

The effect of aligning organizational culture and business strategy with HR systems on firm performance in Chinese enterprises

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This study examines the differential impact of an alignment of organizational culture and business strategy through which inducement-HR and involvement-HR systems may affect firm performance. It contributes to the strategic fit of the HRM literature by using empirical data from 451 firms in southern China to evaluate the linkages among organizational culture, HR systems, business strategies and organizational performance. The results show some support for an HR-organizational culture fit and an HR-business strategy fit, and have important managerial implications for matching the organizational culture and business strategy with an organization's choice of HR systems to achieve maximum impact on organizational performance.

Keywords: China; business; culture; HR practices; organizational culture; organizations; strategic fit; strategy

Introduction

Employee involvement plays an important role in the success of high performance initiatives. Involvement-HR practices have been extensively researched in recent studies (Guthrie 2001; Gollan 2005). Involvement-HR is designed to foster high levels of autonomy, discretion, challenge and motivation, so that employees can make a meaningful and creative contribution. Participation and empowerment is greatly encouraged. Employee involvement and sharing of information is relatively weak in Chinese organizations. High power distance societies place less value on subordinate input and participation. Chinese employees are not accustomed to active involvement and participation. Employees are reluctant to accept responsibility and unlikely to exercise their initiative to get things done (Chow, Huang and Liu 2008).

Typical paternalistic employers demonstrate their care and concern for their employees, but expect unquestioning obedience in return (Westwood and Chan 1992). The inducement-HR system is grounded on the nature of the employer–employee exchange. Based on the inducement-contribution model of employment, with high level of inducements offered by the employers, employees may feel obliged to reciprocate through working harder and are less likely to quit (Tsui and Wu 2005). Inducement-HR systems built around pay as an incentive work very well for Chinese firms.

From involvement to inducement, it will be interesting to find out which type of HR systems will be more appropriate for managing China's massive labour force and what types of HR systems may contribute to better performance. The purpose of this study

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is to explore the extent that the involvement and inducement-HR systems could be successfully adopted in the Chinese context.

Despite growing research interest in the important field of strategic human resource management (SHRM), our understanding of the relationship between HR, culture fit and business strategy is still very limited. For instance, under what conditions and to what extent do HR systems matter? What relationship exists among strategy, culture and HR practices and how do they combine to strengthen an organization's competitive advantage? In this study, we attempt to answer these questions by including organizational culture and business strategy. The focus of the study is on cultural alignment and business strategy alignment. Drawing on the SHRM, organizational culture and strategy theories, this study is designed to integrate and contribute to the strategic fit of the HRM literature by using empirical data to evaluate the linkages among organizational culture, HR systems, business strategies, and organizational performance. It also examines the interaction effects of HR-culture and HR-strategy on firm performance. It is important to examine the extent to which organizational culture and business strategy match an organization's choice of HR systems to achieve maximum impact on organizational performance. We test the model in culture-HR linkage and business strategy-HR linkage using responses from 451 firms in southern China.

Three decades of economic reform have made China an attractive market for multinational companies (MNCs) (see Warner 2008). China is becoming increasingly integrated into the global economy, and this integration was recently symbolized by its admission to the World Trade Organization. As China's economy continues to develop, the country's business environment is experiencing revolutionary change. In an increasingly competitive environment, the pressure for change has placed new demands on human resource practices. China's emergence as a major player in the global economy provides a very challenging research site for studying the HR systems. Results from the present study offer some important implications for both research and practice. Its theoretical and empirical findings will contribute to the development of global HRM knowledge and theories, and complement the existing literature on HRM research. The empirical results offer some evidence on the importance of the relationship among HR practices, interaction effects of organizational culture, business strategy and firm performance in the world's largest emerging market. The study's findings are also of practical relevance not only for local Chinese firms but also for MNCs investing in China. The findings provide important insights for multinational business executives wishing to design effective HRM systems and to align them with organizational culture and business strategy to attain high performance in China.

The following section starts with a brief review of previous studies of the relationship between HR systems and organizational culture as well as HR and business strategy. Based on the literature review, hypotheses are developed and tested with empirical data collected for this study. The study concludes with a discussion of the managerial implications and suggests directions for future research.

Theoretical framework

Cabrera and Bonache (1999) asserted the need for the alignment of organizational culture and business strategy by integrating knowledge from SHRM with the design of HR practices. The authors stressed that an organization should improve its competitive position through careful planning of the HR practices necessary for achieving its business strategy. HR systems shape the behavior of employees, thus becoming the means whereby

cultures are created and sustained (Schwartz and Davis 1981). A strong culture may be an important factor in obtaining a competitive advantage, but only under certain circumstances, i.e. if the culture is appropriate. Strong positive associations are found between organizational cultural values of respect for people, innovation, stability and aggressiveness, and employee responses of organizational commitment, job satisfaction, propensity to remain with the organization, and information sharing behavior (McKinnon, Harrison, Chow and Wu 2003). The creation of norms to support an organization's business strategy depends on the careful design of the organization's HR practices. It is proposed that organizational culture, business strategy and human resource strategy each have a differential impact on firm performance. Figure 1 illustrates the theoretical framework we propose for the present study.

The importance of HR alignment as a basis of competitive advantage has repeatedly been stressed in previous studies (Cabrera and Bonache 1999; Vandenberg, Richardson and Eastman 1999; Barrette and Ouellette 2000). In high performing organizations, HRM is treated as a set of complementary practices aligned with the firm's goals and strategies (Becker and Huselid 1998). Sustainable HRM systems are those which are internally coherent, consistent with the firm's business strategy, and consistent with the broader context in which the firm is operating (Gollan 2005). The underlying logic is the assumption that congruence or fit would result in organizational effectiveness (Delery 1998).

