Hospital Management System in Historical Perspective

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Abstract
This paper presents hospital management system and economics in historical perspective. Hospital services in Indonesia began since the beginning of the VereenigdeOostindischeCompagnie (VOC) existence in the third decade of the XVII century as an integral part of the VOC’s own effort. The construction of the hospital was an effort to overcome the problems faced by long voyages, namely from Europe to Indonesia and it was not supported by good medical facility, climatic adaptation, and the inability to adapt and overcame tropical disease. The history of hospital in Indonesia cannot be separated from the development of Western medical science in Asia since 1649, when a surgeon named Caspar Schamberger was in Edo (currently Tokyo) to teach surgery toward the Japanese. This period was the beginning of the shift from the Traditional Remedy based on Chinese system in Asia and changed to the Dutch system. This diversion was slow. It is noteworthy that Western health services were often reserved for aristocratic families. In the early days of hospital in Indonesia were exclusively reserved for European. Only later non-Europeans worked with VOC then they have the opportunity to use the hospital but with different location, facility and service. Meanwhile, the Chinese were exclusively led by VOC regulations and by the Dutch East Indies Government to establish their own hospital so traditional Chinese science and medicine were implemented without any western therapeutic and pharmacological influence.

Keywords: hospital, management system, historical perspective, government, government owned hospital

1. INTRODUCTION
It was only at the beginning of the twentieth century that Western influence began to exist in the hospital that was managed by Chinese. In addition, the indigenous resident could not receive any attention in the hospital service. Although at the end of the XVII century, there were efforts by Christian missionaries to provide health services to indigenous children, the scope and impact of the actions seemed small [1]. It was not until the end of the nineteenth century that a systematic attempt at hospital services to the indigenous resident was carried out by Christian missionaries in Indonesia.

Until the end of the XIX century, basically the hospital in Indonesia was a military hospital that was exclusively aimed at members of the military units and employees of VOC as well as the government both European and indigenous government [2]. Meanwhile, civilians who are entitled to hospital services were only Europeans or non-European residents who were formally equated with Europeans. This was related to the health policy of the authorities at that time which did not respect the indigenous resident.
If the indigenous resident received health services, this was only done as part of an effort to protect the interests of Europeans. Hospital services to indigenous residents were pioneered by Christian missionaries. In its development, several socio-religious organizations such as Muhammadiyah, established simple hospitals in the form of public health services such as the hospital in Yogyakarta and provided hospital services for indigenous resident [3].

When there was a shift in colonial political policy at the end of the nineteenth century and the beginning of the twentieth century, it also directly affected the colonial government health policy which affected the development of hospital services by the government for indigenous resident [4].

The existence of a "Javanese Doctor" education in the second part of the nineteenth century had significance impact in hospital services for the indigenous resident. Initially, "Javanese Doctors" only provided health services for indigenous civilians not in the sense of hospital services, but after the government started building hospital, the "Javanese doctors" were the main supporters of hospital services for indigenous residents.

Since the end of the XIX century, there have been development of private hospitals managed by big plantation and mining companies. Something that should be noted is that although almost all hospitals in the early twentieth century had opened services for indigenous civilians, basically the formal juridical differences in colonial society were still reflected in hospital services [5].

In the early days of hospital development during the VOC era until the beginning of the XIX century, hospital funding was obtained from subsidies from the authorities and funds taken from patients who were basically VOC employees. At that time, the provision of hospital services has also developed depending on the needs and abilities of patients, especially those related with the diet received by the patient. The high or low medical cost imposed was in accordance with the services and needs of patients, so classes in the hospital have been created indirectly at that time [6].

During the reign of Daendels there were quite important changes. Since then military personnel have been exempt from hospital fees, while new civil servants got exemption from hospital fees. Among the indigenous citizens, there were eight groups declared free from hospital fees, including prostitutes found sick, insane people, prison inmates, and civilians working in government activity. In the plantation and mining sectors, workers' hospital fees were regularly deducted directly from the wages they receive, regardless of whether they used hospital services or not [7]. Meanwhile, hospitals owned by Chinese people were required to finance themselves and the funds were mainly taken from special tax that was applicable to Chinese society at that time.

