

**ENHANCING ORGANIZATIONAL COMPETENCE
THROUGH HRM PRACTICES IN SMEs:
A QUANTITATIVE ANALYSIS IN APEC REGION**

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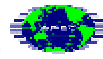
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ABSTRACT

The ever-expanding scope of global competition is forcing continuous reexamination of how human resource can best support the accelerating pace of business globalization.

The SMEs in the APEC region have been experiencing tremendous changes especially in the 90s which include not only the growth of service industries but also the economic upheaval in late 1990s. All these issues urged SMEs especially in the APEC regions to adopt appropriate human resource management practices for future success.

In this paper, the author examine the relationship between corporate performance of SMEs in APEC countries and their human resource management practices in aspects of recruitment and selection; training and development; compensation and benefits; and performance appraisal. It is hypothesized that all these human resource management practices would have positive correlation with corporate performance indicators. The understanding of the human resource management practices and corporate performance in SMEs provide valuable insights to senior executives of SMEs, academic researchers, administrators and practitioners on future direction in the area of human resource management. The main methodology used in this study would be quantitative approach using questionnaire. It is expected that findings in this study would be beneficial to those who are committed to enhancing organizational competitiveness of SMEs through successful human resource management practices in the 21st century.



BACKGROUND

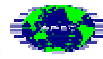
The practice of effective human resource management is one that small and medium size businesses need to develop and improve as they expand and grow. The vast majority of business in the Asian area today employ fewer than 100 people. In Chinese Taipei, SMEs constitute 96.5% of the approximately 935,000 business establishments and employ 78.6% of the total work force (Chinese Taipei Medium and Small Business Administration, 1995). In Hong Kong, the majority of establishment are in the form of SMEs (Table 1). Yet, current research conducted in the human resource field tends to focus on the larger firms that employ full-time human resource specialist.

Table 1: Share of SMEs in different sectors in Hong Kong as at January 1999

Sector	% share of SMEs
Industry sector - mining and quarrying - manufacturing - electricity, gas & water - construction	97.14%
Services sector - import/export - wholesale, retail, restaurants & hotels - transport, storage & communications - financing, insurance, real estate & business services community, social and personal services	98.32%

Source: Quarterly Report of Employment, Vacancies and Payroll Statistics (Census & Statistical Department, Hong Kong)

In fact, SMEs exert a strong influence on the economies of all countries, particularly in the fast-changing and increasingly competitive global market (Aharoni, 1994; Drillhon and Estime, 1993). They have been a major engine of economic growth and technological progress (Mulhern, 1995; Thornburg, 1993). Carrier (1994) commented that SMEs triumphed over larger firms in terms of innovation. The characteristics of SMEs such as flexibility, innovativeness, and problem-solving action orientation are now being considered as vital for success in the 1990s. This is especially true in the Asian region which has enjoyed a tremendous growth in the last decade. Even large companies have attempted to implement entrepreneurship and have learned to think like a small business (Chittipeddi and Wallett, 1991). Simon (1996) investigated five hundred SME champions in Germany and commented that they have much to teach companies of all sizes and all regions about commercial success. The success of SMEs in Chinese Taipei has been well acknowledged (Hannon, 1996; Liu, Liu, and Wu, 1995). They have played a vital role in promoting rapid growth during the economic transition of Chinese Taipei (Hannon, 1996; Liu, Liu, and Wu, 1995). The scale, scope, organization, and management of SMEs have changed over time in response to evolving markets, technologies, and economic conditions.



Not only that SMEs have been the drive for economic success, it is also the primary source of employment creation worldwide over the last decade (Mulhern, 1995). In the United States, firms with fewer than 500 employees account for more than 99% of all business establishments and employ over 80% of the work force (Aharoni, 1994). In Holland, 95% of firms are SMEs (Bijmolt and Zwart 1994); SMEs also comprise 95% of the total establishments in the Philippines (De la Pena, 1995).

In many cases, the owner of a small business handles the human resource function since they are usually limited when the firm employs only a few people. Obviously, an extremely small firm with two or three employees may not develop sophisticated human resource systems; however, there are numerous businesses that are categorized as “small and medium” that employ a large number of people and need effective human resource policies for their workforce. In this study, enterprises employing less than 500 people are classified as SMEs.

The purpose of this study to examine how the relation between human resource practices and the overall organizational performance of the SMEs in the Asian region. It is hypothesized that there is positive correlation between the human resource practices and the main corporate performance indicators.

The sample of this study is drawn from Hong Kong and their ownership include Mainland China, Hong Kong, Chinese Taipei, Japan, Korea, Indonesia, Philippines, Singapore, Malaysia, India and Thailand. This study focused upon three key human resources management practices: recruitment and selection, incentive compensation, training and development, and performance appraisal. Organisational performance was measured in terms of overall business performance, customer satisfaction, staff turnover, profit growth and sales growth.

METHODOLOGY

Quantitative research method was used in this survey. Five hundred sets of questionnaires have been mailed to SMEs in Hong Kong. The return rate of is 58.2% (291 sets of returned questionnaires)

RESULTS AND DISCUSSION

The distribution of ownership of responding companies is shown in the following table.



Table 2: Distribution of ownership

Ownership	%
Hong Kong	35
Mainland China	21
Chinese Taipei	24
Japan	9
Singapore	5
Indonesia	1
Philippines	1
Malaysia	1
Korea	1
India	1
Thailand	1

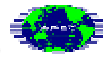
Hypothesis 1: The use of recruitment and selection strategy is positively related to organizational performance in terms of overall business performance, customer satisfaction, staff turnover, profit growth, and sales growth.

Table 2: Correlations between organizational performance and the recruitment and selection practice

	No. of candidate interviewed per each employee hired	No. of selection tests candidates required to test	Effectiveness of recruitment and selection strategy
Overall business performance is high compared to others in the same industry	0.12	0.011	0.14
Customer satisfaction is high compared to others in the same industry	0.29	0.044	0.139
Staff turnover rate is highly satisfactory compared to others in the same industry	0.46*	-0.135	0.47*
Profit growth compares favourably with that of competitors	0.038	0.053	0.12
Sales growth compares favourably with competitors	0.12	0.05	0.16

* correlation is significant at the 0.05 level (1-tailed)

Results indicated a positive effect upon organizational performance in terms of staff turnover with the use of recruitment and selection strategy. The satisfactory rate in terms of turnover is positively correlated with the number of candidates interviewed per employee hired (0.46). It may imply that the more candidates being interviewed, the more appropriate candidate would be selected and the longer that they will stay with the



company. The overall effectiveness of the recruitment and selection strategy also has a positive correlation with staff turnover. Other organizational performance indicators also have a slight positive correlation with the recruitment and selection practices.

Hypothesis 2: The use of training and development strategy is positively related to organizational performance in terms overall business performance, customer satisfaction, staff turnover, profit growth, and sales growth.

The training and development index include the number of trainees participated in such formal training and the effectiveness of such training.

Table 2: Correlations between organizational performance and the training and development practice

	No. of employees participated in formal training	Effectiveness of employee training
Overall business performance is high compared to others in the same industry	0.065	0.32
Customer satisfaction is high compared to others in the same industry	0.571**	0.56**
Staff turnover rate is highly satisfactory compared to others in the same industry	0.66**	0.269
Profit growth compares favourably with that of competitors	-0.038	-0.045
Sales growth compares favourably with competitors	0.012	0.05

** correlation is significant at the 0.01 level (1-tailed)

Results indicate that the value scores of training and development and the performance of organisation are highly positively related in various aspects. The correlation coefficient between customer satisfaction and the number of trainees is 0.571 while the correlation coefficient between effectiveness of training and profit growth is 0.56. This implies that the more employees received employee training and the more effective the training programme, it may lead to better customer satisfaction. Results also indicate a high positive correlation between the staff turnover rate and the number of trainees (0.66). It may imply that one way to retain employees is to provide training and development programmes. Negative correlation is found between profit growth and the number of trainees and the effectiveness of training programmes. This may imply the training budget may cause burden to the profit growth.

Hypothesis 3: The use of incentive compensation strategy is positively related to organizational in terms of overall business performance, customer satisfaction, staff turnover, profit growth, and sales growth.



The incentive index consists of the importance of job performance in determining the earnings of managerial staff, supervisory staff, non-managerial professional staff and frontline staff.

Results indicate there is positive correlation between the compensation strategy and organizational performance specially the staff turnover which has a highly significant correlation for the managerial (0.64) and frontline staff (0.69). It may imply that when formulating compensation strategy, attention has to be given to importance of job performance.