Organizational alignment theory (Selmer 1997) and contingency theory (Schuler and Jackson 1987; Delery and Doty 1996) posit that HRM should match the demands of internal and external conditions in expecting organizational effectiveness. External fit links HR systems to business strategy whereas internal fit focuses on complementarities across HRM activities (Huselid, Jackson and Schuler 1997). The basic premise is that firm performance can be enhanced to the degree that there is internal consistency among HR practices and compatibility of HR practices with a firm's strategy (Youndt, Snell, Dean and Lepak 1996; Wright and Snell 1998). Therefore integrating the HR system with a firm's business strategy is conducive to the enhancement of organizational effectiveness, particularly for a high commitment work system.

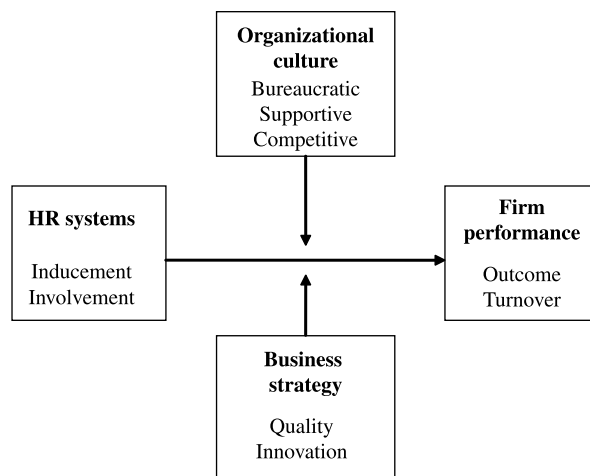


Figure 1. The conceptual framework.

HR systems and performance

The strategic perspective of HRM and the systems approach of designing HR practices are the two most dominant research approaches on HRM-firm performance linkage (Bowen and Ostroff 2004). SHRM research focuses on evaluating the congruence among business strategies, HRM policies and organizational effectiveness (Dyer and Holder 1988; Wright, McMahan and McWilliams 1994). The value of HRM and its impact on organizational effectiveness may be magnified when the HRM practices of an organization support the firm's ability to establish and maintain a match in internal and external demands. The philosophy of SHRM emphasizes the need to achieve coordination and integration between organizational culture, HR systems, business strategy, and corporate goals (Schuler 1992). The systems approach views HR practices as internally coherent, consistent with the firm's corporate strategy. It is the system of HR practices that influences a firm's performance.

Dyer and Holder's (1988) typology classified HR systems into investment, involvement and inducement, each fitting a particular business strategy and corporate culture. An empirical study by Swiercz (1995) confirmed the validity of the inducement and involvement systems but failed to support the notion of investment-HR. The present study investigates only the two validated HR systems, i.e., inducement and involvement.

Inducement-HR puts a strong focus on containing cost. It maintains efficiency by narrowly defining jobs, and builds a strong link between each worker's effort and his pay. Inducement-HR builds around incentives, using performance-based pay as an attempt to monitor and control employee performance. It has been amply demonstrated that incentives raise productivity and profitability and decrease the mobility of workers (Beer and Katz 2003). The introduction of performance-related pay schemes has substantially improved firm performance. Inducement plans need continuous management support and monitoring. Performance-related pay cannot be directly linked to an increase in participation of employees in decision-making in Finland (Piekkola 2005). High involvement HR systems, based on industrial democracy and self-management work teams, require more autonomy, greater task variety, and more effective use of knowledge and skill (Jones and Wright 1992). Involvement-HR builds around a relatively high proportion of professionals by structuring jobs to provide maximum challenge, participation and autonomy.

A growing body of literature has documented the contingency relationship between HR systems and firm performance (Delery and Doty 1996). The SHRM literature consistently shows that involvement HR practices are associated with positive performance outcomes and higher financial success (Lawler, Mohrman and Ledford 1995; Bae and Lawler 2000; Yu and Egri 2005). Levering and Moskowitz (1993) surveyed the 100 best companies to work for in the United States, and Lawler et al.'s (1995) survey on Fortune 1000 companies found that companies that made use of employee involvement and TQM practices reported significantly higher financial success. Empirical results from Singapore, Taiwan and Korea support the notion that high commitment/involvement work systems or practices have a positive effect on organizational performance (Bae and Lawler 2000; Huang 2000; Khatri 2000). Arthur (1994) and Huselid (1995) found human resources to be significantly related to employee turnover rates. In this study we synthesize the fruits of these previous studies, and propose that both inducement-HR and involvement-HR systems enhance organizational effectiveness, their differential impact depending on their congruence with the organization's strategy and culture.

Hypothesis 1: Both inducement-HR and involvement-HR systems are positively associated with performance outcomes and negatively associated with turnover rate. The effect will be stronger for involvement-HR systems.

HR and organizational culture alignment

Organizational culture is one of the most important factors of the internal organizational environment, and has a great bearing on SHRM (Yeung, Brockbank and Ulrich 1991; Cabrera and Bonache 1999). Organizational culture refers to the symbols, rituals, social patterns and shared understanding that govern behavior in the organization. These beliefs, values, and norms determine how things are done and define expected standards of behavior from every individual (Ulrich 1984; Deal and Kennedy 1992). According to Peters and Waterman (1981), strong cultural norms make an organization more efficient.

Wallach (1983) identified three distinct organizational cultures: bureaucratic; supportive; and innovative. Bureaucratic cultures are power oriented, regulated, procedural and hierarchical. The work is organized and systematic. It is suitable for well-trained staff but not likely to attract and retain creative and ambitious people. A bureaucratic culture is not the most conducive to the creation of employee commitment (Odom, Boxx and Dunn 1990). Supportive cultures are trusting, encouraging, relationship-oriented and collaborative. They provide an open, harmonious and warm place to work. People are friendly and helpful. Employees working in a supportive environment are more satisfied and have a greater degree of organizational commitment (Silverthorne 2004). A supportive culture works very well with the paternalistic style and the explicitly instrumental nature of inducement-HR systems. An innovative culture is exciting and dynamic. It provides a creative place to work, and is filled with challenge and risk. Innovative cultures encourage competition and develop an entrepreneurial environment.

