## THE ROLE OF HUMAN CAPITAL MANAGEMENT IN ORGANIZATIONAL COMPETITIVENESS

## CHUAN LIN

Business School of Nankai University CHRISTINA YU-PING WANG, CHEN-YU WANG, AND BIH-SHIAW JAW National Sun Yat-sen University

Drawing upon human capital theory, we empirically tested the relationships among human capital management, employees' value and uniqueness, and organizational competitiveness. To do this, we adopted a quantitative approach via multiple regression analysis with 183 participants from Taiwan and Mainland China. Results showed that human capital development and deployment were positively associated with both value and uniqueness of employees in Taiwan and also in Mainland China. This indicated that development and deployment practices, such as training and job design, were conducive to increasing employees' value and uniqueness. In addition, the positive relationship between human capital and employees' value that was observed in a Mainland Chinese context was not observed in Taiwan, which indicates that contextual differences affected methods of attracting talented employees. We found it surprising that in neither Taiwan nor Mainland China were organizations capable of retaining unique employees. Practical and theoretical implications of our findings are discussed.

*Keywords:* human capital management, human capital investment, human capital enhancement, employee value, employee uniqueness, organizational competitiveness.

The dynamics of business competition require firms to utilize organizationspecific resources, such as employees' knowledge and capabilities, in a flexible manner, particularly in a context-specific environment (Kim, Hoskisson, & Lee, 2015; McIver, Lengnick-Hall, Lengnick-Hall, & Ramachandran, 2013). In general, talented people are the most essential resource to sustain an

Chuan Lin, Business School of Nankai University; Christina Yu-Ping Wang, Chen-Yu Wang, and Bih-Shiaw Jaw, Institute of Human Resource Management, National Sun Yat-sen University.

Correspondence concerning this article should be addressed to Christina Yu-Ping Wang, Institute of Human Resource Management, National Sun Yat-sen University, 70 Lienhai Road, Kaohsiung 80424, Taiwan, ROC. Email: cwang@mail.nsysu.edu.tw

organization's competitive advantage (Ready & Conger, 2007). Therefore, effective human capital management, which includes attraction, development, deployment, and inimitability, is crucial to increase organizational performance (Hatch & Dyer, 2004).

Human capital management has been widely discussed in the fields of human resource management (Hitt, Biermant, Shimizu, & Kochhar, 2001; Mahoney & Kor, 2015), strategic human resource management (Nyberg, Moliterno, Hale, & Lepak, 2014), knowledge-based management (Turner & Makhija, 2014), and dynamic capability research (Wang, Jaw, & Tsai, 2012). However, few researchers have empirically tested the relationships among human capital management, employees' uniqueness and value, and organizational competitiveness (Dries, 2013). Therefore, we aimed to empirically depict how organizational competitiveness can be triggered by cultivating a group of unique and valuable employees through human capital management.

## Literature Review and Hypotheses Development

## **Role of Human Capital Management in Organizations**

According to Schultz (1960), *human capital* is defined as employees' explicit and implicit knowledge and abilities, which lead to organizational competitiveness. Further, Lynn (2000) stated that human capital is formed through employees' skills, knowledge, and experience. Employees' contribution, thus, requires unique and valuable knowledge, abilities, and skills (Lepak & Snell, 1999). Human capital management comprises two constructs: *investment*, which is composed of attraction and development, and *enhancement*, which is composed of deployment and retention.

### **Human Capital Investment**

The two key dimensions of human capital investment are attraction and development. Wright and Snell (1991) and Thite (2004) stated that human capital investment by organizations enables employees to achieve organizational goals. Therefore, how can an organization effectively attract people and develop their knowledge, abilities, and skills? Talented people are primarily drawn to an organization's brand attractiveness (Kucherov & Zavyalova, 2012), corporate vision, and recruiting strategy (Horwitz, Heng, & Quazi, 2003). In regard to attracting employees, organizations that differentiate their brand characteristics from competitors attract talented people (Turban & Keon, 1993). As regards development, a corporation's vision as well as its financial compensation, welfare systems, and career planning have a strong impact on people who are applying for a job. Once individuals are hired, it is vital to design a training program that improves their capabilities and skills to execute organizational

practices in an effective manner (Lepak & Snell, 1999). Kaplan and Norton (2004) and Ulrich and Smallwood (2004) proposed that on-the-job training, leadership training, individual development, and career planning are important for human capital development. Further, Ready, Hill, and Conger (2008) observed that challengeable tasks, training, and a foreseeable career path are conducive to organizational development, which drives employees to achieve their long-term goals. In this way, organizational human capital can be cultivated by following a distinct learning path and through interpersonal interaction within the organization (Mahoney & Kor, 2015).