Table 3: Correlations between organizational performance and importance of job performance in determining incentive compensation

	Importance of job performance in determining earnings of managerial staff	Importance of job performance in determining earnings of supervisory staff	Importance of job performance in determining earnings of non-managerial professional staff	Importance of job performance in determining earnings of junior/ frontline staff
Overall business performance is high compared to others in the same industry	0.264	0.23	0.291	0.189
Customer satisfaction is high compared to others in the same industry	0.07	0.048	0.039	0.041
Staff turnover rate is highly satisfactory compared to others in the same industry	0.64**	0.23	0.316	0.69**
Profit growth compares favourably with that of competitors	0.172	0.16	0.142	0.16
Sales growth compares favourably with competitors	0.18	0.04	0.23	0.124

** correlation is significant at the 0.01 level (1-tailed)

Hypothesis 4: The use of performance appraisal strategy is positively related to organizational in terms of overall business performance, customer satisfaction, staff turnover, profit growth, and sales growth.

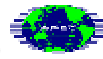


Table 4: Correlations between organizational performance and performance appraisal practice

	Performance appraisal is closely related to promotion and reward	Effectiveness of appraisal performance
Overall business performance is high compared to others in the same industry	0.035	0.011
Customer satisfaction is high compared to others in the same industry	0.051	0.06
Staff turnover rate is highly satisfactory compared to others in the same industry	0.474*	0.269
Profit growth compares favourably with that of competitors	0.103	0.107
Sales growth compares favourably with competitors	0.014	0.001

* correlation is significant at the 0.05 level (1-tailed)

Results indicate there is positive correlation between the overall business performance and the performance appraisal practice (0.035) although such correlation is only a slight one. While the staff turnover index is highly correlated with the performance appraisal practice (0.474) indicating that if performance appraisal is properly monitored, there will be lower staff turnover rate.

RECOMMENDATIONS

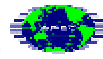
Today the challenge of organizations whether small or large is to use human resource in the planning and problem solving process. Human resource practitioners are expected to act as change catalysts in making organization more productive. The trend reflects a growing awareness of the contribution that effective human resource practices can make to the success of the organization. Although SMEs employ fewer number of employees, effective human resource practices need to be adopted in the organizations in order to ensure organizational success. The population of employable workforce is not only increase in quantity but has improved in terms of quality as education becomes more common. In order to recruit and select the best candidates fit for the SMEs, human resource practitioners of SMEs need to widen their recruiting and selection strategy. Web-based recruiting is one possible means of widening the applicant pool. Use of critical selection tests is also crucial in matching the personnel specification and organizational needs. For incentive compensation, it is recommended that SMEs should take into consideration of employees' performance in formulating the compensation



strategy. Although performance appraisal may not have direct impact on the profit and market growth, it can be used as one effective way to retain capable employees which can be one crucial success for SMEs.

CONCLUSION

Results in this study have indicated that there is positive correlation between the human resource management practices of the SMEs and most organizational performance indicators. Following Hess's (1987) study which indicated human resource management as the second most important management activity in SMEs, this study further illustrated the importance of human resource practices in enhancing organizational performance of SMEs.

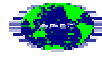


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**A COMPARATIVE STUDY OF PRESIDENTS' VOCATIONAL INTERESTS
ON CORPORATE STRATEGY, ORGANIZATIONAL STRUCTURE AND
PERFORMANCE BETWEEN JAPANESE VENTURE COMPANIES AND
SMC IN CHINESE TAIPEI**

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A COMPARATIVE STUDY OF PRESIDENTS' VOCATIONAL INTERESTS ON CORPORATE STRATEGY, ORGANIZATIONAL STRUCTURE AND PERFORMANCE BETWEEN JAPANESE VENTURE COMPANIES AND SMC IN CHINESE TAIPEI

ABSTRACT

A comparative study of the effects of SMC's presidents' Vocational Interests according to the Holland's (1985) R-I-A-S-E-C model to corporate behavior and performance between Japan and Chinese Taipei was proposed and tested in this paper. The proposed analytical framework incorporated with corporate HRM strategy, organizational structure, and corporate growth rate in sales. Samples of 335 Japanese and 172 people in Chinese Taipei data were used for confirmatory factor analysis to figure out each type scores, and for correlation analysis to identify the relationship between each type score and corporate behavior, as well as performance. The contribution and limitation will be discussed, in addition to the directions for future study.



RESEARCH BACKGROUND

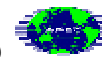
Japan has been facing a serious post-bubble economic crisis throughout the late 90's. Its effects especially in area of corporate structure, business core competencies, and Human Resources Management (HRM) strategies. For example, flattening and networking corporate structure, investing in a specialized business domain, and reduction of human resource costs by increasing internal competition and restructuring employees are introduced. In HRM area, Japanese companies have been introducing practices such as an early retirement, performance-based pay systems and downsizing thorough dismissal plan. Those HRM strategies are just the opposite of the traditional Japanese style that base on the long- term employment of employees.

To cope with such a severe downward economic situation, tripartite efforts among government, private sector and academic institutions have been working together to create new business innovations by starting new business in Japan to breakthrough the economic recession. The entrepreneurial business innovations have potential to grow business rapidly by creating new market, with relatively small investment and employees. This is so called the third "venture business" movement following those of 70's and 80's in Japan.

The first venture movement was during 1970 to 1973, and it brought number of new engineering & technology companies that contributed rapid economic development in Japan. During those periods, the current Japanese leading companies, such as SONY and HONDA were evolved in Japan. Likewise, the second venture movement during 1983 to 1986 sprouted many advanced technology related companies, such as Kyosera, Horiba were grown as the successful Japanese companies.

Throughout these venture movements, relationship between strong personality and performance of the company could be pointed out among the successful venture companies. Like Mr. Akio Morita of SONY and Mr. Soichiro Honda of HONDA, and, founders of venture business tend to have a strong entrepreneurial spirit to create new product. In addition, many of those presidents have career background as engineers themselves, and have strong commitments to their technology and quality of products. Finally, those venture companies are small in size at the beginning, and president's leadership is likely transmitted throughout the company. It is assumed that presidents' personality might have a strong influence on the corporate culture, strategy formation, and achievements, and it will explain the key factor for success to small venture business companies.

According to R-I-A-S-E-C model proposed by Holland(1985), a typology of six personality types is offered as a tool for understanding individual vocational interest, work behavior, and achievement. Based on this model, a relationship between a president's typology in venture company which will be reflected in management style and their relationship with corporate behavior as well as their performance will be analyzed.



Because small and medium sized enterprises (SME's) are regarded as a new driving force to create market and employment, they are becoming popular not only in Japan, but also in the other Asian countries, as well as in the U.S and Europe countries. Therefore, it will be interesting to conduct an international comparative survey to test the relationship between president's personality type and their corporate behavior and performance in SME. Because of steady economic growth during Asian economic recession through SME's, especially in area of high-technology, Chinese Taipei, Republic of China was chosen to compare with Japan.

Purpose of this study is, first to identify the personality type most frequently found in SME's presidents for Japan and Chinese Taipei. If there is similarity in types between two sample sets, it will suggest the universality in the type of personality for presidents for SMEs. Secondly, this survey tests the effects of presidents' personality to their companies' corporate behavior and performance. If a certain type of personality shows strong effects to corporate achievements, it will suggest the type of personality that have higher potentiality in SME management.

THEORETICAL BACKGROUND

The origin of categorizing personality in career was developed by vocational counselor in education, military and clinical settings. Holland (1958) started construction of Vocational Preference Inventory and gradually modified the model to categorize people in terms of interest or personality types.

Basic ideas of Holland's (1985) R-I-A-S-E-C model is consists of three basic aspects. First, the model characterize people by their similarity to each of six personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Second, the environments in which people live can be characterized by their six model environments. Third, matching of a person with respective environment leads to outcomes include vocational choice, vocational stability and achievement. Therefore, model suggest that people search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take their responsibility more confidentially.

Therefore, it will be hypothesized that presidents of SMEs show a particular personality type in common, and their personality will bring the success in their business under their type of environment.

Followings are descriptions of a. preferences, b. competencies, c. self-perceptions, and d.values for each type of personality, and figure 1 indicates the hexagonal formation of types depend on the similarity of characteristics among types.

1) Realistic Type

- a. Prefers realistic occupations or situations in which one can engage in preferred activities and avoid the activities demanded by social occupations or situation.
- b. Uses realistic competencies to solve problems at work and in other settings.
- c. Perceives self as having mechanical and athletic ability and lacking ability in human



relations.

- d. Values concrete things or tangible personal characteristics- money, power, and status.

2) Investigate Type

- a. Prefers investigative occupations or situations in which one can engage in preferred activities and competencies and avoid the activities demanded by enterprising occupations or situations.
- b. Use investigative competencies to solve problems at work and in other settings.
- c. Perceives self as scholarly, intellectual, having mathematical and scientific ability, and lacking in leadership ability.
- d. Values science.

3) The Artistic Type

- a. Prefers artistic occupations or situations in which one can engage in preferred activities and competencies and avoid the activities demanded by conventional occupations or situations.
- b. Uses artistic competencies to solve problems at work and in other settings.
- c. Perceives self as expressive, original, intuitive, introspective, independent, disorderly, and ability in acting, writing, and speaking.
- d. Values esthetic qualities.

