

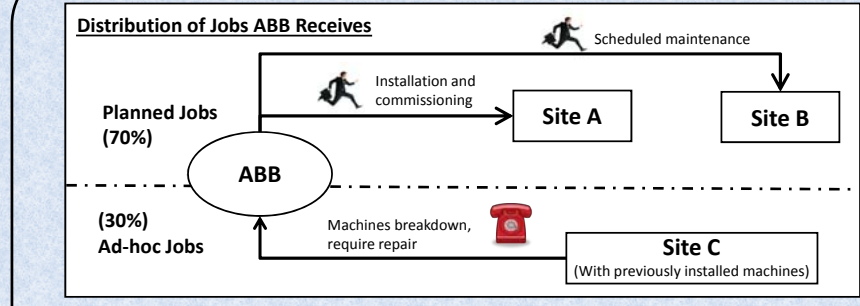
1. Project Objectives

- Identify Limitations in the Current Process
- Devise and Introduce Ways to Improve Current Process

2. Project Scope

- Optimize the Manpower Planning of ABB's After-Sales Service
 - ✓ Emphasize on Job Scheduling
 - ✓ Focus on Drives Services Department

3. Current Situation

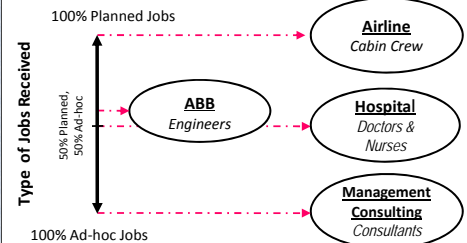


4. Problems

- Supervisor Schedules Manually
- No Standard Scheduling Procedure

5. Benchmarking

Benchmark Industries based on Job Distribution



6. Project Summary and Solution Approach

5.6 Company Profiling

To: Be Better Prepared to Tackle Jobs

- Keep a logfile of each client, their drive parts, and servicing records, as reference for future servicing

5.7 Jobs Pipelining

To: Convert Ad-hoc Jobs to Planned Jobs

- Schedule appropriate maintenance policies for the drives machines to reduce number of ad-hoc jobs

5.3 Forecasting

To: Be Better Prepared to Tackle Ad-hoc Jobs

- Analyse trend / pattern of in-coming job demands
- Use forecasting techniques to predict frequency of jobs arrivals
- Use forecasted data to improve resource planning

5.2 Engineer Profiling

To: Allow Easier and Efficient Decision Making

- Provide overview of engineers' details with use of a database
- Identify factors to be stored in database

5.5 Database Asset

To: Provide Opportunities for Developing Services

5.8 Staggered Work Week

To: Even Out the Intensity of the Jobs in a Week

- Schedule engineers to work in shifts, such that jobs can be handled 7 days a week

4.2 Jobs Demand (Demand side issues)

- Ad-hoc jobs arrive randomly and require high level expertise
- No current means to pre-determine arrivals of ad-hoc jobs

4.3 Resource (Engineers' Skills) (Supply side issues)

- Re-scheduling needed for urgent jobs
- Uneven utilisation of service engineers

4.1 Process

- Manual scheduling is time consuming
- No standard scheduling procedure

Outcome

5.4 Training Program

To: Tackle Bottleneck due to Skills Limitation

- Generalist strategy
- Specialist strategy
- Mixed strategy

5.1 Scheduling Guidelines

To: Standardize Scheduling Process

- Document job scheduling process
- Introduce scheduling rules to supervisors

- Identified Root Problems
- Proposed Phase I Solutions
- Proposed Phase II Solutions