

# Case study example

Technology, Information Technology



Lecturer: Topic: Case Study Company analysis The Soon Hyang Hospital was established in 1972 and has developed to be among the largest healthcare institutions in South Korea. The hospital has operations in four different cities all over the country with a combined a capacity of two thousand eight hundred beds. The size of the hospital is proportional to the patients as well as the quantity of patient data that it has to handle. This amount of data and the number of patients posed an increasing challenge in regard to offering the best healthcare experience. The hospital had to reduce times required for admissions, the processing of test results for patients and transferring patients' diagnosis or treatment at different places so that it could be more proficient.

#### Situation and solution

Previously, all the four sites that the hospital operates in had employed the use of different information technology systems that included electronic medical records system, e-payment systems as well as picture archiving and communications systems which are used in the management of imaging data from MRIs and computed tomography scanning systems. This meant that when patients had to be transferred from one hospital site to another, they were required to carry all their relevant medical records and data with them and the information had to be manually entered into the electronic system that was operated by the hospital. A lot of time and money was wasted through this process and since the hospital sites were not in a position to share histories of patients easily, they were forced to diagnose patients more than once therefore doubling some costs. The Integrated Medical Information System project was founded to deal with these issues

that were reducing the efficiency of the hospital. It was meant to phase out the information stores that existed at all of the four sites the hospital operated through coming up with a central source of patient information that was referred to as a data warehouse.

### Benefits

The data warehouse entails storage systems for patient's records along with PaCS data for each site that the hospital operates while having a backup that is off the site to protect the records of the patients. The system transmits the patient's data between the different sites through a secured private network which ensured that there is regulatory compliance together with integrity as only the employees who are authorised may be able to access it. The different sites of the hospital can simply access the warehouse through a web browser making access to information easy and fast thus reducing the time that is needed to attend to patients. This also eliminates the situations where the hospital had to diagnose patients more than once when they could not share records easily.

The data warehouse has also significantly improved the processing of imaging data particularly reducing the time that is needed to share imaging information between different hospital departments by almost ninety-five percent. It has made all the imaging data digital making it safer since the physical copies were easily misplaced or misfiled.

### Potential disadvantages

The advantages associated with the data warehouse that the hospital operates outweigh the potential disadvantages that may be associated with it. With its initial implementation, the hospital had to conduct fresh training

in filing for all its staff since the new system was overhauling the previous one. Since the system utilises a network to transmit data from on site to another and all the data is stored at one place, situations when the network is congested or fails might cripple some of the operation of the hospital since access to the files and records will be impossible. Cases where a person that is not authorised to access the warehouse gets the required codes and accesses might also lead to the data and records being compromised.