



Evaluation of Picture Archiving and Communication System (Pacs) As A Process Improvement Sample (Sivas Numune Hospital Application)

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Extended Abstract

1. Introduction

In accordance with the Total Quality Manner philosophy, continuous improvement approach underlies the basis of process management and process performance. Moreover, quality, time, cost and customer satisfaction are the factors required to be considered as the basic factors determining the success of organization in national and international arena in recent conditions of competition. This forces organizations to rapid change and improving the processes continuously. At the same time, such performing management applications will provide the opportunity of taking precautions eliminating the possible mistakes and deficiencies before the final stage.

In this study, it was aimed to evaluate applications and results of PACS in a hospital organization considering as a process improvement sample and explained in its theory in terms of quality, cost, time, and customer satisfaction. For that purpose, Sivas Numune Hospital was chosen as a sample, and stages, work flow diagrams, cost, time, quality, technique and customer expectations of the hospital before and after the application of the system were analyzed and evaluated. Besides, application processes were also analyzed with work flow diagrams and a new work flow diagram was created. Consequently, PACS was evaluated as providing important contributions upon the hospital management on cost, time, technique, and customer satisfaction in terms of process improvement.

2. Method

2.1. Purpose and Importance of the Research

This study was carried out to reveal the applicability of theoretically undertaken process improvement in hospitals as a service business. The feasibility study was conducted in Sivas Numune Hospital. The data were obtained from the management of Numune Hospital. The situation before and after the process improvement were presented with flow diagrams for a better understanding and the findings were also compared on dimensions of cost, time, quality and customer satisfaction.

2.2. Research Method

While creating the theoretical data of the research, various national and foreign sources were benefited. The data related to the application were obtained from Sivas Numune Hospital. Semi-structured interview technique was used to measure the customer satisfaction.

3. Findings

In this study, the situations before and after PACS were discusses on dimensions of cost, time, technique and customer satisfaction as a process improvement sample.

4. Conclusion and Discussion

The process improvement study carried out in the hospital as a service business was discussed on dimensions of cost, time, technique, and customer satisfaction. When evaluated in this way;

1. On Expenditure Dimension; The process improvement study provided fixed costs in the beginning; however, it was determined that it will be more advantageous in terms of average unit costs and bear the investments that will be made 9 years later or earlier.

2. On Time Dimension; At the end of the process improvement, new situation was determined as preventing waste of time of the related parties (patient, technician, doctor and radiologist) and their taking more time for their works and themselves.

3. On Quality Dimension; Along with the application of the system, loss of quality was not experienced due to computerizing the films directly and film repetitions arising from the visibility quality were reduced.

4. On technology Dimension; One of the important changes after the process improvement was actualized on technology dimension. By means of PACS, the data in the online system became easily processable, conveyable without data loss and storable for years without contamination. Moreover, the new system was noticed as being environmentally friendly.

5. On Customer Satisfaction Dimension; After the process improvement, another important change occurred ion customer expectations and satisfaction dimension. The customers were determined as being more satisfied than the previous system. Use of the system that offers the opportunity of comparing old images and new situation of the patients reliably and facilitates the works of doctors and other medical personnel have provided great advantages in every respect. For that reason, it is considered to be used in big centers. Consequently, new different applications such as PACS and storing the

films and improving the business processes can prevent loss of these; films of a patient taken in different times can become visible in the system through combining informational systems of hospitals. In this way, it can be possible both to remove unnecessary films and reduce time and costs of these to minimum. So, a great amount of savings to the national economy can be provided. What is more, treatment and follow-up periods of the patients can be evaluated more easily.