In the beginning, private hospitals such as Christian missionary hospital and company owned hospital, had to pay for all the necessities themselves but since 1906 the government had provided regular subsidies in the form of personnel, equipment, medicines, and funds. Under the 1928 regulation, about 60% to 70% of all operating costs for Christian missionary hospitals were subsidized by the government [8].

This funding condition through Zending hospital in Indonesia. The Zending hospital, in the Dutch era (1936), received large amount of subsidy to pay for the hospital. The total expenditure was F. 218,459.03. Based on the amount of expenditure mentioned before, the source of funding was obtained from various sources with the following details: subsidies from the governorship or the government (44.5%); from churches in the Netherlands, from doctors, and class share advantage (19.4%); from medical cost paid by patients (10.7%); Government contribution from the Sultanate included F. 250 from Pakualaman (8.4%); donations from plantation companies, N.I.S, gifts and contributions from Ned. Indie (5.6%); retirement premium deposits from personnel (2.4%), and expenses that were not covered or deficit (9%). Thus, the religious hospital had government subsidy and assistance from donors of approximately 70% - 80% of the total funding sources. However, sixty years later, the hospital no longer has substantial subsidy to pay for its services. Practically, the religious hospital has become a business institution that has to pay for all of its activities from the income got from the patient [9].

The historical root shows that hospital in Indonesia originated from a system based on military hospital, followed by religious hospital, and later evolved into government hospital and indicates
a social aspect that will have a major influence on people's perceptions of hospital [10]. It should also be noted that government subsidy was a very common occurrence before independence. As another note, the health insurance system has been known for a long time in the history of health services in Indonesia. In this case, the guarantee for health services by the government is something that has been practiced for a long time. The historical roots of health service insurance by the government are based on the simple idea to give health service to sailo
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government subsidies for regional hospitals are high enough that includes subsidies for physical building, medical equipment, until incentives for human resources.

However, the data show that government subsidies are relatively small. As a result, the building and physical facilities of the hospital are relatively out of standard, the work process inside the hospital is not good, and the motivation of specialty doctors to work outside of the hospital is increasing. In this situation, regional general hospital in Bali that is very dynamic in economic growth, can be predicated as “bulgur” or become a thin rat in a rice barn. Why is it “bulgur”? Regional general hospitals in Bali are developed only to serve the poor society, so their quality is low due to very small subsidies from the government. As a result, Regional General Hospital (RSUD) became an inferior institution because people with high income tended to use private hospital services more. It is interesting to note that in 1999 - 2000, one of the regional hospitals in Bali, Tabanan Regional General Hospital (RSUD), tried to leave this “bulgur” image and systematically tried to develop the hospital to serve all levels of society in Tabanan Regency. In 2001, after making changes for 5 years, then Tabanan Regional General Hospital was able to leave this “bulgur” image.

2.2. The Case of Government Hospital in Papua

Papua Province is a province that is rich of nature sources, but the development budget for the people's welfare is very low (relatively) and the community does not have the purchasing power to get good quality health services. There are various consequences that arise. First, health services including hospitals are still treated in the form of public goods which must be free or at very low rates. Second, there are problems in Human Resources (HR). Human resources (HR) like specialty need financial support so their income is high enough. The third is the cultural difference between the modern health care system and the situation of the Papuan society. However, a particular problem faced is the failure to procure human resources in Papua. As an illustration, in 1999 there were only two surgeons. Specialty doctors spend more time on compulsory second undergraduate work except for a number of pediatricians, obstetrics and gynecology, as well as internist in affluent areas in Papua such as Jayapura and Sorong. In year 2000 stated that the income of a surgeon was very low because the Regional Regulation (PERDA) of the salary for surgeon was very small, while many society could not afford it. The maximum income received was only Rp. 5,000,000.00, while in big cities in Java it could reach Rp. 30,000,000.00 a month. The price of plane tickets from Java to Papua in 2000 reached Rp. 7,500,000.00 for round trip. It added that local government attention to specialty doctors is very lacking. As a result, various incidents have occurred, for example the Merauke Regional Hospital cannot employ a specialty doctor to come there. Even the Sorong Regional Hospital, which was considered good, was forced send the surgeon to return to Java because the surgeon was not comfortable. In 2003, the decentralization policies of various district governments in Papua increased incentives for specialty doctors.

