

16 June 2005

Seven Management Tools – Facilitating Improved Service Quality

A case study on successful implementation of management tools in a service industry

Improving quality is the responsibility of every employee in the organization. Organizations need tools that would help them identify quality related problems and hence plan corrective action. The seven management tools, also referred to as the seven new quality control tools, are some of the very powerful and useful tools towards accomplishing this objective.

The seven management tools include

1. Affinity Diagram (K.J. Method)
2. Relations Diagram (Interrelationship digraph)
3. Systematic Diagram (Tree diagram)
4. Matrix Diagram
5. Process Decision Program Chart (PDPC)
6. Arrow Diagram
7. Prioritization Matrix

These tools are primarily concerned with providing approaches to understanding complex situations, identifying improvement opportunities, and developing detailed implementation plans. However, from their inception the seven management tools have been recognized for their use in the manufacturing industry. The tools though can be used in the service industry too to maximize benefits.

Following is a case study illustrating the use of the management tools in a service industry

Introduction

The Santa Rosa Health Care Centre is one of the top health care organizations in South Texas. The mission of the health care centre is to:

“Seek the improvement of local health conditions by providing health services of the best possible quality to the population of Santa Rosa, especially to those of low income. Services should be provided in a professional manner, in a clean, professional health centre building, by warm and respectful staff”.

The health care centre is a not-for-profit clinic and serves a community of 15000. Services offered by the clinic include: laboratory service, family planning, primary health care, immunization, dentistry, and pharmacy.



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The issue

The past ten years have witnessed a tremendous increase in the population of the community. There however was no increase in the number of patients utilizing the services of Santa Rose Health Care centre. This was despite the fact that other health centers are located farther away from the community than this one.

The team and the problem statement

A quality improvement team comprising members from both the health centre staff and the community was formed. The team along with Mrs. Alvarez, who was trained in quality improvement techniques, embarked upon an investigation of the causes and potential solutions. Affinity diagram was the first tool selected in developing an in-depth understanding of the problem.

The first step involved defining the problem and posting it on the wall. Brainstorming sessions were then conducted with about 10 users chosen randomly in the health centre. Following were some of the causes identified by the team members:

- No appointments in the afternoon
- Delays in registration
- Incomplete laboratory
- Insufficient care in dentistry
- Not enough doctors
- Not enough material for labs
- Broken-down ambulance
- Segregation of patients
- Long waiting time
- Patients feel that they are not treated with respect

Keeping these in mind, the brainstorming session was resumed to identify factors that could promote or hinder the health center's achievement of its mission. The factors were categorized as "driving factors" and "restraining factors". Following are some of the ideas generated.

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Driving Factors	Restraining Factors
Willingness of the staff to change	Lack of motivation of staff
Good location of the health centre	Low income clients
High felt need of the users	Lack of economic resources
	Crowded buildings
	Bad roads
	Low salaries
	Bureaucratic procedures
	Excessive paper work
	Cultural insensitivity of staff
	Staff don't speak users language

Ideas or possible lines of action were then developed to minimize the affect of these restraining factors. The next step was to take these ideas and start the grouping process. The team sorted and grouped the cards into five groupings. After some discussion, the team decided on the header cards as:

- Better marketing of health centre services to the community
- Restructuring of the health center's facilities to make people feel more comfortable in the health centre
- Improving staff performance through training and re-organizing the health centre
- Improving quality of services
- Co-ordination with other providers to improve coverage

Using a prioritization matrix

Affinity diagram was followed by implementation of prioritization matrix, which is a technique used to achieve consensus about an issue. Each participant was asked to identify the three headers they considered to be most effective and vote them 3, 2 and 1 respectively. Similar voting was carried out on the basis of least effective and most technically feasible line of action.

After the voting was completed, the votes received for each suggested line of action were totaled. The voting method resulted in the following tabular form

Line of action	Effectiveness	Cost	Technical Feasibility	Total
Marketing	2	3	3	8
Restructuring the health care facilities	2	1	2	5
Improving staff performance	3	2	1	6
Improving service quality	3	1	2	6
Coordination with other providers	1	3	1	5

Better marketing of health centre services to the community was thus considered as the best option to resolve the health center's problem. The other possible lines of action included improving the staff performance and service quality.



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Follow through

Now that the possible lines of action were identified, the team started assigning tasks to specific individuals in the organization. The actual plan was then developed. The process was finally outlined by carrying out an activity network diagram, which is a method used for planning complex processes.

The yield!

The tools allowed the health care centre to achieve its objective in a disciplined manner. Had this not happened, the health centre would have definitely been bogged down by the long list of tasks.

By identifying the critical few, that is, those options that have the most leverage, any industry – be it manufacturing or service can focus on objectives that will make a significant difference in the overall operation of the industry.