



Title: Dr. Edwards Demings 14 Points and their Impact on the Quality Movement in Japan.

Course:

Year: 1994

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Report No: P94057

ETM OFFICE USE ONLY

Report No.: See Above

Type: Student Project

Note: This project is in the filing cabinet in the ETM department office.

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**Dr. W. Edward Deming's 14 Points & Their  
Impact on the Quality Movement In Japan**

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**EMP-P9457**

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**DR. W. EDWARDS DEMING'S 14 POINTS  
AND THEIR IMPACT ON  
THE QUALITY MOVEMENT IN JAPAN**

**ENGINEERING MANAGEMENT 510**

**TO: DR. DECKRO**

**BY: EDWARD BUESCHER**

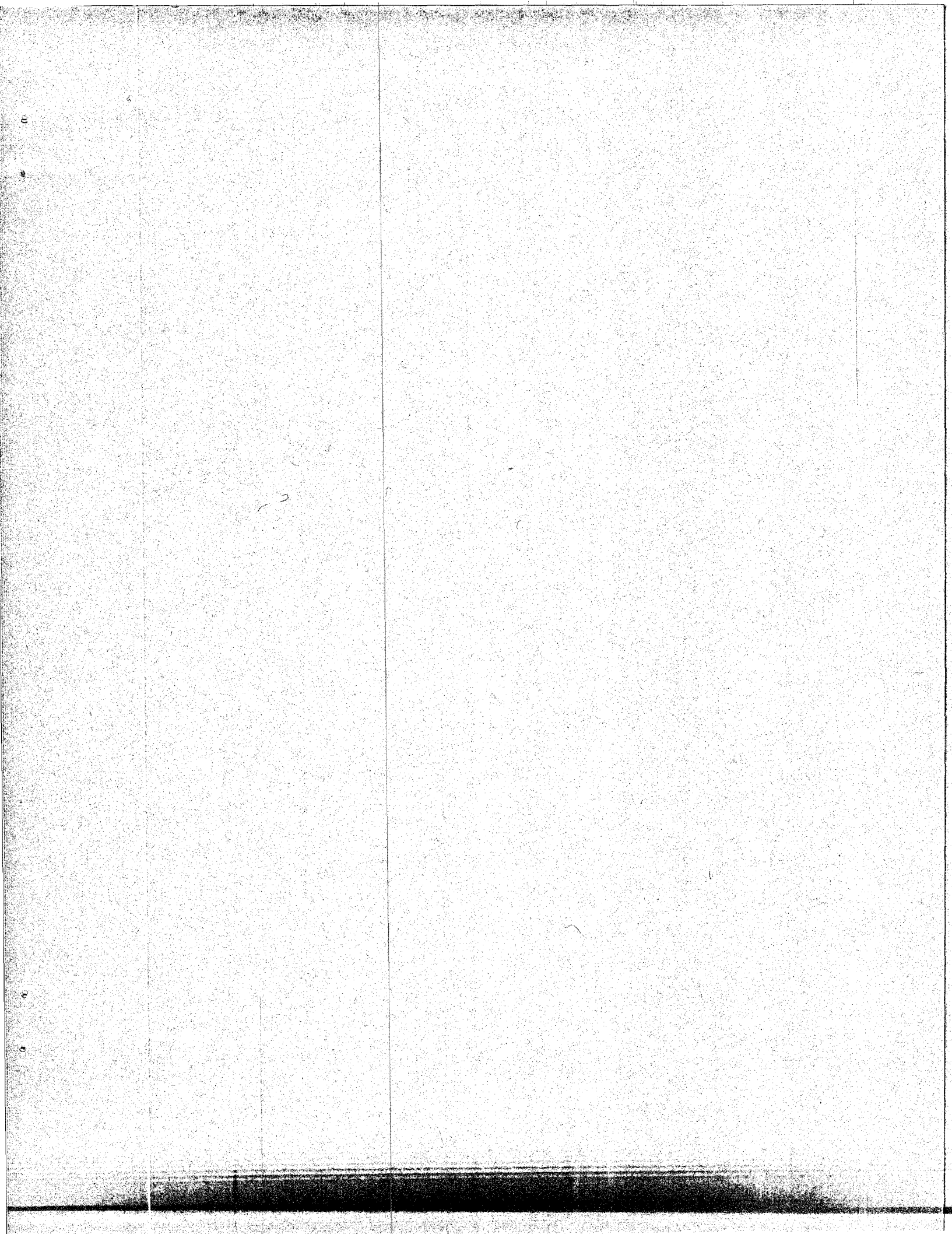
**MARCH 8, 1994**

## Abstract

In the competitive marketplace that exists today, many American corporations are facing increased competition from the Japanese. Products from the Japanese are considered to have superior quality and performance. What is the secret to their success?

Can American corporations learn from the Japanese to compete on this new level?

This paper will discuss the Deming philosophy of quality improvement and his "14 points for management. It is largely through the use of Deming's ideas that the Japanese have learned to become dominant in their industries. The philosophy of continuous improvement, called kaizen by the Japanese, will be discussed. Employee empowerment and involvement will be discussed. The ideas from different authors will add to Deming's 14 points to expand and reiterate the need for a total quality movement in America.



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## **I. Introduction - What are the secrets to the Japan's success in improving quality?**

The secrets to the Japanese success are based on a philosophical foundation. This foundation is a management philosophy that is best stated by Konosuke Matsushita, the founder of Matsushita Electric Industrial Co., Inc. Matsushita states:

The most important factor in management is sometimes overlooked; without an appropriate management philosophy, personnel, technology, and capital can not be used to their full potential.<sup>1</sup>

In the United States, for many companies, shabby and inconsiderate treatment of employees, suppliers, and customers is more or less standard operating procedure. In Japan, it runs against the cultural grain of the country.<sup>2</sup> In Japan, if an employee has poor performance, the manager and not the employee is at fault.

