Skills Shortages in China: A Conceptual Model?

Doug Davies*, Zhang Xinyan** and Liang Wei***

This paper examines the concept of skills shortages in the most populous nation on earth. After giving a brief review of the literature on skills issues, a small number (7) of companies that were interviewed between 2008 and 2010, are studied which highlight shortages in a number of areas, both in the qualifications of staff and in certain geographical regions of China. Additional reasons for the shortages, such as inadequate compensation, are also provided in these studies. This empirical and theoretical material then gives rise to a conceptual framework. The major concepts coming from this material are divided into both employee and employer contexts. Employee focused matters are based on the concepts of compensation, perception and geography, while employer focused matters are based on the areas of personality, qualification and attitude.

Keywords: Human Resource Management, Skills Shortages.

1. Introduction

A skills shortage has been defined as existing when there are insufficient people with the necessary skills to do a job (Green, Machin et al. 1998). Despite having a population of approximately 1.3 Billion people, there are increasing examples of a possible skills shortage for many organisations in many parts of China for a number of reasons (Venter 2003). The prime reason is the growing economy of the PRC, hardly affected by the Global Financial Crisis (GFC) in 2008 and 2009 as compared to other countries around the world, the number of expanding multi-national operations in China, the demographic/population dispersion of the Chinese people, the performance expectations of organisations and the educational level of the population.

This paper examines a number of the above issues, using data collected in 2008 and 2010, and supported by interviews conducted in various areas of China in the same time period. It takes an exploratory focus to the problem by examining and analysing the survey and interview results, before looking at the employment issues, challenges and opportunities facing the country in these turbulent times. Finally, it then proposes a tentative model which examines the differing contexts.

The study was undertaken following initial research based on general HR practices in a number of organisations. This initial research discovered a broad theme of skills problems and related issues, which would impact on the viability and effectiveness of the company. Previous research on skills shortages in China is minimal, and the analysis in this paper provides a number of reasons for these problems.

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*Doug Davies, Xi'an Jiaotong-Liverpool University, China. Email: daviesdoug51@gmail.com
**Zhang Xinyan, University of Canberra, ACT. Email: Rebecca.Zhang@canberra.edu.au
***Liang Wei, East China University of Science & Technology, Shanghai. Email: missliang19@hotmail.com.

2. Literature Overview

In many developed and developing nations, there is a shortage of managerial and technical skills, which can hinder further development or expansion. This is despite the temporary setback caused by recent economic conditions. China's pool of potential talent is quite large. As an example, in 2003 China had roughly 9.6 million young professional graduates with up to seven years' work experiences, and an additional 97 million people were available that would qualify for support staff positions. Despite this apparently vast supply, multinational companies are finding that few graduates have the necessary skills for service occupations in that growing sector. There were also shortages in the fields of engineering, accounting and support staff, among others. (Farrell & Grant,2005).

In many parts of China, there is a shortage of managers and other skilled staff with the level of expertise and professional experience that are essential for an organisation's effective operations (Zhang-Qiu and Lam 2004). In a recent AmChan Shanghai's survey of US-owned enterprises there, 37% of the companies responding said that recruiting talent was their biggest operational problem. Insufficient talent was found to be the biggest barrier to expansion. (Lane & Pollner, 2008) This is despite the large investment in education and training that is being undertaken by the Chinese Government. Many companies actually find it is better to buy in skills than train new staff, despite the implications that this may have (Benson and Zhu 2002).

From 1998 to 2004, the number of students admitted to university grew from 2.1 million to 4.2 million students (People's Daily Online, 2004, cited in Ogden, 2008) and many students have studied abroad in many western countries, including the United States, Japan, Europe and Australia (People's Daily Online, 2004, cited in Ogden, 2008). Despite this, however, there is still a shortage of skilled personal, with implications for multinational organisations located in China and also for Chinese organisation that have aspirations for growth, not only in their domestic market but in the wider global economy (Farrell & Grant, 2005). Increasing growth in China will further exacerbate the skills issues, with a potential mismatch between the graduate outputs from the university sector in China and the type of employee needed by the growing domestic and international sectors (Lane and Pollner 2008). For entry-level corporate positions, there is an ongoing mismatch between the sort of graduates most Chinese universities turn out and the type of candidate who would interest local and regional companies, to say nothing of multi-nationals. One view is that the educational system is not providing the training needed by the new industries (Editor 2007).

