

Linking Quality Management to Organizational Governance

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ABSTRACT

Quality of product or service is not to be managed in isolation but to be managed through the entire set of processes that create the product and subsequently through the entire organization. This paper illustrates the link between quality and governance and narrates the issues through corporate examples. Six sigma projects have been used to illustrate the importance of extending the quality concepts to the entire organization leading to better governance.

Key Words: Deming, Governance, Six Sigma, Quality

INTRODUCTION

Deming is credited as being the major contributor to the field of quality, and a major contributor to the field of management as well. But his work was in quality, not really management. So there must have been some contribution, some idea that he applied to quality that allowed his work to be applied in management of organizations.

That idea that he developed was a simple one. (Deming:1982,1986). It was the expansion of the definition of the term quality, or at least the expansion of the application of that term. Quality used to apply to a product or a service, for example Juran and Gryna (1980). The product was developed and manufactured and then someone would check the quality. Or a service was provided and the quality would be measured in some way.

Deming pushed the idea that the measuring of quality should not be separated from the production

of that product or service. This expanded responsibility for quality and put it in the right place, where it is created, but did not crossover into management, except in one way. By putting the responsibility for quality in the area where the work was performed instead of in a separate quality group or in an inspector, this changed management structure. But quality still referred only to the product.

A second idea from Deming expanded the definition even more, however. Deming emphasized that quality did not result from measuring it, but resulted from its creation. He said that quality could not be improved unless the process that led to its creation was improved. He changed the focus from improvement of an output, to improvement of the process that leads to that output. Today process improvement is a key part of any business, as discussed by several authors like Dale (1999), Narasimhan and Trotter (1999), and Gunther and Hawkins (1999).

Process improvement has become synonymous with "quality". Process improvement applies to all the things (the processes) that a company does. So clearly now, it is a management issue. But even the term "process improvement" can be viewed as merely looking at the processes that lead to the product. And this is how it is usually applied. It is more than just quality, but still falls under the area of operations, just one part of the organization.

However, once the line is crossed to looking at a process, the term quality is expanded, and Deming emphasized this. His third major idea is that of "process quality". Quality of the process involves much more than just leading to a quality product. When looking at the quality of a process, we look also at the speed of that process, the cost of that process, the safety of that process, and any other factors that may apply to defining a good process. (Smith, 1993).

This is the major expansion of the term "quality" that Deming created. Instead of being one small area in a business, it now applies to all the business measures, at least the operations ones. Cost and production rate used to be considered more important than quality, but now they themselves are quality measures, quality of the process. And of course, in this way, it has become more of a management process than just a quality process.

The fourth idea that expands the nature of quality is emphasized heavily in Six Sigma, although it still derives from Deming. This is the idea that the entire organization itself is merely a set of processes. By listing these processes, we can measure and improve company performance. And the extension then is that quality becomes the quality of the entire company, not just of the operations or of a product.

The goal of this paper is to expand that definition of quality even more. In this paper, we intend to add one more dimension to this idea of quality. It is to link quality with the area of governance. Quality should not just be a management issue and a management responsibility, but should apply to all management

and governance functions as well.

The next section will list some examples of governance issues that are part of measuring the quality of a company. This will be followed by an example of how the tools of process improvement can help in governance.

GOVERNANCE ISSUES

We begin with some measures of a company that are not traditionally measured when implementing process improvement. The first is employee turnover. Employee turnover is a measure of the quality of the working environment, the culture. Employee turnover is also detrimental to the conduct of company business, the other processes. It is not a process itself, but can be modeled as one to see what factors lead to it.

A second area of governance issues involves the area of environmental responsibility. While some firms are, by virtue of what they do, more harmful to the environment than others, all firms can take steps to improve in this area. It might be by reducing harmful emissions or it could be only by reducing energy and water usage, but there are areas for improvement relating to the environment that all companies need to address. Again, it should be obvious that for each case, there is some company process or group of processes that lead to the harmful emission or the use of energy, and by improving these processes the environmental imprint of the company can be reduced. Many companies find cost reductions as well while trying to do this.

Related to these traditional environmental issues are another set of environmental issues that companies face. That is the relationship with the surrounding community where they are located. Noise issues are pollution in that neighborhood. Company processes that lead to noise can be improved to reduce that, or just to reduce the timing of it so that the effect is lessened. Traffic problems when employees arrive and leave from work can also be an issue. Even

community perceptions, as vague as that sounds, can be important. By this we mean resentments to the company, possibly for not hiring enough local people from the neighborhood or for expanding and removing people from the neighborhood. Good processes involving all aspects of community relations need to be put into place, and most companies ignore this.

