

## Patient's Expectations and Satisfactions Toward Medical Schools of Public Hospital in Bangkok

Phoomivuthisarn, N.

Chulalongkorn University, Faculty of Commerce and Accountancy, Phrayathai Road, Patumwan District, Bangkok 10330 Thailand

Corresponding author E-mail: noparath@yahoo.com

**Abstract:** *This research aims to study patients' expectations and satisfactions as well as key factors that influence them on choosing medical schools of public hospital in Bangkok. Researcher had developed structured and unstructured questionnaire to be served as research instruments and were applied to 600 sample sizes who have been the patients of 6 large-scale medical schools of public hospitals. It was intended to evaluate the service quality of those hospitals in 5 aspects. Overall, the result has shown that the patient's level of expectation does exceed the patient's level of satisfactions in 5 aspects at the level of significance of 0.05. Furthermore, it was found that the most influential factors that affect the patients on choosing medical schools of public hospital in Bangkok are the convenience access to hospital, the reputation of hospital, and the health care rights that entitled the patients with the specific hospital. While, the least significant factor is the hospital own sub-specialty clinic that other hospitals do not have. At the end, the researcher proposed the recommendations to the hospitals to actualize the marketing management through vary ways and medium in order to focus on enhancing the service quality of the hospital.*

**Keywords:** *Patient, Expectations and satisfactions, Medical Schools, Public hospital, Bangkok.*

### 1. INTRODUCTION

Thailand, a country in Southeast Asia, has the total population of around 67 million people and about 15 million of those are living in the capital city called Bangkok. On July-August 2010, Department of Industrial Promotion of Thailand was officially announced in its journal that Bangkok is now promoted by Thai's government and Ministry of Public Health to be the "Medical Hub of Asia". Ever since, hospital health care industry in Bangkok has become more highly competitive in both domestic and international markets than before and to response to such government's policy, several important medical schools of public hospital in Bangkok, the representatives of Thai's government hospitals and the symbols of the country's health care service, have been trying to improve their service quality in order to satisfy their patients, create better image for public hospitals and pursue for the international hospital standard.

In Bangkok, the hospital services consist of private hospital and government hospital. A private hospital has an outstanding quality of service as well as a tremendous speed of treatment. It is usually managed by the group of large profit-organizations; some of them are listed in the stock markets. Nevertheless, with the price factor and the restrictions on the withdrawal of treatment cases so that the patients are limited to the specific group of people with higher incomes. On the other hand, a government hospital is run by the government or the university that received the main policy from the government has the strengths of very competent physicians and medical staffs providing the services at very low price but the downside is that each hospital has very large number of users so it causes a problem of service delay. In Bangkok metropolitan has 21 public hospitals (15,599 beds), 6 of them are considered as the large-scale public hospitals and also known as the medical (or nurse) school of public hospitals. A large-scale public hospital is composed of advanced medical equipment (so-called super tertiary care) with the most availability of treatment for government hospitals. Currently, in Bangkok (not including the suburbs), there are 6 public hospitals, namely, Chulalongkorn Hospital (belong to Chulalongkorn University), Siriraj Hospital (belong to Siriraj University), Ramathibodi Hospital (belong to Mahidol University), Rajavithi Hospital (belong to Department of Medical Services), Vajira Hospital (belong to Medical Collage and Vajira Hospital), and Phramongkutklao Hospital (belong to Royal Thai Army Medical Department). The above-mentioned 6 hospitals have advanced technological equipments, potential to produce physicians and nurses, ability to provide hospital services at lower cost than private hospitals and some group of patients who are employees of the registered organizations can employ a refund from the Social Security fund and some group of patients who are employees of the government can get a refund from the social insurance.

As the competition is rising, the public hospital has established an executive in the private sector. The profits from the government are paid for the management of the hospital so that the large public hospitals consequently are being marketed more because they need to expand their market, to penetrate the specific group of patients as well as to meet the needs of the

service users. The objective is to provide the patients the maximum satisfaction. Furthermore, several public hospitals have opened new services such as clinic service and sub-specialty clinic service (both during and outside office hours). Besides, the technical and the quality of care improvement, the competition for the quality of service is the key of success for all hospitals. However, the medical schools of public hospital have rarely applied proactive marketing like private hospital has continually done. Therefore, to understand the patients' expectations and satisfactions should help medical schools of public hospital in Bangkok to realize what should be the proper marketing strategy to increase their service quality. Moreover, from the study, they also should be able to identify the main strengths and weaknesses learnt by the key factors that influence patients on choosing medical schools of public hospital in Bangkok.

