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The Fishbone Diagram Translating Research Into Action

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Service Quality and Total Commitment

One of the greatest impediments to implementing service quality is the lack of total commitment of everyone in the organization. In North America, the structure of many organizations is essentially 'top-down' or hierarchical in nature. Any service quality improvement that does not have the full support and commitment of the top management is unlikely to succeed; conversely, any improvement that does not have the support of the staff can easily be scuttled.

It may be helpful to visualize service quality as a complex piece of machinery like a rocket. For it to function smoothly, several aspects of the design must work towards making it happen. Even what appears to be a minor component may have a major effect on the functioning of the rocket. Similarly, commitment of management will do little to improve service quality, if even a few employees perceive that they are not a part of the company philosophy, thereby frustrating the service quality goal of the organization.

Implementing

Assuming that we do have the support of management as well as that of the staff, how do we translate research findings into actionable steps? How do we integrate research findings with other objectives and insights that the company may have? These questions are crucial since even excellent research and planning can deliver the desired result only to the extent they are implemented.

The Antecedents of a Problem

Let us consider a service quality problem. If we consider the example of a teller being rude to a customer, you can simply replace the teller. But that would assume that only the teller is responsible for the poor quality service that a client received. That may or may not be so.

As a standard solution to the problem simply getting rid of the person who did not deliver service quality can be very short-sighted. In fact, it violates one of the central themes of Deming's precepts. By violating this one principle we also violate nine other principles, as we saw in the previous article.

Besides, what if the employee's treatment of the customer had its origins in lack of training, lack of examples within the organization, how he himself is being treated within the organization or incompatible expectations of his superiors?

Tracking the Problem

A suggested solution to situations like the above is to treat every problem as a problem not of a specific employee but of the organization. The problem may or may not be isolated. But by treating all problems as ones that can be solved only within the total context of the organization, we increase our probability of success in dealing with the problem. Such an approach would also increase the awareness of other people in the organization who contribute to the problem as well as to the solution, albeit indirectly.

Corporate Culture vs. the Individual Employee
Another support for such an approach is the basic observation of social psychologists that an individual's behaviour is context-related. The same individual can be pleasant or rude for the same stimulus depending on the context. 'Corporate culture' when properly implemented provides the context for an individual's behaviour. (It might also be the result of one of the six basic factors which influence us to behave in a certain way - conformity (See R. Cialdini's *Influence*).Other things being equal, an employee is likely to behave like other people in his or her environment.)

Corporate culture provides positive reinforcement for the desired behaviour. Reprimanding or firing an employee for unwanted behaviour constitutes punishment, which is not conducive to learning the desired behaviour.

Tracking the problem to find the antecedents is then a way of creating a context and support system in which the required behaviour of an employee is reinforced and 'spontaneously emitted' rather than forcibly elicited under the threat of punishment. It is not uncommon for an employee who is forced to comply with a requirement against his or her will to 'get back at the system' and sabotage it in subtler ways.

The Cause and Effect Method
Suppose research revels that the problem that bothers most customers is the rudeness of the employees. An organization committed to service quality may rectify the problem my immediately firing the offending employees. But as we saw before, this may not solve the underlying problem. The problem could have arisen from a number of factors such as people, policies, procedures or even equipment.

When we analyse a given problem by analysing all the probable factors that could have contributed to it, we are using the cause and effect method.

The cause and effect model can be presented as a fishbone diagram, with the problem represented as the fish's head and the problems are represented as the fish skeleton (See chart on below). This type of diagram is also known as the Ishikawa diagram.

When to Use the Fishbone Diagram
The fishbone diagram is used to identify:
• the probable causes of a problem by classifying and visually displaying them.
• the conflicting requirements within the system that lead to the problem.
• the probable underlying causes of a problem.

How to Construct a Fishbone Diagram
A fishbone diagram is constructed by using the following procedure.

1. Identify the problem that needs solving. The problem may be identified in any number of ways. Research into customer satisfaction is one favourite method with many organizations. Problems may also be identified by other methods such as observation. Once a problem is identified, place it in the box on the right side (the 'head of the fish'). Write in the main factors that could potentially cause the problem. In our example, they are people, procedures, policies and equipment. (In manufacturing organizations, they could be manpower, machines, methods and materials.)