A fourth area of governance issues involves the area of compliance. This is compliance with government regulations and local ordinances. Many companies go to great lengths to get around compliance, avoid compliance, and even intentionally fail to comply and try to hide the fact. But this comes back to haunt them when their own employees fail to trust them any more, or worse, when they are fined for violations and get that reputation with others. Compliance processes need to be set up and monitored within the firm. This is not true only to actually comply with laws, but to actually provide supporting documentation to prove that compliance, which is required in many cases.

A fifth area of governance issues concerns the wide area of ethics. The most basic of these is just simple honesty. Categories are honesty with customers, honesty with employees and even honesty in business practices. In each of these areas, an entire reputation can be lost from one dishonest act. Customers will be lost, and suppliers will not want to join forces on any initiatives, or will charge more to do so. Employees will leave or will not perform to their highest levels.

One more area of governance needs to be addressed. It is the use of process improvement initiatives in governmental organizations. Government organizations provide many services to the general population, and how these services are provided determines tax rates and quality of life.

The Six Sigma Learning Experience

Six Sigma projects are adequately dealt with by Smith

(2003) and Arthur (2007). One city in Georgia recently trained seven individuals to the Black Belt level, each conducting a Six Sigma project toward that certification. Their seven projects covered many areas of government. Starting with the city manager's office, the project looked at getting vehicles released from the city's impound lot. The project reduced the inventory of cars, raised revenues to the city, and cut down on what was a very hostile group of people who wanted their vehicles and saw unnecessary delays.

In a second project, the city records office was unable to fully comply with the law stating that any citizen could get access to public records in a certain time. The six sigma project improved the response time of that process so that it could achieve the goal. The biggest benefit was the reduction of city exposure to lawsuits that could result from failure to provide the documents upon written requests for them.

Two projects were done in the police department. One found ways to drastically decrease the overtime used by the department, cutting city expenses. The other reduced errors in the traffic citation system, lessening court costs and raising more revenues.

The fire department was also involved. They provide specialized transport for non-emergency medical patients. The scheduling system missed opportunities, lessening the number of patients using the system, and the collection system also missed collections due to errors. Correcting these problems in the process led to large increases in revenues and higher utilization of the people and equipment involved.

The permits and licenses department found that the permit process took too long, was so confusing that it led developers to build elsewhere, and cost too much, again leading people to avoid the city when contemplating development projects. This lowered employment and lowered long term tax revenues. Streamlining this process had no immediate effects, but is anticipated to have big future effects.

Even the tourism department got involved in the process improvement effort. They looked at the processes governing the setup and control of the 15 big public events that they run per year, events that bring people to the city. Processes like parking and traffic control will lead people to not come back a second time if they are not handled well. Again, while the improvement in these processes could be seen early, the real result of increased numbers of tourists

will be a longer term affect.

A CORPORATE EXAMPLE – THE COMMUNICATION GOVERNANCE PROCESS

The organization suffered major problems due to communications issues with customers. To investigate the company's communication governance processes and to try to improve them, they set up the project charter as shown in Table 1.

Table 1. Project Charter

Project Name: Council Bluff Business Support Process.		
Business Case: Removing the nagging and persistent problems in Council Bluff		
Problem/Opportunity: Lack of communication between business support and their customers. Redefine or Improve the business support process by defining a better and more effective communication process to better support their customers.	Scope, Constraint, Assumptions: Business Support Department only. Assuming that creating a more effective communication process between business support and their customers will eliminate the majority of the major problems with operations and technical support department.	
Goals: Redefining and Improving the Business support department/ process to better support their customers and to bring the team to top performance in about 3 to 6 months and average Ops quality of 3.05 from 2.91. And average CRT of less than 350 from 415.	Team Members: Black Belt, representatives, coaches and managers.	
Preliminary Project Plan	Target Date	Actual Date
Define	08/31/09	08/26/09
Measure	09/05/09	09/02/09
Analyze	09/08/09	09/03/09
Improve	09/16/09	09/14/09
Control	09/26/09	

The measure phase did not really look at the communication process itself, but looked first at the effects that it was hoped could be improved by a better communication governance process. These are the Ops quality and the CRT, the performance metrics of the center.

Information was gathered to validate and quantify the problem/opportunity. Assuming the centers ops quality average should be at 3.05 based on a scale of

1-5 rating (1 poorest, 3 meeting expectation and 5-world class) currently the center performance is at an average of 2.91. And assuming the CRT needs to be below 350 currently the centers average is at 415. Data based on 12-month period is shown in Table 2.

