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Empirical Study on Relations among Human Resource System, leadership Pattern and Organization Performance

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Abstract: Based on Chinese culture and competing values framework theory model, organization's interaction between human resource management system and leadership pattern is examined. Different organization leadership pattern will make use of different human resource management system. Leadership pattern can be divided into four styles which are innovation adaptive leadership style, compassionate style, conservation style and objective-oriented style. This study finds that performance of organizations use balanced developed leadership pattern is far higher than other three leadership patterns. Different human resource system is adopted according to different leadership pattern. When different leadership pattern matches with human resource system, organization performance will prominently be varied. Furthermore, human resource system must be fit with organization situational factor.

Key words: Human resource management system, leadership pattern, corporate performance

INTRODUCTION

For recent 20 years, more scholars have research interest in the influencing mechanism of human resource on the organization performance, which still exists disputed views. According to contingency theory, human resource management must match with the specified need of internal and external condition. Arthur (1994) identifies two types of human resource systems that are commitment and control and finds that human resource system moderates the relationship between turnover and manufacturing system. Delery and Doty, (1996) explained modes of theorizing in strategic human resource management through tests of universalistic, contingency and configurationally performance predictions. Schuler and Jackson (1987) examined relationships between configurations of unit-level climate dimensions and organization outcomes and identifies three profile characteristics represented climate configurations, which is the mean score across climate dimension, the extent to which scores across dimensions vary and the pattern of the dimensions. Shanshi and Qiaoxiao (2007) has made divisions about different human resource practice pattern for managers and production personnel. Moreover, internally consistent human resource practice correlates positively with organization performance. Above scholars have the similar conclusion that's the justification of the interaction of organization strategy, culture and resource deployment pattern is an important factor to influence organization performance.

However, most scholars believe that leadership can determine the strategy direction, integrate many internal activities, coordinate the communication among every department, supervise behavior of organization member, enhance the job morale and control the deviation through standardization. All these practices will directly affect the efficiency of human resource management. Therefore, leadership pattern managers adopted will determine the pattern of human resource system in organization. Moreover, strategic human resource management must confront the fact that the result of the match between leadership pattern and human resource management.

Based on the view of competitive value theory, relations of leadership pattern and human resource system as well as the effect of the match of different leadership pattern on organization performance are explored to discuss about the influencing mechanism of organization mechanism.

LITERATURE REVIEW AND HYPOTHESIS

Competitive value theory model of leadership pattern: traditional organization theory differentiates leadership behavior according to binary view. Quinn and Cameron (1988) distinguishes the leadership behavior by autarchy and democracy pattern, guidance and participation pattern, task oriented and relations oriented pattern, structure and sympathy pattern and transaction and transformation pattern. However, Huselid (1995) described

that with economy globalization and diversification, leaders need to play roles of both autarchy and democratic participants, which in essence are relatively contrasting as well as coexisting. Quinn (1988) describes the organization performance competitive value theory model and divides the leadership pattern into innovative adaptation pattern, sympathy supportive pattern, prudence pattern and objective oriented pattern based on the viewpoint of coexistence and two dimensions of commitment-control and interior-exterior focus. The competitive value theory model displays various thinking model to explain internal phenomenon within single theory framework by macro and tolerance thinking model, which is of practical significance for Chinese companies in the economic transformation period.

Human resource pattern with ideal type: The whole human resource management practice can bring sustainable competitive advantage for enterprises rather than single human resource practice. Therefore, when scholars discuss about relations between human resource practice and organization performance, typological research approach is applied to develop various ideal human resource systems and proves that the effect of this system on organization is superior to single human resource practice. Youndt et al. (1996) divides the ideal human resource system into commitment system, effectiveness system, control system and cooperation system based on organization resource and control foundation. Verburg *et al.* (2010) divides the ideal human resource system into bureaucratic pattern, market pattern, professional pattern and flexible pattern according to objectives organization achieved and who should be responsible for employee development. In addition, Verburg *et al.* (2010) also describes that the classification model of ideal human resource system is similar to the research conducted by Quinn (1988) who proposes that organization is divided by two dimensions depends on the focus on which is commitment-control and internal-external. Therefore, according to the human resource system classification model by Verburg *et al.* (2010) human resource system can be divided in to bureaucratic pattern, market pattern, professional pattern and flexible pattern.

