

## **More evidence on the value of Chinese workers' psychological capital: A potentially unlimited competitive resource?**

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As China continues its unprecedented economic growth and emergence as a world power, new solutions must be forthcoming to meet the accompanying challenges. We propose a positive approach to Chinese HRM that recognizes, develops and manages the psychological capital (PsyCap) of workers. After providing a brief overview of hope, efficacy, optimism, resilience and overall PsyCap in today's Chinese context, the results of a follow-up study provide further evidence that the PsyCap of Chinese workers is related to their performance. The implications that this evidence-based value of Chinese workers' psychological capital has for China now and into the future concludes this study.

**Keywords:** China; employee; human resource management (HRM); performance; psychological capital

China's fast-paced economic growth never ceases to amaze and simultaneously worry both the Chinese, and rest of the world's, economists, politicians and business people. Hovering around 10% growth over the past 5 years, there seems little doubt that the Chinese economy is poised to surpass the United States in terms of purchasing power (*Economist* 2007) and has already become the world's second largest exporter behind Germany, but ahead of both Japan and the US. While these statistics have gained the attention of global corporations for several years (e.g., over 400 of the Fortune Global 500 are doing business in China), there is increasing concern among Chinese leaders, and with outside investors, whether such a booming economy can be sustained, let alone continue to grow. Most of the concern and focus has been on keeping up with advancing technology and the need for financial capital and some passing interest in environmental protection and transparency. Very little attention has been devoted to the virtually unlimited human resources of China. Instead of concentrating only on the obvious technological and economic challenges and trying to fix the weaknesses such as pollution, transparency and piracy, the time has come to take a positive approach by recognizing and leveraging Chinese human resources for contribution to sustained growth and competitive advantage.

Despite having very different employee obligations than most countries in the world, both private and state-owned Chinese enterprises need to update their understanding and effective practice of human resource management (HRM). Chinese employees are becoming increasingly mobile and the market economy embedded in a socialist political system (i.e. 'one country–two systems') poses challenges for the employer/employee

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contract. Most notable, state-owned enterprises (SOEs) are frequently criticized for inefficiencies largely due to the obligation they have to maintain what amounts to a surplus of human resources. In order to gain a competitive advantage under such unique and trying circumstances, SOEs must better leverage this excess human capital for a higher return and competitive advantage. The same is true for private enterprises operating in China. Simply competing on the basis of low-cost labour is no longer sufficient in a China that is now in the mainstream of the global economy with increasing wages and competition for talent (i.e. the so-called 'War for Talent' is reaching a China front).

Using results of an exploratory study conducted a few years ago, that found a significant relationship between Chinese factory workers' 'psychological capital' (or simply PsyCap) and their performance outcomes (see Luthans, Avolio, Walumbwa and Li 2005) as a point of departure, the purpose of this study is to determine if the now more refined core construct of PsyCap's impact on performance can be updated and better understood. If similar results are obtained, then there is additional evidence and even more confidence in the value of such a positive approach to managing and leveraging Chinese human resources for sustaining and gaining competitive advantage into the future. After first providing a brief overview of the current Chinese context for managing human resources and what is meant by psychological capital in relation to this context, the study methods, results, and implications of the role that PsyCap may have in Chinese HRM and, in turn, the country's future path in the global economy conclude the study.

### **The Chinese context for HRM**

Today's environment facing Chinese organizations' human resource management is a unique dilemma: How can a market-oriented economy function within the current boundaries and recent history of a socialist political system? In other words, Chinese HRM must operate within the constraints and challenges of a country with two seemingly conflicting systems. Gross domestic product growth rates do not provide evidence for hindered economic growth under the dual systems. However, the ghosts of the not too distant past (e.g., the Communist and Cultural Revolution Eras) are often used to explain the inefficiencies of especially the state-owned enterprises (e.g., see Chen 2004). In addition, China's rapid rise in the world economy has left the society as a whole, and the human resources of organizations in particular, experiencing considerable uncertainty and stress (Gifford 2007).