## 2. RESEARCH OBJECTIVES

To study patient's expectations and satisfactions toward medical schools of public hospitals in Bangkok

To study the key factors that influence patients on choosing medical schools of public hospital in Bangkok

To collect patient's opinions and recommendations toward the service quality of medical schools of public hospital in Bangkok

To recommend marketing strategy to medical schools of public hospital in Bangkok

To stimulate medical schools of public hospital in Bangkok to increase their service quality to the international standard in order to provide maximum satisfaction to their patients so that it builds the greater image for Thai government's hospitals which help Bangkok to reach its ultimate goal of becoming "Medical hub of Asia".

## 3. RESEARCH METHODOLOGY

According to the purposes of this study, researcher had determined the research process by the population, following the statistics theory, a representative sample of users of the medical schools of public hospital in Bangkok at 95% confidence level. The questionnaire was served as a research tool; it was specifically designed to cover the objectives of the research. Specifically, it was consisted of structured questionnaire which listed close-end questions and unstructured questionnaire with listed open-ended questions. However, before utilize the questionnaire; researcher had done the pre-test with 40 samples in order to ensure the reliability of it through the Cronbach's alpha coefficient. After that, the approved questionnaire was then applied to the total sample sizes of 600 that were collected from 6 medical schools of public hospital in Bangkok, 100 samples for each hospital, which are Chulalongkorn Hospital, Siriraj Hospital, Ramathibodi Hospital, Rajavithi Hospital, Vajira Hospital, and Phramongkutklao Hospital. The questionnaire of 43 items asked the patients of medical schools of public hospital about demographic information, service behaviours, expectations and satisfactions with the quality of hospital services in 5 aspects which are (1) the tangibility of service (2) the trustworthiness and the reliability of the hospital (3) the assurance of the service of the hospital (4) the empathy toward the patient (5) the responsiveness toward the patient.

## 4. RESULTS

The survey (quantitative research) found out about the behavior of service users as following; a normal sickness is treated as the most common taint, followed by a chronic disease. The appointment and the medical treatment have an average of one and two times per year. In addition, the service is maintained during normal business hours (the clinic office hours), followed by a sub-specialty clinic and outside office hour clinic (special treatment), respectively. Moreover, the amount of time to go to the hospital mostly spent is half an hour to an hour. The most influential person to choose public hospital is, accordingly, by one's self, family, and organization. Furthermore, the convenience access to hospital, the reputation of hospital, and the health care rights that entitled the patients with the specific hospital, correspondingly, are the most influential factors on the decision of the patients on choosing the hospital. On the other hand, the least significant factor is whether or not the hospital own sub-specialty clinic that other hospitals do not have. Besides, the samples have further commented about the reason for using hospital services because of skilled and competency of physicians and medical staffs, technical expertise, accurate diagnosis, and hospital' personnel has reliable manner.

### 4.1 Patients' expectations and satisfactions toward medical schools of public hospital in Bangkok.

From the collection of 600 samples, 100 samples are divided per hospital, 5 aspects of expectations and satisfactions are gathers which have the topics of (1) the tangibility of service (2) the trustworthiness and the reliability of the hospital (3) the assurance of the service of the hospital (4) the empathy toward the patient (5) the responsiveness toward the patient. The preference is to be displayed on an opinion (scale question) to analyze data and draw conclusions in each hospital, as shown in Table 1.