Research hypothesis: although leadership pattern and human resource system have an effect on organization performance, most scholar are beginning to find research interest in how leadership pattern influences human resource system and whether their match will result in organization performance difference. Bird and Beechler (1995) finds that when human resource system matches with organization leadership capability, organization

performance can be improved. However, past research mostly focuses on the effect of leadership pattern on human resource system. This article will explore whether four leadership styles which is innovative adaptation pattern, sympathy support pattern, conservative prudent pattern and objective oriented pattern, together with four human resource system which is bureaucratic pattern, market pattern, professional pattern and flexibility pattern can have an effect on leadership pattern and human resource system.

Organization that applies innovative adaptation pattern emphasizes flexibility, organization growth, organization resource availability and external organization support matches with flexibility human resource system that emphasizes individual personnel commitment. Organization that applies sympathy support pattern emphasizes cohesion, morale and human resource development matches with the professional human resource system that emphasizes the improvement of personnel commitment, employee growth environment, commitment to developing employees and stable market environment. Furthermore, organization that applies conservative prudent pattern emphasizes internal information share, communication control matches with bureaucratic human resource system that emphasizes the objective of human resource management is to realize internal stability, control production process rather than the improvement of employee commitment. Objective-oriented leadership pattern emphasizes goal setting, production planning execution and improvement of labor production and effectiveness matches with market pattern that emphasizes whether the expected objective is achieved.

Therefore, the following hypotheses are proposed:

- H1:** Different leadership pattern makes use of different human resource system
- H1.1:** Organization applies innovative adaptation leadership pattern tends to use flexibility human resource system
- H1.2:** Organization applies sympathy supportive leadership pattern tends to use professional human resource system
- H1.3:** Organization applies prudent conservative leadership pattern tends to use bureaucratized human resource system
- H1.4:** Organization applies objective -oriented leadership pattern tends to use market human resource system

In addition, Dyer and Holder (1988) finds that whether human resource system matches with

organization leadership pattern has no significant correlation with organization financial performance. However, the fit of human resource system and leadership pattern can be highly superior to the unmatched organization. Based on this, the article is to explore the extent and direction of the influence of different match model of human resource system and different leadership pattern on organization performance:

H2: When different human resource system matches with organization strategy, organization performance will be prominently different

METHODOLOGY

Samples: Organization samples are collected in Pearl River Delta. Because large scale organization tends to use more standardized human resource management than small one, this article selects enterprises with 100 personals as research object. Questionnaire methods are applied to investigate these organizations. Moreover, questionnaires are sent to every top manager and human resource managers, the duration of which lasts for two months. Two hundred pieces of questionnaires are sent and 168 questionnaires are collected. After processing the extreme value and missing value as well as invalid questionnaires deleted, 144 valid pieces of questionnaires are under processing. Valid collection ratio is amounted to 72%. The proportion of top managers filling in questionnaires is 20.5%. The percent age of senior managers is 66.8. Moreover, the percentage of first-line managers is 12.7%. For the relevant industry samples collected, generally manufacturing industry is 19.4%. High and new technology enterprise is 18.1%. Various service industries are 15.3%. Other enterprises accounts for 47.2%. For enterprise ownership form, state-owned enterprise holds 38.9%. Private enterprise occupies 30.5%. Hong Kong and Taiwan enterprise accounts for 8.3% and foreign funded enterprise is 5.6%. Furthermore, average duration of enterprises is 22 years. Enterprises under 5 years are 2.7%. Enterprises under 5 to 10 years are 11.1%. More than 10 years enterprises are 26.4% and 20 years are 45.8%.

Measurement tool

Leadership pattern: The article is to apply the scale by Quinn (1988) who proposed the leadership competitive value model and measure of leadership pattern by 16 items. Content of questionnaires includes motivating subordinates, democratic management, employee performance assessment, innovation thinking and

maintaining good exterior relation. Questionnaire applies 5- point Likert scale. Number 1 means irrelative and number 5 means very relative.

