

**The Role of Quality in
Strategic Management**

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RR-99-03 (NT)
March 1999

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ABSTRACT

Many organizations treat strategic planning as a confidential exercise. While more and more organizations practice quality improvement initiatives they fail to see the linkage between quality, productivity and profitability. Therefore, the impact of these improvement efforts do not get integrated into their strategic and business planning processes. Hoshin kanri is an excellent tool for this strategic quality planning exercise.

Keywords: Quality Planning, Business Planning, Strategic Management, Quality Improvement

Senior management and executives are beginning to recognize the competitive potential of quality improvement for their products or services. Their organization's manufacturing and delivery costs are reduced by increasing the conformance to the requirements and needs of customers, resulting in improved financial performance. These production costs savings can then be passed on to the customers by reducing the selling price of the product or service. The company's improved performance of higher conformance and reduced price enhances the customer's perception of higher quality. Customers today are translating quality as value. They see superior value as providing higher reliability at a lower price.

Unfortunately, most organizations fail to link their quality performance with bottom line profits. Quality improvement efforts in many organizations use only non-financial measures. They focus solely on the number of improvement teams, number of employees involved or the number of projects being implemented, assuming that the financial performance will also improve as a result of all these efforts. While these non-financial measures are important, in order to translate the quality improvement efforts into actual dollar savings, projects must use financial measures. Organizations need to expand their business planning approach to link their strategic vision, short and long term business goals and their quality improvement initiatives.

Linking Strategy and Quality

Understanding their cause and effect relationship is key to linking business strategy and quality. Part of the difficulty with understanding this relationship is the definition of quality itself. For example when comparing a "Bic" to a "Cross" pen, the "Cross" pen costs considerably more than the "Bic". The two pens have different functions and design features to address different customer requirements.

However, the quality of the two pens should be equal. David Garvin in his book Managing Quality, refers to this “perceived” quality differential as the “dimensions of quality”. They include performance, reliability, serviceability, durability, features, aesthetics, perception and conformance to design.

Failure of conforming to design or customer’s specifications has the largest impact on the organization’s cost structure. Three major areas impacted are:

- 1) Resources – extra equipment, space and people to correct errors or mistakes.
- 2) Materials – excess inventory, scrap or down graded materials needlessly generated.
- 3) Lost opportunity costs – not providing new products or services because valuable resources are consumed in redoing previous work.

Thus, conformance to design and customer requirements translates to quality, therefore higher conformance is higher quality. Higher quality results in lower costs and increases competitiveness leading to an increase in sales and market share, more jobs and improved profitability. In contrast, poor quality results in inferior products or services, excessive production costs, and lost customers.

Customers’ increasing expectations result in their purchasing products or services that offer the greatest value. Value is defined as the most functions and features at the highest reliability and the lowest price. Customer satisfaction is directly related to value. In the 1970’s, the customer interpreted value as reliability. Reliability became the competitive focus as consumers realized that more reliable products cost less over the life cycle of that product. Therefore consumers were prepared to pay more for them initially. However, during the last few years,

competition (mainly from the Japanese) has redefined customers' perception of high quality from superior reliability to "superior reliability at a lower price".

Understanding Quality, Productivity and Profitability Relationship

Productivity improvements can be achieved through quality improvement efforts. By shortening the cycle time incurred during the production of products or services the total manufacturing costs are reduced. Eliminating errors or non-conformances not only within the organization but also with any externally supplied material or services, reduces costs further. Increased quality increases the productive use of facilities, machinery and personnel. Improved quality of materials used in processes reduces scrap, rework and inventory costs. Improved quality reduces the assets required to support the business operation. Reducing waste, rework and non-value-added activities lowers overall service and support costs for an organization.

Profitability improvement is the result of the increased quality and productivity. Increased sales often result from improved delivery, reduced cycle time, increased reliability and improved conformance to requirements. It is also possible to reduce selling price as a result of these productivity and quality improvements, thereby increasing sales. In fact today many customers, particularly in the automotive industry, are demanding annual price reductions. Reduced manufacturing costs because of less errors, lower scrap and rework costs, savings from the elimination of non-value-added and redundant operations, all improve the gross margins for the organization. Non-manufacturing costs are also reduced. These costs include eliminating non-value-added activities, asset investment to support the business and other costs associated with external customers because of poor quality.

Increased quality and productivity results in increased competitiveness. Increased customer satisfaction leads to higher retention rates for existing customers plus new ones and therefore increased market share.