**Table 1:** Comparison of expectations and satisfactions in 5 aspects of 6 medical schools of public hospital in Bangkok

Hospitals	Expectations of service quality in all aspects	Satisfactions of service quality in all aspects	Comparison of the mean
Chulalongkorn Hospital	4.08 (High level)	3.79 (High level)	0.58 (Not satisfied level)
Siriraj Hospital	4.01 (High level)	3.73 (High level)	0.28 (Not satisfied level)
Ramathibodi Hospital	4.10 (High level)	3.66 (High level)	0.44 (Not satisfied level)
Vajira Hospital	4.63 (Highest level)	3.83 (High level)	0.80 (Not satisfied level)
Phramongkutkloa Hospital	4.51 (Highest level)	Has mean of 3.86 (High level)	0.65 (Not satisfied level)
Rajavithi Hospital	4.63 (Highest level)	Has mean of 3.65 (High level)	0.98 (Not satisfied level)

Table 1 illustrates the comparison between the expectations and satisfaction in all aspects of quality of service, from the hospitals surveyed, most patients are not satisfied. In order to discuss further, researcher has classified the information into each aspect;

The tangibility of service or in another word equals to the facilities in the hospital: the samples have higher level of expectations than level of satisfactions in every topic; the level of expectations has the mean of 4.23 which is considered the highest level over the level of the satisfaction that has the mean of 3.66 which is considered the high level. The topics of the patient's expectation are sorted in descending order: (1) able to easily find the information unit (2) has no insect carriers in the hospital (3) has accommodate chairs (4) has sighs and clear layout. However, adequate parking lot has the least satisfaction score as well as has the most different mean scores between expectation and satisfaction.

The trustworthiness and the reliability of the hospital: the samples have higher level of expectations than level of satisfactions in every topic; the level of expectations has the mean of 4.31 over the level of the satisfaction that has the mean of 3.80 which both rating are considered the high levels. It consists of (1) physicians are high-skilled and very competent (2) has advanced medical equipment in hospitals and has the nation's leading medical devices (3) room and equipment are modern and clean, (4) has reasonable cost and cheap when compared to other hospitals that have the same treatment service (5) has a secure feeling when receive the medical care. However, the topic of reasonable cost and cheap when compared with other hospitals that have the same treatment service has the most different mean scores between expectation and satisfaction.

The assurance of the service of the hospital: the samples have higher level of expectations than level of satisfactions in every topic; the level of expectations has the mean of 4.20 over the level of the satisfaction that has the mean of 3.64 which both rating are considered the high levels. The topics of the patient's expectation are sorted in descending order: (1) hospital's personnel fully demonstrate how to apply medicine and have proper prescription (2) physician is on-time for appointment (3) has clear and convenient processes for requesting for a refund. However, the topic of physician is on-time for appointment has the most different mean scores between expectation and satisfaction.

The empathy toward the patient: the samples have higher level of expectations than level of satisfactions in every topic; the level of expectations has the mean of 4.24 which is considered the highest level over the level of the satisfaction that has the mean of 3.68 which is considered the high level. The topics of the patient's expectation are sorted in descending order: (1) physician-friendliness and sympathy (2) nurse and staff are caring and have good service (3) has the good advice from physician, nurse, and staff before leaving the hospital. However, the topic of nurse and staff are caring and have good service has the most different mean scores between expectation and satisfaction.

The responsiveness toward the patient: the samples have higher level of expectations than level of satisfactions in every topic; the level of expectations has the mean of 4.16 over the level of the satisfaction that has the mean of 3.85 which both rating are considered the high levels. When considering all the topics, the ones that have the highest expectations are: (1) each unit is well-managed and has orderly queue (2) medical staffs always stand-by when the problem arises (3) not spend too much time in queuing at the payment unit. However, the topic of waiting time at registration has the most different mean scores between expectation and satisfaction.

Therefore, when considering the quality of service in medical schools of public hospital in Bangkok in 5 aspects at the level of statistical significance of 0.01 and from the level of difference between expectation and satisfaction, researcher found out that patients have higher expectations over satisfactions of quality of service. In addition, researcher further divided the service units into four divisions: (1) examining unit (2) measuring pressure and preparing for medical service unit (3) payment unit, and (4) the dispensing unit. From the study, the samples have satisfied in all 4 divisions at the high level. Moreover, when comparing the difference among medical schools of public hospital in Bangkok, it showed that the majority noticed no significant difference (percentage 64.69) only percentage 17.31 saw that each hospital is unique.