Human resource system: According to scales developed by Verburg *et al.* (2010), 28 questions are given to measure human resource system. Relative human resource practice includes 8 items: recruitment, training and development, compensation, performance assessment, promotion, employee participation, job security and job design. Questionnaire applies 5- point Likert scale. Number 1 means irrelative and number 5 means very relative.

Organization performance: Referring to MacDuffie (1995), organization financial performance is measured by profit growth ratio and sales growth ratio. Moreover, according to the research by Huselid (1995), human resource performance is measured by employee satisfaction, employee production ration, employee turnover ration and individual performance.

RESULTS

Factor analysis and cluster analysis result: Table 1 lists four factors which are sympathy supportive pattern, objective-oriented pattern, conservative prudent pattern and creative adaptation pattern. Four factor dimensions cumulative variance contribution rate is 75.081%. Coefficient of these four patterns is 0.870, 0.904, 0.686 and 0.848, respectively.

Table 2 lists the organization cluster analysis result which indicates each group has prominent difference in sympathy supportive pattern, objective-oriented pattern, conservative prudent pattern and creative adaptation pattern.

Table 3 describes two factors of human resource practice, which is named as commitment-control dimension and enterprise responsibility-personal responsibility dimension. The cumulative variance contribution rate is 60.183%. Coefficient is 0.776 and 0.812 respectively.

Based on the statistics approach by Verburg *et al.* (2010), average score of two dimensions is firstly calculated. The average score of commitment-control is 3.2 but that of enterprise-individual is 3.12 and then, according to the final score of these two dimensions, high score group and low score group is obtained. The result can be seen in Table 4. Higher score group of commitment-control dimension makes use of human resource practices characterized by commitment and lower score group of commitment-control dimension makes

Table 1: Enterprise leadership pattern cluster analysis result

Item	Factor 1	Factor 2	Factor 3	Factor 4	?
Manager carefully listens attentively to employees' thinking and personal problem	0.777	-0.022	0.053	-0.092	0.870
Manager can assist subordinates in career planning	0.673	0.072	0.217	0.121	
Manager encourages subordinates to take part in important decision-making	0.856	-0.293	0.207	0.036	
Manager tries to have subordinates increase enterprise belonging	0.901	0.081	-0.260	-0.010	
Manager clearly informs subordinates of the strategic objective	0.315	0.594	-0.109	0.112	0.904
Manager guides subordinates through standard process and corrects in time	0.437	0.516	-0.040	-0.089	
Manager emphasizes the value of performance	-0.273	0.974	-0.138	0.085	
Manager actively accelerates the expected objective achieved	0.031	0.628	0.225	0.116	
Manager checks the plan implementation	0.098	-0.122	0.784	0.324	0.686
Manager establishes the assessment system	-0.054	0.319	0.689	0.101	
Manager tries to maintain the operation at stable level	-0.021	0.061	0.777	-0.257	
Manager establishes the cross-department task group	0.008	-0.212	0.963	0.146	
Manager is always creatively solving problems on the way	-0.108	-0.080	0.002	0.874	0.848
Manager tries to make new attempts through creative concept and procedure	0.089	0.040	-0.067	0.852	
Manager tries to maintain good external relations	0.058	-0.451	0.289	0.502	
Manager tries to effect the decision of superiority	-0.023	0.130	0.211	0.876	
Cronbacha	0.838				

KMO sample adequacy test value is 0.841, Bartlett spherical check value is 1220, $p < 0.01$

Table 2: Cluster analysis result of leadership pattern

	Clustering named				F
	Innovative adaptation model (n = 12)	Conservative prudent pattern (n = 75)	Balanced developed pattern (n = 27)	Objective oriented pattern (n=30)	
Score of objective oriented	2.56	3.63	4.17	3.70	24.888***
Score of conservative prudent	2.94	3.78	4.09	3.18	20.581***
Score of sympathy support	3.06	3.30	3.97	2.33	54.474***
Score of innovative adaptation	3.63	3.38	3.95	3.18	9.990***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Result analysis of human resource practice

