

## ORIGINAL ARTICLE

# Development of foreign invested hospitals in China: obstacles and coping strategies

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## Abstract

Since the Chinese government allowed foreign investors to open hospitals in China, the development of foreign invested hospitals has been slow. This paper reviews China's policies and regulations on foreign invested hospitals. The purpose is to identify obstacles hindering the development of foreign invested hospitals and to propose strategies to overcome these obstacles. A case study was conducted to collect data from four foreign invested hospitals in China. The primary data include interviews, field surveys, and site visits. The secondary data include articles from newspapers and websites, hospital documentations, and media reports. The case study revealed four major obstacles facing foreign invested hospitals: unfavorable tax regulations, high service fees, low power status, and difficulty in physician recruitment. To overcome these obstacles, this paper recommends that foreign invested hospitals should develop external relationships with the government and other China's public hospitals, reduce misunderstanding from patients and physicians, and select location and size wisely. This paper should be valuable for foreign investors who are interested in opening hospitals in China by helping them understand the regulatory context, avoid pitfalls, and develop suitable strategies.

## Key words

Foreign invested hospitals, China, Policies, Obstacles, Coping strategies

## 1 Introduction

China's healthcare market is growing rapidly. Its overall health care costs escalated from around \$104.76 billion in 2003 to about \$ 317.46 billion in 2010, with a compound annual growth rate (CAGR) exceeding 18%, far higher than China's average GDP growth rate <sup>[1]</sup>. As the Chinese population is aging, they demand more health care resources. The national census data show that in 2010 around 178 million people, or 13.3% of the Chinese population, are elderly (aged 60 or older). It is expected that from 2011 to 2015 eight million more people will become elderly each year <sup>[2]</sup>. Therefore, public health demand in China is enormous and the government's burden can be relieved if investors are allowed to open hospitals in China.

As the primary health care providing organizations in China, hospitals are categorized as for-profit and not-for-profit (or public) <sup>[3]</sup>. By 2009, China had a total of 20,291 hospitals, including 15,724 not-for-profits and 4,543 for-profits <sup>[4]</sup>.

China's healthcare market has traditionally been dominated by public hospitals. For-profit hospitals only play a supplementing role, accounting for 4.5% of the nation's total outpatient visits and 4.3% of inpatient visits<sup>[4]</sup>.

Since China's open-door policies in the 1980s, foreign invested hospitals that practice Western medicine started to emerge. Three impetuses drove the growth of foreign invested hospitals'. First, owing to the increasing aging population, heightened consumption and the expanded health insurance, China's total demand of medical services grew rapidly in recent years<sup>[5]</sup>. Second, with China's economic development, people's demand for high end healthcare service is increasing and foreign hospitals are penetrating into medium- and high-income families in China<sup>[6]</sup>. According to a survey of Chinese families that had total assets of more than \$800,000, 86% of the respondents thought that the current medical services were unsatisfactory, and 54% of them said they would try foreign medical or convalescent services in the future<sup>[7]</sup>. In China, middle-class families with an annual income of \$45 to \$150 thousand have already become a critical consumer mass. The size group is growing with an annual rate of 15%, and by 2015, 5.6 million more families will join this group<sup>[8]</sup>. Third, the Chinese government advocates the development of foreign invested hospitals. China's 2009 healthcare reform encourages and provides guidelines for further improvement of medical and health services and actively promotes the development of non-public health care institutions with a formation of diversified investments. The government has issued policies to show its favorable attitude toward opening up China's hospital market<sup>[9]</sup>.

Yet, the development of foreign invested hospitals in China has been slow<sup>[10]</sup>. Little research has looked into this issue. The purpose of this paper is to investigate obstacles hindering the development of foreign invested hospitals and to propose strategies to overcome these obstacles.