Followed the above results, researcher then tested the hypothesis of the population and satisfaction of quality of services. In the opinion of the tangibility of service, the trustworthiness and the reliability of the hospital, the assurance of the service of the hospital, the empathy toward the patient, and the responsiveness toward the patient at the statistical significance level of 0.05. The test results are as below;

(A) Gender difference does not affect satisfaction of hospital services quality.

(B) Age difference does not affect satisfaction of hospital services quality.

(C) Educational difference affect satisfaction of hospital services quality. It showed that patients who have less than high school education and patients who obtained Vocational Certificate/ High Vocational Certificate/ Diploma have more satisfied with the quality of service than the patients who have Bachelor's degree or higher which indicated statistical significance.

(D) Occupational difference affect satisfaction of hospital services quality. It found out that patients who are employee of private sector have less satisfied with the quality of service, the tangibility of service, and the responsiveness toward the patient than patients who are student/ undergrad student which indicated statistical significance. Patients who are student/ undergrad student are more satisfied with the quality of service, the tangibility of service than patients who are housekeeper at the degree of significance. Patients who are employee of state enterprise are more satisfy with the quality of service rather than patients who are employee of private sector at the degree of significance. Patients who are merchandiser or have private business have less satisfied with the quality of service than patients who are student/ undergrad student which indicated statistical significance.

(E) Level of income per month of patients affect satisfaction of hospital services quality. Patients who have personal income per month less than or equal to 10,000 Thai Baht and patients who earn 10,001 Thai Baht to 20,000 Thai Baht per month have more satisfied with the quality of service, the trustworthiness and the reliability of the hospital, the assurance of the service of the hospital than patients who have personal income from 20,001 Thai Baht to 30,000 Thai Baht per month which indicated statistical significance. Patients who have personal income per month from 20,001 Thai Baht to 30,000 Thai Baht have more satisfied with quality of service and the trustworthiness and the reliability of the hospital than patients who earn monthly income from 30,001 Thai Baht to 40,000 Thai Baht which indicated statistical significance.

(F) The personal health care right affect satisfaction of hospital services quality. Patients who have the health care right that can get a refund from the government/state have less satisfied with the quality of service than patients who have the universal coverage health care right which indicated statistical significance. Patients who have the universal coverage health care right have more satisfied than patients who do not have any health care right which indicated statistical significance.

Moreover, researcher tested the hypothesis in order to compare the satisfaction and expectations of the samples. It was found that at the significance level of 0.05, the expectations and satisfaction of patients of medical schools of public hospital in Bangkok is no different.

## 5. DISCUSSION

According to the results from the study, the samples who are the patients of 6 large-scale medical schools of public hospital in Bangkok have the overall of high level of expectation as well as average high level of satisfaction. The findings demonstrated the potential to improve the quality of services, including:

(1) The tangibility of service: the samples have highest level of expectations as well as high level of satisfaction. Thus, hospitals should focus on improving the parking system and managing the traffic in the hospital, create a taxi-stand and waiting area, and if possible, should build connecting points where patients and other users can link to the mass public transportations. Also, they should add more accommodations and facilities for patients and their relatives by increasing the number of chairs, providing free drinking water, putting television at some points that have a lot of waiting patients, reconditioning the restrooms, sparing some spaces for kiosks or mini-shops.

(2) The trustworthiness and the reliability of the hospital: the overall score for both expectations and satisfactions are in the high level. The majority of the samples are very satisfied because physicians and medical staffs are very high-skilled and competent as well as hospitals have advanced medical equipment and have the nation's leading medical devices. The researcher suggested that the hospitals should emphasize on the above mentioned strengths by support the academic works and project in both domestic and international stages of physicians and medical staffs. Also, providing high quality with appropriate and cheap cost of treatment, all are the good image of the hospitals. For opportunities to improve service quality to be more reliable, the hospitals should introduce the information system to be used for data management and create a service blueprint especially in dispensing process.

(3) The assurance of the service of the hospital: the overall score for both expectations and satisfactions are in the high level. Therefore, the opportunities to improve are to initiate the time management system for personnel, especially for physicians to have precise appointment schedules as well as solved long queue problem. Moreover, hospitals should offer variety of services such as patients can choose between normal examination and medical specialty.