4) The Social Type

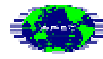
- a. Prefers social occupations and situations in which one can engage in preferred activities and competencies and avoid the activities demanded by realistic occupations and situations.
- b. Uses social competencies to solve problems at work and in other settings.
- c. Perceives self as liking to help others, understanding others, having teaching ability, and lacking mechanical and scientific ability.
- d. Values social and ethical activities and problems.

5) The Enterprising Type

- a. Prefers enterprising occupations or situations in which one can engage in preferred activities and avoid the activities demanded by investigative occupations and situations.
- b. Uses enterprising competencies to solve problems at work and in other situations.
- c. Perceives self as aggressive, popular, self-confident, sociable, possessing leadership and speaking abilities, and lacking scientific ability.
- d. Values political and economic achievement.

6) The Conventional Type

- a. Prefers conventional occupations or situations in which one can engage in preferred activities and avoid the activities demanded by artistic occupations or situations.
- b. Uses conventional competencies to solve problems at work and in order



situations. Perceives self as conforming, orderly, and as having clerical and numerical ability.

c. Values business and economic achievement.

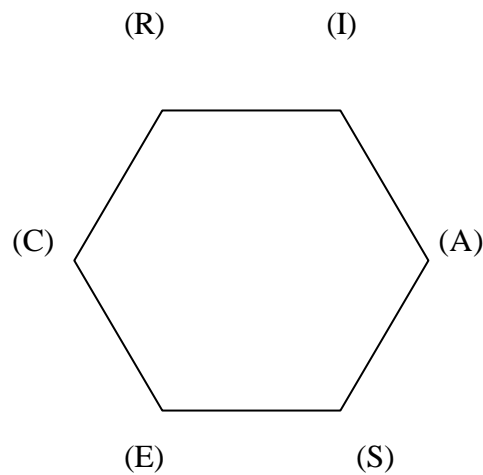


Figure 1 Hexagonal Formation of Personality Types

METHOD

Sample and Procedure

Questionnaire survey were conducted to presidents of Japanese venture business companies and SME companies in Chinese Taipei. For the Japanese survey, sample was selected from industrial sectors in “Almanac of Venture Companies 96” published by Nikkei News Paper Co.ltd(1996). Questionnaires were sent to 1,361 presidents by mail, and 335 replied by enclosed self-stamped envelop (Response rate: 24.6%). For the survey of Chinese Taipei, 1,428 companies in industrial sectors with employee size of between 100 to 300 were selected, based on the company list published by National SME agency. Questionnaire were sent directly to presidents with self-stamped envelope, and 172 replied (response rate: 12.04%).

Variables

Personality Type. Personality type was measured by thirty keywords reflecting respondents’ personality, consisting six dimensions (6 personality types x 5 words)? Sample are requested to circle all words fit to the traits of him/her. Followings are the category of types for each keyword. Realistic: adaptable, specific/concrete, straightforward, introverted, sincere; Investigative: inquisitive, independent, quiet/plain, intelligent, exacting; Artistic: theoretical, creative, imaginative, intuitive, emotional; Social: generous, cooperative, social, positive, kind; Enterprising: adventurous, impulsive, talkative, ambitious, optimistic; Conventional: conservative, prudent, practical, efficient.

Corporate Strategy. A 23 item scale developed by Kato(1996) was used to



measure corporate strategies. They are classified into five categories: financial(6), marketing(5), organizational(5), technological(3), and human resources(3) . Samples are required to choose the five most frequently used items out of 23 items at the company in last five years.

Organizational Structure. A three-item scale was used to measure the organizational structure as a corporate norm on 7-point scale. These questions focus on 1)matching of organization's management goals with the individual goals, 2)levels of corporate structure that make decisions, and 3)sharing of top management's direction and decisions with staff .

Performance. Corporate performance was measured by both quality and quantity scales. For quality scale, five stages of corporate growth level, namely 1)Start-up, 2)Risky growth, 3)Controlled Growth, 4)Maturity, 5)Seeking future diversification were questioned. On the other hand, rate of sales level for 1990 and the most recent accounting year were measured to compare the sales growth rate.

Background data. Additional background data were collected concerning president and company. For president's question, it contains age, length of service as a president, career path to be a president(company founder, succeeded a relative, succeeded a non-relative, hired from outside), generation of presidency (first, second, third, other) field of experience(technology, management, administration). On the other hand, company's question, duration of operating business, number of employees, number of internal and external board of directors were questioned.

RESULTS

Categorizing Personality Types

To categorize personality type of each sample, first of all, confirmatory factor analysis was performed to measure the effecting power to each keyword from the respective personality types. Then, each type score was calculated by adding effecting power of the words showed significant t-value? Thirdly, a z-score was calculated among six type scores to standardize the score. Finally, a personality type for each respondent was determined by the highest z-score among six types.

Table 1 shows the frequencies of each type for Japanese sample and sample of people in Chinese Taipei. For both nationalities, enterprising type was predominant (JPN: 23.3%; TWN:24.4%) and realistic type (JPN: 17.3%; TWN: 16.9%) , conventional type (JPN: 16.1%; TWN: 16.9%) are following respectively.

This result shows that entrepreneurial personality is prevailing among presidents of SME companies both in Japan and Chinese Taipei.

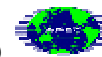


Table 1 Frequencies of R-I-A-S-E-C Personalities

	JPN		TWN	
	N	%	N	%
Realistic	58	17.3	29	16.9
Investigative	42	12.5	20	11.6
Artistic	54	16.1	26	15.1
Social	49	14.6	26	15.1
Enterprising	78	23.3	42	24.4
Conventional	54	16.1	29	16.9
Total	335	100.0	172	100.0

Chi-square Results

Table 2 indicates the result of Chi-square analysis tests the relationship between personality score and president's career path. Because career personality is supposed to be closely related to one's career experience that formed the individual profession, it was hypothesized that there is a relationship between each career personality and several indicators of career background. Out of three indicators used in this analysis, career route, generation of presidency, and field of experience, similar results was found between Japanese sample and sample of people in Chinese Taipei.

For Japanese sample, significant relationship between personality score and career route was found. Within career route, sample was asked to choose one from 1)company founder, 2)succeeded a relative, 3)succeeded a non-relative, 4)hired from outside, and higher frequencies were found as 1) company founder for Enterprising type and 2)succeeded a relative for Conventional type, whereas 3)succeeded a non-relative and 4)hired from outside for Realistic type. Therefore, founder of the company tend to have Entrepreneurial type rather than other types, however, those presidents who succeeded a relative have Conventional type, and those came from non-relative successors show Realistic type.

On the other hand, for the sample of people in Chinese Taipei, it shows a similar result with Japanese sample, but in the generation of presidency. The first president (s/he could be the same as the founder, however, the first president refer to as an official title) shows Enterprising type most frequently among personality types and the second president shows Conventional type most, whereas, fourth and other generation of presidents show Realistic types.

Therefore, both founder and the first presidents show Enterprising type of career personality most frequently, and the succeeding presidents are shifting to more conventional or administrative tendency of personality in Japan and Chinese Taipei.

Table 2 Cross-tabulation (Chi-square)
Japanese

Career Path I: Career route of the president

		R	I	A	S	E	C
1	Company founder	20	23	33	20	36	14
2	Succeeded a relative	20	12	16	19	24	30
3	Succeeded a non-relative	11	6	4	5	8	4
4	Hired from outside	5	1	1	4	2	4

Pearson's Chi-square:.024

Career Path II: Generation of presidency

		R	I	A	S	E	C
1	This company's First	19	19	28	19	34	15
2	Second	20	16	17	17	20	23
3	Third	9	3	6	8	10	7
4	Fourth	5	1	1	2	2	6
5	Other	4	2	1	2	4	1

Pearson's Chi-square:.425

Career Path III President's field of experience

		R	I	A	S	E	C
1	Technology	32	29	32	30	38	29
2	Management	20	7	15	12	19	13
3	Administration	5	6	2	3	9	8
4	Other	-	-	4	2	6	2

Pearson's Chi-square:.243

People of Chinese Taipei

Career Path I: Career route of the president

		R	I	A	S	E	C
1	Company founder	6	9	10	8	15	14
2	Succeeded a relative	5	5	8	4	9	7
3	Succeeded a non-relative	12	2	2	8	8	6
4	Hired from outside	2	3	4	4	7	1

Pearson's Chi-square:.20

Career Path II: Generation of presidency

		R	I	A	S	E	C
1	This company's First	4	8	15	6	18	10
2	Second	5	3	3	10	9	11
3	Third	5	5	2	3	6	3
4	Fourth	5	2	-	2	4	-
5	Other	7	1	2	4	1	3

Pearson's Chi-square:.01

Career Path III President's field of experience

		R	I	A	S	E	C
1	Technology	11	9	10	9	21	13
2	Management	7	3	11	9	13	8
3	Administration	5	2	2	2	4	5
4	Other	5	6	3	6	3	2

Pearson's Chi-square:.48



T-test Results

To compare the average score of continuous variables between Japan and Chinese Taipei, a t-test analysis was performed (Table 3). For background information, Japanese presidents' age and length of service show significantly higher score than that of the presidents in Chinese Taipei. Duration of operation for Japanese company was longer than companies of Chinese Taipei, however, number of employee in Chinese Taipei was surpassing that of Japanese company. There was no significant difference in number of internal board of directors between two samples, however, number of external director in the companies of Chinese Taipei was larger than Japanese companies.