The next step was to develop a Cause and Effect Diagram to look at some reasons for the poor communications, shown in Figure 1

Table 2. 2008 General Care Performance Data for Council Bluffs Enhanced Care Site

Month	Ops Quality	CRT
Jan	2.78	408
Feb	2.81	418
Mar	2.97	419
April	2.88	406
May	2.90	409
June	2.92	408
July	2.94	410
Aug	2.98	413
Sept	3.00	417
Oct	2.92	422
Nov	2.91	420
Dec	2.87	423

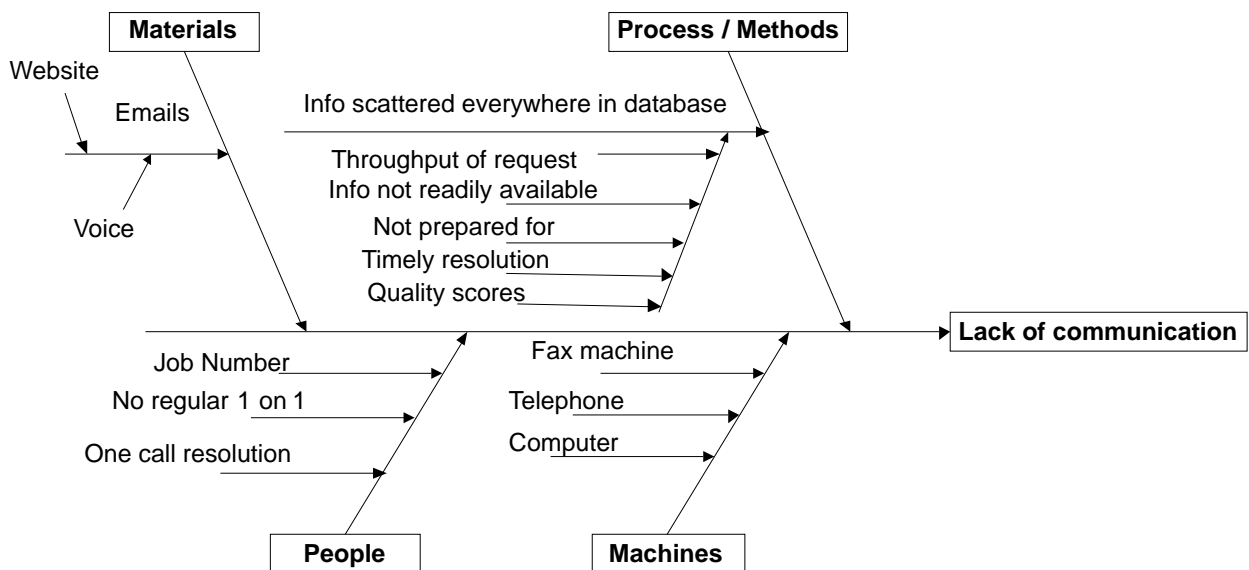


Figure 1. Cause and effect diagram

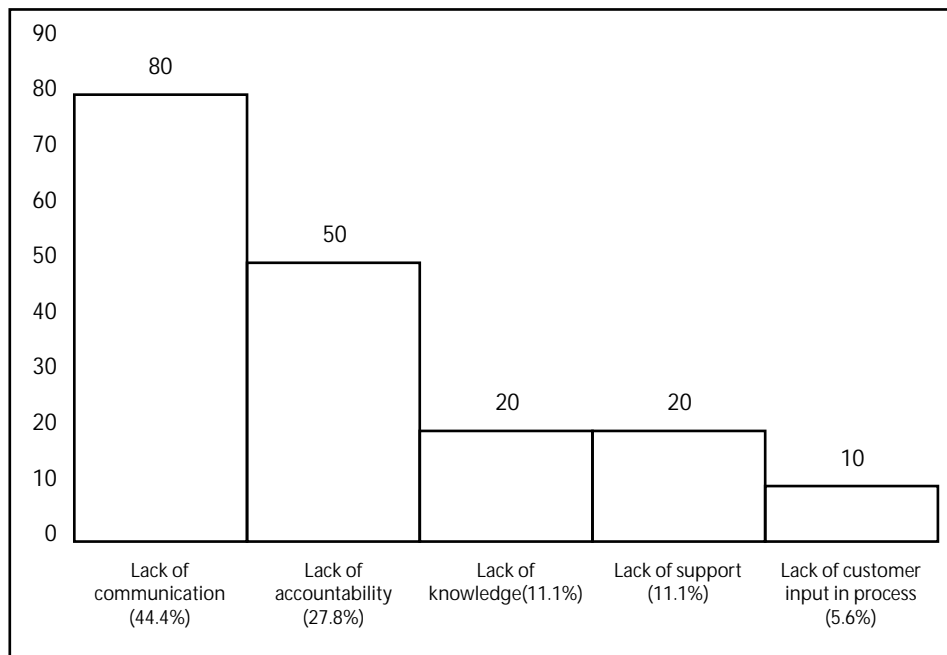


Figure 2. Pareto chart

The Pareto chart attempted to confirm which of the five areas identified by customers was the biggest. This led to creating a relationship matrix to link these five areas of problems to five measures of success to the customer shown in Table 3.