(4) The empathy toward the patient: has highest rating of overall expectations and has high rating of overall satisfaction. Researcher recommended that hospitals should increase the level of hospital services provided by nurses and hospitals' staffs. In addition, should initiate the information center in order to supply basic information to the patients and answer the frequency and simple questions. Hospitals should organize the training for employees and staffs by focusing on the creation of the positive attitude of service and hospitality manners. Also, hospitals may have some activities to promote quality services. Hence, top management should play significant role on the direction of the hospitals that focus on the quality of service and should do evaluations for both team and individual seriously and consistently.

(5) The responsiveness toward the patient: the overall score for both expectations and satisfactions are in the high levels. The suggestions include improve the registration system and reduce waiting time which is the problem that the samples have complaint the most as well as relieve crowded problem in the hospital. Also, hospitals should improve the information system so that patients can prior access to several services via internet and need not to spend much time at the hospital, for example, online self-registered in advance, view schedule and availability of the physicians, make an appointment for medical treatment.

Furthermore, researcher recommended the practices for marketing management in order to improve the service quality as following.

**Products and services:** according to the findings in this research, the outstanding strengths of all hospitals are the trustworthiness and the reliability of the hospital especially the very high-skilled and competent of the physicians and medical staffs. Moreover, hospitals should be required to assess the quality standards consistently such standard for quality (ISO 9001), standard for power management (ISO 50001), standard for environmental management (ISO 14001), and standard for measurements in the laboratory (ISO/IEC 17025). In addition, the study pointed out that the location of the hospitals where the services can easily accessible, if the hospitals could develop this strength by improving transportation to the hospitals. This will increase confidence in the concreteness of the hospitals.

**Pricing:** from the gathered data in this study, most patients have health care right. As a result; the price factor influences the choosing of hospital only 6.38 percent. However, the top management of hospital can determine high level of service for the group that is not exercise the health care right who cannot get redeemed from government, state enterprises, or public organizations. The service may be divided into separate segments other from the general clinic during business hours. For example, there are some hospitals in Bangkok that have this kind of targeted group can increase the price but higher service quality and high speed of treatment.

**Place:** in order to relax the overload of number of cases and crowded, hospitals should consider to expand their service channels (regardless of budget constraint) by open the branches or clinics near the hospitals or in the same area. For non-emergency cases, hospitals should apply an e-marketing for scheduling appointment and registration in advance, to use of information technology systems help reduce paper works, increase information flow, and can penetrate to target group of higher education. The payment could do via both cash and credit card.

**Marketing Communication (Integrated Marketing Communication):** Hospitals should apply an integrated marketing communications in hospitals and sub-specialty clinics by building confidence in the service quality standards, focusing on corporate social responsibility: CSR which offers the benefits to society without expecting a return to reinforce the image of the medical schools of public hospital. It could be done trough radio and television both inside and outside hospitals. Also, hospitals should create proposal to set international standards on social responsibility such as ISO 26000.

**People:** In addition of providing ultimate medical services, medical schools of public hospital should focus on improving the quality of service together. The hospitals should provide training for their personnel to develop skills in both academic and service (service mind concept). Moreover, hospitals should have development plans for all staffs and patients as well as they could be evaluated the quality of service by the ratings of service satisfaction. This evaluation process should be defined as a step in the process of hospital services and acts as an indicator of the ability of service for each personnel, also, incentive or/and motivation should be given for the great performance staffs, vice versa, punishments for the bad ones.

**The service process:** the timing of tasks provider should be set and communicated to all service users whereas hospitals could have a channel for patients who take more than the standard time or who is a special case. Hospitals should also undertake a service blue print that separates the big sections into smaller segments and works with information systems, data storage medium to reduce the workload of a bottleneck or a single department. Timing for each process should be set as standard or should be benchmarked with other hospitals, also used it as the criteria to evaluate the improvement of the services of the hospital. Hospitals should pursue for certificate of hospital services especially the international standards such as Joint Commission International Accreditation: JCIA, the International Standard Organization: ISO, Total Quality Management: TQM and Hospital Accreditation: HA. Moreover, Benchmarking with famous medical schools of public hospital in global level challenges Thai medical schools of public hospitals to strive for excellence, coupled with the corporate practice applications that led to excellence (Best Practices).