Regards to the internal corporate structure, matching of organizational goals and individual goal was more compatible in the companies of Chinese Taipei. Likewise, decisions were made more participatively in the companies of Chinese Taipei. However, Japanese president think top management's direction and decisions were understood by staff better than the presidents in Chinese Taipei.

Finally, growth rate in sales was higher for Japanese SME than SME in Chinese Taipei, however, development stage was higher for SME in Chinese Taipei.

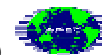
As a overall results of t-test, Japanese SME indicate more entrepreneurial characteristics for size of employees and rapid growth rate. On the other hand, although SMEs in Chinese Taipei are younger in duration of establishment than Japanese venture companies, SMEs in Chinese Taipei show more matured, well internally structured characteristics.

Table 3 Results of t-test analysis

	JPN	TWN	t-value
	Ave.(s.d)	Ave.(s.d)	*<.05,**<.01
President's age	57.79(9.01)	48.03(8.60)	14.22**
Length of service(yr)	15.09(11.12)	9.62(8.18)	6.46**
Dur of operation(yr)	34.42(16.78)	23.25(11.71)	10.03**
No of employees	128.64(171.75)	201.02(150.96)	-5.81**
Internal Board	4.80(2.75)	7.79(36.41)	-1.49
External Board	1.05(1.29)	4.42(11.01)	-5.04**
Goal matching	4.33(1.17)	4.58(1.34)	-2.50*
Decision style	2.38(1.38)	3.00(1.44)	-5.46**
Direction sharing	4.43(1.13)	4.23(1.30)	2.11*
Growth rate(%)	12.36(22.18)	2.58(9.63)	6.35**
Development stage	3.54(1.16)	3.77(0.87)	-2.81**

ANOVA Results

In order to examine the relationship between personality type and corporate behavior and performance, Analysis of variance (ANOVA) with sheffe examination was performed. As indicated in Table 4, although there were no variable indicate statistically significant level of difference in average score among personality types, all



variables contain at least one personality type has positive discrepancies to the rest of all types.

Interestingly, those highest scored types between Japanese presidents and the presidents in Chinese Taipei were different. For Japanese presidents, Entrepreneurial type shows the highest score for the growth rate, and other highest score were categorized either Social type (Stages of corporate growth, Decision style) or Investigative type (Goal matching, Direction sharing).

On the other hands, for the presidents in Chinese Taipei, Social type shows the highest score for the growth rate, and the rest of types were either Realistic type (Stages of corporate growth, Goal matching), Conventional type (Decision style) and Social type (Direction sharing).

Table 4 Results of ANOVA

	JPN		TWN	
	highest type(top)	Differences	highest type(top)	Differences
Growth rate	<u>Entrepreneurial</u>	<u>16.26</u>	<u>Social</u>	<u>8.52</u>
	Realistic	4.23	Realistic	7.27
	Investigative	5.95	Investigative	7.03
	Artistic	3.41	Artistic	7.18
	Social	5.52	Entrepreneurial	7.17
	Conventional	6.17	Conventional	6.64
Stages of corporate growth	<u>Social</u>	<u>3.77</u>	<u>Realistic</u>	<u>4.03</u>
	Realistic	.45	Investigative	.51
	Investigative	.11	Artistic	.58
	Artistic	.58	Social	.32
	Entrepreneurial	.16	Entrepreneurial	.29
	Conventional	.05	Conventional	.03
Goal matching	<u>Investigative</u>	<u>4.56</u>	<u>Realistic</u>	<u>4.75</u>
	Realistic	.26	Investigative	.13
	Artistic	.20	Artistic	.37
	Social	.21	Social	.19
	Entrepreneurial	.26	Entrepreneurial	.18
	Conventional	.43	Conventional	.14
Decision style	<u>Social</u>	<u>2.71</u>	<u>Conventional</u>	<u>3.42</u>
	Realistic	.25	Realistic	.61
	Investigative	.57	Investigative	.62
	Artistic	.50	Artistic	.24
	Entrepreneurial	.36	Social	.39
	Conventional	.28	Entrepreneurial	.69
Direction sharing	<u>Investigative</u>	<u>4.55</u>	<u>Social</u>	<u>4.96</u>
	Realistic	.08	Realistic	.89
	Artistic	.05	Investigative	1.07
	Social	.24	Artistic	.73
	Entrepreneurial	.01	Entrepreneurial	.89
	Conventional	.37	Conventional	.82

p**<.05

As a conclusion of ANOVA analysis, although there were no significant differences in average score among personality types for any variables, a highest score of specific organizational outcome was brought under a particular type of president's personality



type. It might be suspected that significance value was lowered due to the smaller number of observations in each type.

Moreover, an interesting finding is that there were difference in relationship between a type that shows the highest score and organizational outcome between Japanese sample and sample of people in Chinese Taipei. Therefore, personality type contingent in specific corporate activity may be various depend on the circumstances of each country.

Cross-tabulation for Corporate Strategy

Table 5 shows cross-tabulation between personality types and corporate strategy. Corporate strategy was ordered by frequencies of total types and top five items were listed.

According to this analysis, Japanese sample and sample of people in Chinese Taipei showed similar results. First, both samples show higher ranked strategies were concentrated in either new product development (ex. Strengthen new product development system. JPN:13.6%, TWN:9.4%) or market development (ex. Increased share in current market. JPN: 10.8%, TWN:11.9%).

Secondly, for both samples, Enterprising type shows more strategies than other types. It also means that enterprising type of president use higher ranked strategies more than other type of presidents.

These results might suggest that Enterprising type of president uses an effective style of strategies more than other type of presidents both in Japan and Chinese Taipei.

Table 5 Cross-tabulation for Corporate Strategy

Japan

#	Item	Total	R	I	A	S	E	C
1	Strengthen new product development system	13.6	11.0	9.2	12.0	8.3	15.6	9.8
2	Increased share in current markets	10.8	8.6	7.4	9.8	6.7	11.7	8.3
3	Expansion into new product	8.9	8.9	5.2	7.4	6.4	8.6	6.7
4	Strengthen facilities to allow for expanded production capacity	6.6	5.5	5.5	5.2	3.1	7.4	5.5
5	Improved productivity of Company assets through streamlining	6.4	4.9	2.8	3.7	5.5	8.6	5.5

Chinese Taipei

#	Item	Total	R	I	A	S	E	C
1	Increased share in current markets	11.9	12.2	6.1	8.5	9.1	12.2	9.8
2	Increased share in current markets	9.4	8.1	8.5	6.7	4.3	12.2	7.9
3	Strengthen facilities to Allow for expanded production capacity	9.2	9.1	6.1	4.9	8.5	8.5	7.3
4	Increased facilities investment to enable streamlining, energy conservation, and labor saving	7.8	9.1	3.0	4.3	8.5	9.8	6.7
5	Expansion into new product	7.8	6.1	4.3	2.4	6.1	13.4	5.5



Correlation Results

Table 6 indicates the correlation coefficient between score for each type and dependent variables. For Japanese sample, no significant relationship was found between growth rate and personality types. However, positive (Conventional) and negative (Enterprising, Artistic) relationship was found for development stage. However, a growth speed, a new variable calculated from developing stage divided by establishing years show positive relationship with artistic score and enterprising score. From this result, it will be assumed that company develops faster under Artistic and Enterprising types of presidents in Japan.

On the other hand, only significant coefficient was found between social score and growth rate in sample of people in Chinese Taipei.

Therefore, different types of performance were expected in relationship with president's career personality scores. For Japanese sample, enterprising and artistic score might accelerate growth speed, however, not likely for the growth rate in sales. On the other hand, higher social score might improve the growth rate in sales in Chinese Taipei.