China is now moving away from a planned economy to a more competitive market-based system, and its organizational culture is becoming more competitive. In a dynamic, fast-changing market environment, China's firms need a more proactive HR system to compete successfully with their overseas counterparts. The effect is stronger and more relevant for matching competitive culture with HR than innovative culture in the contemporary Chinese context. This is particularly true for involvement-HR when participation and flexibility are badly needed in a highly competitive market.

Organizational cultures not only facilitate firm performance, but also strengthen the impact of HR systems on firm performance. Companies whose organizational culture complements their HR systems will perform better. Child (1981) asserts that culture has a moderating effect on organizations, and notes that culturally-driven preferences influence the exercise of choice between alternative practices (p. 318). Managers implement HR systems based on their assumption and beliefs on the nature of the task and the employees (Aycan 2005). An empirical study by Silverthorne (2004) found that a supportive organizational culture appeared to work better in Taiwan than other types of cultures. A culture that is basically supportive in nature is likely to have the highest level of employee job satisfaction and organizational commitment, whereas a bureaucratic organizational culture resulted in the lowest levels of job satisfaction and organizational commitment. The same results also apply to lower turnover rate. The HR-culture fit is expected to influence organizational outcomes. We propose that organizational cultures interact with HR systems in influencing firm performance and turnover.

- Hypothesis 2a:* A bureaucratic culture combining both inducement- and involvement-HR shows no significant relationship to performance and turnover.
- Hypothesis 2b:* A supportive culture combined with inducement-HR is significantly and positively related to performance outcome and negatively associated with turnover.
- Hypothesis 2c:* A competitive culture coupled with involvement-HR has a significant positive relationship with performance outcomes but is negatively associated with turnover.

HR and business strategy alignment

Strategic choice theory posits that organizations proactively choose the HRM systems that best match their strategy (Kochan, McKersie and Cappelli 1984). The strategic perspective of HRM examines the fit between various HRM practices and the company's business strategies (Delery 1998). Previous studies have focused on the linkage between generic business strategy and HRM types (Schuler 1989; Bird and Beechler 1995). Arthur (1992) found that cost advantage strategy was strongly related to cost-reduction HRM, and differentiation was associated with the commitment-maximization HRM system. These studies show that business strategy is a critical factor in the choice of HRM system.

The strategic fit of HR and business strategy has also been investigated (Schuler and Jackson 1987; Gunnigle and Moore 1994). In their empirical study, Schuler and Jackson (1987) analyzed the contingent role of a business strategy and tried to link competitive strategy to HR systems. Innovative strategies focus on offering something new and different. The appropriate HR practices for innovative strategies include selecting highly-skilled, creative individuals, granting more discretion with minimal control, long-term focus and greater commitment. Thus, innovation strategy is positively associated with involvement-HR. A quality-enhancing strategy must adapt to changes and continuously upgrade product or service quality. HR practices for a quality-enhancing strategy include high levels of participation, feedback and cooperative teamwork. It is expected that a quality-enhancing strategy is positively associated with both inducement-HR and involvement-HR. A cost reduction strategy focuses on controlling expenses and achieving economies of scale. The corresponding HR practices for a cost reduction strategy maximize efficiency by using narrowly-designed jobs, close monitoring and a minimal level of training and development. HR can proactively add strategic value by enhancing the capability of the firm. This can be evidenced in providing innovative products and services, reducing costs, and improving quality.

HR systems are effective only when they are appropriately integrated with a specific business strategy. Lepak and Snell (1999) examined the interaction of business strategy and HRM. This interaction is complementary in that the value of one element is increased by the present of other elements (Holmstrom and Milgrom 1994, p. 973). Based on Dyer and Holder's (1988) assertion, firms are likely to use inducement-HR to compete largely on price and quality, while involvement-HR relies on an innovation strategy to provide continually differentiated products and services. The HR-strategy fit is expected to influence organizational performance. Thus, we propose that business strategies moderate the relationship between HR systems and performance outcome.

- Hypothesis 3a:* Firms pursuing a quality strategy with both inducement-HR and involvement-HR systems will be positively associated with performance outcome and negatively with staff turnover.

Hypothesis 3b: Firms pursuing an innovation strategy with involvement-HR will be positively associated with performance outcome and negatively with staff turnover.

Research method

Both qualitative and quantitative methods are used. The survey data were supplemented with interviews. The interviews provided a deeper understanding of the HR practices in individual firms and also acted as a check on the inferences drawn from the survey. The interviews averaged 1 hour in length. A total of 48 interviews were conducted with HR experts and managers from Guangzhou, China, to identify a broad range of HR practices in the Chinese context. Although HR measure scales are available from the literature, different studies have used different measures of HR practices and there is no unique set of 'best' HR practices. We therefore developed our own measure instead of translating from the existing scale. Based on the opinion of expert interviews together with an extensive review from the current literature, a list of HR practices was generated for the present study. These HR practices are shown in Table 1. Each item was assessed by a 5-anchored Likert scale, with 1 being the highest and 5 being the lowest. The questionnaire was constructed in Chinese. These items were pre-tested with a sample of 110 practicing managers to verify their usefulness.

Questionnaires were sent to the company's HR Department by e-mail, and follow-up calls were made in late 2005. From the 600 questionnaires distributed, 451 responses were received, yielding a response rate of 75.2%. The average length of establishment of the companies surveyed was 10 years, and the length of operation ranged from 1 to 56 years. As far as ownership was concerned, 31.5% were state-owned or collectively-owned, 53.9% were Hong Kong and Taiwan firms in China, and the rest were foreign-invested

Table 1. Classification of human resource practices.