**The physical environment:** improve the service area to facilitate the patients and service users such parking lots, beautiful gardens, food court, the seats, the stairs, elevators, clear layout, simple and plenty of signs and symbols, clean toilets and other sanitary.

### **5.1 Limitations and suggestions for the future research.**

(A) Since this study is quantitative research, which surveyed and compiled an overview of the service usage of the medical schools of public hospital. Thus, if the management of the hospitals agrees to improve and/or change for the restructuring of services in each unit to suit the needs and meet the expectations of most users, they should have studied further by doing qualitative by means of in-depth interviews and/or focus group interview

(B) In addition to medical schools of public hospital, there are many other hospitals that require a clear marketing plan so that the target service user group can be evidently identified. Furthermore, they could conduct comparative research relative to other hospitals to manage effectively in a competitive market both domestic and international levels.

(C) The scope of this study was applied to Thai out-patient only in order to cover the entire users in the hospital; the data should satisfy the expectations of Thai in-patients in the targeted hospital too. However, no out-patient sample was a foreigner.

### Acknowledgement

This study was funded by Chulalongkorn University; it was one of the researches in the academic development projects which gained the support from the management of the faculty of Commerce and Accountancy, Chulalongkorn University. The researcher is grateful to Associate Professor Dr. Chanjao Mongkolnavin, Associate Professor M.L. Sawika Unahanandh, and Associate Professor Dr. Guntalee Ruenrom as well as all my colleagues in Marketing Department. Also, the author would like to thank Associate Professor Sirisophak Burapadecha for the advices and guidance.

Besides persons that mentioned above, researcher is indebted to Mr. Prapon Nijthavorn and Mrs. Sanguan-sri Nijthavorn (Na Songkhla), the beloved parents. Also, a note of thank to my husband, daughter and relatives for their support and encouragement.

Finally, the researcher strongly hope that the study "Patient's expectations and satisfactions toward medical schools of public hospital" would be helpful and may be used as a guideline to apply to the administration of government hospitals in the country to achieve international standards and its final goal.

### References

- Akinci, Fevzi.Esatoglu, A. Ezel.Tengilimoglu, Dilaver.&Parsons, Amy (2004), *Hospital Choice Factors: A Case Study in Turkey*, Health Marketing Quarterly; Vol. 22.
- Alfansi,Lizar.&Atmaja, Ferry Tema (2009), *Service Failure and Complaint Behaviour in the Public Hospital Industry: The Indonesian Experience*, Indonesia: University of Bengkulu.
- Berkowitz N Eric (2011), *Essentials of Health Care Marketing. 3<sup>rd</sup> Edition*, United State: Jones & Bartlett Learning.
- Bernd Wittenbrink and Norbert Schwarz DrPhil (2007), *Implicit Measures of Attitudes*, New York, United States: Guilfoed Press.
- Belch, G.E. & Belch, M.A (2008), *Advertising\_and promotion: An integrated marketing communication perspective*, Boston, United States: McGraw-Hill.
- Bloching, Björn .Stock, Harald F.&Scheel, Jochen (2008), *Hospital marketing should focus on physicians: Lessons from Germany*, Journal of Medical Marketing.
- Donald Cooper, Pamela Schindler (2006), *Business Research Methods*, 7<sup>th</sup> edition Wittenberg University.
- Gbadeyan, R.A. (2010), *Health Care Marketing and Public Relations in Not for Profit Hospitals in Nigeria*. Sierra Leone: University Of Sierra Leone
- G D Kunders (2009), *Hospitals Facilities Planning and Management*: Tata McGraw-Hill Publishing Company Limited.
- Hall, Michael L. (2009), *Non-profit Health Care Services Marketing: Persuasive Messages Based on Multidimensional Concept Mapping and Direct Magnitude Estimation*. Bristol: Rhode Island .Roger Williams University.
- J. Paul, Jerry C. Olson (1999), *Consumer Behaviour and Marketing Strategy*, McGraw -Hill, International Editions Marketing & Advertising Series.
- Joseph M. (1998), *Integrated Marketing Communications: A Systems Approach*, Prentice – Hall.
- Kotler, P. & Amstong G. (2009), *Principles of Marketing*, Indochina: Pearson Education.
- Kotler Philip, Joel Shalowitz and Robert J Stevens (2008), *Strategic Marketing For Health Care Organizations: Building A Customer-Driven Health System*, United States: A Wiley Imprint.
- Kotler Philip, Keller Kevin (2011), *Principles of Marketing*, 14<sup>th</sup> Edition: Pearson Education.
- Louis E. Boone and David L. Kurtz (2005), *Contemporary Marketing*, 9<sup>th</sup> Edition, Thomson Learning Publisher.
- Parry, Mark, Parry, Arthur E. (1992), *Strategy and marketing tactics in non-profit hospitals*, Aspen Publishers, Inc.
- Richard K. Thomas (2008), *Marketing health services*, United States, Springer.
- Schiffman, Leon. G, Leslie Lazar Kanuk (2007), *Consumer behaviour*, Upper Saddle River, N.J.: Pearson/Prentice Hall.
- Sukanya Suphan (2005), *A Study of Japanese's Attitude towards Thai's Hospital Service*. An Independent Study.Bangkok: Chulalongkorn University.
- Yang-Kyun Kim.Chul-Ho Cho.Seo-Kyu Ahn.In-Ho Goh & Han-Joong Kim (2007) *A study on medical services quality and its influence upon value of care and patient satisfaction - Focusing upon outpatients in a large-sized hospital*, Korean, Kyung Hee University.
- Phoomivuthisarn Noparath (2002), \_\_\_\_\_ : \_\_\_\_\_  
Chulalongkorn University Printing House  
\_\_\_\_\_, “Medical hub” \_\_\_\_\_, Journal of Department Industrial Promotion, July-August 2012, pp.5-7  
\_\_\_\_\_, \_\_\_\_\_, Journal of Department Industrial Promotion, July-August 2012, pp.20