	Factor 1	Factor 2	α
Organization concerns about employee commitment	0.863	-0.175	0.776
Employee compensation is highly related to job rank	0.861	-0.217	
Each position has clear job description	0.837	-0.282	
Team performance applies to measure employee assessment	0.818	0.039	
Provide promotion opportunity for core production and service employee	0.813	0.100	
Clearly organization structure is established	0.790	-0.257	
Team performance applies to measure employee assessment	0.746	-0.008	
Formal and written human resource strategy is executed	0.743	0.115	
Formal performance assessment system and applies standard performance assessment	0.712	-0.099	
Employee performance is highly related to the advanced production budget	0.678	0.053	
Employees voluntarily update knowledge and technology	0.576	0.060	
Core position being vacant, internal promotion is applied	0.560	0.373	
Assessment of department manager is based on the total performance by all employees	0.533	0.189	
Job interview is applied in recruitment	0.507	0.083	0.812
New employee training is through coaching	0.428	0.570	
New employee selection is through coaching	0.425	0.523	
Diversified and flexible career development approach is applied	0.411	0.518	
It's very difficult to recruit core production or service employee	0.196	0.621	
Proportion of employee training and development budget is higher in the total labor cost	-0.195	0.888	
Department manager has the final decision right for new employee recruitment	-0.332	0.814	
Department has the final decision right for new employee recruitment	0.087	0.781	
Compensation of first-line and service employee has just fixed wage	-0.273	0.658	
Centralized recruitment is done at the same period	-0.030	0.627	
Psychological test is used in the recruitment	0.161	0.531	
Internal assessment center chooses employees	0.380	0.513	
Job application form is used in the recruitment	0.312	0.696	
Relevant technology and social skill training is mandatory executed for first-line and production employee	0.309	0.588	
penalized and sanctioned measures are usually applied	-0.021	0.587	
Cronbacha	0.806		

KMO sample adequacy test value is 0.841, Bartlett spherical check value is 1220, $p < 0.01$

use of control. Moreover, higher score group of group-individual dimension represents the employee development responsibility is fulfilled by employees but the lower score group of group-individual dimension represents the employee development responsibility is fulfilled by enterprise itself. Two dimensions of

Table 4: Human resource system cluster analysis result

	Bureaucratic pattern (control, company)	Market pattern (control, individual)	Flexible pattern (commitment, individual)	Professional pattern (commitment, company)	F
Commitment-control	2.95	2.89	3.52	3.43	35.481***
Company-individual	3.14	2.57	3.03	3.75	76.311***

note: *p<0.05; **p<0.01; ***p<0.001

Table 5: Mean,SD and correlation analysis of each variable

	M	SD	1	2	3	4	5	6	7	8	9	10	11
Satisfaction	3.4100	0.63600											
Production rate	3.4400	0.81900	0.534**										
Employee turnover rate	2.9500	0.97000	-0.305**	-0.039**									
Profit growth rate	3.4500	0.77900	0.449**	0.475**	-0.239**								
Market share	3.3900	0.77300	0.507**	0.271**	-0.147	0.683**							
Individual performance	3.6800	0.64100	0.403**	0.323**	-0.282**	0.260**	0.072						
Objective-oriented pattern	3.6508	0.66564	0.476**	0.408**	0.073	0.465**	0.382**	-0.009					
Conservative-prudent pattern	3.6429	0.67039	0.395**	0.480**	0.035	0.423**	0.428**	-0.126	0.680**				
Sympathy-supportive pattern	3.1865	0.81850	0.473**	0.431**	-0.180*	0.395**	0.333**	0.038	0.557**	0.587**			
Innovation adaptation pattern	3.4405	0.65071	0.505**	0.399**	-0.138	0.389**	0.368**	0.002	0.630**	0.606**	0.710**		
Commitment-control	3.1430	0.43086	0.427**	0.389**	-0.006	0.529**	0.445**	-0.032	0.575**	0.634**	0.544**	0.575**	
Company-individual	3.1244	0.49787	0.236**	0.240**	-0.020	0.518**	0.458**	-0.025	0.343**	0.518**	0.374**	0.420**	0.668**