In Japan, the successful manager believes that for the corporation to make progress and grow, its products and activities must result not only in a fair profit, but must be beneficial to the community in which it functions, to employees, customers, suppliers, and all others with the stake in the enterprise, and to society as a whole.<sup>3</sup>

In America, most workers are placed into their own little niche with little understanding of what the organization is, how it works, or why it is needed. This often causes the worker to become rigid in his belief of his functional role and resistant to change. The real barrier to growth and success lies not in natural apathy or low morale, but in the ethics and philosophy of the organization itself, in the patterns developed and hardened; basically, in the way people think about themselves and their jobs.<sup>4</sup>



### **A. The background of the total quality management movement in Japan.**

The total quality movement in Japan started with the help of W. Edwards Deming. Deming worked with the Japanese to develop a quality and productivity movement which revolutionized their industry. In 1950, Dr. Deming was invited by the Union of Japanese Scientists and Engineers to speak to their leading industrialists who were concerned about breaking into the foreign markets and about Japan's reputation for poor quality goods. Dr. Deming convinced them that Japanese quality could be the best in the world if they instituted his methods. The industrialists took Deming's philosophy to heart and have improved their quality and expanded their markets dramatically.<sup>5</sup>

### **B. An Introduction to Deming's Philosophy.**

Dr. Deming's methods incorporate the use of statistical tools and a monumental change in the corporate culture. Both are important to the successful implementation of his philosophy. Dr. Deming has outlined his methods for achieving quality and productivity in his "14 points for management" The 14 points together provide a framework for the action and give management the basis on which to formulate a plan in the absence of experience with a particular issue. The acceptance and understanding of the 14 points will lead to a commitment by management to change its thinking and behavior.<sup>6</sup>

## **II. Deming's 14 Points for Management.**

Dr. Deming's 14 points constitute the core of his program for achieving quality excellence. Deming emphatically states that managerial practices are in need of a radical overhaul. Some of the points are quite controversial and are often misunderstood. The Deming philosophy is an all-or-nothing approach to improving quality. According to Deming, none of the 14 points can be viewed by itself, and companies cannot pick and choose which ones to implement.<sup>7</sup> Dr. Deming's 14 points are listed below and will be discussed briefly.