Promotion, July-August 2012, pp.22-23

- “The Thailand Fact Book”, available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/th.html> (accessed 5 February 2012)
- “Bangkok Business News”, available at: <http://www.bangkokbiznews.com/home/news/business> (accessed March 2012)
- “Chulalongkorn Hospital”, available at: <http://www.chulalongkornhospital.go.th> (accessed February-April 2012)
- “Department of Medical Services”, available at: <http://www.dms.moph.go.th/dmsweb/index.php> (accessed February and March 2012)
- “Health Library for Thai”, available at: [http://www.elib-online.com/doctors/gen\\_hospital02.html](http://www.elib-online.com/doctors/gen_hospital02.html) (accessed March 2012)
- “The Healthcare Accreditation Institute (Public Organization)”, available at: <http://www.ha.or.th/ha2010/th/home/index.php> (accessed February and March 2012)
- “Healthcare .Marketing”, available at: <http://hospitalmarketinganas.blogspot.com> (accessed April 2012)
- “International of Market Research”, available at: <http://www.ijmr.com/> *The International of Marketing Research, Health Care Marketing* (Accessed February, 2012)
- “Marketing Campaign”, available at: <http://www.marketwire.com> (accessed January 2012)
- “Medical Marketing and Media” available at: <http://www.mmm-online.com> (accessed February 2012)
- “National Statistical Office”, available at: <http://popcensus.nso.go.th/web/nsoboard/data/1183.html>
- “Phramongkutkloao Hospital”, available at: <http://www.pmk.ac.th/> (accessed February-April 2012)
- “Planning, Markets, and Hospitals”, available at: <http://www.questia.com/app/direct/SM.qst> (accessed February 2012)
- “Ramathibodi Hospital”, available at: <http://ramaclinic.ra.mahidol.ac.th> (accessed February-April 2012)
- “Rajavithi Hospital”, available at: <http://www.rajavithi.go.th> (accessed February-April 2012)
- “Siriraj Hospital”, available at: <http://www.si.mahidol.ac.th> (accessed February-April 2012)
- “Hospital Marketing Connects Patients, Physicians and Providers”, available at: <http://www.squidoo.com/hospitalmarketing> (Accessed April 2012)
- “Vajira Hospital”, available at: <http://www.vajira.ac.th/php/> (accessed February-April 2012)