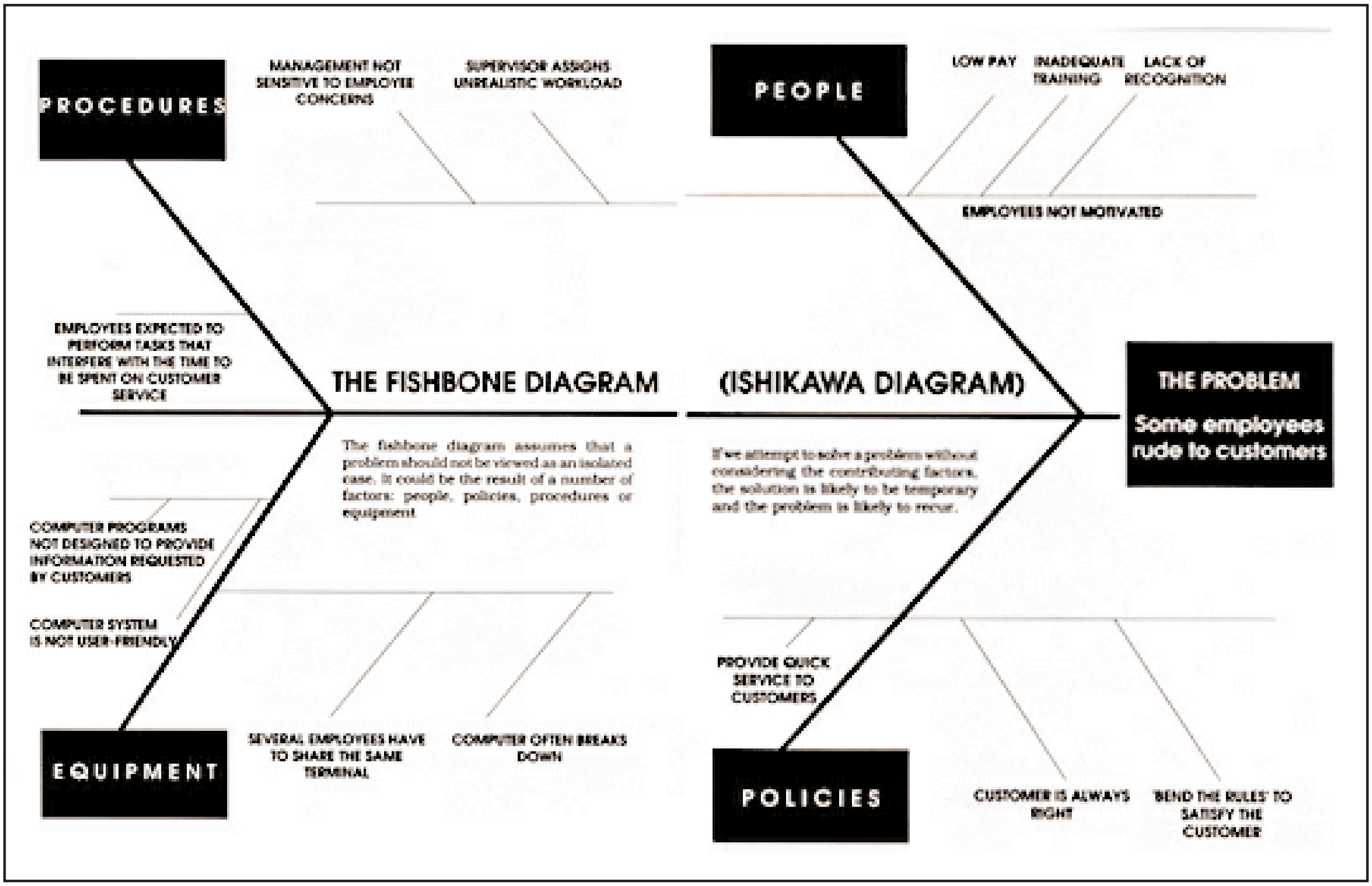
2. Generate the probable cause under each category. Brainstorming (of managers and employees)

and/or internal research could be used for this purpose.

3. Write in summary form the cause on each horizontal fishbone that intersects the appropriate fish rib. Make sure that you write *causes* rather than symptoms.

4. Explore the diagram by asking a series of ‘why’ questions to identify the root causes.

5. Refine the diagram by emphasizing the most probable causes.



How to Interpret the Fishbone Diagram

The value of a fishbone diagram is in revealing at a glance:

• parts of the system that contribute the most to the creation of the problem; and

• how two perfectly reasonable expectations from two sources within the system create conflicts that lead to the problem.

As an example, consider the chart above. Management policy stipulates that the customer be provided with ‘quick service’. Many employees may fail in providing this to the customer. We can understand why this is so when we consider the equipment they have to work with. We find that many people have to share the same computer terminal (This might have come about because of another perfectly legitimate goal: keeping the cost down). This means, depending on the demand for the terminal, a customer may or may not be accorded quick service. Again ‘inadequate training’ may conflict with the employees’ ability to ‘bend the rules’ to satisfy the customer with special needs.

Consequently, a fishbone diagram will provide us with a reasonable hypothesis as to why the problem arose in the first place. Such hypotheses could fall into one of the following three categories:

1. There are aspects in the system that can be corrected to solve the problem. For instance, employees may lack proper training in some aspects of their job. We can remedy the problem by simply providing the required training.

2. There are conflicts among different parts of the system, for reasons that do not contribute to the goals of the organization. This is a common phenomenon in many organizations. Procedures and policies may exist in different departments which are the result of how these departments evolved over a period of time. These policies and procedures may not contribute to the overall goals of the organization at all. For instance, a customer service representative may be frustrated by the fact that she had to ask the customer for information that he had already provided to the organization in a different context. This procedure may have been developed when computers were not common and it continues to be used even when it can be avoided.

3. There are conflicts between the objectives of different parts of the system which can be solved by priorizing the objectives. For instance, the objective of economy may conflict with the objective of having adequate resources required to do the job effectively. In this case, management should priorize its objectives. Thus if the priority of management is to offer quick service, then economy will become a secondary objective, to be aimed for once the primary objective has been achieved.

Whenever there is a conflict in the system, it could frustrate the employee who has to deal with it. He/she may express the frustration by transferring his/her frustration to the customer. The fishbone diagram, by explicitly exploring the antecedents is likely to throw light on why a problem arose in the first place and implicitly suggest solutions.