## 2 Policies on foreign invested hospitals

Healthcare is tightly regulated in China. Hospitals, especially foreign invested hospitals, operate under various government agencies' supervision. These hospitals' establishment, operation, and development processes need to be approved by both central and local governments. Based on the Chinese health policy literature and expert opinions, we divided the evolution of China's policy regarding foreign invested hospitals into three phases: inception (1989-WTO entry), early development (WTO entry-2009 healthcare reform), and new reform (2009 healthcare reform-present). Each phase is described as follows.

### 2.1 Inception phase

The entry of foreign invested healthcare services into China started at the end of 1980s. With China's open-door policy and economic reform, the number of foreigners working in China greatly increased. At that time, most foreigners chose to go back to their home countries to seek medical care because they did not trust China's domestic hospitals due to their poor services and physical environments. In 1989, China's Ministry of Foreign Economic Trade (MFET) and Ministry of Health (MOH) made it legal to establish foreign (mainly overseas Chinese) invested hospitals, clinics, and foreign physician practices in China. This act allowed foreigners and overseas Chinese to start the trial-version of joint venture *not-for-profit* hospitals (or clinics) under the supervision of China's healthcare administration. On October 7, 1992, a more detailed Provisional Rules on Foreign Doctors' Short-term Practice in China was issued by MOH. These policies gave birth to small foreign invested hospitals (or clinics). The average size of the hospitals (or clinics) established in this period was small and mainly provided limited services to patients<sup>[11]</sup>.

### 2.2 Early development phase

In 2000, MOH and MFET jointly promulgated rules to stipulate that the Chinese government will gradually open its door to foreign invested hospitals (or clinics) according to its promises made during the WTO negotiation. According to the provisional rules, the total investment amount should be no less than ¥20 million; foreign exclusive investments are

forbidden and the investment made by China's domestic part should be no less than 30% of the total investment; and the joint contract term should be no more than 20 years.

The provisional rules stimulated early development of foreign invested hospitals and clinics in China. According to the Ministry of Commerce, as of 2005, over 200 foreign invested healthcare organizations in China were approved (among which 65 hospitals had registered and started operating), accounting for less than 1% of the total healthcare organizations in China. The average size of these hospitals was small. Only 20% of them had over 200 hospital beds. Their main business is focused on ophthalmology, dentistry, dermatology, orthopedics, obstetrics and gynecology <sup>[12]</sup>.

## 2.3 New reform phase

In 2009, China started its New Healthcare Reform, which will reform public hospitals and advance the openness of the healthcare industry <sup>[13]</sup>. The State National Development and Reform Commission (NDRC) and MOH enacted new policies to stimulate the development of foreign invested healthcare organizations to realize the mutual development healthcare industry structure of both public and private hospitals (including foreign invested hospitals). Under the current policies (being activated since beginning of 2012), the establishment of foreign invested healthcare organizations is categorized as permitted foreign invested projects. The approval process of establishing foreign invested healthcare organizations has been largely simplified. Investors from Hong Kong, Macao, and Taiwan are allowed to exclusively establish healthcare organizations in certain provinces. China will gradually abolish the restrictions on foreign invested amount (current cap is 70% maximum) and start to allow qualified foreign investors to establish a few trial foreign exclusively invested healthcare organizations in China.

According to current policies, foreign invested institutions will be guided not only by the national level authorities such as MOH, but also by local governments. Local governments have different levels of regulatory power over foreign invested hospitals. Some local governments are authorized to approve foreign invested joint-venture healthcare institutions (for example, developed coastal provinces), while others require central government approval (for example, Qinghai). Local governments can provide incentives to foreign invested healthcare institutions, such as preferential policies for land, tax, healthcare insurance coverage, human resources, and access to special medical equipment.

## 3 Method

To investigate obstacles that hindered the development of foreign invested hospitals in China, a qualitative research approach is deemed appropriate <sup>[14]</sup>. Trauth <sup>[15]</sup> suggests that qualitative methods may be chosen when the amount of uncertainty surrounding the phenomenon of interest is great. When using a qualitative method, the investigator does not begin with a theory to test or verify <sup>[14]</sup>. Instead, one should examine the phenomenon of interest with a blank mind and record whatever is observed in order to eliminate researcher biases. This is exactly out approach in this study. A multiple-case study approach was selected because more compelling findings can be obtained from multiple cases and the overall study will be more robust than a single-case study <sup>[16]</sup>.