<i>HR Practices</i>	<i>Induce</i>	<i>Involve</i>
Degree of job security	.639	.201
Company's compensation level	.656	.182
Degree of emphasis on internal equity of compensation	.617	.339
Concern of salary level on external competitiveness	.747	.209
Extent of incentive pay contingent on job performance	.635	.411
Employees will be given resources for job duties completed	.669	.189
Performance evaluation emphasizes guiding employee behavior toward the company's strategic direction	.463	.536
Degree of quantified performance standard	.398	.548
Career development path	.289	.553
Performance feedback through multi-channels	.156	.737
Establishing and implementing formal employee participation plan	.182	.742
Sharing information with employees through bulletin and website	.261	.613
Frequently sponsorship of social activities to promote exchange among employees	.192	.575
Close integration between job analysis and other HR	.483	.432
Linking performance outcome to compensation, training opportunity and promotion	.471	.443
Eigen value	6.18	1.04
% variance explained	41.17	6.94

Note: The scale ranges from 1 (high) to 5 (low); the lower score means intensive use of HR practices.

companies or joint ventures. The industries covered in the survey included manufacturing (47%), technology and electronic (29.3%), and a variety of other service industries such as utilities, financial/insurance and property. The average number of employees per firm was 1,265. The ratio of managerial to operating staff was 11.87%. On average, a company's HR department had 10.2 persons. Staff turnover rate for employees was 15%.

Measures

HR practices were assessed by 15 items, which focused on the HR practices such as career development path, performance standard, salary level, performance-based pay, employment security, and information sharing. These items were factor analyzed to form two different HRM systems. The results are shown in Table 1. Consistent with the findings of previous studies, the first factor was concerned with pay as incentives or inducement-HR. The second factor focused on how participation, sharing and exchange fitted well with the involvement-HR system. The results from empirical classification essentially correspond to the theoretical prediction of inducement and involvement HR systems. It is worth noting that a lower score on this measure indicates relatively intensive use of these HR practices. These two factors accounted for 48.11% of total variance explained. The alpha coefficients were .81 for both inducement and involvement-HR types.

Organizational culture was measured by 18 items using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). These items were factor analyzed to form

Table 2. Factor structure of business strategy.

	<i>Factor</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Cost reduction			
The company focuses on cutting general expenses to maintain competitiveness.	-.11	-.06	.72
The company surpasses competitors by enhancing operational efficiency or lowering production costs	.17	.25	.62
The company enforces strict labour cost control	-.05	.29	.71
Quality enhancement			
The company has quality control teams	.14	.81	.04
The company sets up minimum standards for production and service quality	.09	.70	.09
The company has very strict quality management procedures	.29	.81	-.02
Innovation			
The company is persistently innovative in producing goods and services.	.69	.41	-.04
The company frequently develops new products and technology	.78	.24	-.03
The company invests a large amount of capital to carry out innovative production process and service process innovation	.76	.20	.01
The company is usually the first to introduce new products or services in the market	.83	-.10	.09
Eigen value	3.63	1.75	1.31
% variance explained	30.26	14.56	10.93

three cultures, which accounted for 60.63% of the total variance explained (see Table 2). The alpha coefficients for the bureaucratic, supportive and competitive culture were .82, .82, and .89 respectively.

Business strategies included cost reduction, innovation and quality enhancement. Following Schuler and Jackson (1987) and Huang (2001), 10 items were adopted in the present study. Questionnaire items adopted from existing Western studies were translated into Chinese and back translated by bilingual research teams to ensure equivalence of meaning of each item. Respondents were asked to rate each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). These items were factor analyzed using principal factor with varimax rotation method, resulting in three factors. All three factors accounted for 59.02% of the total variance explained (see Table 3). The alpha coefficients for cost, quality and innovation were .58, .75 and .81 respectively. The alpha coefficient for the cost-based business strategy seemed low so it was dropped for further analysis. (Note: Prior research evidence showed that low cost was not a very good strategy for Chinese firms (Brouthers and Xu 2002). Emphasis on cost control may prevent firms from spending on new product development, technological improvement and quality control, which in turn may affect firm performance. Low cost strategy seems not to play a relevant role.)

Organizational effectiveness is a multidimensional construct (Dyer and Reeves 1995). Two firm level performance measures – employee turnover and overall performance outcomes, were used in the present study. Because not all surveyed organizations are publicly-listed companies, objective financial data are sensitive and not available.

Table 3. Factor structure of culture.

	<i>Factor</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Bureaucratic culture			
Explicit rules /regulations, orderly operations procedural	.27	.73	.23
Strong emphasis on the process of getting things done	.20	.72	.15
Follow strictly established systems and operational procedures	.25	.80	.10
Despite different opinions, absolute importance being placed on respect for collective decisions	.11	.65	.32
Communication through formal channels among employees	.23	.59	.35
Competitive culture			
Employee's job related skills surpass other organizations	.67	.02	.29
Employees display extremely high level of competitiveness	.77	.26	.28
There are highly skilled work teams in this company	.73	.35	.23
Employee behavior helps to improve organizational performance	.72	.36	.20
Employees contribute positively to organizational performance	.68	.36	.25
Employees' work motive is very strong compared to other companies	.69	.23	.31
Supportive /sharing culture			
The company encourages trial and error, failure is viewed as learning and opportunity for improvement	.41	.04	.57
Frequent use of task group to solve problems	.12	.24	.68
Focus on employee participation and sharing	.29	.37	.65
Full empowerment for managerial decision, clear delegation	.33	.12	.70
Flexibility in managing	.21	.27	.60
Emphasis on learning process, exchange and sharing learning outcomes	.34	.31	.62
Eigen value	4.27	4.01	3.48
% variance explained	21.36	20.03	17.41

Furthermore, the use of objective financial figures turned out to be not directly comparable in a study covering a wide variety of different types of organizations. Managers are likely to provide the best estimate of firm performance. Overall performance is a composite measure of productivity, quality of products or services, research and development capability and market shares. These items were measured on a 5-point Likert scale ranging from 1 (very low) to 5 (very high). Factor analysis resulted in one single factor accounting for 53.15% of the variance explained, with an alpha coefficient of 0.76. Staff turnover is assessed with the annual rate of turnover.

Control variables Firm characteristics, such as size and number of years of operation are determinants of firm performance. Larger organizations are more likely to use better-developed or more sophisticated HR practices. Since firms with superior resources will be able to formulate and implement unique and innovative strategies, firm size and years of operation are controlled for the prediction of organizational performance. Firm size was measured by the number of full-time employees. We used natural logarithmic transformation to normalize the distributions and make the measure more consistent with the previous studies.

