A Study of Healthcare Management and Technology in Asia: Focused Analysis on South Korea, China and Japan

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Abstract

Purpose - The purpose of this study is to shed light on the healthcare management systems in correlation with the advancing technological world, as well as the many diversified systems in different Asian countries.

Research design, data, and methodology - This is a comprehensive study on the past researches that have been conducted on the field of healthcare management in different Asian countries. The different types of healthcare coverages were examined by country. Additionally, incorporating the healthcare system with technology is also investigated in this research.

Results - The results have shown that there is a rapid incorporation of the technology in today's society with the healthcare systems. This has promising effects for the future, and for the different healthcare systems that exist within other Asian countries around the world.

Conclusion - Quality healthcare for people are still elusive, and the healthcare management should improve on ways to better take care of their patients for the near future. By shedding light on the healthcare systems of Asian countries, an idea of the similarities and differences each hold can be assessed and utilized for future goals. By incorporating technology into healthcare systems, this will help in improving the overall care and quality-of-life that patients receive for the future.

Keywords: Healthcare Management, Technology, Asia, Systems.

JEL Classifications: I10, I11, M10.

1. Introduction

In the quickly advancing world of globalization, there have been many technological advances as well as an overall increase in the quality of life for many people all over the world. With the advances in this era, many of the people's focus has shifted to many new needs that have emerged in clearer focus. One of these are the imperative needs to improve the state of healthcare with a population that is living longer as a result of better hygiene and nutrition than its predecessors. Although healthcare is a crucial part for the well being of any nation, each country has its own unique policies and regulations in dealing with this field.

As is with the many other fields of a technologically advancing world, with the advances in technology, numerous disciplines have experienced a plethora of changes. Within the healthcare industry, this has not been an exception. The fusion of technology into our everyday lives have provided us with information and communication technologies that are utilized in healthcare and changes the dynamics of the healthcare provider and receiver, as well as increasing the level of care and lessening the medical errors that were seen in the past. As the world progresses into technological advancement, it only makes sense to incorporate this into the medical field. The increasingly aging society and new advances in medicine, as well as the increase in the

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people's access to healthcare, makes hospital data organizations a daunting task. To aid in better care for the patients with up-to-date technology and provide updated information to healthcare professionals, it has become imperative that technology is converged in the healthcare management system.

Thus, the current study will delve into a specialized focus on the state of healthcare for those in the Asian countries. This study on healthcare management with a convergence of technology is unprecedented and is a prominent study that needs to be addressed in this current era. Additionally, South Korea, China and Japan were chosen with their fast-growing and effective hospital management systems. With this study, it will greatly guide health professionals and other related scholars in this field on the parts that need to be improved and updated, as well as offer patients better care, leading to satisfaction and an increase in their quality-of-life.

2. Healthcare management and technology

Similar to many other areas in medicine, healthcare management is a field where the amount of data is staggering year by year. With more increases as time goes by, there needs to be a way to sift through the big data to find meaning and help diagnose the patients faster. As with the use of technology in medicine for their patients and recognizing the onset of disease faster as well as other uses with the big data, there have been some studies that have sought to fuse healthcare management with electronics. Useful information can be gleaned from healthcare big data, such as tracking the patient's health or their frequency of therapy, as well as tracking doses that are needed for alleviation of diseases (Lui et al., 2018). Additionally, big data used in technology for fields such as healthcare and medicine have important implications for people around the world as well.

In the case of influenza epidemics, it is always preferred that the epidemics are always constrained to a small population and taken care of quickly, in order to prevent large breakouts over a population of millions of people. For this to be feasible, those affiliated with public health would be much guided with a prediction of when and how much the epidemic will spread, and understand to discern the first signs of such outbreaks in their country so it can be quickly alleviated.

In accordance with this, technology can aid in identifying any patterns that exist from the electronic health records and if they are in any way contributing to a possible epidemic outbreak. Since constantly keeping on the lookout for potential epidemic outbreaks are time-consuming, not to mention costly, using technology to retrieve the relevant information that will be useful for monitoring and gauging the

possibility of these cases would be useful for the well-being and health of the general public (Bouzillea et al., 2018).