*p<0.05, **p<0.01, n = 144

Table 6: Clustering analysis result of human resource system

	Bureaucratic pattern (control, company)	Market pattern (control, individual)	Flexible pattern (commitment, individual)	Professional pattern (commitment, company)	F
Innovation adaptation pattern	3.01	2.96	3.32	2.89	4.596
Balanced-developed pattern	3.04	3.50	3.26	3.15	4.015
Prudent conservative pattern	3.44	3.13	3.01	2.98	17.003
Objective-oriented pattern	2.99	3.06	3.43	3.10	17.892

different score can obtain four patterns, which are commitment-control dimension in lower score group and company-individual group in higher group both called the bureaucratic pattern of human resource system. Furthermore, commitment-control dimension in lower score group and company-individual dimension in lower score group can be attributed to market pattern of human resource system. Commitment-control dimension in higher score group and company-individual dimension in lower score group can be called flexible human resource system. Lastly, commitment-control dimension in higher score group and company-individual in higher score group can be explained as professional human resource system.

The main load of each index in factor analysis of company performance is in the first factor. Therefore, each index is combined into a total score of the company performance.

Relevant analysis: As is shown in Table 5, there are significant relations, which are four leadership patterns between, two dimensions of human resource system, leadership pattern and human resource dimension between, which provides the possibility of the match between leadership pattern and human resource system. Four leadership patterns and two human resource system dimensions as independent variable have significant positive correlation with a majority of each performance index but weak correlation with employee turnover and

negative correlation with sympathy supportive leadership pattern. This proves that sympathy supportive leadership pattern will cause low employee turnover under Chinese culture, the result of which is in accordance with the past research finding.

Hypothesis test of relations between leadership pattern and human resource system: As is show in the above Table 6, when enterprise adopts different leadership pattern, the relative human resource system chosen is different. When the enterprise adopts innovative adaptation leadership pattern, human resource system tends to be market pattern. Therefore, hypothesis 1.1 can't be proved. When balanced developed leadership pattern is adopted, human resource system tends to be professional pattern. Therefore, hypothesis 1.2 isn't established. In addition, when organization adopts prudent conservative leadership pattern, hypothesis 1.3 is set up. Moreover, when the enterprise adopts objective-oriented leadership pattern, human resource system tends to be the market pattern. Therefore, hypothesis 1.4 is set up.

Effect of pairwise match between leadership pattern and human resource system: line chart 1 can visually be revealed that the effect of the match of different human resource system and enterprise strategy.

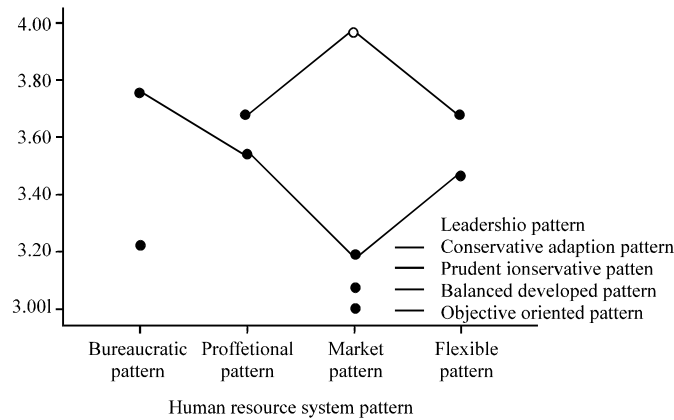


Chart 1: Organization performance with human resources system and leadership pattern matched

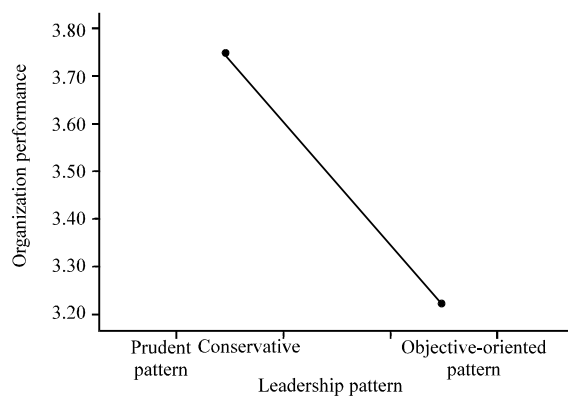


Chart 2: Organization performanle with bureau cratril human resource system and prudent conservative obkective-oriented leadership pattern matched