The training needed is to develop suitable management staff, but the experience gained through working in many organisations is lacking in the training for many middle and senior roles. The type of employee needed by many companies is generally in the middle and senior management rankings, and the shortage is particularly acute for Chinese speaking managers (Editor 2006). This shortage may lead to an increased use of expatriate managers, being lured to the high growth Chinese market (Donaldson 2006). While this would tend to alleviate the shortage of talent in China, it may also work towards a lack of up-skilling in the market.

Management talent generally comes from several sources. Enterprises that train lower-level workers, industries that produce managers with relevant skills, and expatriates who have worked or studied in countries with developed economics are a valuable source of potential management talent. However, people who do show the ability are scarce, and the time and cost spent to train new staff can be quite high (Farrell and Grant 2005). There also appears to be a reluctance to provide in-house training in many companies, and a lack of partnership between many training institutions and the 'customers,' the organisations that rely on the students once training has been completed (Cooke 2005).

Apart from general management talent, staff with skills in other professions are also lacking. As an example, it was estimated that there was a shortage of 300,000 accountants, and the need is growing as the economy expands (Wild 2005).

Another reason, according to Farrell & Grant (2005), is the ability in another language, normally English. This is especially necessary in many service roles. Only 3 percent of applicants could be considered for service positions, due to the need to communicate in another language. Cultural fit is also a difficult hurdle for many applicants.

So the problem is, how can this talent shortage be addressed? Southworth (Southworth 1999) Considered that the previous planned economy of China did not require trained managers, and as a result, the skills shortages lie in the areas of financial management, marketing and HRM. With the growth coupled with the lack of vocational qualification, talent poaching is becoming increasingly common (Hawser 2008). Research has found that 46% of organisations have difficulty in getting suitable management staff, while 30% have difficulty in filling technical roles (Venter 2003). Additionally, Davies and Liang (2011), in interviews with a number of organisations in China, found the recurrent theme of staff shortages in many private industries. Additionally, due to the general growing demand for staff, there is also evidence of a shortage of blue-collar workers occurring (Canberra Times, 2012).

This literature then leads to the research question: What are the reasons for organisations having difficulty in locating suitable staff in China? Previous literature has, to a limited extent, highlighted shortages, but has failed to adequately expain the reasons behind these shortages.

3. Methodology

A number of intensive and in-depth interviews were held with Human Resource Managers and general managers in a number of Chinese cities (Shanghai, Beijing, Xi'an, Ningbo, Zhuhai and Chongqing). The organisations consisted of private companies and multinational Chinese subsidiaries. These interviews were recorded and transcribed, then returned to the interviewees for comment or correction. The issues raised were then analysed through content analysis to determine the underlying causes of the problem.

The recurring theme of skills shortages and the difficulty in attaining and retaining staff were frequently mentioned, which led to further in-depth questioning on these matters. The data was then further examined for similar themes, resulting in a number of possible causes for the shortages. Search of the literature failed to

adequately answer the questions. Hence reliance was more based on the empirical data obtained. The models derived were then based on a combination of the literature and the empirical research undertaken.

4. Findings/Discussion

The interviews indicated to some extent the tight labour market in certain professions and geographical areas. The shortages existed not just across certain industries but over many companies employing many skilled and professional staff in various geographical areas.

1. A private company in Zhuhai was having difficulty in retaining skilled staff. On interviewing staff prior to their resignation, it was found that the level of compensation paid to staff was considered to be insufficient as compared to the skills required by the company. A restructure of the compensation system resulted in reduced turnover and retention of necessary skills.