Table 6-1 Correlation Analysis (Japan)

	R	I	A	S	E	C
Growth Percentage	-.064	-.054	-.047	-.068	-.068	-.054
Developing Stage	-.010	.015	-.094*	.045	-.094*	.112*
Developing Speed	-.015	.065	.116*	.080	.121*	.058

*<.05 **<.01

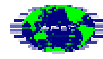
Table 6-2 Correlation Analysis (Chinese Taipei)

	R	I	A	S	E	C
Growth Percentage	.143	.146	-.112	.184*	-.049	.117
Developing Stage	.007	-.064	-.085	-.076	-.112	.035
Developing Speed	-.063	-.011	.082	-.016	.080	-.080

*<.05 **<.01

CONCLUSIONS

This study aimed to identify the validity of Holland's R-I-A-S-E-C typology in relationship with corporate structure, use of corporate strategy and corporate performance. As a result of a comparative survey, similarities and differences between presidents of Japanese venture companies and SMEs of Chinese Taipei were identified.



Similarities were, the exceeding percentage of Enterprising type of career personality, relationship between Enterprising type and president's career path as founder or the first, and frequently use of corporate strategy by Enterprising type of presidents. Therefore, Enterprising type show features in common for those presidents.

On the other hand, differences were open and participated style of organizational structure in SME of Chinese Taipei, and contingencies in career personality and organizational outcomes between two samples. Although Japanese sample and sample of people in Chinese Taipei tend to use the same kinds of corporate strategies, outcomes are varied with managerial conditions that companies are facing.

Implication of this study could be two folds. For academic implication, this study will indicate a new approach to analyze the relationship between top leader's management style based on Holland's R-I-A-S-E-C model and corporate behavior as well as performance. Because this model showed Enterprising type as a majority of career personality between two samples, it will support the validity of the model across the cultural difference. Therefore, it will be interesting to apply this model to other samples in different industries, corporate size, and rank in organization.

For practical implication, since there were contingencies between type of career personality and style of strategy to improve the company performance, president's R-I-A-S-E-C type will be used as a marker to find out the appropriate corporate strategy for each company lead by president have different type of career personality. Also, the result of this survey will provide an information for developing and selecting successor who have an appropriate career personality to carry over the business from the previous generation.

For future of study, increasing number of samples composed of different nationalities will be demanded to verify the generality of the R-I-A-S-E-C type indicator to measure the relationship between president's career personality and corporate behavior.



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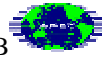
**AN ORGANIZATIONAL CITIZENSHIP BEHAVIORS(OCB)
MODEL AND SMEs EMPLOYEES' OCB**

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AN ORGANIZATIONAL CITIZENSHIP BEHAVIORS(OCB) MODEL AND SMEs EMPLOYEES' OCB

ABSTRACT

This paper has two major purposes. One is to suggest a valid OCB definition and model. The other is to analyze SMEs employees' OCB problems and their causes by comparing the OCB of SMEs employees with that of large enterprises employees based on the previously validated OCB model.

For the first one, this paper defined OCB as individual members' responsible behaviors corresponding to the rights encumbered by the belonging organizations. Based on the OCB construct, it suggested a nomological network "employees' rights → relational ties → OCB responsibilities", and validated it using Korean employees data collected from the six companies including SMEs and large enterprises.

The comparison of OCB between SMEs employees and large enterprises employees showed that overall large enterprises employees' OCB was higher than that of SMEs employees, and that the differences in their obedience and functional participation were very significant.



INTRODUCTION

With rapidly changing business environments, workers' dysfunctional behaviors such as their selfishness, low organizational commitment, and scarce responsibilities are appearing as a critical issue in human resource management. In some APEC countries, such behaviors threaten even the survival of companies. Small and medium sized enterprises(SMEs) which are relatively weaker in their technological and financial resources compared with large enterprises are likely to be more fragile to such behavioral changes. For SMEs' prosperity, therefore, sustaining SMEs workers' behaviors positively must be more important than any other things.

Viewed from the point, it is worth to research on the organizational citizenship behaviors(OCB), which are increasingly emphasized by both HRM scholars and managers. However, since the terms "citizen" and "citizenship" are employed in a variety of ways with a range of meanings, from precise and limited to vague and broad, OCB scholars and managers have not yet come to an agreement about what OCB really means. This not only further increases the potential ambiguity and subjectivity of the OCB construct, but also prevents OCB studies from dealing with the core problems brought by such behavioral changes.

Accordingly, first this study is to suggest an OCB definition and model and to assess them, and secondly to compare OCB between SMEs and large enterprise workers, based on the previously suggested OCB definition and model.

DEFINITION ON OCB

Early organizational researchers defined OCB as individual employees' behaviors that are above and beyond their role requirements and that are organizationally functional. Almost recent OCB researchers are still relying on the definition, only showing a little differences in their operational definitions and dimensions. However, recently the construct validity of the definition has been criticized. In practice, the role perceptions in organizations are rarely fixed and the criteria to discern whether the roles are organizationally functional are unclear. Relying on the definition, therefore, is likely to continue increasing the potential ambiguity and subjectivity of OCB themselves. Some people understand its dimension as altruism, courtesy, consciousness, sportsmanship, compliance, or etc. Others understand it differently. Such ambiguity and subjectivity bothers even further OCB studies to continue.

Originally, citizenship is the term derived from geopolitical arena. Current political sciences generally describe it as the status and role which defines the authority and obligations of individual members of a community(Cooper, 1986). The status and role may be formally codified in terms of qualifications, rights, and obligations by constitutions, charters, and laws, or informally determined by values, tradition, and consensus. Thus, a citizen is one who qualifies for the status of citizenship as prescribed formally or informally by a particular community, and who is encumbered with the obligations assigned to this role by that community. On the other hand, a non-citizen is one who does not have the qualifications for the status of citizenship and the obligations assigned to this role by that community. The essential differences between citizens and non-citizens are in their status and role. Eventually, the differences arise from whether they have membership in a particular community. It will be clear when we review the history of the Old and Middle Ages, and of modern ages, western



or oriental communities. Just until the democracy based on human freedom and equality had become a common rule to deal with whole societies, only a small group of privileged people among total population belonged to the citizens. At that time, however, citizen rights encumbered by their citizenship were more emphasized rather than its obligations. Some historical events such as French Revolution, American Independence, and Industrial Revolution provided the traditional citizenship with a great turning point. They brought about great disturbances in the whole society including political, social, and economic areas. However, since there was no a certain alternative to maintain whole societal stability at that time, it could not help accepting all population as citizens who had rights and obligations as well.

These changes in the civic citizenship tradition continued to spread into all societal areas, along with the maturity of industrialism and the following expansion of the middle classes. On the other hand, the recognition that depending on the economic exchanges between employers and employees had some limitations to increase industrial production had also worked as an important factor. As the result of these changes, citizenship has also become a common rule to deal with industrial organizations, as well as political system. In the process, the obligations corresponding to the rights become more emphasized rather than the rights themselves.

Based on the logic suggested in the above, we can define OCB as individual members' responsible behaviors corresponding to the rights encumbered by their belonging organizations. That is, the OCB construct is composed of three main components: membership, members' rights, and members' responsibilities.

OCB MODEL

Each component of OCB construct does not exist alone, respectively. They are closely intertwined each other. They make a network such as "rights--> membership--> responsibilities". That is, employees' perception on her or his rights in organization affects the strength of relational ties, and employee's responsible behaviors. We can depict the relationship of the three components as follows:

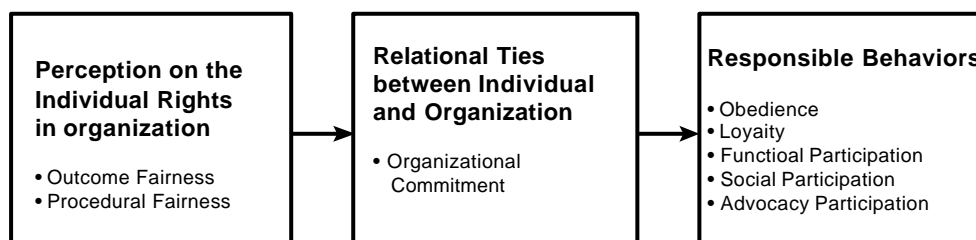


Figure 1: OCB Model

Then, how can we specify the OCB components respectively and measure them? It may depend on our creativity and our background knowledge on organizations.

Model Specification



Individual Employees' Rights

Generally individual employees' rights are codified formally by government laws, company rules, joint agreements between employers and employees, or determined informally by organizational culture. T.H. Marshall(1965), in reviewing three centuries of English history to explain the extension of citizens' rights to an ever broader share of the population, identified three categories of rights: civil(legal protection of life, liberty, and property), political(participation in decision making), and social(adequate level of socioeconomic benefits) rights. Marshall's categorization of civil, political, and social rights can be applicable to analyze organizations as well as societies.

Organizational civil rights would include fair treatment in routine personnel matters such hiring, assignment, and evaluation, and guarantees of due process when problems arise(e.g., grievance investigation and disciplinary proceedings).

Organizational political rights would include the ability to participate in decision making both about current operational matters and about broader organizational policies, objectives, and spending plans.