2.3. Cases of Banyumas Regional General Hospital (RSUD) and X Regional General Hospital (RSUD)

There are several hospitals that are currently growing rapidly, such as Banyumas Regional General Hospital (RSUD) with high income and can show that the hospital can be a dynamic business institution. Human resources including the director can make a living from the hospital. Thus, professionalism can be relied on. The Banyumas Regional General Hospital (RSUD) appears to be very strong in human resource development because this is related to the compensation received. In addition, formal and informal leaders are highly committed to making changes. The Regent as a stakeholder is very important in helping to finance the hospital development, even though the Regional General Hospital (RSUD) already conduct self-funded and has fairly high functional income. The Regional House of Representatives (DPRD) has also supported the development of the Banyumas Regional General Hospital (RSUD) from the regional budget over the past ten years.

In contrast, X Regional General Hospital (RSUD) has no motivation to develop. Stakeholders and leaders tend to experience deadlock in hospital development. The description below, uttered
by the Director of X Regional General Hospital (RSUD) shows his frustration in his efforts to develop a hospital. Before monetary crisis occurred, self-funding trial was carried out. The Regent has given permission that funds were needed to increase medical services and provided opportunities for private hospitals to use our hospital's human resources for the win-win system. However, due to the increase in the price of consumables, our hospital income continued to decline, until the incentives or medical services were not paid so the trial failed which was carried out again to its original condition before the trial. Another effort proposed according to the Decree of the Minister of Health (SK Menkes) was that class II rates were set according to the unit cost. With this condition, it was hoped that other hospital costs determinations (class I and VIP) could be used with a Regent Decree (SK). However, Regional House of Representatives (DPRD) did not approve the proposal. Furthermore, the Director expressed his despair: With a decree it will be easier, because if there is a price increase, the rate can be adjusted according to the Regent’s Decree. But the Regional House of Representatives (DPRD) doesn't approve the proposal. People there only think politically, want cheap and good, without seeing the need. So yes ... it's up to all the policies of the Regional Government (Pemda) to do with this hospital whether it is privatized or if necessary it is closed or becomes Human Resources (HR) agent for private hospital.

From complaints above, it can be seen that economic problems are important in the effort to develop X Regional General Hospital (RSUD). However, it should be noted that the success of Banyumas Regional General Hospital (RSUD) still needs to be tested in the longer term because one of its specialty plans to open a private clinic with inpatient care facility.

3. Military-Owned Hospital

History shows that most of hospitals in Indonesia originate from military health care program in the Dutch colonial era. The example of largest military-owned hospital is the GatotSubroto Central Hospital of Army (RSPAD) in Jakarta. In 1995, there were 112 military hospitals with the main members of the Army (62), Navy (19), Air Force (19), and Police (12). The military hospitals were actually main mission for military health and war preparation. The military considers that hospital services are not a basic concern so funding for hospitals is decentralized and consequently very much dependent on the situation and working conditions. Several military hospitals such as the GatotSubroto Central Hospital of Army (RSPAD) in Jakarta or the Central Hospital of Navy (RSPAL) in Surabaya are the spearheads of advancing military health services. Medical equipment and human resources can outperform General Hospitals (RSU). GatotSubroto Central Hospital of Army (RSPAD) even has a vision to become the center of various Indonesian sub-specialty by sending medical staffs to continue education abroad and cooperate with developed countries. The military hospital in Bogor is strategically located in front of the Bogor Palace with beautiful views of the valley and mountain. The potential of this hospital is extraordinary so the hospital can take advantage of its position to develop. At the other side, military hospital in remote areas are in danger position. There are also military hospitals in big cities that get difficult condition to develop, for example the military hospital in Yogyakarta. Even though it is located in the elite area in Yogyakarta namely in Kotabaru, this hospital faces considerable development constraints. Overall military hospitals are currently receiving direct payment from the society and are competing with other hospitals. Recent observations show that military hospitals do develop management system that is competition-oriented.