As mentioned above, there are also many similar cases with increasing reliance on technology for the health care area. It is thus becoming more and more imperative that the professionals in the health care field are focused on innovative ways of implementing these two areas together. It is critical for healthcare to be effectively fused with information systems and collaborate together to create a more effective work flow. It will be advantageous from both the business and the medical perspectives to bring the two disciplines together and learn from each respective field (Bassellier & Benbasat, 2004). One of the most effective ways that this can occur smoothly is to have the two professionals in these diverging fields work together to solve the issues that might exist in fusing the areas of healthcare and technology together (Feeny & Willcocks, 1998).

Moreover, the integration of software technology and healthcare can also serve to promote an important stimulus in the increased quality-of-life for patients, which is not restricted to, but also includes a growth in not only the quality of care, but affordable care as well. Even if the quality of the healthcare is beyond expectations, there are always cost-incurred effects of such a service. It has to be such that there is a balance between good quality for the patients and also affordable healthcare provision as well (Rouse & Cortese, 2010; McGlynn et al., 2003).

One of the many forms that are coming into being from the business aspect of this partnership between technology and healthcare is the idea of the application of systems engineering to study the healthcare issues (Rouse & Cortese, 2010; Rouse, 2000). Through this, an organizational stimulation for the professionals can be re-created, where they will be able to assess the possible maximum value of a healthcare system, but at the same time also be able to think about the health care states and costs (Basoleetal., 2013).

3. Healthcare management in South Korea

The healthcare management system in South Korea is interesting in that the National Health Insurance Corporation (NHIC) covers all its citizens, which is a centrally funded national health system. This is similar to those of Western countries such as Germany or the United Kingdom. The National Health Insurance Corporation (NHIC) was established in 2000 (Lee, 2003) and expanded to the entire nation, where everyone was funded by this central, single insurer. This NHIC system is one where the patients can choose their desired service providers, so to speak, or general practitioners in a primary or secondary hospital of their choice (Song, 2009).

With this healthcare management system, the mortality

rate of infants has decreased and the life expectancy rate has drastically increased from the last recent several decades as well as their health expenditure in comparison to other fellow OECD countries that are lower. The healthcare system itself for South Korea is unique and similar to those in European countries, and more advanced than other countries. Interestingly, there have been sparingly few studies conducted on the public satisfaction with such healthcare management systems in place in society for South Korea.

Of such studies, it could be found from one research that factors not related to health professionals, such as those of convenience, were important factors for patients' satisfaction to health institutions (Cho et al., 2004). This can be contributed to many reasons, but one that can be speculated is that in comparison to the United States, where the medical care is very restrictive based on their illness, South Korean patients can have more freedom and choices to choose the practitioner they wish to go to for their choice. Thus, such aspects might play into a role for the South Korean's patients paying more attention to the non-medical aspects of the healthcare management systems (Cho et al., 2004).

Generally speaking, the medical care system that is placed in South Korea is more agreeable and satisfactory to its citizens than those that are placed in Western countries such as the United States. This differed across several variants of the population, but one of the defining factors of difference was the age group of the South Koreans. The older generations were more satisfied with the overall healthcare systems than the younger generations (Choi et al., 2005).

One of the speculations for such a phenomenon could be that with the older generations, they had endured through hardships of drastic change and wars in South Korean history, and have seen how much the healthcare had changed for the better throughout their lives. Thus, it might have made them less critical of some faults in the system (Choi et al., 2005). Overall, the level of satisfaction and the healthcare itself, which is governed from a single corporation, is a unique aspect of the South Korean's healthcare systems, and one that is viewed generally favorably by the citizens of this country.

4. Healthcare management in China

Similarly, with its neighboring country of South Korea, the economics of China has blossomed and boomed drastically within the last 30 years. It has gone through tremendous growth and inevitably, the healthcare systems were also drastically reformed in the process as well. But in comparison, not everyone in China is subject to an equal and universal health care coverage that was apparent in South Korea. There was a large discrepancy of the healthcare management coverage systems in rich and poor areas. This can be further divided into the urban and rural areas, with the rural areas of China having less coverage of healthcare and yet more expensive costs compared to their average household income (Liu et al., 2008). The costs and spending for urban areas were far more than the costs on healthcare investment for rural areas as well.

