

A STUDY ON IMPROVING PROCESS EFFICIENCY THROUGH UTILIZATION OF EMPLOYEE CAPACITY BY TIME STUDY TECHNIQUE FOR U.S. HEALTHCARE BPCI INITIATIVE AT PRIMERA HYDERABAD”

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Introduction

- Effective functioning of any healthcare process requires streamlined steps executed with minimal errors. The Bundled Payments for Care Improvement (BPCI) initiative, part of the Patient Protection and Affordable Care Act of 2010, seeks to enhance patient outcomes and reduce healthcare costs through bundled payments, shifting from fee-for-service to value-based care. Despite its structured approach, the BPCI faces process inefficiencies and suboptimal employee capacity utilization. This study aims to use Time & Motion Study Analysis, recording employee work processes with Camtasia Recording Software, to identify inefficiencies and propose automation solutions, ultimately improving BPCI's operational efficiency, productivity, and patient outcomes.



PROBLEM IDENTIFICATION

- The **offshore team** in PrimEra are responsible for maintaining and to update the LOS (Length Of Stay) and DRG (Diagnosis Related Groups) of the new patients.
- Identifying areas of key improvement in the process helps the employee to work efficiently.
- The main objective of my project study is to observe the work flow process of the employees and gain insights.



RESEARCH QUESTION

How can the efficiency of PrimEra's BPCI initiative be improved by identifying and automating repetitive process steps in the Core Measures Department using Time & Motion Study Analysis?



AIM OF THE STUDY

To analyze the process steps in the Core Measures Department for effective implementation of Bundled Payments for Care Improvement at Prime Health Services.



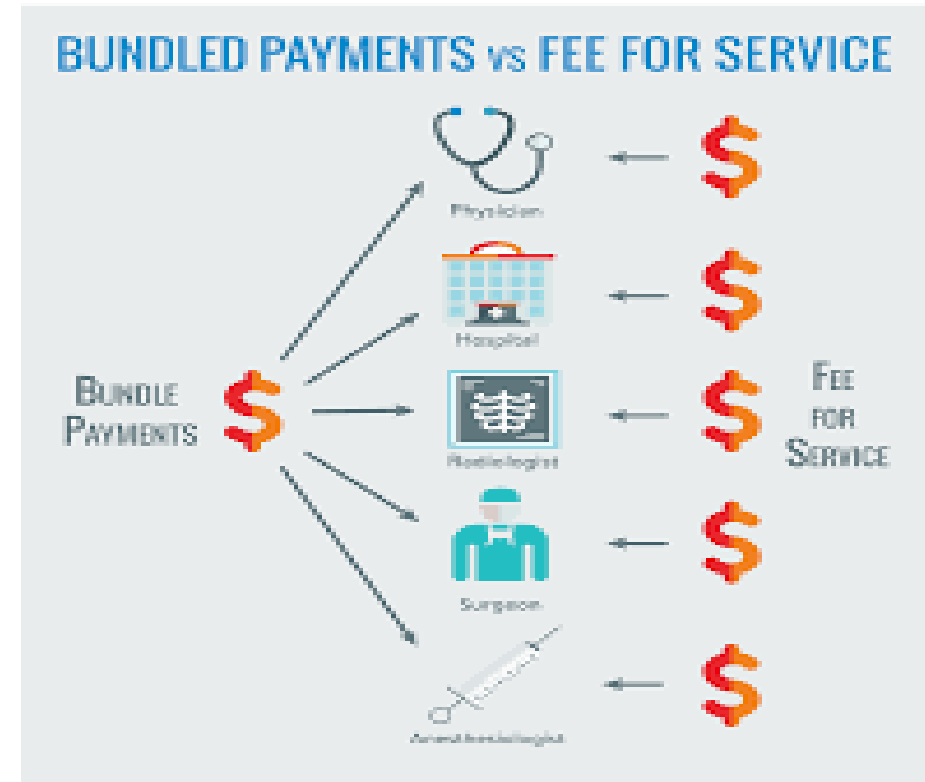
Objectives of the Study

1. Identify specific process steps and record the time taken for each.
2. Identify key areas for process improvement.
3. Identify repetitive process steps and recommend automation methods.
4. Analyze data to find areas of inefficiency.
5. Set targets for employees to improve overall efficiency.



BUNDLED PAY CARE IMPROVEMENT (BPCI):

- Bundled Payments for Care Improvement offers participants flexibility to engage bundled payments tied to a single episode of care for up to 48 different medical and surgical conditions.
- Aims to develop a proof of concept that broadly defined bundles are an effective payment strategy to improve quality and reduce costs of care.