Results

The descriptive statistics and correlations among variables are shown in Table 4. Overall outcome was significantly correlated with all HR variables, cultural variables and business strategy variables. Turnover rate was negatively correlated with cultures, business strategies and outcome variables, but had no significant correlation with HR variables. A low score in HR strategy indicates intensive use of these HR practices.

Hierarchical multiple regression analysis was conducted to examine the relative effects of HR practices, organizational culture, and business strategy on performance outcomes. Regression results are given in Table 5. As hypothesized, both inducement and involvement-HR showed significant effects on performance outcomes. The strong impact of inducement-HR and involvement-HR was reflected in both the β coefficients and ΔR^2 . The results are not fully consistent with hypothesis 1. While both inducement-HR and involvement-HR showed a direct and significant effect on performance outcome, they had no significant effect on reducing turnover. HR systems affect turnover through organizational culture and business strategy. Organizational culture as a whole contributed significantly to firm performance, as indicated by the significant changes in R^2 . The β coefficient of competitive culture was highly significant, while bureaucratic and supportive cultures showed no significance. Again, business strategy as a whole contributed significantly to firm performance, as indicated by a significant change in R^2 . The β coefficients of quality enhancing and innovation strategy were highly significant. We explored the interaction terms of human resources with business strategies and corporate cultures. All interaction terms were non-significant. The results supported hypothesis 2a and hypothesis 2c but not hypothesis 2b. Overall F-statistics were highly significant. VIF statistics showed no problem of multicollinearity.

Staff turnover is an important organizational outcome. Using the same procedure, we evaluated the relative effects of HR types, organizational culture, and business strategy on turnover rates. Results are summarized in Table 6. Again, the control variables did not show significant effects on staff turnover. HR systems as a whole added a significant effect, as indicated by the significant changes in R^2 . When these two HR systems were entered individually, the β coefficients were not significant. Organizational culture as a group had no significant impact on turnover, except a significant β coefficient for

Table 4. Mean, standard deviation, and correlations.

	<i>Mean</i>	<i>S.D.</i>	1	2	3	4	5	6	7	8	9	10
1. Size (log)	6.29	1.34										
2. Years	9.99	7.53	.26***									
3. Inducement	15.11	3.63	.002	-.05								
4. Involvement	18.23	5.64	.002	-.05	.68***							
5. Bureaucratic	3.64	.63	.06	.07	-.47***	-.47***						
6. Supportive	3.25	.64	-.05	.06	-.60***	-.60***	.59***					
7. Competitive	3.26	.66	-.03	.04	-.50***	-.52***	.57***	.72***				
8. Quality	3.73	.80	.22***	.10*	-.37***	-.37***	.47***	.36***	.35***			
9. Innovation	3.46	.77	.15**	.03	-.49***	-.42***	.49**	.53***	.52***	.44***		
10. Outcome	3.74	.53	.01	.07	-.43***	-.45***	.36***	.41***	.44***	.44***	.36***	
11. Turnover rate	15.04	18.73	.01	.10*	.02	.05	-.15**	-.21***	-.21***	-.24***	-.08	-.18***

Note: Correlation coefficient is significant at * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5. Results of hierarchical regression analyses on performance outcomes.

	Performance Outcomes					
	Inducement HR			Involvement HR		
	Model 1		ΔR^2	Model 2		ΔR^2
	β			β		
Logsize	-.003			-.07		
Year	.06			.07		
Induce	-.24***	.01		-.26***	.01	
Involve						.01
Bureaucratic	.08		.17***			.19***
Supportive	.02					
Competitive	.26***					
HR*bureaucratic	-.04		.07***			.06***
HR*supportive	.04					
HR*competitive	.01					
Quality						.003
Innovation				.29***		.26***
				.10*		.12*
HR*quality				.03		.07
HR*innovation				-.07		.02
F	15.19***			21.58***	18.08***	23.87***

Note: * p < .05, ** p < .01, ***p < .001.

Table 6. Results of hierarchical regression analyses on turnover.

	<i>Staff Turnover Rate</i>					
	<i>Inducement HR</i>			<i>Involvement HR</i>		
	<i>Model 1</i>	<i>Model 2</i>		<i>Model 3</i>	<i>Model 4</i>	
	β	ΔR^2	β	β	β	ΔR^2
Logsize	.004		.06	.01	.06	
Year	-.02		-.04	-.02	-.02	
Induce	.004	.003	.09			.003
Involve		.04***		.03	.12*	.03***
Bureaucratic	-.06			.02		
Supportive	-.10			.51**		
Competitive	-.08			-.08		
HR* bureaucratic	-.02	.012		-.09		.01
HR* supportive	-.28***					
HR* competitive	.01	.08***		-.63***		.05***
Quality			-.17**		-.13*	
Innovation			.02		.02	
HR*quality			-.33***		-.33***	.04**
HR*innovation			.04		.08	
Overall F	5.65***		10.02***	4.88***	8.71***	.08***

* p < .05, ** p < .01, ***p < .001.

supportive culture in Model 3. Business strategy as a whole added a significant change, particularly for quality enhancing strategy. Organizations pursuing a high quality strategy reduced their staff turnover rate. The interactions of HR and business strategy as a whole produced a significant impact on turnover. Significant interactions were observed for Inducement-HR*supportive culture, Inducement-HR*quality, Involvement- HR*quality, and Involvement-HR*competitive. The results offer some support for a contingent relationship between strategy and HR systems. Hypothesis 3a was supported for turnover but not for performance outcome. Hypothesis 3b was rejected.

We plotted the interaction effects that were statistically significant in Table 6. Figures 2 to 5 display the pattern of significant interaction terms. Inducement-HR matching with a high supportive culture resulted in a significantly lower staff turnover, while a low supportive culture substantially increased staff turnover (Figure 2). The same pattern was observed in Figure 4 with involvement-HR and competitive strategy. Graphically, Figures 3 and 5 show that an organization that pursues a high quality strategy significantly reduces staff turnover for both inducement and involvement-HR.