With the increase in the standard of living and average household income, the expectations of such healthcare services also have increased. But there are deficits in the supply of healthcare, which have driven up the costs for such services. However, the government's funding on such matters have not increased. Thus, the extra costs to meet these needs have been mostly through out of pocket expenditures (Yip & Hsiao, 2008; Yang et al., 2008; Yip et al., 2008). Not only this, the level of healthcare that was offered in the rural and the urban areas were distinctly different as well. Medical professionals were more qualified in the urban areas, whereas those in the rural had less numbers of healthcare professionals and they were less qualified as well (Yip & Hsiao, 2008). This imbalance and the costs of healthcare has been a reflection of the economic gaps that exist in these areas, and one that will need to be improved upon with better policies.

With these in mind, the Chinese government enacted the New Rural Cooperative Medical Care System (NRCMCS) in 2002, with the aim of reducing the burden that is placed on the rural people for medical care and provides them with better welfare (Yip & Hsiao, 2008). Additionally, in 2009, the Chinese government also launched the Healthy China, which was a plan to ensure that all the citizens of all areas were insured and covered by the year of 2020 (CPC Central Committee and State Council). The cost of not only medical bills, but other necessities, such as the prices of drugs and public health services, as well as medical services, would be better insured for.

With these and many other implementations in place, it can be assured that the loopholes in the healthcare management systems can be improved upon for the Chinese people. There will need to be many more improvements and conscious effort in making sure that the plans projected into the years to the future are enacted upon and that more people can be covered in that time frame (Guo et al., 2010).

5. Healthcare management in Japan

The current healthcare in japan is known as the akihoken and has been around for more than 50 years. It is similar to the Korean healthcare in that it leads everyone to have a universal healthcare and covers most people. This was started in japan around after WWII, in 1961. With the

exponential increase of the older population, this has proved to be more imperative than ever.

There is a Japanese Employee's health insurance and the government health insurance where the former is for the people that are the employees of large companies, and the latter is for the employees of smaller companies (Ministry of Health, Labor and Welfare). The National health insurance is for those who are not employed, such as students and others not pertained in the first category of employees for office workers (Nanako et al., 2011). There is also a third type of insurance, which is the Insurance for the elderly, where it was established in 2000, and benefits the people who are 65 years or older, or those that are between the ages of 40 to 64 and have disabilities.

The insurance for the elderly offers programs or choices for people to get a visiting nurse, which enables the elderly to be in their own homes where they are used to, or other needs that are needed for the elderly people (Hideki et al., 2011). This has proved to be of importance, as the level of elderly people in Japan is greater than other most nations, and they have the title of the country with the longest life expectancy. Thus, it was important that they have their own healthcare coverage, and that it is continued to be supported in that country (Nayu et al., 2011).

Japan has been using electronic databases recently and most hospitals in Japan have already adhered to this system. Thus, most of them are connected and the hospitals can relay and gather the patients' data into an information hub. There are not the types of primary, secondary, or tertiary hospitals like in Korea, but rather two types in Japan. The hospitals are either clinics or hospitals, with clinics being smaller, of around up to 19 beds.

6. Implications

Healthcare management is a rising field in the current times and with good reason: the life expectancy of the average person is rising and there needs to be healthcare programs in place to take care of an aging society. Not only that, as our lifestyles have improved with the onset of globalization and international trading, the same has become to be expected in other areas of our lives as well. In light of the boost of the economy and technological advances, these need to be utilized effectively across different disciplines in order to make a thriving country and rising quality-of-life for its citizens. As such, one of the most important methods in raising the performance and the quality of the healthcare services will be through healthcare information technology. By improving the quality of the treatments and the results of such with technological advances, patient satisfaction will increase and it will also create a profit for hospitals, while failing to fuse technology with medicine will create adverse effects (Calman et al., 2007; Aggelidis & Chatzoglou, 2009).

There are many more advantageous features to fusing technology with medicine in the current times. Physicians will be able to utilize these technologies to aid in diagnosing accurately of a patient's disease, or access past data to make for a more holistic treatment option. Holden (2010) has mentioned that the technologies in healthcare will be able to decrease the case of medical errors and improve the overall quality of the patients. Not only that, the managerial aspects of the teams for doctors and nurses will be more easily handled and the identification of patients will be more accurate and less time consuming. As such, it is not only the quality of care for patients that will be a benefit if technology is infused with medicine, but the administrative processes of the medical field as well.