### 3.1 Sample

Given that location has an effect on hospital performance <sup>[17]</sup> and size has an impact on hospital development <sup>[12]</sup>, we selected hospitals with varying sizes from four different locations to reduce selection biases. To choose the hospitals representative of the issue of interest, an expert panel consisting three professors from Beijing University and China Pharmaceutical University was consulted. Based on the panel's suggestion, we selected four hospitals in four cities, with Hospital A in Beijing, Hospital B in Nanjing, Hospital C in Suzhou, and Hospital D in Xiamen. The hospitals' foreign holding companies are from US (Hospital A), Taiwan (Hospitals B and D), and Hong Kong (Hospital C), respectively.

### 3.2 Validity

Construct validity of the case studies refers to identifying correct operational measures for the concepts being studied<sup>[18]</sup>. Three primary tactics are employed to increase the construct validity for this research. First, data from multiple sources were collected, including semi-structured interviews, archival records, field notes, and organization documents. Triangulation was used to establish convergence of data<sup>[16]</sup>. Second, chain of evidence was established throughout the case analysis. As Yin<sup>[16]</sup> explained, the principle is to allow an external reviewer or observer to follow the derivation of any evidence from initial research questions to ultimate case study conclusions. Third, each respondent was requested to review and approve the transcript of the interview to avoid transcribing errors. The intent of these tactics was to provide a rigorous cross-check of findings and conclusions.

External validity addresses whether a study's findings are generalizable beyond the immediate case study<sup>[16]</sup>. To maximize external validity, we used a multiple-case study design. In addition, the sample selecting procedure was guided by the principle of ensuring that the sample can represent the research population. Hospitals with different sizes, different locations, and different capital sources were selected. As a result, the findings of this study are likely to be generalizable to other foreign invested hospitals in China.

### 3.3 Data collection

First, a case study protocol which contains semi-structured interview questions, field survey instruments, and procedures and general rules was created. Yin<sup>[16]</sup> explains that triangulation serves to corroborate the same fact or phenomenon through gathering data from multiple sources, and thus ensure construct validity. Following Yin's suggestion, both primary and secondary data were collected. The primary data include interviews, field surveys, and site visits. The secondary data include articles from newspapers and websites, hospital documentations, and media reports. Face-to-face interviews were performed with multiple respondents from each hospital, including hospital presidents, department managers, and doctors.

## 4 Findings

### 4.1 Description of study sites

Hospital A is a 120-bed hospital opened by UFH, the healthcare services division of Chindex International Inc., a stock-listed company in the US. UFH is one of the earliest foreign hospital investors in China and has opened hospitals in Beijing, Shanghai, Guangzhou, Wuxi, and Tianjin. Hospital A is its Beijing site established at the end of 1997, partnered with the Chinese Academy of Medical Sciences, an institution with strong government background. About 60% of Hospital A's customers are foreigners. In 2011, its average daily outpatient visit volume was about 500. Its bed occupancy rate is always 100%. Hospital A is one of the few foreign invested hospitals in China that have actually gained profits.

Hospital B is a joint venture hospital owned by BenQ & AUO Group, a stock-listed company in Taiwan (70% share), state-owned capital (20% share), and the TCM hospital of Jianye District (10% share). Established in 2008, Hospital B was built to be a Level III hospital. According to China's hospital classification standard, Level III hospitals are at the highest level in terms of medical, educational, and research capabilities and advancement of medical equipments<sup>[19]</sup>. Yet, it has not received the rating from the Health Department of the local government. Hospital B had a three-stage construction plan for its 600-acre property. After completing the first stage investment, Hospital B has 800 beds. Its average bed occupancy rate is 78% in 2011. The average daily outpatient visit volume is 1,125 in 2011. Hospital B has not gained any profit yet. They expect to gain profit in 2015.

