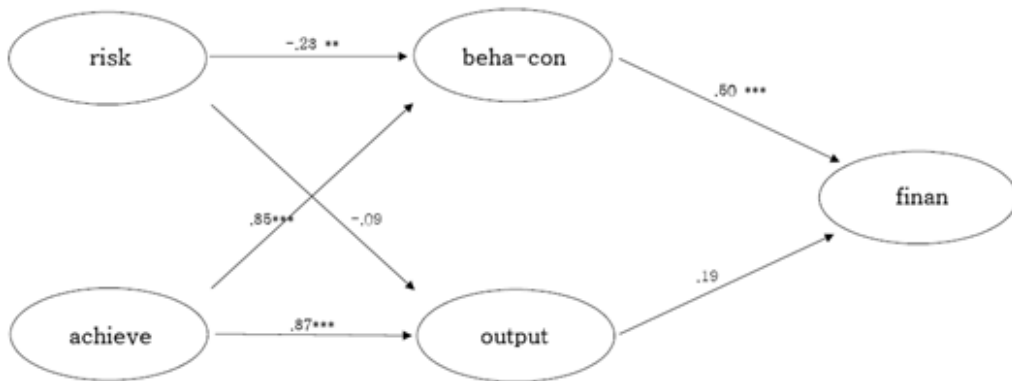
#### 4.3 Hypotheses Testing

In order to test the study hypotheses, Structural Equation Model (SEM) as illustrated in [Figure 3] has been applied through AMOS 18. SEM in this study is found to be good fit as all fitness indicators reported in [Figure 3] are fulfilling the fitness criteria suggested by statisticians.

Table 3. Confirmatory Factor Analysis

Constructs	Measurement items	Standardized factor loading	CR	AVE
High risk-taking	RT1	.811	12.681	.689
	RT2	.791	12.336	
	RT3	.885		
Need for Achievement	AM1	.776	12.402	.586
	AM2	.859	11.068	
	AM3	.778	10.242	
	AM4	.728	9.381	
	AM5	.674		
Behavioral Control	BE1	.743	9.136	.564
	BE2	.679	11.648	
	BE3	.855	10.302	
	BE4	.760	9.536	
	BE5	.707		
output Control	RE1	.817	8.526	.528
	RE2	.732	7.943	
	RE3	.616		
Financial Performance	PERF1	.811	8.800	.601
	PERF2	.848	8.926	
	PERF3	.653		

Fitness Ratios: CMIN = 286.733; Degree of Freedom (DF)= 142; CMIN/DF = 2.019; RMR = 0.089; GFI = 0.89; NFI = 0.866; CFI = 0.926; RMSEA = 0.74



Fitness Indicators: CMIN = 345.836; Degree of Freedom (DF)= 145; CMIN/DF = 2.385; RMR = 0.087; GFI = 0.84; NFI = 0.836; CFI = 0.897; RMSEA = 0.084.

Figure 3. Structural Equation Model

In the case of hypothesis 1, the CEO's risk taking tendency has a negative and significant effect on behavioral control as direct effect coefficients that is  $-.22$  at the 99% confidence level. The CEOs who have a risk taking tendency usually take challenges and innovations externally, and pursue an open organizational structure internally. Therefore, they

have tendency that they would like to minimize the behavior control for employees. the studies of various authors [1][16] found the same result.

According to hypothesis 2, 4, the independent variables have positive and significant effects on dependent variables as direct effect coefficients on the line of SEM at 99% confidence level.



Table 4. Decisions of Hypotheses

Hypothesis	Independent Variable	Dependent Variable	Regression Co-efficient	Decision
1	High Risk-taking	Behavior control	0.23 ***	accepted
2	Need for achievement	Behavior control	0.85 ***	accepted
3	CEO' s Risk taking	Result control	-0.09	non
4	Achievement motivation	Result control	0.87 ***	accepted
5	Behavior control	organization performance	0.5 ***	accepted
6	output control	organization performance	0.19 *	accepted

Among the CEOs that have high achievement motivation, some people who have tendency to do control highly try a strict control. On the other hand, the CEOs who have participatory innovation characteristics would like to offer autonomy to employees [1].

The hypotheses that established to identify whether the control variables (behavior control, result control) infect on financial performance were significant both.

So the significant effects between these variables leads us to accept these hypotheses (H1, H2, H4, H5).

The results for the adoption of the hypotheses had reflected in [Table 2].

The CEOs who have high achievement motivation and prefer to do control would like to adopt the behavior control. The other CEOs would like to adopt the result control for their employees. So they would offer autonomy to the members. The high achievement motivation variable has significantly indirect effect on financial performance as effect coefficient is 0.578 and significant at 99% confidence level.

## 5. Conclusion

In order to improve organization performance by CEO's leadership, the control systems have to be designed in accordance with CEO's strategic orientation. A management control systems (MCS) is

a system which gathers and uses information to evaluate the performance of different organizational resources like human, physical, financial and also the organization as a whole considering the organizational strategies.

The present study explored the effects of CEO's Characteristics and control on organization performance. Generally research types about CEO are significantly the characteristics of the background and career, psychological characteristics, competence characteristics [27]. So this study adopted 'Risk-taking tendency', 'Achievement motivation' during psychological characteristics of CEO. For the control variable of this study, 'behavior control' and 'result control' were adopted. And for the variable of performance, financial performance was selected.

To achieve the purpose of this study, Structural Equation Model (SEM) has been applied through AMOS 18. Through this analysis, it is revealed that CEO's risk-taking tendency affected negatively on behavioral control system in organizations (Hypothesis 1). The CEOs that have high achievement motivation influence respectively on behavior control and result control. Among the CEOs that have high achievement motivation, some people who have a tendency to do control highly would like to exercise strict control over the members. So the CEOs want to control the behavior of the members directly or indirectly. On the other hand, the CEOs who have participatory innovation characteristics

would like to offer autonomy to employees, even though they have high achievement motivation, they prefer the result control rather than behavior control to evaluate their members.

The hypotheses that identify whether control variables affect organization performance accepted significantly (Hypothesis 5, Hypothesis 6). Especially, Behavior control affects financial performance highly than result control. Through additional studies conducted during the same period, there is a significant indirect effect of achievement motivation and behavior control.

The study provides implications to build an appropriate control system for special CEO's characteristics. According to the findings of the study, If a CEO who has a high achievement motivation tendency wants to build a control system that could contribute to improving the financial performance, he would rather adopt behavior control than result control.

The study has some limitations and proposition to be explored in future. This study was applied to CEO's characteristics, control variables and financial performance. But it needs to be expanded to the various parameters and the various performance variables. In addition, in order to analysis easily the situation study, this study have simply classified into only two types, that is CEO characteristics and control types. Based on this study, to carry out better research, you need to apply with various other variables.

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