Table 3. Relationship Matrix:

Potential improvement Potential causes	Reduce cycle time	Reduce response time	Support	Accountability	Information throughput
Lack of knowledge	Medium	Medium	Strong	Strong	Strong
Lack of support	Medium	Strong	Strong	Strong	Strong
Lack of accountability	Weak	Weak	Strong	Strong	Strong
Lack of customer input in process	Medium	Medium	Weak	Strong	Strong
Lack of communication	Strong	Strong	Strong	Strong	Strong

The next, and major, step was to design a new process for communication with customers. Redefining the process/method will eliminate most of the problems identified in the cause and effect diagram. Having a more standardized method of receiving and sending information to and from customers by voice forms, defining role and responsibility of BSA's, having a more centralized database will improve support,

cycle time, response time, accountability, throughput of information, ops quality score and CRT.

With the new business support flow chart we observe the centers performance towards Ops quality and CRT for a period of 11 days and the results given in Table 4. For this period average ops quality score was 3.06 and CRT was 351.

Table 4 - OPS Quality Score And CRT

Days	Ops quality score	CRT
1	3.0	400
2	2.97	380
3	3.0	388
4	3.25	370
5	3.0	350
6	2.98	320
7	3.25	350
8	3.50	340
9	3.75	330
10	3.25	320
11	3.25	310

The process flow chart that was accepted and led to these improved results is given in Figure 3.

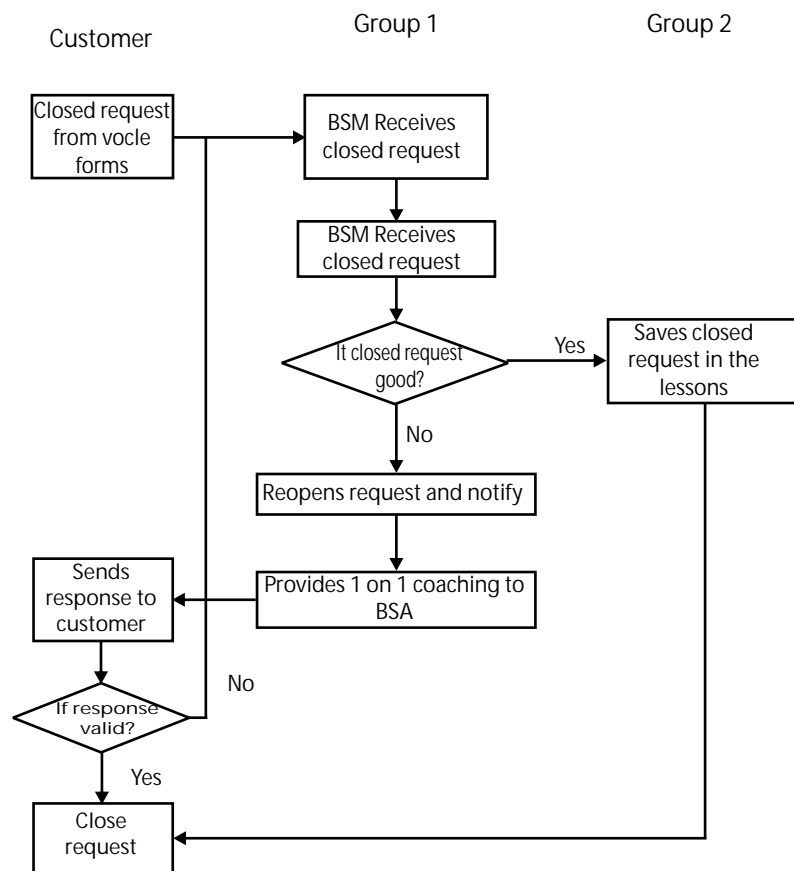


Figure 3. Business support process flow chart for process control

CONCLUSION

In this paper the author has provided examples using Six Sigma Projects, where governance is important to the organization. It is seen through the governance issue that quality is central to every action at every level of the organization. Furthermore, the example shows that it can be better to focus on governing processes rather than individual customer needs, as many of those needs can be improved at once through improved governance.

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