In the last 25 years, the Chinese economy has shifted such that SOEs accounted for 80% of the country's GDP in 1978, but as of 2003, they accounted for only 17%. However, SOEs still employ half of the nation's workforce (much greater than the entire US workforce) and still over half of China's industrial assets (Desvaux, Wang and Xu 2004). To address some of the inefficiencies associated with SOEs, the Chinese government adopted a reform approach during the 1980s that has increased managers' autonomy, implemented forms of financial incentives, and made reductions in some unneeded workers (Chen 2004). Although such measures have improved productivity, the profitability of SOEs remains a problem. While privatization of smaller SOEs has occurred over the last few years, complete privatization is unrealistic given the social responsibilities (i.e. employment opportunities) that SOEs carry on behalf of the state. Thus, the major challenge facing Chinese HRM as well as the entire country is how to leverage and effectively manage its unlimited human resources to meet the goals of both the economic and political systems.

We propose that this daunting challenge facing China and its organizations today may be helped by not just lamenting on the negative conflict between the two systems or trying

to fix the weaknesses inherent in the rapid change and growth, but instead taking a positive approach. A positive HRM approach aimed at better understanding, development, and effective management of China's strength of unlimited, and still largely untapped, human resources may be a key solution. As evidenced in this issue, increased attention is finally being given to Chinese HRM. Our contribution is to provide increasing evidence of the value of the positive psychological capital of Chinese human resources. We next provide the meaning and role that this recently emerging core construct of positive psychological capital can play and then present the results of a follow-up study that provides additional evidence that the PsyCap of Chinese workers relates to their performance.

### **The meaning of positive psychological capital**

Over the past few years, increasing recognition has been given to the value of positivity in human resource management. Particular attention has been given to how to strengthen the psychological resources of employees and improve their performance. Positive psychology (e.g., see Seligman and Csikszentmihalyi 2000; Synder and Lopez 2002), positive organizational behaviour (Luthans 2002; Luthans 2003; Wright 2003; Luthans and Youssef 2007; Nelson and Cooper 2007); positive organizational scholarship (Cameron, Dutton and Quinn 2003), and positive emotions (Fredrickson 1998, 2000) have all provided evidence that individuals flourish when the focus shifts from fixing what is wrong with people to strengthening what is right. The application of this positive movement to the workplace in general, and human resource management in particular, can be found in psychological capital or, simply, PsyCap (see Luthans and Youssef 2004; Luthans, Youssef and Avolio 2007b).

Since we first introduced the notion of psychological capital in relation to the Chinese workforce a few years ago (see Luthans et al. 2005), theory, research and application have greatly expanded. For example, PsyCap is now recognized to go beyond just human capital (i.e. what employees know, their education and experience). PsyCap represents who employees are (i.e. their psychological self) and what they can become. PsyCap is defined as: 'An individual's positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success' (Luthans et al. 2007b, p. 3).

An expanding body of research demonstrates that PsyCap is both open to development (e.g., see Luthans, Avey, Avolio, Norman and Combs 2006; Luthans, Avey and Patera 2008) and has performance impact (Luthans, Avolio, Avey and Norman 2007a). As indicated, a few years ago our exploratory study utilizing some of the components of PsyCap (hope, optimism and resiliency, but our model now also includes efficacy) found a relationship with the performance of a sample of Chinese factory workers (Luthans et al. 2005). We feel the time has now come to extend this initial finding with the now more fully developed and tested PsyCap core construct (e.g., see Luthans et al. 2007a, 2007b) and solidify the contribution it can make to the future of Chinese HRM.

As defined above, PsyCap is a core construct that consists of hope, efficacy, optimism, and resiliency. To gain clearer insight into how the PsyCap of Chinese workers can be better understood and then developed, leveraged and managed for competitive advantage, it is first necessary to clarify the contribution of each component state in relation to the Chinese context.