In this study, we adopted the concepts proposed by Kaplan and Norton (2004) and Ulrich and Smallwood (2004) as the key dimensions for testing the relationships among human capital development, employees' value, and organizational competitiveness.

## **Human Capital Enhancement**

Human capital enhancement consists of deployment and retention. According to Kaplan and Norton (2004) and Ulrich and Smallwood (2004), talent allocation, performance management, and job design are key to talent deployment. First, an appropriate work position that evokes employees' interests and abilities is necessary. Second, performance management is vital for reviewing employees' capabilities and assessing their productivity. Thus, top managers are likely to modify their training programs and readjust their workload appropriately. Third, job design is effective in motivating employees and enabling them to complete their work. Therefore, we adopted these three factors as the dimensions of human capital deployment.

Talent retention keeps inimitable employees striving for organizational advantage, and Becker (1962) and Ready et al. (2008) proposed that wages and corporate culture are key factors in retaining valuable employees. That is, an attractive contract with an exceptional wage reinforces employees' commitment and productivity, and additional welfare and bonuses are conducive to motivating better employee performance. Finally, cultivating a positive working environment, maintaining a positive corporate culture, and increasing person–organization fit all inspire employees' loyalty and organizational commitment.

## Value and Uniqueness of Talented Employees

Employees' unique knowledge and capabilities appear to be the most valuable assets to facilitate firms' performance. In line with this, Mahoney and Kor (2015) indicated that human capital investment triggers both firm-specific and generic skills, such as social skills, team-building capabilities, and functional skills. As employees become involved in a greater number of investment practices, they develop more generic and professional skills, and become increasingly valuable

to the organization for their generic and professional capabilities (Kang, Morris, & Snell, 2007). Overall, when organizations invest more resources in talented employees, their value will increase. Therefore, we proposed the following hypotheses:

*Hypothesis 1a:* The human capital attraction component of human capital investment will be positively associated with employees' value.

*Hypothesis 1b:* The human capital development component of human capital investment will be positively associated with employees' value.

In addition to talented employees' value, their uniqueness is of vital importance to organizations' competitive advantage. Wright, Dunford, and Snell (2001) stated that talented employees with exceptional skills are likely to generate a human capital advantage that differentiates organizations' performance from that of their competitors. Therefore, human resource practices, such as career planning, job design, and training, should become widespread, so that talented employees become unique (Wright et al., 2001). Thus, we proposed the following hypotheses:

*Hypothesis 2a:* The human capital deployment component of human capital enhancement will be positively associated with employees' uniqueness.

*Hypothesis 2b:* The human capital retention component of human capital enhancement will be positively associated with employees' uniqueness.

# Effect of Employees' Value and Uniqueness on Organizational Competiveness

Prior researchers have emphasized the importance of human capital in yielding sustainable competitive advantage for an organization (Hatch & Dyer, 2004; Lepak & Snell, 1999; Meyers & van Woerkom, 2014; Wright et al., 2001). In terms of human capital investment, Coff and Raffiee (2015) proposed that if a firm's investment in employees is in accordance with their perceptions of key skills, more competitiveness will be generated. Hatch and Dyer (2004) stated that employees are capable of learning diverse skills by rotating through different job positions. In this way, a group of valuable and unique employees with long-term firm-specific skills and know-how, will then likely be gradually built up.

In general, employees' uniqueness and value are vital to increasing firms' competitiveness (Kang et al., 2007; Lepak & Snell, 1999) because a) the uniqueness of employees' capabilities makes organizations distinct from their competitors, and b) competitors rarely imitate human capital because of its uniqueness (Mahoney & Kor, 2015). On the whole, employees' value and uniqueness are the antecedents of organizational competitiveness (Lepak & Snell, 1999). Therefore, we proposed the following hypotheses:

*Hypothesis 3:* Employees' value will be positively associated with organizational competitiveness.

*Hypothesis 4:* Employees' uniqueness will be positively associated with organizational competitiveness.

Method

#### **Research Framework**

The conceptual framework of human capital investment and human capital enhancement is depicted in Figure 1.

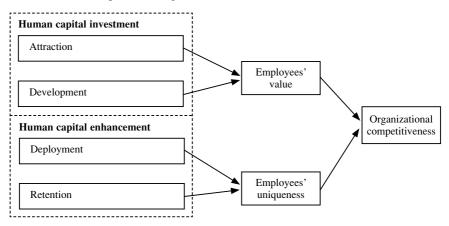


Figure 1. Conceptual framework of human capital investment and human capital enhancement.

#### **Participants and Procedure**

With respect to data collection, we adopted a simple random sampling method and sent via email 200 survey invitations to participants in both Taiwan and Mainland China. Of those that were returned, 183 were valid, with 83 received from Taiwan (men = 42, women = 41; response rate = 41.5%), and 100 from Mainland China (men = 31, women = 69; response rate = 50.0%). All respondents had more than 1 year of work experience in their current position. Participants' gender and employment details are shown in Table 1.