Strategic Quality Planning

Quality, like any other dimensions of business, must be managed strategically. Many quality improvement efforts focus solely on quality improvement tools and the methodology to improve specific processes and ignore their impact on the overall business. However, strategic quality planning should include:

- a) developing a quality strategy,
- b) establishing goals and objectives,
- c) identifying specific quality initiatives, and
- d) implementing action plans.

a) Developing a Quality Strategy

The quality strategy should include a quality mission, vision and/or policy documents. They should be clear statements of what is expected from the quality system. The quality strategy is a vital element to building the quality process and expectations of the organization. It is important that it reflects the business mission and provides vision, values and goals to the employees. It should help them understand the importance of quality and how the quality system supports the overall business goals. The quality strategy should be written such that it is easy to comprehend and is meaningful to the employees.

b) Establishing Goals and Objectives

Prior to establishing goals and objectives it is important to assess the current business situation. This would include an evaluation of the business objectives, external environmental conditions, and resource availability. The purpose of the

review of the business objectives would be to obtain alignment or consistency among the various departments and functions in order to focus the organization as a complete system. Understanding the external environmental conditions would first include an understanding of the customers. Customers could include stockholders, board of directors as well as external end user customers. The environmental analysis could include market, economic, political, technical, industry, and competitors. Analysis of resource availability includes both financial and human resources.

c) Identifying Specific Quality Initiatives

The “management by objectives” approach to establishing targets and goals is insufficient as a planning tool. Unless the organization has a clear understanding of what needs to be done to achieve a specific goal, its efforts will likely fall short. If the goals are achieved, in most cases, it is based on luck or chance rather than through good management.

d) Implementing Action Plans

The final step to this strategic quality planning process is implementation of the action plans. Ongoing monitoring of the project’s progress by management is an important element. Management input is necessary to ensure the implementation team does not get “bogged down” and that any roadblocks are addressed and removed. Once the implementation is complete a validation step is required to ensure that the project was successful in meeting its goal.

Hoshin Kanri

An excellent tool for strategic quality planning is the Japanese planning model “hoshin kanri”. Hoshin kanri is a methodology for planning, implementing and

reviewing quality plans that are critical to the business. Hoshin kanri is being practiced by several companies in North America including: Hewlett-Packard; Procter and Gamble; Intel; Florida Power & Light; Xerox and Dow Chemical. Hoshin kanri is also sometimes referred to as “management by policy”, “hoshin planning” or “policy deployment”. Productivity Press, publisher of Hoshin Kanri: Policy Deployment for TQM points out “target-means deployment” would likely be a more accurate term for hoshin kanri since the methodology includes establishing a goal plus the specific plans or “means” to achieve the goal.

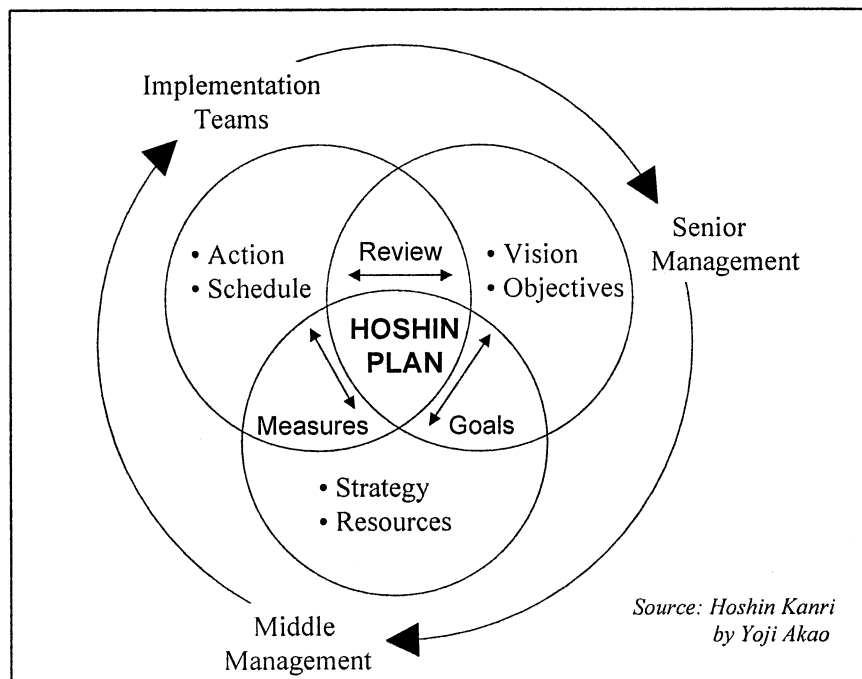


Figure 1: Hoshin Kanri Model

The Hoshin kanri model is shown above in Figure 1. The first step in this planning process is for senior management to determine the vision and objectives for the organization. Middle management takes these objectives and then is responsible to determine how these objectives will be meet. After the specific