Discussion

This study examines the differential impact of a culture and business strategy alignment through which two sets or systems of HR practices may affect firm performance. The results showed that both inducement-HR and involvement-HR had direct impacts on enhancing performance outcome but no significant effect in reducing the turnover rate. The results also revealed a different linkage of HR with organizational culture and HR with business strategy on staff turnover.

For HR-culture fit, organizations with supportive culture tend to foster information sharing and encourage cooperative team work. This is consistent with the philosophy of the inducement-HR system that encourages and rewards cooperation and sharing. If employers offer a high level of inducements, employees may feel obliged to reciprocate through working harder and would be less likely to quit. Involvement-HR systems that encourage participation, autonomy, and challenge work well with a competitive culture to reduce staff turnover. The research findings do not lend much support to the expected effect of bureaucratic culture. Organizational culture did not have any interaction effect with both HR types on performance outcomes.

In HR-strategy link, both involvement-HR and inducement-HR type work well, particularly with a quality business strategy, in reducing staff turnover rate. A firm's commitment to quality has been found to be important to its performance. Organizations pursuing an innovative strategy demand higher capability from their employees and greater responsiveness to change in market demands (Yan and Zhang 2003). An HR system

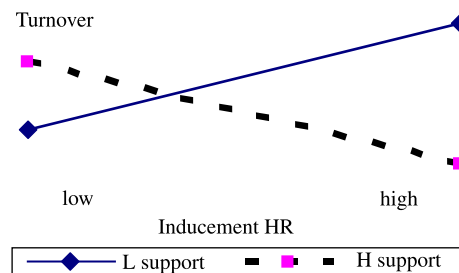


Figure 2. The interaction between inducement and supportive.

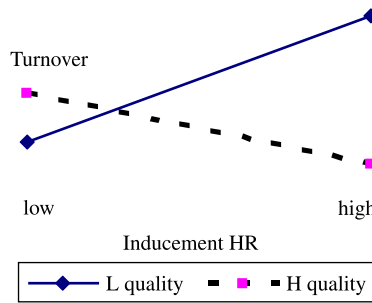


Figure 3. The interaction between inducement and quality strategy.

incorporating information sharing and participative problem-solving will facilitate responsiveness to change and innovation. Both inducement-HR and involvement-HR matched with a quality business strategy resulted in a lower staff turnover rate. These findings imply that organizations may be well advised to focus on a quality-enhancing strategy.

The results from the present study demonstrate that an HR-culture and HR-business strategy linkage exists to some extent. Organizational effectiveness is contingent on HR systems with an appropriate culture and aligning with business strategy. Organizational culture has a strong influence on its chosen HR system. HRM contributes most to firm performance when it is aligned with business strategy (Gunnigle and Moore 1994). The findings reiterate the importance for companies of designing an integrated HR system consistent with their organizational culture and business strategy.

The conventional thinking is that China's massive labour force and HR system supports a business strategy primarily by controlling costs. Contrary to our expectations, the results of this study demonstrated that the traditional control system (viz. bureaucratic culture) did not significantly benefit firm performance. Instead, the firm's commitment to quality was shown to be an important determinant of firm performance. Quality, based on a more participatory work system, pays off.

Practical implications

The results suggest some insights into the design of HRM systems. It is important to link HR to a specific business strategy and to create the culture necessary to execute these business strategies more effectively to gain competitive advantage. This can be understood best

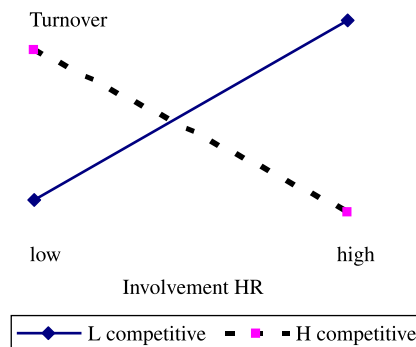


Figure 4. The interaction between involvement and competitive culture.

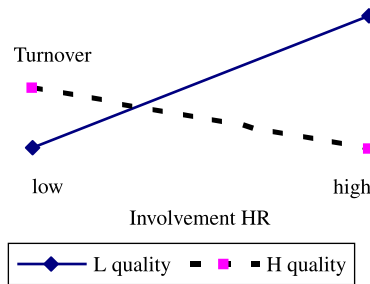


Figure 5. The interaction between involvement and quality strategy.

by identifying distinct, internally consistent sets of HR practices and their relationships to organizational culture, business strategy, and performance outcomes.

The results of this study demonstrate that HR practices need to be contingent upon the firm's business strategy to be effective (Schuler and Jackson 1987; Delery and Doty 1996). Organizational culture shapes HR policies that are internally consistent and that suit the organization's strategy. Hence, the alignment has major implications for developing an HRM system which requires the nurturing of organizational culture and ensuring that it is consistent with the business strategy. The study offers a richer understanding of the fit between HR, culture, and strategy and organizational effectiveness. The results could be useful to HR professionals in creating an organizational culture that supports business strategies to enhance organizational effectiveness. HR directors are expected to play a more strategic role in their organizations and forge a strategic linkage with business strategy. Attention should be paid to designing HR systems best able to link the desired culture and business strategy. Simply focusing on the traditional HR practices, bureaucratic culture, and low cost may not benefit firm performance. Obstacles such as an overly bureaucratic infrastructure and procedures need to be removed. Significant improvement will occur when action is taken to increase supportive cultures for inducement-HR and competitive culture for involvement-HR. In terms of business strategy, quality enhancement is most important. Innovation is a risky strategy for organizations that do not emphasize involvement HR practices.