### **A. Point 1. Create a vision and demonstrate commitment.**

Deming believes that business must adopt a long-term perspective and take responsibility for providing jobs and improving a firm's competitive position. Only top management can develop a vision since they set the policy and mission of the organization. They must then act on the policies and show commitment.<sup>8</sup> Constancy of purpose provides a philosophy and a framework so that decisions can be made in a consistent manner. Managers under the Deming philosophy are concerned with the problems of today and tomorrow and inspire confidence with their long-term view of the company and its commitment to quality.<sup>9</sup>

It is top management's task to make sure that once the mission statement is formulated that it becomes a living document. Everyone in the organization must understand it and must integrate it into their day-to-day behavior. There must be consistency between what the mission statement says and what the company actually does. Top management must provide the leadership and must act as a role model in this endeavor.<sup>10</sup>

The process of positive communication must be present to make the mission statement a living document. For this to occur, four elements must be present:<sup>11</sup>

1. The manager has to communicate the desire to know when his or her behavior is at odds with the mission statement.
2. The manager has to act on the information received.
3. The manager should reward and encourage feedback behavior.
4. Employees have to be willing to take the risk of giving management feedback.

To aid in making the mission statement a living document, middle and lower-level managers and the employees should be encouraged to write their interpretation of the statement. In this way, management begins to create an atmosphere of open communication. Stockholders and the board of directors should be aware of the company's mission statement so that they can understand what the company is doing now and what it is planning for the future. New employees should be aware of the importance of the company's mission statement from the beginning. They should be exposed to it during new employee orientation and should have an initial commitment to it.<sup>12</sup>

Possible pitfalls to avoid when developing a mission statement include the following:<sup>13</sup>

1. Failure to plan for the problems of tomorrow. Management must not only deal with today's business problems, but it must plan for the future by examining customer needs, performance requirements, products and services, materials, methods, training and skill requirements, supervisory methods, costs of production and marketing, etc. Failure to plan for the problems of tomorrow can be deadly to an organization.

2. Managerial zeal to complete the mission statement. This will inevitably lead to the exclusion of input by certain groups. The process of completing a mission statement says a great deal about how you are going to operate and communicates your intentions to others in the process.

3. Behaving as if the mission statement is finished before getting input. If people are asked to contribute to the mission statement, they should be given a "working paper" and a clear message that it is not finished without their input and is open to change.

4. Avoid getting stuck in writing the mission statement. Some managers or steering committees formed to write mission statements can become obsessed with the mission statement as an end in itself. Make sure that there is at least one person involved in the writing of the mission statement who will keep it moving.

5. Management's inability to prepare a mission statement. Sometimes management is unable to formulate a mission statement. Often this is a result of interpersonal conflict, resistance to change, and denial of problems on top management's part. If this occurs and someone is aware of the problem, a consultant can be hired to help the steering committee focus the group and deal with the issues that have been paralyzing it.

6. Avoid thinking that the mission statement is cast in stone. Rigid adherence to a document reflects an inflexible system. Flexibility and adaptation are necessary components in an organization's framework that help it adapt to problems of today and tomorrow. The document should be written to reflect this ability to deal with change.

7. Don't forget the mission statement after it is written. Many organizations fall into this category. Management should refuse to allow this to happen.

8. Believing that the mission statement will tell you how to behave in specific situations. A mission statement provides guidance and an overall picture of the corporate philosophy. It is not constructed to be a guide for daily corporate living. A manager cannot become dependent on a mission statement in the absence of leadership skills. The administrator must know how to perform the tasks of a manager, incorporating the company's philosophy into these actions.