Hospital C is a Hong Kong Kowloon Group wholly owned general hospital. It was established in 2005 with a first stage investment of ¥600 million. Hospital C has 1,100 beds, and its bed occupancy rate is around 70% in 2011. The total

outpatient and emergency visit volume reached 750,000 in 2011. Hospital C started to gain profit in 2012, earlier than they had expected. It just passed the government's Level III hospital accreditation.

Hospital D is a joint venture hospital of Formosa Plastics Corp., a large manufacturing based company in Taiwan and Xiamen Haicang Utilities Development Co. Ltd. It was rated as a level III hospital since its opening in 2008. The daily outpatient visit volume of this 501-bed hospital was 2,000 in 2010 and increased to around 3,000 in early 2012. Its bed occupancy rate was between 70% and 80% in 2011. Hospital D has not gained any profit and expects to reach the break-even point at the end of 2012.

## 4.2 Obstacles to foreign invested hospitals' development

Our case analysis revealed four obstacles that have hindered the development of foreign invested hospitals. Given that public hospitals are the dominant healthcare providers in China, the obstacles are discussed by contrasting the differences between public hospitals and foreign invested hospitals.

### 4.2.1 Unfavorable tax regulations

Respondents from the four hospitals all mentioned that tax policies are still in favor of public hospitals. For public hospitals, (1) medical service incomes generated based on state regulated prices are exempted from taxes; (2) non-medical service revenue directly used to improve their health services can be exempted and eligible to be deductible from the income tax; (3) the preparation and production of their own medical consumption are exempted from value-added tax (VAT); (4) their own use of real estate, land, vehicles and vessels are exempt from property taxes, urban land use taxes and vehicle and vessel usage taxes; and (5) the government encourages donations to public hospitals.

In contrast, because foreign invested hospitals belong to for-profit medical institutions, their medical service incomes are subject to a variety of taxes. Their tax relief benefits are only given with limited time (for example, three years) from the date of practice registration. For example, Hospital A's president noted, *"Right now, we need to pay three major taxes (a) VAT, (b) custom tax, and (c) income tax. First, we need to pay 17% VAT for our medical services. For manufacturing companies, this tax can be circulated out to other companies. Yet, for healthcare services, patients are our direct customers and we cannot invoice VAT to our patients. We need to bear the whole 17% VAT burden. Second, foreign invested hospitals are categorized as the "Not Limit Not Encourage" investment category. Only investment belong to "Encourage" category can enjoy government custom tax relief. Some of our medical equipment could not be imported from foreign counties because of the heavy custom tax. This has a direct impact on our hospital development. Third, we need to pay 25% income tax. This is the highest among all industries."*

### 4.2.2 High service fees

The traditional business model for Chinese hospitals is to keep medical service fees low, while subsidize physicians' clinical services with 15% mark-up sales of pharmaceuticals (3). Yet, foreign invested hospitals' revenues mainly rely on their medical services. The average outpatient medical service fee in public hospitals is only ¥3-5 to see a regular doctor and ¥10 to see a specialist. There is a cap (usually equals the average outpatient medical service fee in public hospitals) of medical service reimbursement for Chinese patients' general health insurance. It is difficult for the general public in China to accept to pay for high medical service fees charged by foreign invested hospitals. For example, Hospital B recently raised their outpatient registration fee from ¥4.5 to ¥50. Most patients think it is unacceptable and Hospital B's outpatient visit number has been dramatically decreased in a short time period.

Even in the high-end market, foreign invested hospitals find it tough for them to compete with high level public hospitals. Hospital C's board chairman commented, *"We had originally hoped to attract patients through advanced equipment and good medical environment. It may be true five years ago that our facility and hardware were the best in Suzhou. But these public hospitals have already caught up via luxurious building constructions with government support."* Public hospitals

also provide high-level special services to their high-end patients. The high level special services in public hospitals are well recognized by high-end patients in China.