### ***The role of hope***

In positive psychology, hope is comprised of two dimensions: willpower and pathways (Snyder 2000; Snyder, Feldman and Taylor 2000; Snyder and Lopez 2002). Willpower is the expectancy and motivation individuals have for attaining a desired goal. Pathways complement this willpower by providing psychological resources that help find multiple alternative pathways to the goal. This alternative pathways thinking helps individuals achieve goals despite the presence of obstacles.

Applying the hope of human resources in organizations in China, the willpower dimension facilitates them to recognize and set goals that lead either an SOE or a private firm to attain desired performance outcomes. As China has been found to be relatively high in power distance and social collectivism (House, Hanges, Javidan, Dorfman and Gupta 2004), such goals may be identified by either an individual organizational leader and/or by the group of workers. However, each of the individual employees must internalize such goals to drive their own behaviour and make them personally relevant. In order to achieve the desired goals, particularly in a rapidly changing environment such as China is currently experiencing, individuals will make a greater contribution and be more effective when they utilize the alternate pathways dimension of hope. This is because they will have the resources to recognize and immediately implement alternative options to achieving goals. This hope factor of PsyCap is further strengthened when complemented by the confidence or efficacy to succeed at workplace activities, especially in the fast changing Chinese organizations.

### ***The role of efficacy***

Self-efficacy is the positive belief or confidence in one's ability to perform specific tasks (Bandura 1997). It has been found to be a universal state, although it manifests itself differently in various contexts (Bandura 2002). For instance, even in cultures with a high degree of group collectivism, such as in China, individuals utilize their efficacy to assess their ability to contribute to and execute workplace activities. However, the area in which efficacy varies across cultures is the manner in which it is developed. For example, it has been found that individuals from countries with a level of collectivism tend to develop efficacy more readily in a group context (Earley 1994).

This confidence component of PsyCap has been clearly shown to relate work-related performance in the US (Stajkovic and Luthans 1998) and in other cultures (Earley 1994; Luthans, Zhu and Avolio 2006; Luthans and Ibrayeva 2006). Human resource management practices that develop efficacy will be more successful in the Chinese context by utilizing a group training technique. In Bandura's (1997) conceptualization of self-efficacy, optimism is a critical component to more successfully apply to specific tasks. Optimism, therefore, is still another psychological state that strengthens the effectiveness of hope and efficacy and contributes to the overall core construct of PsyCap.

### ***The role of optimism***

Optimism is characterized by a positive explanatory style. When individuals experience instances of optimism, they tend to internalize positive events and externalize negative events (Seligman and Schulman 1986; Seligman 1998). As a result, optimists will have more positive expectancies of outcomes from specific events. Therefore, a higher level of optimism should aid Chinese employees in having more positive expectations of outcomes in the fast-paced, changing work environments.

In his description of today's China, Gifford (2007) explains that a tremendous optimism is apparent in the booming business centres such as Shanghai. However, other

portions of the country, once one leaves the development and futuristic technology of Shanghai, are more depressed and worried about the future of China. Such a lack of optimism in the polluted industrial centres in provinces west of Shanghai may deeply affect the performance of employees. Thus, to improve performance, human resource managers may need to focus on developing positive expectancies (i.e. optimism). Such optimism for future outcomes and the role they may have for individuals, families and the greater Chinese society will be further reinforced when combined with the fourth recognized component of PsyCap – resiliency.

### ***The role of resiliency***

Resiliency is the capacity to bounce back from adverse or stressful situations (Masten, Best and Garmezy 1990; Masten 2001; Luthans 2002). Within the Chinese context, although rapidly developing business centres such as Shanghai may have a more positive outlook for the future, both developed and less developed regions of the country have undergone and will continue to undergo tremendous change at an unprecedented rate. This change, regardless of how positively or negatively it is perceived, as we have indicated is creating considerable stress and uncertainty that can be debilitating in the absence of resiliency.