4. Religious and Humane Foundation-Owned Hospital

In Indonesia, the ownership of hospital by foundations has a long history since Dutch colonial era, especially Christian and Catholic hospitals. In various cities, large private hospitals are owned by religious institutions, for example: Bethesda Hospital in Yogyakarta, PGI Cikini Hospital in Jakarta, Charitas Hospital in Palembang, St. Elisabeth Hospital in Semarang, Community Welfare Builder Hospital of Muhammadiyah (RS PKU Muhammadiyah) in Yogyakarta. Interesting development is occurring at this time, namely that the number of
humanitarian funds which is the traditional source of funding is decreasing, except for a few Islamic hospitals. The philosophy of the hospital owner influences the management pattern and the hospital situation. For example, religious hospital that is owned by a conservative religious institution appears to be very careful in investing for the hospital development [15]. In its development, the Christian religious hospital, which originates from the missionary spirit, currently known as a hospital for the upper middle class, which the rates of most of its treatment classes are expensive. This is natural because for operational costs, assistance from charity funds has decreased sharply. In some missionary hospitals, it can be said that humanitarian funding sources are close to zero percent. However, religious hospital is still trying to provide health services for poor people with the concept of cross subsidies [16]. In some areas, there are still Christian hospitals that try to stick to the missionary spirit, even Elim Hospital in South Sulawesi strongly rejects the influence of class differences in society. Hospitals continue to provide low-cost services, even though some people ask for better services by paying more.

In response to the changes that have occurred, most decision makers in religious hospitals still see the changes without a clear development strategy. This can carry a risk that a religious hospital will become a practical business institution for profit or to support human resources. This is due to the loss of subsidies and the fact that health services are becoming more expensive and health workers are increasingly demanding higher incomes. It has become a fact that religious hospitals have become: 1) a place for some specialty doctors to increase their income as high as possible; and 2) a good selling point for the pharmaceutical industry.

This subsidy continues to decline that makes it difficult for religious hospitals to find sources of funds for the poor people. Meanwhile, the exploration of humanitarian funds was not carried out systematically. In serving poor people, based on observation it indicates that some directors of religious hospitals wish to apply the concept of cross subsidies, namely that the benefits of the upper class patients will be given to the poor patients [17]. However, it should be noted that the cross subsidy approach in the modern era of management simply does not make sense. In the fierce competition, it is impossible to expect that all patients who are rich will be willing to subsidize the poor patient. The patients who are rich seek the best and most efficient treatment. Various observations show that the concept of cross subsidies does not exist or if in a hospital there is cross subsidy then it will undermine the assets and investment capacity of religious hospitals.

VIP room rates were below the unit cost. Instead, the concern is that lower class patients provide subsidies to the upper class patients. This may occur because the price of medicine has the same benefit between the upper class and the lower class, while the number of lower class patients is far more than the upper class. The concept of cross subsidies, if carried out purely, will reduce the competitive power of a hospital, including international competitiveness.

Cross-subsidy approach practically expects hospital directors to do a very tough job, namely as the manager of health care institution as well as managing the redistribution of community income, which incidentally is the responsibility of the government or owner of the hospital foundation. It is conceivable that the burden on the directors and the management system became very heavy in carrying out cross-subsidy system which was beyond their reach. In extreme cases, a large religious hospital should subsidize small religious hospital or even subsidize school or orphanage. This situation reflects the unpreparedness of religious hospitals to compete with other hospitals that are not burdened with social missions.

Another important thing that impresses the religious hospital’s unpreparedness to become a hospital based on a modern management system is the reluctance to plan the hospital development to be more efficient and competitive. One of the important things is the form of cooperation between religious hospitals. Until now, there is no network system between religious hospitals which reflects high efficiency and competitiveness. Evidence on other sectors such as food and hospitality as well as the religious hospital condition in the United States shows that the network system is the solution for the increased efficiency and competitiveness. The reformation and change of network system is indeed difficult. This is in contrast to the Ibis Hotel or Novotel which makes a network of completely new activities.
4.1. Cases in Bethesda Hospital in Yogyakarta and Bethesda Hospital in Serukam Pontianak

Two Christian hospitals have contrast condition because of environment circumstances and it can be presented as interesting case study. Bethesda Hospital (RS) in Yogyakarta is the largest private hospital in Yogyakarta. Bethesda Hospital has a good environment for its business development and has become a hospital with management system like progressive business institution. Medical care services have about 10 classes, ranging from the cheapest class to super VIP class. The comparison with Elim Hospital in South Sulawesi which strongly rejects the difference class for health service care.