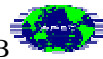
And organizational social rights would include economic benefits(regular salary/wages, bonuses, insurance, pensions, etc.), social status symbols, and training or educational opportunities.

Organizational rights distinguish members from nonmembers. Given the hierarchical structure typical of most organizations, however, unequal rights within organizations are not only possible but also likely. Distortion of rights on the pretext of organizational effectiveness or efficiency, and high-level managers' hierarchical attitude are also related with unequal rights. These unequal rights eventually influence members' relational ties and OCB.

However, it is difficult to measure individual employee's rights directly, since they depend on individual employees' relative, subjective perception. The perception can generally be expressed in the feeling of relative deprivation(Folger, 1986) which is shaped by the subjective comparison with the others in the same or other organizations. According to the justice theory by Greenberg(1987), the feeling of relative deprivation arises from their perception on "outcome justice" and "procedural justice". Outcome or distributive justice is the perceived fairness of outcomes received. And procedural justice is the perceived fairness on procedures or processes to reach to the outcomes. Then, individual employees' rights can be taken by measuring their perception on both outcome justice and procedural justice.

Relational Ties(Membership)

Membership is the beginning point in OCB construct. Once the membership determined by individual choices, it constantly changes so that it determines the strength of relational ties between organizations(employers) and individual employees. Thus, we can say that relational ties are the dynamic explanation of membership. However, they are different from employees' rights. While employees' rights are based on individual subjective view about how much the



organizations(or employers) recognize employees' rights as their duties, relational tie are concerned about the relationships between individual employees and employers(or organizations). That is, while individual employees' perception on rights depends on their one-sided views, relational ties depend on reciprocal relationships between employees and organizations. Thus, they contribute to explaining the dynamic process to deal with unequal rights when inequality happens between individual employees and organizations. On the other hand, relational ties work as a mediator linking individual perception on rights and citizenship behaviors.

The relational ties may have numerous types. J.W.Graham(1991) categorized them into four types by synthesizing the previous studies on membership : coercive relationship, Gesellshaft relations, Gemeinschaft relations, and covenantal relationships. Gemeinschaft relations include nonrational, affective, emotional, traditional, and expressive of social actions as in a family. Gesellschaft relations comprise the rational contractual, instrumental, and task-oriented actions, as in a business corporation. Coercive relationships(Etzioni, 1975) are the special form of Gesellshaft relations, where some are obliged involuntarily to comply with term set by others, as in slaves. And covenantal relationships are characterized by open-ended commitment, mutual trust, reciprocity, and shared values. Graham (1991) asserts covenantal relationships are the most desirable relationships to enhance OCB. Covenantal relationships also differs from a social exchange which is based on a general notions of fairness, and from a psychological contract which is based on an individual belief in a reciprocal obligation between self and organization.

According to the logic of covenantal relationships, relational ties are not the fixed ones. They are changing constantly depending on mutual open-ended commitment, mutual trust, reciprocity, and shared values between organizations and employees. Eventually, the strength of relational ties gives affect to OCB responsibilities.

The strength of relational ties can be measured by asking the employees' organizational commitment to their organizations, because it is not the matter to ask organizations themselves. Generally, the organizational commitment questionnaire developed by Mowday et. al.(1982) is used to measure it.

OCB Responsibilities

Citizen responsibilities described in a geopolitical arena can be applicable as a guide to identifying OCB. According to classical philosophy and modern political theory, citizen responsibilities are obedience, loyalty, and participation(Aristotle, 1941; Cary, 1977, Inkeles, 1969, etc.). Each category focuses on a different facet of the interrelationship that citizens have with another and their nation/state/community.

Obedience is respect for orderly structure and processes. Citizens are responsible for obeying existing laws, and the laws protect them, as well. For example, laws may require that citizens pay taxes, drive on a designated side of road, refrain from violating other's rights, and at times even risk their lives in military service. Loyalty concerns the expansion of individual welfare functions to include the interest of others, the state as a whole, and the values it embodies. This category includes uncompensated contributions of effort, money, or property,



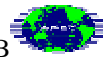
protecting or enhancing a state's good reputation in the eyes of outsiders, and cooperating with others to serve the common interest rather than seeking free rider. In addition, participation concerns participation in governance. The behaviors of this category include devoting time and effort to the responsible governance, keeping well informed, sharing information and ideas with others, engaging in discussions about controversial issues, voting in whatever manner is provided under the laws, and encouraging others to do likewise.

The three categories described above can be applied into organizational settings (Inkeles, 1969) as follows: organizational obedience, organizational loyalty, and organizational participation. According to Inkeles, organizational obedience is an orientation toward organizational structure, job descriptions, and personnel policies that recognizes and accepts the necessity and desirability of a rational structure of rules and regulations. Obedience may be demonstrated by respect for rules and instructions, punctuality in attendance and task completion, and stewardship of organizational resources. Organizational loyalty is identification with and allegiance to organizational leaders and the organization as a whole, transcending the parochial interests of individuals, work groups, and departments. Representative behaviors include defending the organization against threats, contributing to its good reputation, and cooperating with others to serve the interests of the whole. And, organizational participation is interests in organizational affairs guided by ideal standards of virtue, validated by keeping informed, and expressed through full and responsible involvement in organizational governance. This behavior includes attending non-required meetings, sharing informed opinions and new ideas with others, and being willing to deliver bad news or support an unpopular view to combat groupthink.

On the other hand, organizational participation is more complex. It can be classified into three categories (Van Dyne, Graham, & Dienesch, 1994): social participation, advocacy participation, and functional participation. Social participation is a form of participation through interaction with others. This includes attending meetings, engaging in positive communications with others, and involvement in other affiliate group activities such as attending commemorative occasions, community social events, and public ceremonies. Advocacy participation is a kind of participation, which describes innovation, maintaining high standards, challenging others, and making suggestion for change. The behaviors, typical of an internal change agent, target at other members of an organization and reflecting a willingness to be controversial. And functional participation is related with personally focused behaviors. The behaviors include participation through performing additional work activities, self-development, volunteering for special assignments, and highly committed hard-working. They are typical of a dedicated individual contributor whose commitment, self-development, and participation add value to the functioning of the organization.

Highly responsible behaviors require a balance of obedience, loyalty, and participation, rather than focusing on one dimension at the expense of the others. That is, each dimension is highly correlated each other when OCB responsibilities are high.

To measure the five dimensions of OCB responsibilities, this study adapted the instrument developed by Van Dyne, Graham, and Dienesch (1994). However, it is questionable if the scale is fit for explaining Korean employees' citizenship behaviors, because it was developed in a different cultural background from Korea. A study by Farh, Earley, and



Lin, on “a cultural analysis of justice and organizational citizenship behavior in Chinese society(1997)”, suggests that cultural difference works as an important factor for explaining OCB.

Table 1 : Comparison of Western and Chinese OCB Scales

Western OCB Scale	Chinese OCB Scale
Etic Dimensions	
Civic Virtue	Identification with company
Altruism	Altruism toward colleagues
Conscientiousness	Conscientiousness
Emic Dimensions	
Sportsmanship	Interpersonal Harmony
Courtesy	Protecting Company Resources

Thus, rather than using the instrument as it is, this study conducted explanatory factor analysis using original data and confirmatory factor analysis using separately collected cross-validation data.

Validation of OCB Model

Data and Procedure

To validate the OCB model, this study adapted already developed scales and used them with some modification: Niehoff & Moorman's fairness scale (1993) for employees' perception on their rights, Mowday et. al.'s OCQ scale(1982) for relational ties, and Van Dyne, Graham, and Dienesch' OCB scale(1994) for employees' responsible behaviors. Twelve sets of data totaling 603 employees collected, based on questionnaire response. Six sets of these data were for the initial data collection, and the rest six sets of data collected later were for cross-validation of the instrument adapted here. The original data sets included respondents from a large commercial bank(N=208), an insurance company(N=97), a software house(N=40), a pulp production company(N=137), a security company(N=24), and a leasing company(N=97); three companies hire over 1,000 employees and the rests hire below 500 employees. All data collected by random sampling method.

The cross-validation data collected from 100 supervisors from six companies; a petrochemical company, a software house, a pharmacy company, a construction company, a loan firm, and a metal production company. two of them hire over 1,000 employees, and the rests hire below 300 employees.

In addition, the some demographic data on sex, tenure, education, and marital status, and company size collected for the comparison of OCB level between large enterprises and SMEs workers



Validation of OCB Model

For the validation of OCB model, this study follows the following procedures:

First, it conducted explanatory factor analysis(Varimax rotation) for the assessment of the Niehoff & Moorman’s fairness scale, Mowday et. al.’s OCQ scale, and Van Dyne, Graham, and Dienesch’ OCB scale, respectively, using original data. Based on the result, some items dropped from the original questionnaire. It showed that there existed some differences between Korean and Western employees in their OCB factor structure.