At one time thought to be very rare and even ‘magical’, resiliency is now recognized to be a psychological capacity that all individuals possess (Masten 2001), but it needs to be developed and unleashed. In other words, everyone seems to have the potential for resiliency and what varies is their ability to call on this resource in times of stress (positive or negative) or adversity. The power of resilience is that once activated, it not only allows individuals to bounce back, but it also allows them to flourish even beyond their previous equilibrium state. Thus, by developing resilience, in conjunction with hope, efficacy and optimism, Chinese human resources may overcome the stress and uncertainty they are facing now and especially in the future.

### ***Overall PsyCap***

The four components – hope, efficacy, optimism and resiliency – that meet the PsyCap inclusion criteria of being based on theory, research and valid measurement and open to development (i.e. state-like) with performance impact (Luthans 2002; Luthans and Youssef 2007; Luthans et al. 2007b), on the surface appear very similar. However, there is now considerable evidence, both conceptually (e.g., Bandura 1997; Snyder 2000, 2002; Luthans et al. 2007b) and empirically (Magaletta and Oliver 1999; Carifio and Rhodes 2002; Bryant and Cvendros 2004), that they are independent constructs. However, as seen in the definition of PsyCap given earlier, there is also a common underlying linkage of positivity and striving to succeed among the components and empirical evidence supporting PsyCap as a core construct (Luthans et al. 2007a). Specifically, overall PsyCap has been found to predict performance better than the individual components (Luthans et al. 2005, 2007a).

Applying PsyCap to the Chinese context, we propose that the mindset of Chinese human resources needs to be changed to cope with the unique one-country, two-systems context. As China deals with a market-oriented economy and a socialist system, as well as the global competitive requirements and pressures as a member of the WTO, both SOEs and private firms must find new, we propose positive, approaches to HRM. These new approaches are needed not only to help employees maintain their present level of performance, but to help bounce them beyond current levels to overcome the inefficiencies

at SOEs and the uncertainties and stress of employment in private firms. Based on the above foundation and our preliminary findings from the earlier study (Luthans et al. 2005), we hypothesize that the positive psychological capital of Chinese workers will have a positive relationship on their performance in both the SOE and private firm in our sample. We turn next to the methods used to test this hypothesis and the results and implications.

## **Methods**

In this study, 456 workers from both the largest copper refining SOE and largest private copper refining factory in China using the same technological processes completed survey instruments in Mandarin Chinese. The survey instrument included demographic questions and the 12-item Psychological Capital Questionnaire (PCQ-12, see Luthans et al. 2007b for the full 24-item measure). Additionally, the worker's supervisor rated their performance on a multi-item measure on a scale of 1–10. A Chinese member of the research team familiar with the two organizations supervised the data collection. He gave a brief orientation on site to the study participants and supervisors in terms of the procedure for filling out the questionnaires and assured them of confidentiality and that the results would be used for basic research only. Of the 456 participants in the two firms, there were 367 males and 86 females (three individuals did not indicate gender). The average age was 39.8 years with an average work experience of 9.42 years. Of the participants, 46% had not completed high school, 41% had completed high school and no more, and 11% had completed the equivalent of a Bachelor's degree. Since the technological process and demographics of the two firms were not significantly different, they were combined into one sample for the analyses.

All scales were translated into Mandarin Chinese using back translation methodology (Brislin 1970, 1980). That is, the questionnaire was first translated from the original language (English) into the Mandarin Chinese by a bilingual native Chinese linguist. Next, the translated Chinese language version was "back translated" into English by a second bilingualist. Finally, the translated English version was compared to the original and any discrepancies were resolved by mutual agreement between the two linguists.