2. multi-national manufacturing company located in Chongqing could not recruit qualified staff due to the low level of compensation paid to the employees. The skills level of recruited employees thus tended to be low, especially for management personnel. Another issue was the geographical issue, as the company had difficulty attracting staff from other provinces and cities due to the reluctance of these cities to allow qualified employees to leave migrate.

3. An exporting company based in Ningbo reported that it had difficulty in attracting suitable staff who were prepared to take responsibility due to their level of salary. Also a suitable fit within the organisational culture, related to the personality of the employee and their general attitude to the work environment, was also an issue facing the company. Although it was easy to find and hire new, unskilled staff, it was very difficult to hire adequately trained staff to work within the company. Although the company was very flexible in its approach to hiring staff, and would provide training if these recruits demonstrated potential, the difficulty was in finding staff that were prepared to take responsibility. Also, many staff considered that they had the right qualifications but on commencing to work for the company, it was evident that certain necessary experience was lacking.

4. A business incubator in a coastal regional city had difficulty in finding suitable staff to allow the fledgling sponsored companies to expand. It was sometimes difficult to find technical or senior management people to work in these enterprises and the HR department assisting these small enterprises found it difficult to source and provide suitable people to work in these different firms. The priority was to source local staff but also extend to searching for staff in other areas of China. To resolve this issue, the incubator sought the assistance of the local government. Apart from attracting potential students to come to the new universities that had been built there, there was the geographical issue. In China, it could be potentially difficult to move from one province to another due to restrictions placed on this immigration by the local governments. One incentive provided was the immigration status given to new employees to allow them to become residents of the city. In China if you wish to transfer your residence from one city to another or from one province to

another, for purposes of employment, it may be required that you have to pay a fee to the government or may not be eligible for benefits provided to local residents. The local government assisted in resolving this geographical problem for migrants by paying this fee (if applicable) on behalf of the new resident and providing access to benefits given to longer-term residents, such as medical and retirement benefits.

5. If an organisation changes its management style and focus, it is also quite possible that staff will be uncomfortable with the changes taking place, and the result may be a departure of some staff from the company. While this gives the company the opportunity to bring in new ideas, the loss of corporate culture can be a problem. A pharmaceutical company located in Shanghai had a change of manager with a different approach to how the company should be managed. The result was substantial loss of corporate knowledge due to staff leaving the organisation, and appropriately-skilled new staff were difficult to locate. This resulted in a major re-training scheme to provide essential skills to new and existing employees.

6. The service industry has a unique set of problems that they attribute to the skills shortage. The first is that of perception. Many service industries, such as the hotel industry, are viewed as not good jobs due to the perception of lack of career and non-permanence, because of the transient nature of employment. In many countries, it is not considered a career, and many younger employees may view it as a way to obtain income prior to obtaining a 'proper' career. The hotel manager who was interviewed considered that the only way to obtain staff was to hire low-skilled employees and provide training, as these new employees tended not to have experience working within the industry. As well as not having any formal qualifications, they may also not feel confident to work in that job. This may make them look for another position in another company at a different level that they feel matches their skills, despite the training that they were given when commencing in the organisation. So the skills needed, even if staff were trained to suit the job, were lost over time.

7. A regional airline in China has had problems in obtaining technical and flight staff. The first was the location (inland China) of the company and the difficulty in attracting qualified staff to a regional area. The second was the compensation problem. As the new airline had only just commenced operations, money was tight and it was difficult to remunerate qualified staff to the level of more established companies, as there was insufficient cash flow to pay market rates. The final aspect of the skills issue was the need to train staff and provide an appropriate career path to ensure retention. This training however caused its own problems due to the short history of the organisation.

5. Analysis

In the cases mentioned above, many of the traits mentioned in the models developed below were raised. The problems of geography, the views of many of the jobs by the potential employees and the compensation given to staff are of major consequence for an employee deciding to apply for a job.