The satisfaction of the patient and the improved care for the well-being is an imperative priority and with a study that was conducted in Turkey, it could be observed that the patients in private hospitals were more satisfied with the service of the hospital and its physicians, as well as its up-to-date technology (Taner & Antony, 2006). Thus, there is ample evidence to show that it is better for the hospitals in the long-run to be implementing up-to-date technological advances. the medical industry is also facing competition with each other, as there are now many hospitals and facilities people can choose from (Zhang & Lee, 2015). Thus, to put themselves in the advantage for the competition in the medical market, it will help to adopt technologies to be able to compete with other healthcare institutions and systems.

As could be seen from the above in comparing the different healthcare systems of South Korea, China, and Japan, there still needs to be more work done in the medical field in order to cater to the many needs of the ailing society. The governments in each respective country are aiming to provide a universal healthcare for society. With the increase of computerizations in every area of discipline across the world, the medical field should be no different. There would be many advantages to increasing the computational organization and technological advancements in this field.

The healthcare process can be divided into different levels according to each of the different healthcare processes (Hanson, 2006; Van Bemmel & Musen, 1997). First, with the increase in technology to the healthcare settings, it can be reasonably assessed that communication between different departments in the hospitals, as well as lab results, would be faster in processing and sharing data. Then, the time it takes for lab results to be offered back to the hospital would shorten, which would lead to a quicker evaluation from the doctor in evaluating a patient's diagnosis. At this level, the speed of the method of communication would be vital, and any time saved could mean the life or death of a patient. This is vital, as health professionals need to be constantly focusing on delivering the correct information, they are constantly exposed to for

effect performance. Thus, organizations such as hospitals, need to achieve organizational effectiveness and knowledge management (Ghassemzadeh et al., 2013; Lee, 2017; Chowdhury, 2015). Not only this, but the storing of data with technological advances would increase as well. Next, utilizing technology for the storage and retrieval of databases will be level 2. It could be seen that Electronic Health Records (EHR) were used, out of which there were patient, hospital, nationwide and knowledge databases, used for filing away a patient's medical data, and it would be retrieved easily for doctors and nurses to make better and faster decisions.

The next level was of those that was related to the processing of different medical technologies, such as the MRI(magnetic resonance imaging) and PET(positron emission tomography) scans, where the computer would process such data and produce reports. Then, technologies would be utilized for the diagnosis and decision-making steps for the patients, and after that would be the therapy and control. Some examples here would be technologies such as those for angioplasty or insulin pumps. After that, the level 6 would be for operational research, such as treating patients with transplantations. As can be seen, there are many levels of the technological implications and its uses in the medical area, and it is more critical than ever that these are state-of-the-art. This is more important in the medical field because the state and quality of the technological instruments are intimately related to the accurate results the physicians and nurses are able to receive and for the medical staff to diagnose, as well as offer quality treatment for the patient as well.

The levels of technology and the range of its uses by the hospitals and institutions are also dependent on the geographical areas of the medical care that is offered. It can be safely assumed that countries or areas within the countries that are more economically stable would have the means to provide hospitals with more up-to-date technologies, whereas those in the rural areas would not be able to get such privileges. Thus, it can be seen that the incorporation of technology also provides a means as to address the quality and the level of the hospital and the type of care the patient is expected to receive. Reflecting on the increasing economic status of all the Asian countries that are in this study, the state of the technology used in these hospitals would not have drastic varying degrees of quality. If they did, it would be ore in the rural areas of these communities, as the access to technology will be inevitably different for those with different economic backgrounds backgrounds backgrounds (Kakoli & Soumava, 2008). As it is, there is no denying that hospitals are one of the most important aspects in society, as the population is steadily growing and there will be a need to provide better, less expensive but efficient services to the patients (Langroudi et al., 2017).

7. Conclusion

7.1. Summary

This study was about the healthcare system and its connection to technology in this globally advancing world of the current era. By connecting with the technology and finding ways to utilize that into the healthcare systems for better usage, the level of service and utility it can be offered to its people will inevitably rise in the coming years. By delving into the healthcare systems of different Asian countries, its varying systems by each unique country, were explored.