Last, but not least, the limitations of the study should be acknowledged. The use of the Likert scale in eliciting opinions may have introduced an element of the subjective. As a consequence, the results might be artificially inflated. Yet perceptual measures of firm performance have been extensively used in survey research (Delaney and Huselid 1996), especially in China, where systematic reliable data on firm performance is lacking. In addition to self-reported perceptual measures of performance outcomes, the potential problem of common method variance cannot be avoided if all variables are collected from the same respondent in the same survey (Doty and Glick 1998). Following Podsakoff, MacKenzie, Lee and Podsakoff (2003), we checked for the presence of common method bias by conducting Harman's one factor test in our data. A principal component factor analysis with an unrotated solution shows that no single factor accounted for a majority of the covariance in the variables. Common method variance is unlikely to be a serious problem. The cross-sectional nature of the data makes causality difficult to establish.

Conclusion

To conclude, the involvement-HR system, an HR strategy that has been extensively studied in recent years, clearly gains support in the present study. Inducement-HR, which

emphasizes efficiency and using pay as incentives, works well in China in enhancing firm performance. The synergistic impact is most prominent when these practices are consistently integrated into a whole system. Each of these HR systems works if it fits the prevailing business strategy and culture. An HR system should be congruent with the firm's strategy and create an appropriate culture to enhance organizational effectiveness.

References

- Arthur, J.B. (1992), 'The Link between Business Strategy and Industrial Relations Systems in American Steel Minimills,' *Industrial and Labor Relations Review*, 45, 4, 488–506.
- Aycan, Z. (2005), 'The Interplay between Cultural and Institutional/structural Contingencies in Human Resource Management Practices,' *International Journal of Human Resource Management*, 16, 7, 1083–1119.
- Bae, J., and Lawler, J.J. (2000), 'Organizational and HRM Strategies in Korea: Impact on Firm Performance in an Emerging Economy,' *Academy of Management Journal*, 43, 3, 502–517.
- Barrette, J., and Ouellette, R. (2000), 'Performance Management: Impact of the Integration of Strategy and Coherence of HRM Systems on Organizational Performance,' *Industrial Relations*, 55, 2, 207–226.
- Becker, B.E., and Huselid, M.A. (1998), 'High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications,' in *Research in Personnel and Human Resources Management* (Vol. 16), ed. G.R. Ferris, Stamford, CT: JAI Press, pp. 53–101.
- Beer, M., and Katz, N. (2003), 'Do Incentives Work? The Perceptions of a Worldwide Sample of Senior Executives,' *Human Resource Planning*, 26, 3, 30–44.
- Bird, A., and Beechler, S. (1995), 'Link between Business and Transnational Human Resource Management Strategy in US-based Japanese Subsidiaries: An Empirical Investigation,' *Journal of International Business Studies*, 26, 1, 23–46.
- Bowen, D.E., and Ostroff, C. (2004), 'Understanding HRM-firm Performance Linkages: The Role of the "Strength" of the HRM System,' *Academy of Management Review*, 29, 2, 203–221.
- Brouthers, L.E., and Xu, K. (2002), 'Product Stereotypes, Strategy and Performance Satisfaction: the Case of Chinese exporters,' *Journal of International Business Studies*, 33, 4, 657–677.
- Cabrera, E.F., and Bonache, J. (1999), 'An Expert HR System for Aligning Organizational Culture and Strategy,' *Human Resource Planning*, 22, 1, 51–60.
- Child, J. (1981), 'Culture, Contingency and Capitalism in the Cross-national Study of Organizations,' *Research in Organizational Behavior*, 3, 303–356.
- Chow, I.H., Huang, J.C., and Liu, S.S. (2008), 'Strategic HR in China: Configuration and Competitive Advantage,' *Human Resource Management*, 47, 687–706.
- Deal, T., and Kennedy, A. (1992), *Corporate Cultures: The Rites and Rituals of Corporate Life*, Reading, MA: Addison-Wesley.
- Delaney, J.M., and Huselid, M.A. (1996), 'The Impact of Human Resource Management Practices on Perceptions of Organizational Performance,' *Academy of Management Journal*, 39, 4, 949–969.
- Delery, J.E. (1998), 'Issues of Fit in Strategic Human Resource Management: Implications for Research,' *Human Resource Management Review*, 8, 3, 289–309.
- Delery, J.E., and Doty, D.H. (1996), 'Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictors,' *Academy of Management Journal*, 39, 4, 802–835.
- Doty, D.H., and Glick, W.H. (1998), 'Common Methods Bias: Does Common Methods Variance Really Bias Results?,' *Organizational Research Methods*, 1, 4, 374–406.
- Dyer, L., and Holder, G.W. (1988), 'A Strategic Perspective of Human Resource Management,' in *Human Resource Management: Evolving Roles and Responsibilities*, eds. L. Dyer and G.W. Holder, ASPA. BNA Series, Washington, DC: The Bureau of National Affairs, Inc., pp. 16–28.
- Dyer, L., and Reeves, T. (1995), 'Human Resource Strategies and Firm Performance: What Do We Know and Where Do We Need to Go?,' *International Journal of Human Resource Management*, 6, 656–670.
- Gollan, P.J. (2005), 'High Involvement Management and Human Resource Sustainability: The Challenges and Opportunities,' *Asia Pacific Journal of Human Resources*, 43, 1, 18–33.
- Gunnigle, P., and Moore, S. (1994), 'Linking Business Strategy and Human Resource Management: Issues and Implications,' *Personnel Review*, 23, 1, 63–84.