The status of certain of the jobs (such as those in the service industry) indicates the need to raise the status of that industry in the view of potential employees, as has occurred in some other countries. As the manufacturing base has diminished and those countries have turned to a service-focused economy, the value of those working in the service industry needs to be acknowledged.

Following from the literature, with the increasing emphasis on training and education in China, the question as to why there is a skills shortage in many parts of the country is of concern. The examples cover not only major industrialised cities in the coastal fringe but also a number of inland cities as well, where there is at least a suitable pool of potential talent available.

6. A Developing Framework-Staff Considerations

Based on the literature and the empirical research, a framework has been developed which looks at both the employee and employer concerns. There is no reason as to why both views could not be integrated, to find a partial solution to the problems occurring.
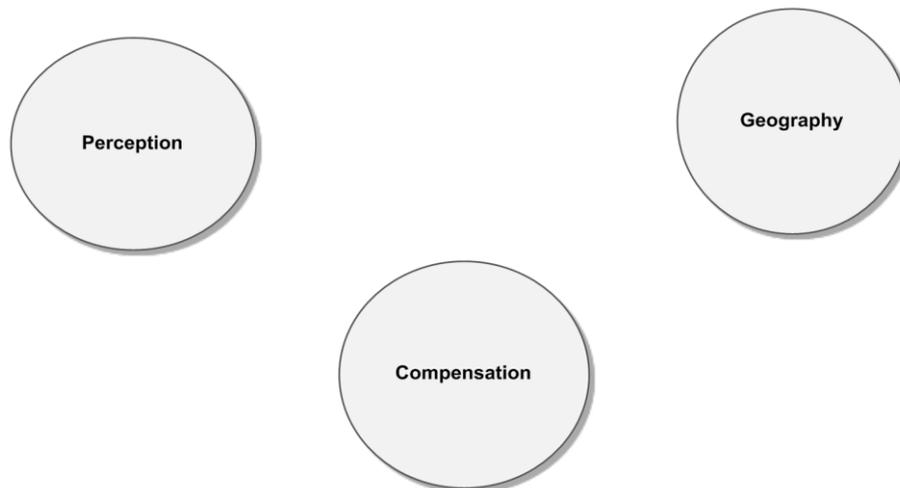

Diagram 1: Staff Considerations

Examining first the employees considerations, there were 3 broad issues that were raised. These were the issues of perception, compensation and geography. This paper will now examine each of the components of this model.

The perception of staff is of great importance due to the 'face' aspect of Chinese culture. If a job has insufficient social status, such as certain service industries, an organisation may have difficulty in attracting suitable staff. This is especially so if the organisation has a low reputation, poor working conditions or environment. Many students on completing university may be looking for a management role, not realising that in many instances they should initially look at a lower level for the commencement of their career.

The perception of lack of challenge or flexibility is also a contributing factor to an organisation failing to attract suitable personnel. Many new graduates possibly think that they should start at a certain level, and may be very particular in their choice of career.

The second aspect of the model is that of compensation. This covers the areas of salary, benefits, bonus, working conditions, training support and career paths within a company. If any of these areas are deemed as not suitable, an employee will either not apply to work in that company or will look for other employment, especially if they have valuable marketable skills.

The third aspect is that of geography. To some extent, there are still a number of impediments and restrictions on migration to other cities or provinces to work. It is not uncommon for unemployed people to move to a developing city, away from family support, to earn an income. However, if you are not a registered resident of a city, you may not be eligible for the benefits provided in that city. These may include child care, education and subsidies.

7. A Developing Framework-Employer Needs

The employer, when hiring staff, may base the needs on three aspects: personality, qualification and attitude. On the aspect of personality, an employer would wish his staff to be honest, loyal, diligent and generally fit well into the organisational culture. If there is no good fit into the culture, the employee will not be motivated and will either cause problems and will probably resign after a period of time.