#### **B. Point 2. Learn the new philosophy.**

Many industries in America have lost their competitiveness in world markets. Old methods of management, such as numbers-driven production, work measurement-based quotas, a bottom-line mentality, and adversarial work relationships will not work in today's global business environment. The current system creates mistrust, fear, and a focus on "satisficing" rather than on "optimizing". We must develop a quality consciousness and a new attitude that "good enough" just isn't. This can only be done with a never-ending cycle of improvement and changes in managerial and worker attitudes.<sup>14</sup>

Customer satisfaction must become the focus of corporate thinking. Providing customers with goods and services that meet their expectations and needs at a price that they are willing to pay is paramount. This can only be done through a never-ending cycle

of continuous improvement. A common misconception among management is that if you want to increase productivity, you must either stress quantity and/or lower costs.

Dr. Deming's methods say that you can have it all. You will increase quality and productivity, lower unit costs, and cut prices. Your position in the marketplace will be strengthened, and you can feel secure that your company will exist for a long time to come. You will be able to provide stable employment and to have the funds to innovate, train, educate, and please investors. Customers will be satisfied with your product, and employees will have pride in their work.<sup>15</sup>

Top management has to change its attitude and develop a quality consciousness. Then it has to get everyone else involved in the quality journey by identifying and removing barriers that interfere with the improvement of quality. There are many pitfalls to avoid in this process. The pitfalls are listed below:<sup>16</sup>

1. Top management continuing to push quantity while espousing a quality philosophy. This contradiction will be noticed immediately by middle managers, employees, and union officials, who may become turned off to anything having to do with the new philosophy.
2. Top management's inability to define quality properly. It is very easy to get caught up in the traditional definitions of quality such as "conformance to specifications." This is meaningless in the absence of information about customer needs and expectations. Your product could easily conform to arbitrary specifications and still not meet the expectations of the customer.

3. The company's inattentiveness to customer feedback. Companies need to have a system where they can constantly receive, assess, and use customer feedback in redesign; otherwise there can be no improvement.

4. Becoming overwhelmed by the amount of barriers uncovered. Often, companies will discover so many quality barriers that they are overwhelmed. Companies must guard against this by prioritizing the barriers and systematically planning on how to remove each one of those barriers in time.

5. Getting "hung-up" with complainers. Sometimes upon being asked about ways to improve quality, workers will often be so glad that someone has finally asked that they will barrage you with a list of complaints, personal issues, old issues that have been resolved, and skepticism about conditions ever changing. Of course you should listen, but you need to structure your time and interviews with them to get pertinent information.

6. Ignoring the union. Union officials should be made aware of the company's interest in pursuing the Deming philosophy. They should be an integral part of the effort and should be included in the initial training of top management. In this way, they will feel part of the process and not an afterthought. If they are left out of the process, they will most likely be adversaries and will tell their membership that this is another program designed to make more money for the company while exploiting the workers.

Productivity, involvement, or restructuring programs that don't involve the union or gain its support from the beginning are usually doomed to failure. An example of this was that one company absolutely refused to allow the local union to

participate and jointly sponsor an employee involvement program, even though the plant manager has suggested having the union as a partner. However, corporate industrial relations was adamantly opposed to it. Its position was, "We'll be damned if we'll let the union get some of the credit for this." As a result of not having the union's support, the union asked its members not to participate. The program was stalemated for months. A truce was finally reached, but the ill will never dissipated and the program faded away.<sup>17</sup>

7. Middle management's fear of change. Middle managers' perception may be that they have a lot to lose if their organization changes the way that it has been operating. They have succeeded under the current system and know how to keep climbing to the top. In the past, it was their role to handle problems and not report them to the higher management. They might feel that the process of uncovering barriers to productivity and quality might make them less needed. Top management must make middle management see that is important to remove barriers to quality improvement.