- Guthrie, J. (2001), 'High Involvement Work Practices, Turnover, and Productivity: Evidence from New Zealand,' *Academy of Management Journal*, 44, 180–192.
- Holmstrom, B., and Milgrom, P. (1994), 'The Firm as an Incentive System,' *American Economic Review*, 84, 5, 972–992.
- Huang, T.C. (2000), 'Are the Human Resource Practices of Effective Firms Distinctively Different from those of Poorly Performing Ones? Evidence from Taiwanese Enterprises,' *International Journal of Human Resource Management*, 11, 2, 436–451.
- Huang, T.C. (2001), 'The Effects of Linkage between Business and Human Resource Management Strategies,' *Personnel Review*, 30, 2, 132–151.
- Huselid, M.A. (1995), 'The Impact of Human Resource Management Practices on turnover, Productivity, and Corporate Financial Performance,' *Academy of Management Journal*, 38, 3, 635–672.
- Huselid, M., Jackson, S.E., and Schuler, R.S. (1997), 'Technical and Strategic Human Resource Management Effectiveness as Determinants of Firm Performance,' *Academy of Management Journal*, 40, 1, 171–188.
- Jones, G.R., and Wright, P.M. (1992), 'An Economic Approach to Conceptualizing the Utility Of Human Resource Management Practices,' *Research in Personnel and Human Resources Management*, 10, 271–299.
- Khatri, N. (2000), 'Managing Human Resource for Competitive Advantage: A Study of Companies in Singapore,' *International Journal of Human Resource Management*, 11, 2, 336–365.
- Kochan, T.A., McKersie, R.B., and Cappelli, P. (1984), 'Strategic Choice and Industrial Relations Theory,' *Industrial Relations*, 23, 16–39.
- Lawler, E.E., Mohrman, S.A., and Ledford Jr., G.E. (1995), *Creating High Performance Organizations: Practices and Results of Employee Involvement and Total Quality Management in Fortune 1000 Companies*, San Francisco, CA: Jossey-Bass.
- Lepak, D.P., and Snell, S.C. (1999), 'The Human Resource Architecture: Toward a Theory of Human Capital Allocation and Development,' *Academy of Management Review*, 24, 1, 31–48.
- Levering, R., and Moskowitz, M. (1993), *The 100 Best Companies to Work for in America*, New York: Doubleday.
- McKinnon, J.L., Harrison, G.L., Chow, C.W., and Wu, A. (2003), 'Organizational Culture: Association with Commitment, Job Satisfaction, Propensity to Remain, and Information Sharing in Taiwan,' *International Journal of Business Studies*, 11, 1, 25.
- Odom, R.Y., Boxx, W.R., and Dunn, M.G. (1990), 'Organizational Cultures, Commitment, Satisfaction, and Cohesion,' *Public Productivity and Management Review*, 14, 2, 157–170.
- Peters, T., and Waterman, R. (1981), *In Search of Excellence*, New York: Harper and Row.
- Piekkola, H. (2005), 'Performance-related Pay and Firm Performance in Finland,' *International Journal of Manpower*, 26, 7/8, 619–635.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003), 'Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies,' *Journal of Applied Psychology*, 88, 879–903.
- Schuler, R.S. (1989), 'Strategic Human Resource Management and Industrial Relations,' *Human Relations*, 42, 2, 157–184.
- Schuler, R.S. (1992), 'Strategic Human Resource Management: Linking People with the Strategic Needs of the Business,' *Organizational Dynamics*, 21, 18–32.
- Schuler, R.S., and Jackson, S.E. (1987), 'Linking Competitive Strategies with Human Resource Management,' *Academy of Management Executive*, 1, 3, 207–219.
- Schwartz, H., and Davis, S. (1981), 'Matching Corporate Culture and Business Strategy,' *Organizational Dynamics*, 10, 30–48.
- Selmer, S.W. (1997), 'Systematic Agreement: A Theory of Organizational Alignment,' *Human Resource Development Quarterly*, 8, 23–40.
- Silverthorne, C. (2004), 'The Impact of Organizational and Person-organization Fit on Organizational Commitment and Job Satisfaction in Taiwan,' *Leadership and Organization Development Journal*, 25, 7/8, 592–599.
- Swiercz, P.M. (1995), 'Research Update: Strategic HRM,' *Human Resource Planning*, 18, 3, 53–59.
- Tsui, A.S., and Wu, J.B. (2005), 'The New Employment Relationship versus the Mutual Investment Approach: Implications for Human Resource Management,' *Human Resource Management*, 44, 115–121.

- Ulrich, W.L. (1984), 'HRM and Culture: History, Ritual and Myth,' *Human Resource Management*, 23, 2, 117–128.
- Vandenberg, R.J., Richardson, H.A., and Eastman, L.J. (1999), 'The Impact of High Involvement Work Processes on Organizational Effectiveness: A Second-order Latent Variable Approach,' *Group and Organization Management*, 24, 3, 300–339.
- Wallach, J.E. (1983), 'Individuals and Organizations: The Cultural Match,' *Training and Development Journal*, 37, 2, 29–36.
- Warner, M. (2008), 'Reassessing Human Resource Management "with Chinese characteristics": An Overview,' *International Journal of Human Resource Management*, 19, 5, 771–801.
- Westwood, R.I., and Chan, A. (1992), 'Headship and Leadership,' in *Organizational Behavior: Southeast Asia Perspectives*, ed. R.I. Westwood, Singapore: Longman Group, pp. 118–143.
- Wright, P.M., McMahan, C.G., and McWilliams, A. (1994), 'Human Resources and Sustained Competitive Advantage: A Resource-based View Perspective,' *International Journal of Human Resource Management*, 5, 201–326.
- Wright, P.M., and Snell, S.A. (1998), 'Toward a Unifying Framework for Exploring Fit and Flexibility in Strategic Human Resource Management,' *Academy of Management Review*, 23, 756–772.
- Yan, Y., and Zhang, J.A. (2003), 'Performance of High-tech firms' Resource and Capability-based Development: Knowledge Acquisition, Organizational Utilization and Management Involvement,' *International Journal of Business Studies*, 11, 1, 45–68.
- Yeung, A.K.O., Brockbank, J.W., and Ulrich, D. (1991), 'Organizational Culture and Human Resource Practices: An Empirical Assessment,' *Research in Organizational Change and Development*, 5, 59–81.
- Youndt, M.A., Snell, S.A., Dean, J.W. Jr., and Lepak, D.P. (1996), 'Human Resource Management, Manufacturing Strategy, and Firm Performance,' *Academy of Management Journal*, 39, 836–866.
- Yu, B.B., and Egri, C.P. (2005), 'Human Resource Management Practices and Affective Organizational Commitment: A Comparison of Chinese Employees in a State-owned Enterprise and a Joint Venture,' *Asia Pacific Journal of Human Resources*, 43, 3, 332–360.

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