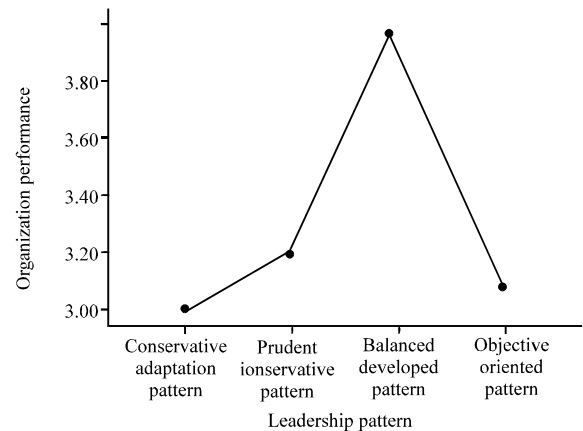


Chart 3: Organization performanle with market pattern human resourle system and leadership pattern matched

Table 7: Organization performance with bureaucratic human resource system and leadership pattern

	Organization Performance	F	P	Significance
Prudent conservative pattern	3.75	8.621	0.019	**
Objective-oriented pattern	3.2222			

Table 8: Organization performance with market human resource system and leadership pattern

	Organization Performance	F	P	Significance
Innovative prudent pattern	3.0000	7.943	0	**
Prudent conservative pattern	3.1875			
Balanced developed pattern	3.9583			
Objective-oriented pattern	3.0714			

Table 7 and chart 2 reveal that there is significant difference when bureaucratic human resource system matches with the prudent conservative leadership pattern and objective-oriented leadership pattern. In addition, organization performance is more effective when bureaucratic leadership pattern is matched with prudent conservative leadership pattern than that's matched with objective-oriented pattern.

Table 8 and Chart 3 describes that the organization performance has significant difference when market human resource system is matched with four leadership patterns, which are prudent conservative pattern. Objective-oriented pattern, balanced developed pattern and innovation adaptation pattern. Result shows that market human resource system fits best with balanced developed pattern, better with prudent conservative pattern, good with objective-oriented pattern and worst

with innovation adaptation leadership pattern. However, the match of flexible and professional human resource system with leadership pattern has got weak effect on organization performance. Therefore, hypothesis 2 partly is proved.

CONCLUSION

Based on Chinese culture, this article discusses about the important balanced concept of competitive value theory. Different leadership pattern requires different human resource system. The research result finds that when enterprise applies the innovative adaptation pattern, human resource system tends to be market pattern. When organization adopts the conservative prudent pattern, bureaucratic pattern is developed in human resource system. When organization makes use of balanced developed leadership pattern, market pattern of human resource system tends to be established. Moreover, when the objective-oriented leadership pattern is developed, market pattern of human resource system is set up.

In addition, when different leadership pattern matches with a certain human resource system, organization performance will be greatly different. When bureaucratic leadership pattern matches with conservative prudent pattern, the organization performance is better than the match of bureaucratic pattern with objective-oriented pattern. Meanwhile, when market pattern of human resource system matches with different leadership pattern, the result is in the following: balanced developed pattern, conservative prudent pattern, objective-oriented pattern and innovative adaptation pattern.

Moreover, the research result finds that there is no prominent effect of the flexible and professional human resource system matching with leadership pattern. Actually, organization commitment focused on flexible human resource system should have the best fit with innovative adaptation leadership pattern that emphasizes the organization growth, organization resource availability and the external support. What's more, professional human resource system that requires stable environment, employee commitment improvement and employee keeping policy should have been fit with the sympathy support leadership pattern. However, this research result isn't testified. The possible reason is that human resource system is improved through the people factor. Employee capability, employee satisfaction and turnover may possibly influence the relation between human resource system and performance as moderating role.

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