8. Continuing to blame vendors for poor quality. A company must become involved with its vendors' processes and must help them improve quality also. There should be a sharing of information, successes, failures, resources, etc., along with actual hands-on involvement in each other's operations. Continuing to blame vendors for your failure to achieve quality is a waste of energy that should be devoted instead to the never-ending pursuit of quality.



### **C. Point 3. Understand inspection.**

Routine inspection acknowledges that defects are present, but does not add value to the product. Rather it encourages the production of defective products by letting someone else catch and fix the problem, it is rarely accurate, and the rework and disposition of defective material decreases productivity and increase costs. In services, rework cannot be performed; external failures are the most damaging to the business. Workers must take responsibility for their work, rather than leave the problem for someone else down the production line. Managers need to understand the concept of variation and how it effects their processes and seek to reduce the common causes of variation. Simple statistical tools can be used to help control processes and eliminate mass inspection as the principle tool for quality control. Inspection should be used as an information-gathering tool for improvement.<sup>18</sup>

Eliminating the need for mass-inspection involves fundamental changes in how a organization views its processes. Some possible pitfalls to avoid are:<sup>19</sup>

1. Ignoring the need for a statistician. If you do not have a statistician, you should hire one that is familiar with the Deming philosophy. If you already have one, you should train him or her along with the rest of the employees. Another option is to hire a statistical consultant.
2. Lack of communication with vendors. You must communicate with your vendors so that they know what your quality problems are. You should work with them to improve their processes.

3. Continuing to use acceptance sampling. People who have traditionally used acceptance sampling are often reluctant to stop using them. Continuing to use acceptance sampling will seriously impede the quality effort.

**D. Point 4. Stop making decisions purely on the basis of cost.**

Purchasing departments have traditionally been motivated to lower costs without any regard to quality. Many governmental agencies even require that new contracts be rewarded solely on the basis of costs and require that many bids be sought on every contract. Often this results in the contractor with the poorest quality being selected for the job. In addition, the fact that many bids are solicited for one job could result in an unfamiliar contractor performing the job. This increases the learning curve that contractors and clients must go through to improve understanding and quality on the job.

Deming proposes building long-term relationships with vendors and moving toward a single supplier for any one component. Management has always justified multiple vendors for reasons such as providing protection against strikes or natural disasters but has ignored hidden costs such as increased costs to travel to visit suppliers, loss of volume discounts, increased setup charges, and increased inventory and administrative expense. Most importantly, changing vendors solely on the basis of price increases variation in the material supplied to production, since each supplier's process is different.<sup>20</sup>

#### **E. Point 5. Improve constantly and forever.**

Western management has traditionally viewed improvement in the context of large expensive innovations. Meanwhile, the Japanese have focused on continuous, small, incremental improvements. Improvement means reducing variation by eliminating special causes and reducing the effects of common causes. The use of statistical methods, workers can identify special causes and take corrective action when they occur. Common causes of variation are due to a system that management designs. Deming states that 85 to 95% of variation is due to the system. Statistical methods can be used by managers to understand common causes and lead to their reduction.<sup>21</sup>

Kaizen strategy is the single most important concept in Japanese management. Kaizen means ongoing improvement involving everyone from top management, middle management, and workers. Understanding kaizen is crucial to understanding the differences between the Japanese and Western approaches to management. Kaizen involves a process-oriented way of thinking versus the West's innovation and results-oriented thinking. Kaizen solves problems by establishing a corporate culture in which everyone can recognize and admit that they have problems. Problems can be both unfunctional and cross-functional. In the West, cross-functional problems are often seen in terms of conflict-resolution, while kaizen strategy has enabled Japanese management to take a systematic and collaborative approach to cross-functional problem solving. Underlying the kaizen strategy is the recognition that management must seek to satisfy the customer and serve the customer needs if it is to stay in business and make a profit. Improvements in such areas as quality, cost, and scheduling are essential. Kaizen is a customer-driven strategy for improvement where it is assumed that all activities should eventually lead to increased customer satisfaction. Another important aspect of kaizen has been its emphasis on the process. Kaizen has generated a process-oriented way of

thinking and a management system that supports and acknowledges people's process-oriented efforts for improvement.<sup>22</sup>