Review of literature

- Enhancement of Productivity and Overall Equipment Efficiency Using Time and Motion Study Technique - A Review.
- Determination of Standard Times for Process Improvement: A Case Study
- Automatic Time Study Method for Recording Work Phase Times of Timber Harvesting



METHODOLOGY

DATA TYPE: Primary data

- **DATA SOURCE:** Camtasia recordings of the work done by the employees
- **DATA AVAILABILITY:** Data was readily available in the system terminal
- **DATA ANALYSIS:**
 - ☐ NO OF ACCOUNTS HANDLED
 - ☐ UNIQUE ID OF PATIENT
 - ☐ EMPLOYEE CODE
 - ☐ FACILITY NAME
 - ☐ EMR USED
 - ☐ START TIMES
 - ☐ END TIMES
 - ☐ BREAK TIMES
 - ☐ PRODUCTION TIMES EXCLUDING BREAKS
 - ☐ TOTAL PRODUCTIVITY



ANALYSIS

EMPLOYEES TOTAL PRODUCTION TIME

Each Employee’s total production in the sample is shown below in the form of clustered columns:

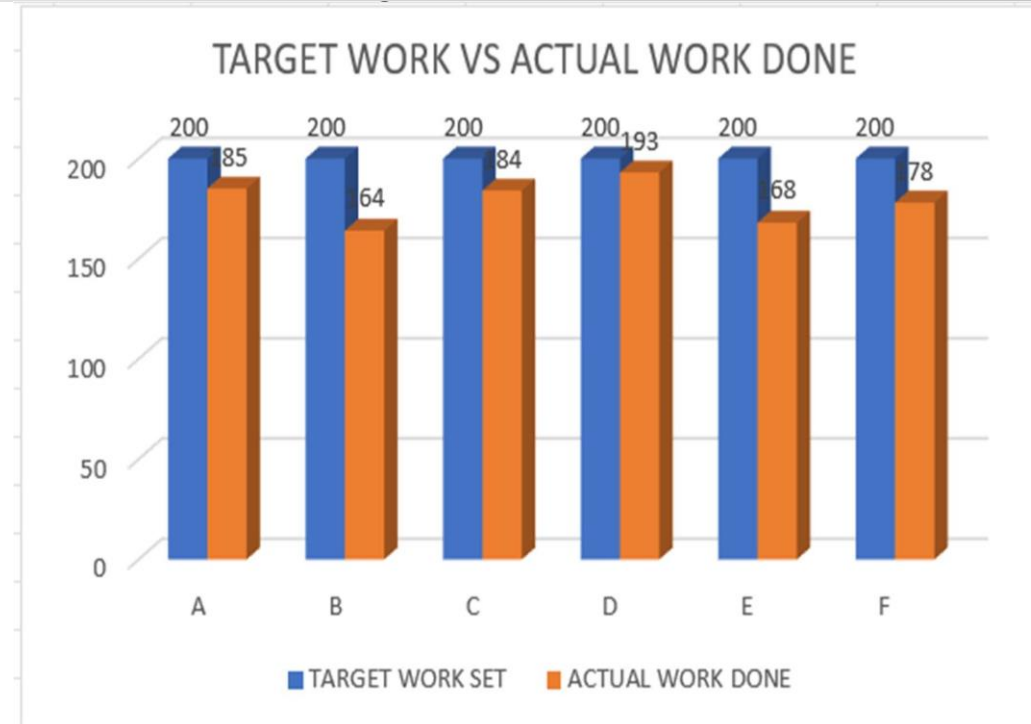


EMPLOYEES AVERAGE PRODUCTIVITY TIME:

Each Employee's average production in the sample is shown below in the form of clustered columns



COMPARISON OF THE ACTUAL WORK TO THE TARGET WORK SET AFTER ANALYSIS



From the figure it is evident that the blue bar represents the actual work done by each of the employees prior to the time and motion analysis study and the red bar shows the required target the employees have to reach to perform efficiently.



FINDINGS

- Total working times of each employee is different.
- The EMR used were of different user interfaces.
- Time taken by the employee to consult their team leader.
- The employee work experience plays a major role.
- The level of complexity of the work
- The EPIC-EMR is highly user friendly
- Process steps involved in each EMR is different to the other.



Conclusion

- The Time and Motion Study on Prime Health Care's BPCI initiative emphasizes strategic goal-setting, data accuracy, and regulatory compliance to enhance care delivery. Key improvements in employee performance, care coordination, and documentation accuracy optimize operational efficiency and financial stability, reinforcing Prime Health Care's leadership in patient-centered, high-quality care.





Thank



You