As indicated, positive psychological capital was measured with a reduced version (12 items) of the original 24-item PCQ (Luthans et al. 2007b). This 12-item PCQ included 3 items for efficacy, 4 items for hope (2 agentic capacity, 2 pathways thinking), 2 items for optimism and 3 items for resilience. Although the reliability of this translated 12-item PCQ ( $\alpha = .68$ ) was not as high as has been found in multiple American samples using the original 24-item version (e.g., see Luthans et al. 2007a), it was still very close to the standard acceptable levels. In fact, a meta-analysis of Cronbach's alpha indicates that .60 is reasonable (Peterson 1994) and other researchers' published findings using back translations similarly fell just short of the .70 alpha level (e.g., see Sagie 1998; Van Vegchel, De Jonge and Landsbergis 2005) and specifically with a Chinese translation (Hui and Law 1999).

Performance was measured with a 5-item scale that supervisors rated each of their employees. This approach has been used in a number of studies that have tested the relationship of PsyCap and its components with performance (Luthans et al. 2005; Youssef and Luthans 2007). Example items of this instrument were 'Please rate his/her contribution to the organization's mission and goals' and 'Please rate his/her overall job-related ability'. This performance scale had an internal reliability of  $\alpha = .92$ . The demographic variables were measured by self-report. Specifically, employees were asked to list their work experience, education, age and gender.

### Study results

All means, standard deviations and correlations of the study variables are shown in Table 1. The workers' PsyCap, tenure and education were all significantly related to manager rated performance. To determine the meaningfulness of the relationship between PsyCap and performance, a regression analysis was conducted. Specifically, tenure, education, gender and age were entered into Step 1 of a linear regression model. Next, PsyCap was entered into Step 2 to determine the extent to which PsyCap predicted performance above and beyond the demographic variables.

As seen in Table 2, tenure positively predicted performance while age negatively predicted manager rated performance. In Step 2 of this regression model, PsyCap predicted variance in the performance dependent variable above and beyond the covariates ( $\beta = .26$ ,  $p < .001$ ). In addition, PsyCap explained an additional 7% variance in the performance outcome.

### Discussion

The purpose of this study was to conduct a follow-up investigation of the potentially powerful role that positive psychological capital may play in Chinese HRM. As evidenced in this sample, which included workers from both state-owned and private enterprises, as was found in an earlier exploratory study (Luthans et al. 2005), positive PsyCap does indeed seem to be a significant and unique predictor of employee performance. For example, while the widely recognized human capital component of work experience was found to be an important predictor of performance, adding psychological capital to the model significantly increased the amount of variance explained in the performance outcome, although work experience continued to be a significant independent variable.

Table 1. Means, standard deviations and bivariate correlations of study variables.

	Mean (S.D.)	PsyCap	Performance	Education	Tenure	Age	Gender
PsyCap	4.33 (.46)	1.00					
Performance	7.01 (1.13)	.25**	1.00				
Education	1.69 (.82)	.11**	.15**	1.00			
Tenure	9.42 (7.44)	.01	.39**	.06	1.00		
Age	39.79 (8.95)	.05	-.04	-.40**	.26**	1.00	
Gender	.18 (.39)	.04	-.06	-.03	.09	.03	1.00

\*\* $p < .01$ .

Table 2. Performance predictors.

	Performance	
	Step 1 $\beta$	Step 2 $\beta$
Education	.093	.048
Tenure	.392**	.407**
Age	-.079	-.119*
Gender	-.034	-.044
PsyCap		.260**
$\Delta R^2$		.07**

\* $p < .05$ ; \*\* $p < .01$ .

This finding suggests that PsyCap complements and adds value to the traditional human capital view of HRM rather than replaces it. Both human capital (e.g., work experience) and psychological capital accounted for separate and meaningful components of performance. In effect, by considering both human capital and psychological capital, there may be a more comprehensive and effective approach to Chinese HRM.