Beside of medical services as a core business, Bethesda Hospital in Yogyakarta has diversified, especially those that strengthen its medical business. It was inconceivable that today the hospital has hotel, canteen, meeting room, and telephone booth. Before the monetary crisis at the end of the 1990, Bethesda Hospital planned to expand its business by acquiring a military hospital behind the hospital to develop a hospital with international standard. External observers said that the behavior of Bethesda Hospital was an aggressive business action. However, the aggressiveness of Bethesda Hospital needs to be studied in terms of its effectiveness and efficiency. It is questioned whether the management system in Bethesda Hospital has the capability as a corporate that has various businesses. It is feared that there will be a fatal planning error, especially in the uncertain monetary situation. When there was a change of directors at Bethesda Hospital during the monetary crisis in Indonesia, it was seen that the new board of directors implemented a management system that was not aggressive, including not continuing to develop a hospital with international standard.

Bethesda Hospital in Serukam West Kalimantan shows different condition. The environment around Bethesda Hospital in Serukam is not dependable for income source. Meanwhile, humanitarian funds (as charity funds) decreased. As a result, there has been a decline in performance and difficulty to employ staff to work there. This is compounded by the fact that there is a rival hospital in Kuching, Malaysia.

4.2. Cases in Islamic Hospital and Community Welfare Builder Hospital of Muhammadiyah (PKU Muhammadiyah) in Yogyakarta

Historically, the Islamic Hospital (RSI) was built later than the non-Islamic religious hospital. This can be seen from the location of the building. Christian hospitals are usually located in the most strategic roads in big cities, for example in Palembang (Charitus Hospital), Yogyakarta (Bethesda Hospital and Pantirapih Hospital), RKZ Hospital in Surabaya, and Elisabeth Hospital in Semarang.

Currently Islamic Hospital (RSI) is starting to be built with new development starting from the physical development. Thus, a lot of funds were used for physical development (cases of Islamic Hospital in Klaten, Islamic Hospital in Solo, Islamic Hospital in Yogyakarta).

Community Welfare Builder Hospital of Muhammadiyah (RS PKU Muhammadiyah) in Yogyakarta is the oldest hospital and is strategically located but has a very narrow area. Community Welfare Builder Hospital of Muhammadiyah (RS PKU Muhammadiyah ) even had to make strategic policies that were difficult to choose, whether to stay in the old location which was very narrow or to move slightly out of town.

Problems that can be observed from Islamic Hospital (RSI) are the effects of being busy to build physically, completeness of the facilities, medical and managerial personnel, as well as the historical legacy which is still less rooted. It is an interesting question, whether the management system imported from the West can be adopted by the Islamic spirit in Islamic Hospital (RSI). With relatively young age of Islamic Hospital (RSI), it can be understood if the management system is not well organized.

This situation can be complicated by the current monetary condition, where the physical construction and the purchase of medical equipment deal with high “dollar exchange rate”. For example, the construction of the Islamic Hospital (RSI) in Kalasan Yogyakarta during the crisis would require more complicated management than the hospitals that have established and operated for a long time. This is where the new Islamic Hospital (RSI) management system faces difficult situation.
Another important thing for Islamic Hospital (RSI) is the issue of operational and maintenance costs which are not as easy as the investment cost to obtain. As a result, there is the possibility that the hospital is physically built and has sufficient equipment, but does not have subsidies for hospital operation and maintenance. As a result, the medical cost is high which is in fact contrary to the social mission of the Islamic Hospital (RSI). Meanwhile, there is no standard source of funding including Remaining Operating Results (SHU) distribution, whether it is for the owner or should it be used for hospital development.

A case occurred in Islamic Hospital (RSI), there was a dispute between the owner and the board of directors. The dispute dragged on until there was a dual position as director by the owner. Further legal problems occurred due to this situation.