#### 4.2.3 Low power status

In China's healthcare industry, public hospitals not only dominate the market, but also own a powerful status. Hospital C's president said, *"For example, when (the government) set up medical service standards, it has always been the participation of experts from public hospitals rather than experts from the private medical institutions. There are a variety of hospital inspections led by experts from public hospitals and there is almost no chance for experts from private hospitals to examine the public hospitals. There is too much unfairness in these areas."*

When facing settlement of disputes, foreign invested hospitals also suffer from their low power status. According to the government regulations, private hospitals' medical disputes are handled by their supervising health administrative departments. A medical department chair in Hospital A complained, *"The supervising health administrative departments usually take the 'keep it silent' approach. They always want the hospital to compensate for the patients to settle the disputes. This leaves high burden to the hospital."*

#### 4.2.4 Difficulty in physician recruitment

In China, public hospitals are categorized as public institutions. Under China's current pension system, employees from public institutions have much richer retirement than those from for-profit enterprises. According to Information Times (20), the average monthly pension for senior level doctors from foreign hospitals (similar to those from enterprises) were between ¥2,000 to ¥3,000, while the average monthly pension for senior level doctors from public hospitals were ¥5,000 to ¥6,000. A medical department director at Hospital C commented, *"Comparing with public hospitals, we sit in a disadvantageous position for recruitments. Medical school graduates often first pick public hospitals, and then they look at private hospitals. They believe public hospitals can offer them better 'five insurance and one fund' benefits. Actually, our hospital also provide competitive 'five insurance and one fund' benefit package to our employees. But the change of their stereotypical views [of private hospitals] takes time and we are facing difficulties in our recruitment."*

"Five insurance" refers to the five kinds of insurance, including old-age insurance, medical insurance, unemployment insurance, industrial injury insurance and maternity insurance. "One fund" refers to the housing fund. The premiums of old-age insurance, medical insurance and unemployment insurance are shared by employers and employees. Industrial injury insurance and maternity insurance is fully covered by employers. The "five insurance" is statutory, and the "one fund" is not statutory.

The relatively high salaries and bonuses offered by foreign invested hospitals can hardly attract medical experts. It is said the annual salary of ¥300,000 in private hospitals is not as good as the annual salary of ¥100,000 in public hospitals. In addition to normal salaries and bonuses, experts in public hospitals usually earn gray income (i.e. red envelope from patients and rebates from pharmaceutical companies). Moreover, there are other advantages of working in public hospitals. The president of Hospital C said, *"Some experts are afraid of losing their academic status if they leave public hospitals. They will gradually be phased out in the academic community once they cannot achieve more academic and scientific progresses."* A medical department director at Hospital B remarked, *"The middle level talent is lacking in our hospital. It is very difficult for us to attract those doctors who have over 5 years' working experiences. These middle level doctors tend to stay in public hospitals and they believe there is more room for personal improvement in public hospitals. It's easier for them to publish papers, get awards, and achieve professional titles in public hospitals."*

## 5 Recommended strategies

Although foreign invested hospitals are facing various obstacles in China, it is possible for them to overcome the obstacles and achieve further development. Based on our case studies, we recommend three coping strategies to foreign invested hospitals.

## 5.1 Develop external relationships

Relationship, “Guanxi”, has been always recognized as one of the most important factors influencing organizational success in China <sup>[21]</sup>. Foreign invested hospitals need to develop good relationship with not only the government, but also other hospitals and external entities. A good relationship with government can first help foreign invested hospitals take advantage of government incentives to the largest extent. Second, once having good relationship with the government, the foreign invested hospitals will have the opportunity to express their requests and concerns to the government and can find ways to solve their problems. In China, it is extremely important for hospitals to pass regular inspections to get official rankings (i.e. Level III hospital) and to be included in the public medical insurance reimbursement list. It is advisable for foreign invested hospitals to rely on the holding companies’ social network in the healthcare industry to help them set up good relationship with the government. In our case study, Hospital A’s owners had previous experiences in healthcare industry (medical equipment international trade), which assisted Hospital A to get connected with the government.