	Percentage ratio (Taiwan, $n = 83$ )	Percentage ratio (Mainland China, $n = 100$ )
Gender		
Male	50.6	31.0
Female	49.4	69.0
Company ownership location		
Taiwan	89.2	10.0
China	1.2	54.0
Foreign	9.6	36.0

Table 1. Gender and Employment Characteristics of Participants

	Percentage ratio (Taiwan, $n = 83$ )	Percentage ratio (Mainland China, $n = 100$ )
Industry		
Banking and insurance	8.4	1.0
Manufacturing	22.9	35.0
High technology	10.8	19.0
Services	42.2	19.0
Logistics	6.0	9.0
Others	9.6	17.0
Department		
Sales	13.3	2.0
Research and development	7.2	1.0
Manufacturing	6.0	2.0
Human resources	48.2	86.0
Other	25.3	9.0
Position		
General employee	25.3	18.0
Engineer	3.6	3.0
First-line manager	26.5	34.0
Middle-level or top manager	44.6	45.0

Table 1 continued

#### Measures

We adopted a 5-point Likert response scale (1 = strongly disagree to 5 = strongly agree) for the research survey. By referring to the studies of Sheridan (1992), Ambler and Barrow (1996), Lepak and Snell (1999), Backhaus and Tikoo (2004), Hatch and Dyer (2004), Kaplan and Norton (2004), and Ulrich and Smallwood (2004), we operationalized the constructs of interest as follows: (a) human capital attraction (nine items): brand competitiveness, vision, and recruitment strategies; (b) human capital development (eight items): individual development, leadership training, on-the-job training, and career planning; (c) human capital retention (nine items): corporate culture, bonuses, and wages; (e) employees' uniqueness (five items) and value (five items): questions pertaining to employees' specific knowledge, abilities, and skills; and (f) competitiveness (five items): brand competitiveness, and financial and operational performance.

The reliability of each construct was acceptable; Cronbach's alphas for each construct are shown in Table 2.

	Taiwan	Mainland China
Attraction	.770	.734
Development	.882	.810
Deployment	.770	.772
Retention	.851	.836
Value	.766	.847
Uniqueness	.586	.786
Organizational competitiveness	.612	.682

Table 2. Cronbach's Alpha Reliabilities Among Study Variables

#### **Data Analysis**

SPSS version 20 was used to analyze first the demographic variables, then correlations among the variables. Finally, multiple regression analysis was performed to analyze the relationships among the variables.

## Results

Correlation analysis results are shown in Tables 3 and 4. Each variable was significantly correlated with the others in both countries.

The results of multiple regression analysis showed that in Taiwan, human capital attraction was not significantly associated with employees' value ( $R^2 = .766$ ,  $\Delta R^2 = .586$ , F = 56.732,  $\beta = -.017$ , p = .884), whereas development was significantly associated with employees' value ( $\beta = .644$ , p < .001). In contrast, both attraction ( $R^2 = .757$ ,  $\Delta R^2 = .574$ , F = 65.223,  $\beta = .377$ , p < .01) and development ( $\beta = .747$ , p < .001) were significantly associated with employees' value in Mainland China. It appears that contextual factors, such as labor productivity, the development of basic, technological, and financial infrastructure, and level of education (Kim et al., 2015), influenced the effect of attraction on valuable employees. However, regardless of contextual factors, development is essential to cultivate valuable employees. In other words, the effective way to develop firm-specific employees is via training.

With regard to human capital enhancement, in Taiwan, deployment was significantly and positively associated with employees' uniqueness ( $R^2 = .520$ ,  $\Delta R^2 = .508$ , F = 43.373,  $\beta = .515$ , p < .001), but the effect of retention was not significant ( $\beta = .514$ , p = .056). Similarly, in Mainland China, deployment was significantly and positively associated with uniqueness ( $R^2 = .563$ ,  $\Delta R^2 = .554$ , F = 62.491,  $\beta = .456$ , p < .001), but the effect of retention was not significant ( $\beta = .433$ , p = .103). Thus, these results indicated that human capital deployment is a context-free factor that plays a key role in cultivating unique employees. In addition, we found it surprising that in neither Taiwan nor Mainland China were organizations capable of retaining unique employees. Our results indicated that