It was interesting to note the many different types of healthcare that existed between the three countries. All of them were structured and the government played a huge role in making sure that the citizens of its country overall had universal healthcare. South Korea had a universal healthcare that was easily assessible to its people and generally well-rounded, so that the people could go to a hospital they chose and was not limited by many aspects, like in some other Western countries. The healthcare system in China was reflecting of its recent boom in the economic standpoint, from a sudden influx of currency, and balancing the peoples well being by enacting on a healthcare coverage that would cover many of its citizens. Japanese healthcare had many subsectors, where there was a different category for different people in various levels of society. Compared to the Western healthcare, it could be said that those in South Korea, China, and Japan were similar to that of the United Kingdom's and Germany's systems for healthcare, and not the privatized systems of the United States healthcare. Thus, people in South Korea, China, and Japan were mostly satisfied with their healthcare coverage and it covered most of their hospital expenses.

It would be a level up for these countries too if they were to more firmly implement the technology into the healthcare systems as well. The healthcare system is complex, and its systems are always in need, as with all other fields, of an organization to the big data information that is being fed everyday with the patients' data and history (Kim & Youn, 2019). Not to mention, with the rise of populations and migration of these populations over a large expanse of the world, it is more imperative than ever to ensure that the world is aware of the diseases that could potentially be passed. The most efficient way to conduct this was to connect the hospitals all around the world with each other through technology and information databases, and for the computers to pick up on the analytics for the possible epidemics before they are allowed to occur.

7.2. Limitations and directions for future research

There were many aspects of the study that could have been supported more fully or improved upon. One of the

limitations of the study was conducting a study on the only Asian countries around the world. This was for a focused area on a specific culture that would have similarities and differences in healthcare management, which would have been interesting to observe. The style of this paper was such that many different aspects of healthcare management systems could be explored and discussed in length.

Another limitation from this study was the study of only healthcare management in relations with different countries; it would have been more interesting to tie the healthcare management area with other aspects of other disciplines. But, as the use of technology in healthcare management was delved upon, it was still am informative topic choice. For future research, some suggestions can be offered on a more detailed and honed in study on limited countries so that they can be compared and contrasted more deeply and discussed at greater length for future healthcare professionals and technology related professionals alike.

References

Aggelidis V. P., & Chatzoglou, P. D. (2009). Using a modified technology acceptance model in hospitals. *International Journal of Medical Informatics, 78,* 115-126.

Basole, R. C., Bodner, D. A., & Rouse, W. B. (2013). Healthcare management through organizational simulation, *Decision Support Systems, 55*, 552-563.

Bassellier, G., & Benbasat, I. (2004). Business competence of information technology professionals: conceptual development and influence on IT-business partnerships*, MIS Quarterly, 28*(4) 673-694.

Bouzilléa, G., Poirier, C., Campillo-Gimenez, B., Aubert, M.L, Chabot, M., Chazard, E., Lavenu, E., & Cuggia, M. (2018). Leveraging hospital big data to monitor flu epidemics, *Computer Methods and Programs in Biomedicine, 154*, 153-160.

Calman, N., Kitson, K., & Hauser, D. (2007). Using information technology to improve health quality and safety in community health centers. *Progress in Community Health Partnerships, 1,* 83-88.

Cho, W.H., Lee, H., Kim C, Lee, S., & Choi, K.S. (2004). The impact of visit frequency on the relationship between service quality and outpatient satisfaction: A South Korean study. *Health Services Research, 39*(1), 13-34.

Choi, K.S., Lee, H., Kim C., & Lee, S.. (2005). The service quality dimensions and patient satisfaction relationships in South Korea: Comparisons across gender, age and types of service. *Journal of Services Marketing, 19*(3), 140-149.

Chowdhury, D. D. (2015). Deviant Citizenship Behavior: A Comprehensive Framework towards Behavioral

Excellence in Organizations. *East Asian Journal of Business Management, 5*(1), 13-26.

CPC Central Committee and State Council. Opinions of the CPC Central Committee and State Council on deepening the health care system reform. Retrieved March 17, 2018 from https://www.social-protection.org/gimi/gess/RessourcePDF

Feeny, D. F., & Willcocks, L. P. (1998). Core IS capabilities for exploiting information technology, *Sloan Management Review, 39*(3), 9-21.

Ghassemzadeh, H., Hojabri, R., Eftekhar, F., & Sharifi, M. (2013). Knowledge Sharing in Health Industry: Influences of, Personal, Organizational and Social Factors. *East Asian Journal of Business Management, 3*(1), 29-35.

Guo, Y., Shibuya, K., Cheng, G., Rao, K., Lee, L., & Tang, S. (2010). Tracking China's health reform. *The Lancet, 375*, 1056-1058.