When competing with public hospitals in China, foreign invested hospitals are underdogs. Instead of taking a competition orientation, foreign invested hospitals can collaborate with public hospitals. There are a number of success stories about how foreign invested hospitals set up joint programs with public hospitals. With strong clinical expertise from public hospitals and good facility and management from foreign invested hospitals, these programs have advantages over traditional medical services. Foreign invested hospitals can rely on any possible external entities to make up for their weaknesses. For example, Hospital C received human resources support from the School of Medicine at Shanghai Jiaotong University during its establishment. The university allocated 50 professors and associate professors to Hospital C to make up their lacking of medical experts.

## 5.2 Reduce misunderstanding

Most Chinese patients prefer public hospitals to foreign invested hospitals. They have two typical misconceptions about foreign invested hospitals: (1) these hospitals are designed for foreigners and high-end patients, and (2) the medical services provided by these hospitals are not reimbursable by public health insurance. Foreign invested hospitals need to set up marketing programs to make the general public aware that their target customers also include Chinese citizens, and inform them that the medical services provided by foreign invested hospitals are also reimbursable by public health insurance. Some regions have implemented healthcare policies to reform the fee structure of public hospitals, which will reduce the price difference between public hospitals and foreign invested hospitals. For example, the Chinese government is promoting zero mark-up for pharmaceutical sales in public hospitals by raising medical service fees. The pilot test of this new policy has been started in Shenzhen since July 21, 2012.

Besides developing an effective marketing strategy to educate the general public, foreign invested hospitals also need to arrange marketing plans for their human resources recruitment. A well-known doctor can improve the hospital image. It is crucial to attract talents in the healthcare industry. Foreign invested hospitals need to convince medical experts that they can still maintain their academic status by setting up a few examples. For example, Hospital D’s president maintains good status academically. He has published over 100 academic journal papers and kept publishing after becoming the hospital president in 2008. Foreign invested hospitals also need to help new medical school graduates understand that they can provide, in addition to high salary and bonus, benefits as competitive as public hospitals.

## 5.3 Select location and size wisely

Although China’s healthcare market is attractive, it proves challenging to successfully operate foreign invested hospitals there. Only a few foreign invested hospitals are reportedly gaining profits. To achieve success, many details should be considered even before making the investment decision. Foreign investors need to conduct a comprehensive analysis to make sure that their investment will have a chance to succeed. Our case study suggests that location and size are two critical factors that should be carefully considered. Before opening a hospital, foreign investors first need to select the site wisely. Site selection is crucial for investment success. Many factors such as the economic development, transportation,

and competitors in the region need to be taken into account. Investors of Hospital C cautiously selected its current location based on the following considerations: (1) there are a number of foreign invested enterprises nearby whose employees are potential patients for the hospital, (2) many public transits make it easy to access the Suzhou Industry Park, and (3) Hospital C is the only Level III hospitals in Suzhou Industry Park and is threatened by fewer competitions. In contrast, Hospital D's site selection seems to be ill-advised because: (1) local residents, Hospital D's potential customers near the hospital site are limited in number, and (2) transportation to the hospital is inconvenient because it is located on a remote island with only two public bus lines.

Beside site selection, investors need to decide on an appropriate hospital size. In our case study, investors of Hospitals B, C, and D planned to build large size hospitals, while investors of Hospital A chose to have smaller hospitals in different locations. These two different approaches both have pros and cons. While large size hospitals can receive the Level III hospital accreditation from the government, low bed occupancy rate will be a potential problem. In our study, the bed occupancy rate in hospitals B, C, D was all around 70%. This is relatively low comparing to the 100% occupancy rate in large public hospitals. With such a low bed occupancy rate, it is very difficult for those foreign invested hospitals to gain profits. Future research should look into this issue and develop strategies to increase their bed occupancy rate. On the other hand, small hospitals cannot offer a full range of medical services due to their size limitation. Hospital A's president mentioned that they could not provide some medical services because the government only allow those medical services to be provided by large hospitals.