5. Doctor-Owned Hospital

Doctor-Owned Hospital usually builds because of the clinical achievements of a doctor. For example, obstetrics and gynecology specialty could own a hospital through an expanded clinic that specializes in obstetrics and gynecology. This clinical expansion begins with child health by establishing a mother and child hospital. Then it can develop into a hospital. There are also special hospitals owned by doctors, for example eye hospital, psychiatric hospital, and others.

The current phenomenon shows that several doctors have agreed to build a hospital together. It would be difficult for a doctor without the cooperation of colleagues to build and run a hospital with complete facilities and infrastructure. The doctor's ownership style will influence the management system.

Several cases in Bali, Padang, and Yogyakarta show that senior lecturers at the medical faculty usually have small hospital or large clinic located in the area not designated for hospital. This situation makes it difficult for management system to be developed based on a solid vision. In addition, there are various problems including limited land, facilities, aging building, and also ownership of a doctor.

In the middle of increasingly critical public demand for service quality, demand to comply with Environmental Impact Assessment (AMDAL) and lawsuit, the hospital management system owned by doctors should be reconsider. Several cases show that the deterioration of the owner's clinical skills due to old age causes the deterioration of the hospital. Thus, alternatives arise in the future that small doctor owned hospital may merge with each other or be purchased by a large hospital and will function as its branch hospital.

In principle, a small owned-doctor hospital is difficult to develop into a center for the development of medical technology. It is feared that if senior lecturers put too much importance on practicing in their private hospital, there might be stagnation in the development of medical technology in a region, including in places where there are teaching hospitals. This situation has been reflected in various government teaching hospitals, where senior doctors and professors carry out more activities in their hospitals than in teaching hospitals. This certainly reduces the rate of development of government hospital. It should be noted that private hospital activities are generally simple cases of illness due to limited medical equipment.

6. Corporate-Owned Hospital That Seeking Profit

Nowadays, hospital is considered as an institution with potential to generate profit. Thus, various companies especially conglomerate companies consider it necessary to establish profitable hospital. Another trend is the challenge of establishing hospital network along with the expansion of the conglomerate business. The most interesting example is Gleneagles Siloam Hospital in Karawaci, Tangerang which is part of Lippogroup company. Profitable hospital managed by company is a new phenomenon in Indonesia especially in Jakarta that occurred around 1980s and 1990s.

The history of siloam hospital is still short, but with good business strategy and the strength of its capital and management system, this company-owned hospital can replace the role of religious hospital in the future, moreover if other hospitals do not improve its system. The profit-seeking hospital management system is relatively easy compared to religious hospital or government hospital. The company management system can easily be implemented.
7. **State-Owned Enterprises Hospital**

Several State Owned Enterprises (BUMN) have hospitals, for example Pertamina, PT. Aneka Tambang, PT Pelni, and various plantation companies. With the nature of being an important part of State Owned Enterprises (BUMN), the condition of the hospital is very dependent on the financial condition of its parent company. Pertamina Pusat Hospital is well-known as a hospital that has high technology equipment because Pertamina is able to finance the hospital and has society segment that demands the provision of high technology equipment. On the other hand, the condition of PT Timah which had a difficult time, affected the hospital so the hospital was also in a difficult condition to develop, thus the hospital was released from its parent company. The issue of PT Pertamina's current grand strategy also affects Pertamina hospitals that spread throughout Indonesia. It can be predicted that if Pertamina has an efficiency strategy, some hospitals will have to turn into profit center. Of course, it requires different managerial skill compared with Pertamina hospitals that are managed as cost-centers.

8. **CONCLUSION**

By understanding the development of various hospitals from the past to the present as a whole, the historical development of hospital shows that economic factors are important so it can be concluded that one of the important factors in the increase or decline of hospitals is the economic aspect. Without sufficient funding sources, hospital development will be difficult to proceed. Without adequate economic incentive for human resource, a hospital will have difficulty to employ personnel who are important to the success of hospital services. The important question is whether policy maker and hospital manager are willing and able to study economics to formulate policy and manage hospitals in Indonesia.

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