action plans have been agreed upon implementation teams are then assigned responsibility to execute the action plans. While the hoshin kanri process starts with senior management assigning goals to middle management for them to determine specific projects and then to assign these projects to implementation teams, it is very much a “negotiated” process among the three groups. This process is termed “catchball” by the Japanese, as all three groups must negotiate back and forth until they agree on goals and the action plans. If sufficient specific action plans can not be determined by middle management in order to achieve the initial goals set by senior management, the goals are then changed to reflect what is achievable. The review process involves senior management observing first hand the details of the quality system implementation.

To better understand this process lets us consider the following example shown in Figure 2. The vision or mission of this “improvement project” is to have a healthy body. The goal or objective is to reduce weight by 10 pounds by June 30, 1999. The two specific projects on how to do this are: 1) by increasing exercise and 2) by reducing calories. A weight control chart will be used to monitor progress. The increasing exercise option was then developed. The plan is to exercise daily starting January 1, 1999 and a log sheet will be used to monitor progress. The exercise plan is divided into two specific activities: walking and weight training. The plan is to walk 3 times a week on Monday, Wednesday and Friday using a log sheet to monitor performance. The other exercise plan is to do weight training 2 times per week on Tuesday and Thursday and use a log sheet to monitor progress. The next step in this example would be to develop specific action plans around how to reduce calories including how much, when and the measurement system used to monitor progress.

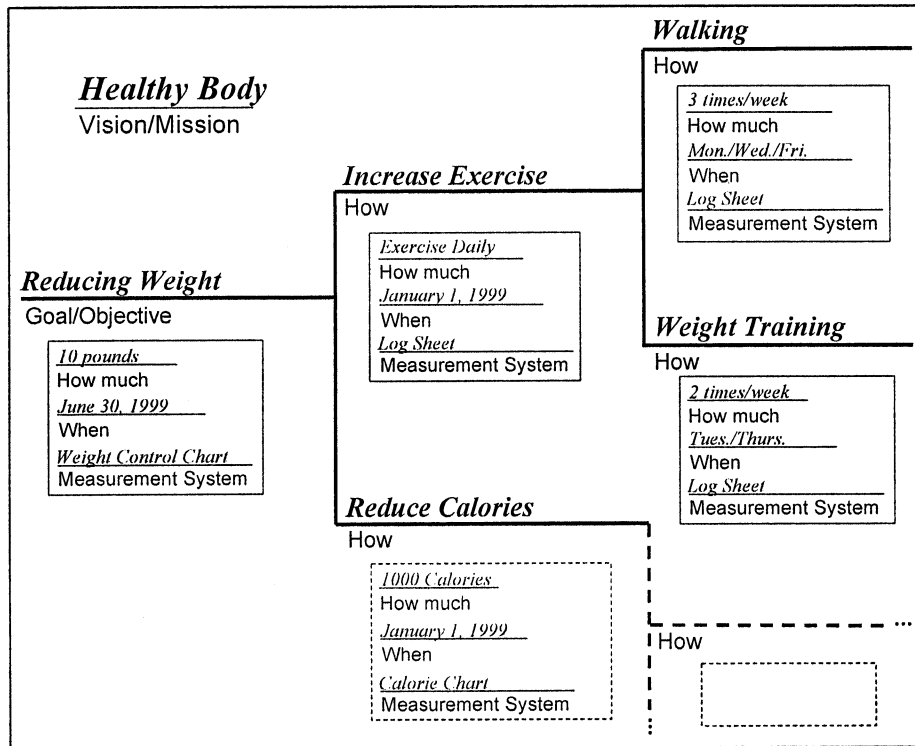


Figure 2: Hoshin Kanri Example

Hoshin kanri is unlike the “management by objectives” (MBO) approach where if the goals are not achieved the implementation plan fails. With the “management by objectives” approach, since the process is not defined, one has to start over again with each new plan as there is no “learning” from previous experiences. With hoshin kanri the process of how the objectives are to be achieved is defined. Even when the planned results are not achieved, the implementation effort is acceptable. Plans can then be modified or adjusted during the project if it becomes obvious that the goal will not be met.

Summary

Strategic quality planning should focus on results. However, it is necessary to also analyze the processes that produce the results. By focusing on processes rather than results, the processes can be improved to achieve better results. Effective strategic quality planning involves the people assigned the responsibility of executing the quality plans in the planning process. Successful strategic planning aligns all departments of an organization, enabling them to function as a complete system in addressing the key objectives.

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