Table 2: OCB Factor Structure

Order of Importance	Western Employees	Korean Employees
Factor 1	Loyalty	Obedience
Factor 2	Obedience	Advocacy Participation
Factor 3	Social Participation	Loyalty
Factor 4	Advocacy Participation	Functional Participation
Factor 5	Functional Participation	Social Participation

And second, it again conducted confirmatory factor analysis(Varimax rotation) for the new instrument that was made based on the result of explanatory factor analysis, respectively, using cross-validation data collected by second questionnaire. The result showed that all the three scales were valid.

Table 3: The Results of Confirmatory Factor Analysis

Scale	Chi-square Value	Degree of Freedom	Probability level	GFI
Perception on Rights	29.053	34	0.709	0.917
Relational Ties(OC)	7.135	9	0.623	0.964
OCB Responsibilities	5.019	5	0.414	0.970

As the result, it was possible to use the original data for further analysis. The mean value, standard deviation, and reliability(Cronbach’s α) of each variable was as follows:



Table 4: Mean, Standard Deviation, and Cronbach's α

Scale	Variable Name	Mean (7 points scale)	Standard Deviation	Cronbach's α
Perception On Rights	Outcome Justice	3.9798	0.9760	0.8409
	Procedural Justice	3.2998	1.1618	0.8168
Relational Ties(OC)	Organizational commitment	4.7562	0.9936	0.8120
OCB Responsibilities	Obedience	5.3805	0.7864	0.9087
	Advocacy Participation	4.7956	0.8117	0.9072
	Loyalty	4.6371	0.8777	0.7995
	Functional Participation	4.5581	0.8155	0.7473
	Social Participation	4.5152	1.0516	0.7141

And third, it conducted covariance structure analysis to assess the OCB model suggested in the above, using maximum likelihood method. For this analysis, AMOS 3.61 version was used. On the other hand, to make the model parsimonious, the unknown variables such as personal characteristics(personality and demographic variables), job characteristics, and organizational culture did not include in the model. The possible unknown variables treated as error terms in the Model. The results of covariance structure analysis are as follows:

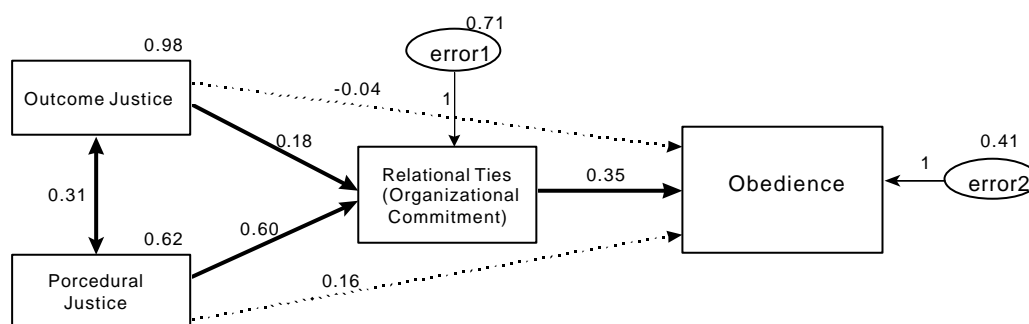


Figure 2: Obedience Behavior Model

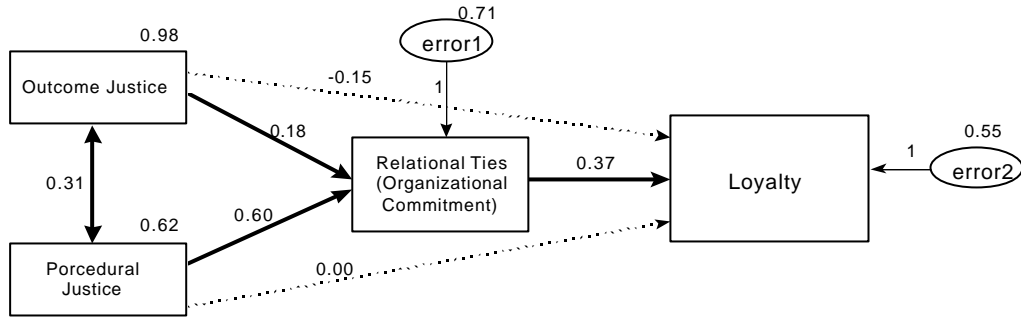


Figure 3: Loyalty Behavior Model

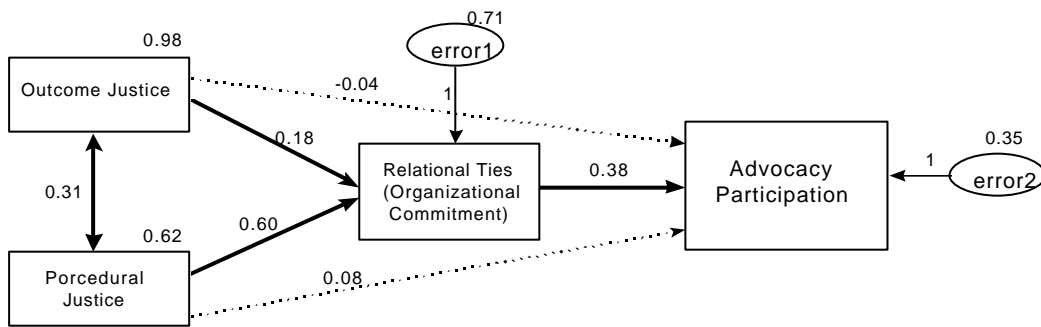


Figure 4: Advocacy Participation Behavior Model

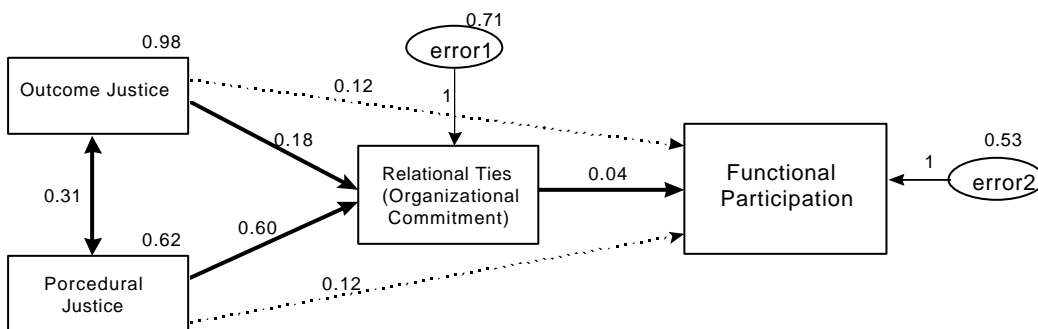


Figure 5: Functional Participation Behavior Model

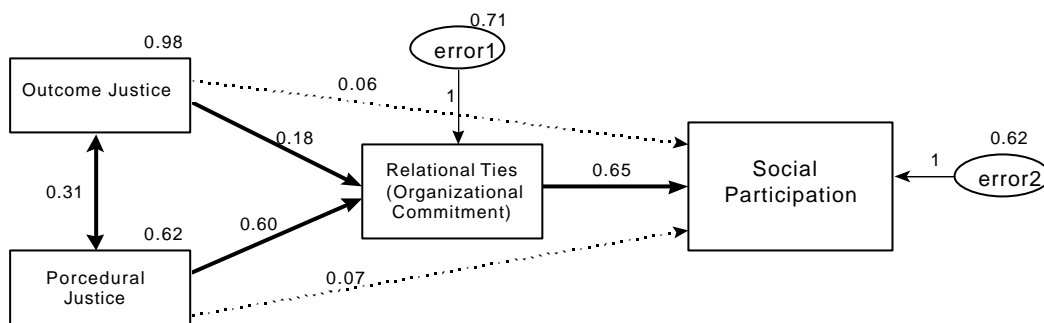


Figure 6: Social Participation Behavior Model

The fit index of each OCB model estimated by covariance structure analysis is as follows:

Table 3: Fit Index of OCB Model

Model	Chi-Square D.F.(Degree Freedom). P(probability)	GFI	AGFI	NFI	RMR
Obedience Model	Chi-square=1.475 D.F.= 2 p = 0.478	0.988	0.939	0.970	0.020
Advocacy Participation	Chi-Square=0.568 D.F.= 2 p = 0.753	0.995	0.976	0.990	0.012
Loyalty Model	Chi-Square=0.157 D.F.= 2 p = 0.374	0.984	0.919	0.986	0.041
Functional Participation	Chi-Square=0.247 D.F.= 2 p = 0.291	0.980	0.900	0.932	0.044
Social Participation	Chi-Square=0.603 D.F.=2 p = 0.740	0.995	0.975	0.991	0.023

Result

The result showed that the OCB Model was valid and reliable. Thus, we can get to define organizational citizenship behaviors as individual members' responsible behaviors corresponding to the rights encumbered by the belonging organizations. Moreover, we can realize that OCB is determined through the following process: employees' perception on rights → relational ties(OC) → OCB responsibilities.