Table 3. Correlations Among Study Variables (Mainland China)	Among Study V	'ariables (Mainlan	ld China)				
	Attraction	Development	Deployment	Retention	Value	Uniqueness	Competitiveness
Attraction	1						
Development	.642*	1					
Deployment	*869.	.734*	1				
Retention	$.663^{*}$	.689*	.598*	1			
Value	*609.	.736*	.633*	.685*	1		
Uniqueness	$.630^{*}$	.749*	.655*	.685*	.739*	1	
Competitiveness	.547*	.459*	$.505^{*}$	.375*	.451*	$.520^{*}$	1
able +: Correlations Annolg Study variables Lawan	Attraction	Development	Deployment	Retention	Value	Uniqueness	Competitiveness
			mout for do a				
Attraction	1						
Development	.673*	1					
Deployment	$.684^{*}$	.748*	1				
Retention	.788*	.749*	.738*	1			
Value	$.508^{*}$	.766*	.542*	.678*	1		
Uniqueness	$.558^{*}$	$.811^{*}$	$.632^{*}$	$.701^{*}$	$.761^{*}$	1	
Competitiveness	.679	$.396^{*}$	.511*	$.518^{*}$	$.329^{*}$	.312*	1

*Note.*  $^* p < .01$ .

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the level of labor productivity, development of basic infrastructure, and level of education (Kim et al., 2015) should be upgraded in both countries.

Last, organizational competitiveness was reinforced by employees' uniqueness ( $R^2 = .280$ ,  $\Delta R^2 = .266$ , F = 18.898,  $\beta = .339$ , p < .01) in Mainland China, but not in Taiwan ( $\beta = .138$ , p = .369). This reveals that unique employees are successfully cultivated by assigning them the right task in the right position. In this way, unique employees can contribute to organizational competitiveness, particularly in Mainland China.

Overall, Hypothesis 1a was partially supported, Hypothesis 1b was fully supported, Hypothesis 2a was fully supported, Hypothesis 2b was partially supported, Hypothesis 3 was not supported, and Hypothesis 4 was partially supported.

## Discussion

We empirically tested the relationships among human capital management, employees' value and uniqueness, and organizational competitiveness in Taiwan and Mainland China. The findings were fivefold: (a) human capital attraction was positively associated with employees' value in Mainland China, but not in Taiwan; (b) human capital development was positively associated with employees' value in both Taiwan and Mainland China; (c) human capital deployment was positively associated with employees' uniqueness in both Taiwan and Mainland China; (d) human capital retention was not associated with employees' uniqueness in either Taiwan or Mainland China; and (e) employees' uniqueness led to organizational competitiveness in Mainland China, but not in Taiwan.

We have contributed to the human capital literature with two key insights. First, we verified the relationship between behavioral competencies and organizational competitiveness from a human capital perspective. Indeed, Lado and Wilson (1994) stated that human resource activities trigger behavioral competencies, that enable employees to be unique and valuable. In this study, we have also verified that employees become valuable and unique through the development and deployment of a set of behavioral competencies, such as on-the-job training, career planning, leadership training, and talent allocation. Second, human capital management was found to be particularly influenced by the institutional context. In fact, Kim, Pathak, and Werner (2015) indicated that appropriate management of international human capital, that is, employees' global competence to strive for firms' competitive advantage, improves organizational performance. Drawing on Kim et al.'s concept, we propose that the human capital differences, such as attraction, that we observed were caused by differences in the context of internationalization, should be taken into account by organizations.

Regarding practical implications, human capital management can be used to promote the majority of employees' talents through attraction, development, deployment, and retention practices (Meyers, van Woerkom, & Dries, 2013). We further addressed the importance of brand competitiveness for attracting talented people. Because attraction was found to be positively associated with employees' value in Mainland China, it is particularly imperative that the brand image of firms in this country is reinforced with good financial performance and welfare policies, and a well-structured career path for employees, in the pursuit of attracting talented applicants (Baum & Kabst, 2013).

We also addressed the vital development of human capital through leadership training and on-the-job training. A well-structured training program that includes advanced- and maintenance-level programs enables talented employees to cope with higher level challenges while tackling present-level assignments (Kooij et al., 2013). In addition, we propose that leadership training should be developed, particularly in Taiwan, to increase work efficiency, because most employees in this country have high execution ability but rely heavily on managers' strategies and vision for guidance. In Mainland China, on-the-job training should be further developed because a majority of Chinese employees rely on learning-by-doing practices to increase their work effectiveness.

In terms of human capital deployment, as both performance management and job design generate uniqueness, managers should evaluate the uniqueness of employees by carefully reviewing their productivity. In addition, work content should be appropriately designed according to employees' expertise and profession.

However, there are several limitations to this study. First, we recommend that the sample size be increased in future studies. A structural equation model could then be adopted to test the causal relationships among variables. Second, we suggest that future researchers investigate human capital practices with competing models drawn from various industrial types. Last, because most of the participants were from Asia, we suggest that future researchers use participants from Europe and North America to extend the generalizability of the findings and further build on best practices for multinational enterprises.

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