Before exploring the specific implications, as in any research there are certain methodological limitations to the study that must be noted. However, there are strengths that are also important to note. Specifically, this study does not suffer from common method variance or the impact when the independent and dependent variables are collected with the same method, at the same time, and from the same person. In this study the participant workers completed the independent variable(s) and their immediate supervisor completed the performance evaluation. However, in terms of limitations, first, the 12-item PsyCap scale was slightly below the threshold of generally accepted reliability at .68, indicating that further refinement of the Chinese translated measure may be required. Specifically, back translation methodology, while helpful, does not guarantee the meaning of items across cultures, only that they were, as far as possible, accurately translated grammatically and linguistically. Therefore, future research should include a more rigorous approach than back translation when studying PsyCap in Chinese organizations. In addition, future studies may consider item response theory on the individual items of the PCQ when applying them in contexts such as Chinese organizations.

### **Implications and conclusion**

There are multiple implications and conclusions from this study for Chinese HRM. First, the unlimited human resource potential of China would seem to be an overwhelming opportunity for any investor or manager who understands the Chinese environment. As found in the first study and reinforced in this study, the performance of Chinese workers, and likely subsequent profitability of their organizations, may at least in part depend on the ability to select and especially develop and manage workers who are generally higher in PsyCap. Recent research (Luthans et al. 2007a) provides evidence that PsyCap is less stable (i.e. more 'state-like') than personality traits, suggesting that PsyCap is more open to be developed and managed. On the other hand, PsyCap was also found to be more stable than emotions, suggesting it does not fluctuate in the short term, e.g., from hour to hour. Therefore, by hiring employees who are predisposed to being higher in PsyCap and coupling this human resource selection practice with HRD programmes targeted toward developing employees' hope, optimism, efficacy and resilience (i.e. their PsyCap), Chinese organizations could enhance performance and over time their competitive advantage. This developmental attribute of PsyCap is critical. Not only may private firms hire and train based on PsyCap, but importantly SOEs that have an obligation to current employees to keep them on the payroll, may also develop their PsyCap in order to leverage them as a value-added resource, rather than just a costly liability.

In addition to the practical implications for performance improvement, another major implication for the current transition going on in China today was the lack of significant difference in the relationship between PsyCap and performance in the SOE and the private firm in the same industry using the same technological processes. Thus, regardless of a state-owned or private organizational context, PsyCap appears to be a meaningful predictor of individual performance. In particular, this result provides empirical evidence that SOEs may utilize the human resource management practice of developing PsyCap in their workers in order to overcome the challenges of surplus labour.

Still another important implication of the study results is the uniquely important role that positivity in general and PsyCap in particular may play in using HRM to meet China's unique and difficult challenges. In a country that has, in recent decades, fostered the collective mindset, discouraged individualism, and generally avoided enabling individual hope, confidence, optimism and resilience, this positive approach in general, and using PsyCap in HRM in particular, can have intuitive, and importantly from two empirical studies, evidence-based appeal to the Chinese at all levels – political, economic, and social. As more Chinese take on individualistic mindsets and the society as a whole continues to recover from the Maoist reforms of the Cultural Revolution, such positivity provides a means to integrate market-oriented individualistic thinking and behaviours with a collectivistic, socialist tradition. In sum, as China continues to emerge as a world economic leader, developing and managing this untapped positivity and PsyCap in their unlimited human resources may become the 'tipping point' for Chinese organizations and the country as a whole. This approach to HRM may allow the Chinese to continue to, and even better to, compete with Western corporations and adhere to the requirements and pressures of the WTO and full entrance into the global economy.

In conclusion, results from previous research and this study suggest that Chinese HRM may make a significant contribution to the great challenges facing China today. Chinese HRM needs to recognize, develop and manage the psychological capital of their unlimited human resources. Although economic, technological, political and social challenges certainly lie ahead, and the negative conflict of the two systems—one country and the fallout of rapid growth are certainly realities that must be addressed, the time seems right also to take a positive approach and emphasize China's strength of unlimited, untapped human resources. We propose, and our research supports, that the psychological capital of Chinese workers may indeed be a potentially unlimited competitive resource for China now and in the future.

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