## 6 Conclusion

This paper reviewed the policies and regulations on foreign invested hospitals in China. Based on a case study of four foreign invested hospitals, this paper identified four major obstacles foreign invested hospitals are facing. Three strategies were proposed to help foreign invested hospitals overcome the obstacles. Few studies have investigated foreign invested hospitals in China, although it is an interesting sector that deserves attention. This paper should be valuable for foreign investors who are interested in opening medical service organizations in China by helping them understand the regulatory context, avoid pitfalls, and develop suitable strategies.

## References

- [1] Wang D. China's Healthcare Reached 2,000 Billion RMB in 2010. *China Healthcare Insurance*. 2011; 5.
- [2] The State Council. *The National Population Development "12th Five-Year Plan"*. Beijing; 2011.
- [3] Guan X, Liang H, Xue Y, Shi L. An analysis of China's national essential medicines policy. *Journal of Public Health Policy*. 2011; 32(3): 305-19. PMID:21614030 <http://dx.doi.org/10.1057/jphp.2011.34>
- [4] MOH. *2010 China Health Statistics Yearbook*. Beijing: Ministry of Health; 2011.
- [5] Anonymous. *Medical Services: Ansheng Securities*; 2010.
- [6] Anonymous. *Research and Markets: 2009-2010 China Hospital Industry Development and Investment Report*. Business Wire. 2011.
- [7] Liu X. Research on Foreign Investment into China's Medical Market Market Perspectives. 2007; 8: 26-7.
- [8] An H, Di W, Wang L, Wu Y. *Report on the Rise of China's Luxury Market*: McKinsey. 2010.
- [9] Liu GG. *Report on Economic Analysis of Different Health Policy Interventions*. Beijing; 2011.
- [10] Yu X. Speedy Openness of Foreign Invested Hospitals. *National Financial Weekly*. 2012(February).
- [11] Zheng X. Analysis of Investment in China's Hospitals. *Zhongshan University Forum*. 2007; 27(12): 267-73.
- [12] Lu X. Analysis of the Current Status, Prospects, and Policies of Foreign Invested Hospitals in China *Review of Economic Research*. 2005; 43: 36-9.
- [13] The State Council. *Implementation Plan for the Recent Priorities of the Health Care System Reform (2009-2011)*. Beijing; 2009.
- [14] Creswell JW. *Research Design: Qualitative and Quantitative Approached*. Thousand Oaks: Sage Publications United; 1994.
- [15] Trauth EM. *Qualitative Research in IS: Issue and Trends*. Hershey: Idea Group; 2001.
- [16] Yin RK. *Case Study Research: Design and Methods*. 3rd ed.: SAGE; 2003.

- [17] Goldstein SM, Ward PT, Leong GK, Butler TW. The effect of location, strategy, and operations technology on hospital performance. *Journal of Operations Management*. 2002; 20(1): 63-75. [http://dx.doi.org/10.1016/S0272-6963\(01\)00081-X](http://dx.doi.org/10.1016/S0272-6963(01)00081-X)
- [18] Kidder LH, Judd CM. *Research Methods in Social Relations*. New York: Holt, Rinerhart & Winston; 1986.
- [19] Liang H, Xue Y, Byrd TA, Rainer K. EDI usage in China's healthcare organizations: the case of Beijing's hospitals. *International Journal of Information Management*. 2004; 24(6): 507-22. <http://dx.doi.org/10.1016/j.ijinfomgt.2004.08.001>
- [20] Anonymous. Large Differences in Pensions. *The Information Times*. 2010(March).
- [21] Park SH, Luo Y. Guanxi and organizational dynamics: organizational networking in Chinese firms. *Strategic Management Journal*. 2001; 22(5): 455-77. <http://dx.doi.org/10.1002/smj.167>