Obtaining staff with suitable and recognised qualifications, knowledge and experience is essential. Good interpersonal skills are also considered an important asset to bring to any company. Probably just as important is the checking of references to ensure that the skills and experience are correct and have not been 'expanded.'

The third aspect of importance to the employer is the general attitude of staff. Staff need to be passionate in their work, be serious and dedicated and pay attention to details. Additionally, they need to be focused in their job, and be careful and thoughtful in their attitude to their work.
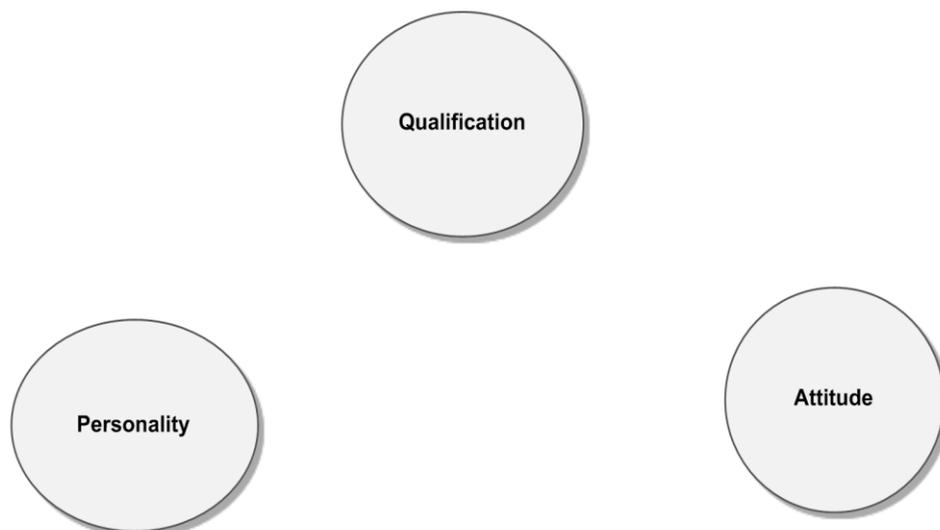

Diagram 2: Employer Considerations

8. Solutions

Despite the problems, there are a number of potential solutions to the issue. Some of the concepts raised in the model are easily resolved, while others may require a cultural change to achieve. These possible solutions, though not necessarily achievable, are:

1. To provide a standardised salary across the different regions of the country. However, due to economic implications, this may not be necessarily a solution at this point in time.
2. To ensure that training meets the needs of industry. Closer representation needs to be made between the educational institutions and various industry bodies to determine the needs.
3. To develop linkages between universities, colleges and industry. This could be encouraged through various means, such as internships, work experience stints, and research and development relationships.
4. To change perceptions about certain industries. Many organisations, especially in the service sector, need to market their image more effectively, to ensure that they are viewed as attractive and tenable employers with appropriate career progression.
5. A review of the restrictions and impediments regarding mobility of residents from one province to others, depending on needs and the demands of the labour market. This may include removal of fees, if applicable, in some areas. It is noted that the Government is moving to make benefits, such as medical and retirement benefits, more transferable.

This identification of these components leading to staff shortages has not previously been effectively acknowledged in the literature. The contribution of this initial research, though not comprehensive, still provides an indication of how this can assist in alleviating the problems that are and will continue to occur.

9. Conclusion

This paper has studied briefly the literature on skills shortages that are currently facing China. Coupled with this research, a study of a small number of companies located in different parts of China has provided information on the skills problems that some companies are facing. It is quite possible that these companies are not unique but are a representative sample of a larger number of other organisations. A wider research framework will more closely determine the extent of the shortages. The current study is limited by the small sample of companies interviewed.

The framework devised was based on a combination of the literature and the case studies that were researched in 2008 and 2009. This framework has thus provided a template to undertake further research into this paradigm, to increase the understanding of why skills shortages are occurring and what the possible solutions could be, not only in China but also in other countries that are facing similar issues.

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