Hanson C. W. (2006). Healthcare informatics. New York: McGraw-Hill.

Hideki, H., Naoki, I., & Kenji, S. (2011). Cost containment and quality of care in Japan: Is there a trade-off? *The Lancet, 378*, 1174-1182.

Holden, R. J. (2010). Physicians' beliefs about using EMR and CPOE: In pursuit of a contextualized understanding of health IT use behavior. *International Journal of Medical Informatics, 79,* 71-80.

Kakoli, B., & Soumava, B. (2008). User acceptance of information technology across cultures. Southwest Decision Sciences Institute.

Kim, D., & Youn, M.K. (2019). Entering Uncharted Territory: Ownership of Healthcare by Business Corporations. *East Asian Journal of Business Management, 9*(1), 29-31.

Langroudi, H. R., Kakhani, M. J., & Hojarbi, R. (2017). Relationship between Hospital Case Mix and Costs and Incomes of Tehran Heart Center*. East Asian Journal of Business Management, 7*(3), 17-22.

Lee, J. (2003). Health care reform in South Korea: Success or failure? *The American Journal of Public Health, 93*(1), 48-51.

Lee, J. W. (2017). Critical Factors Affecting Consumer Acceptance of Online Health Communication: An Application of Service Quality Models. *Journal of Asian Finance, Economics and Business, 4*(3), 85-94.

Liu, A.D., Zhao, L.Y., Yu, D.M., Yu, W.T., Jia, F.M., & Zhang, J.G. (2008). Study on malnutrition status and changing trend of Chinese children less than 5 years. *Journal of hygiene research, 37*, 324-326.

Liu, C., Kim, J., Kumarasiri, A., Mayyas, E., Brown, S.L., Wen, N., Siddiqui, F., & Chetty, IJ. (2018). An automated dose tracking system for adaptive radiation therapy, *Computer Methods and Programs in Biomedicine, 154,* 1-8.

McGlynn, E. A., Asch, S. M., Adams, J., Keesey, J.,

Hicks, J., DeCristofaro, A., & Kerr, E. A. (2003). The quality of healthcare delivered to adults in the United States, *The New England Journal of Medicine, 348* (26), 2635-2645.

Ministry of Health, Labor and Welfare(2018). Health insurance bureau: Providing health care for all people without worries [online]. Tokyo: Ministry of Health, Labor and Welfare; Retrieved July 26, 2018 from http://www.mhlw.go.jp/english/org/policy/p34-35.html

Nanako, T., Haruko, N., & Akihiro, N. (2011). Population ageing and wellbeing: lessons from Japan's long-term care insurance policy. *The Lancet, 378*, 1183-1192.

Nayu, I., Eiko, S., & Naoki, K. (2011). What has made the population of Japan healthy? *The Lancet, 378*, 1094-1105.

Rouse, W.B. (2000). Managing complexity: Disease control as a complex adaptive system, *Information Knowledge and Systems Management, 2*(2), 143-165.

Rouse, W.B., & Cortese, D.A. (2010). Engineering the System of Healthcare Delivery, IOS Press, Amsterdam.

Song, Y. J. (2009). The South Korea health care system. *Japan Medical Association Journal, 52*(3), 206-209.

Taner, T., & Antony, J. (2006). Comparing public and private hospital care service quality in Turkey. *Leadership in Health Services, 19,* 1-10.

Van, B. J., & Musen, M. (1997). Handbook of medical informatics. New York: Springer.

Yang, G.H., Kong, L.Z., Zhao, W.H., Wan, X., Zhai, Y., Chen, L.C. (2008). Emergence of chronic non-communicable diseases in China. *The Lancet, 372,* 1697-1705.

Yip, W., & Hsiao, W.C. (2008). The Chinese health system at a crossroads. *Health Affairs, 27(2)*, 460-468.

Yip, W., Hsiao, W., Meng, Q.Y., Chen, W., & Sun, X.M. (2010). Realignment of incentives for health-care providers in China. *The Lancet, 375,* 1120-1130.

Zhang, J., & Lee, H. Y. (2015). Influencing Chinese Customers' Selection of Health Care service Countries: Focusing on Word-of-Mouth Moderating Effects. *Journal of Distribution Science, 13*(12), 41-52.