COMPARISON OF OCB BETWEEN SMES AND LARGE ENTERPRISES

Based on the OCB model previously validated, we can get to compare the differences of OCB between SMEs workers and large enterprise workers. Let us go to the analysis.

For that, besides the OCB variables, this study included the other five variables into analysis; sex, tenure, education, marital status, and company size. Here, multiple regression analysis and ANOVA are used.

Comparison of OCB level

Basically, there exist some differences between Large enterprises and SMEs workers in their OCB level. The overall OCB level of Large Enterprise workers is higher than that of SMEs', except advocacy participation. Among them, particularly the differences in functional participation and obedience are statistically significant. The result of ANOVA on OCB responsibilities is as follows:

Table 6: Comparison of OCB Level between SMEs and LEs

Dimension of OCB	Size	Mean	S.D	F-value	P
Obedience	SMEs	5.2542	0.7445	5.707	0.017*
	Les	5.4265	0.7969		
Loyalty	SMEs	4.6170	0.8277	0.115	0.734
	Les	4.6444	0.8961		
Advocacy Participation	SMEs	4.8659	0.7174	1.651	0.199
	Les	4.7700	0.8427		
Functional Participation	SMEs	4.3975	0.8084	8.629	0.003**
	Les	4.6168	0.8113		
Social Participation	SMEs	4.4493	1.0330	0.863	0.353
	Les	4.5392	1.0584		

- Statistically significant in $P < 0.05$ level, ** statistically significant in $P < 0.01$ level

In addition, the other differences between SMEs and Large enterprises was found in their duration of education and tenure, and the differences were significant statistically (in $P < 0.05$ level). The detail structures of tenure and duration of education are as follows:

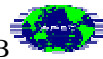


Table 7: Structure of Tenure and Education

		Large Enterprises	SMEs
Duration of Education	High School Graduate	39%	16%
	College Graduate	58%	78%
	Over College Graduate	3%	6%
Tenure	Below 1 Year	5%	4%
	1 - 3 Years	18%	21%
	4 - 6 Years	22%	33%
	7 - 9 Years	23%	21%
	Over 10 Years	32%	21%

Additionally, there were some differences in their sex, age, and marital status, but they are not significant.

Causal Factors for OCB Differences

In order to catch up the causal factors that made the differences in functional participation and obedience, multiple regression analysis conducted using OCB variables in the state that company size, tenure, and education were controlled.

Table 7: Causal Factors for Obedience and Functional Participation

	Obedience	Functional Participation
Company Size	0.043	0.085*
Duration of Education	0.058	-0.003
Tenure	0.224**	0.233**
Outcome Justice	0.097*	0.267**
Procedural Justice	-0.279**	-0.040
Relational Ties(OC)	0.427**	0.172**
R ²	0.251	0.216
F-value	33.285**	27.222**

* Statistically significant in $P < 0.05$ level,

** Statistically significant in $P < 0.01$ level

The result showed that outcome justice, procedural justice, and relational ties significantly affected obedience, and that outcome justice and relational ties significantly influenced functional participation. According to the questionnaire items, the detail influential elements for obedience and functional participation are as follows, respectively:



Table 9: Influential Elements of Obedience and Functional Participation

	Factors	Elements
Obedience	Outcome Justice	Evaluation, Opportunity for development, Compensation, Responsibility, Punishment.
	Procedural Justice	Participation in decision-making, Grievance system, Clearness of policies, Discriminated personnel system.
	Relational Ties	Company satisfaction, Loyalty to company, Pride to company, Self-confidence to company's success, Congruence with company's value.
Functional Participation	Outcome Justice	Evaluation, Opportunity for development, Compensation, Responsibility, Punishment.
	Relational Ties	Company satisfaction, Loyalty to company, Pride to company, Self-confidence to company's success, Congruence with company's value.

On the other hand, when estimating the differences between SMEs and Large Enterprise workers in outcome justice, procedural justice, and relational ties, we could also find out a significant difference (in $P < 0.05$ level) only in relational ties.

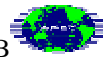
Interpretation

Viewed from all the above analysis, compared with large enterprise workers, SMEs workers' relatively low OCB level in their obedience and functional participation apparently derived from their low relational ties. That is, SMEs workers seemingly have some problems in their company satisfaction, loyalty to company, pride to company, self-confidence to company's success, and congruence with company's value. However, it is hard to conclude the problems are the matters of relational ties themselves. According to the OCB model, relational ties are directly influenced by employees' perception on their rights. Eventually, their relatively weaker OCB is related with perception on rights in the belonging organizations. The items of the employees' rights include the perception on evaluation system, self-development system, compensation system, control system, decision-making system, grievance system, operational system, personnel system, etc.

They are the matters of their management system. Then, SMEs workers' OCB problems are from their relatively fragile management system. Thus, we can assert that, to increase SMEs worker's OCB level, it is most urgent to improve SMEs' management system. For that, the development of small but powerful management system is strongly required.

CONCLUSION AND DISCUSSION

This paper had two major purposes. One was to suggest an OCB model based on a



new definition of OCB. The other was to analyze SMEs workers' OCB problems and their causes. To do them, this paper was indebted to Van Dyne, Graham, and Dienesch(1994), and Graham(1991). However, this is different from them in the following three things:

First, this paper interpreted and specified the individual members' rights into the individual members' perception on outcome justice and procedural justice. Marshall's typology on citizen rights, Greenberg's justice theory, and Folger's relative deprivation theory back the logic.

Second, this paper suggested a nomological network based on OCB construct and validated it with use of covariance structure analysis.

Third, this paper interpreted and specified the relational ties into the employees' organizational commitment.

Fourth, this paper adapted the previously developed measurement instruments by Niehoff & Moorman(1963), Mowday et. al.(1982), and Van Dyne, Graham, & Dienesch(1994). In addition, this paper used them by assessing with use of explanatory factor analysis and confirmatory factor analysis, rather using them directly.

About OCB Model

The OCB model as a process model may have the following advantages :

First, it will be possible to explain the dynamics of employees' behavioral changes systematically. Thus, it is likely to contribute to the development of alternatives appropriate to the problems found by each step. For example, if a slight problem happens in the stage of employees' perception on rights, we may suggest some alternatives after checking up how much it affects the second and third stage. Without understanding the whole processes, it may be hard to suggest an appropriate alternative so that it will bring about the waste of time and efforts.

And, second, it may be possible to reach the consistent results in OCB studies, by bringing OCB variables together in a grand model. The reason that some previous OCB studies had no consistent outcomes might be related with it.

However, this model may have some limitations in including diverse variables into the model, driven by searching for the parsimony of model. We may consider including, for example, personal characteristics such as personality and diverse demographic variables, job characteristics, organizational culture, and leadership style into the model.

On the other hand, the following two things that found in the process of this study will be suggestive for the future OCB study:

The first one is that the OCB factor structure reflects the characteristics of organizational or overall society's culture. Therefore, there might be some differences in their OCB factor structure between Chinese and Korean, and between Western and Asian. This tells that the development of OCB measurement instruments appropriate to their own cultural



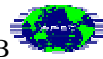
environments is required.

And, the second is that this study depends on some limited data collected from Korean employees working for Korean companies. It requires generalization. For that, longitudinal studies and applications onto a variety of organizations are requested.

About SMEs Workers' OCB

The second purpose of this study was to analyze SMEs workers' OCB problems and their causes by a comparison with large enterprise workers' OCB. The analysis used ANOVA and multiple regression analysis. The result by ANOVA showed that overall the OCB level of large enterprise workers was relatively higher than that of SMEs workers and that there existed significant differences between them in their obedience and functional participation. In addition, their education and tenure were significantly different each other.

And the result by multiple regression analysis showed that the SMEs workers' relatively low OCB in their obedience and functional participation was influenced both by their organizational commitment and by their perception on outcome justice and procedural justice in organizations. However, considering the already validated OCB model(perception on justice-->organizational commitment-->OCB responsibilities), organizational commitment are directly connected to OCB responsibilities, and the perception on outcome justice and procedural justice precede organizational commitment. Therefore, SMEs workers' relatively low OCB in their obedience and functional participation is directly influenced by their organizational commitment; satisfaction to company itself, loyalty to company, pride to company, self-confidence to company's success, and congruence with company's value. However, their organizational commitment is determined by their perception on outcome justice and procedural justice in the organizations. That is, the perception on evaluation, self-development opportunity, compensation, punishment, responsibilities, decision-making, grievance system, policy operation, personnel system, etc. work for the causes of organizational commitment. These items are about management system. Then, the beginning point of SMEs workers' OCB problems is SMEs' relatively fragile management system. Thus, we can conclude that for SMEs' prosperity, the improvement of SMEs' management system is most urgent.



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