#### **F. Point 6. Institute training.**

For continuous improvement, both management and workers must gain the necessary skills for problem identification and problem solving. Workers in Japan often spend from 4 to 12 years on the shop floor to learn the problems of production. All employees want to do a good job, but they often do not know how. All employees should be trained in statistical tools for problem solving. Not only does this training result in improvements in quality and productivity, but it adds to the workers' morale, showing them that the company is dedicated to helping them and investing in their future.<sup>23</sup>

Ciampa states that the first few problems that teams try to tackle should be treated as test cases or pilot programs. The knowledge gained from completing these pilots will make it easier to complete the next pilot. An education steering committee should be formed that should stay on top of things and to see that resources are allocated so that no systemic barriers get in the way of progress. Ideas for pilots should come from the opportunity and climate assessment (OCA) survey, where employees and consultants flag areas that need change and prioritize them. After the first set of pilots is underway and the steering committee has the time available, it should make a taskforce to organize the formal education program. The taskforce needs to dig into the OCA to find where people think they need the most help in changing things, where their perception of total quality is farthest from reality. The taskforce should benchmark their company to the leader in their industry that is known for their educational program. The taskforce should talk to people in these companies to explore how they have conducted their educational programs,

perhaps observe their training and take whatever information they can from them. The taskforce must go back to senior management and get them to rearticulate the vision as it was developed and as it has changed, if it has been at all tempered by reality in the last few weeks of running initial pilot projects.<sup>24</sup>

After the above steps have been completed, the taskforce should draw up a list of workshops that should be given, and to whom. Careful planning must be done so that the education programs have the least possible disruptive impact on work. Ideally, people should participate in a pilot program and then attend training. This will help establish a need for the training with the employee.<sup>25</sup>

#### **G. Point 7. Institute leadership.**

Deming states that the job of management is leadership, not supervision. Leadership is emphasized when a supervisor declines from the day-to-day policing and starts to spend their time on process control and reducing variation. Leadership is also demonstrated when the supervisor spends time training and developing employees.<sup>26</sup>

Today's leaders seem to have common traits: They tend to be hands-on managers that have risen through the ranks. They are more knowledgeable about their companies' operations than many CEOs of the past. They tend to put a premium on being flexible and moving quickly, to fit the fast-changing environment in which they are guiding their companies. They tend to be aggressive and unafraid to make the changes they believe are needed to put their companies on the leading edge. Most importantly, these executives are driven by a far-reaching vision for their companies. The concept of the organization man, the professional manager, has given way to a more intuitive, involved manager who

is truly a leader, who is able to assess the changing environment, can see where a company has to go to take advantage of that environment, and chart a course that can get the company to that goal, pulling legions of employees along the way.<sup>27</sup>

#### **H. Point 8. Drive out fear.**

Driving out fear underlies many of Deming's 14 points. Fear is present in many forms: fear of reprisal, fear of failure, fear of the unknown, fear of relinquishing control, and fear of change. Driving out fear involves managing for success. By arming the workers with adequate training, good supervision, and proper tools to do the job. When fear is decreased, workers cooperate to ensure the long-term survival of the company.<sup>28</sup>

Risk taking is necessary to innovation and successful change, but risk taking involves the chance of error. A strong organization learns to profit from errors; a weak one tries at all costs to avoid them. Some mistakes are due to heedlessness or neglect and cannot be justified. However, some mistakes are acceptable when three conditions are met. The first condition is that the mistake occurred on the pursuit of the mission of the organization, that is in trying to make the vision of the group a reality. The second condition is that the person or team that made the mistake learned from it. The third condition is that the learning is shared so that the entire organization learns from it. Not many firms provide an environment in which people are prepared to admit their errors to others and what they learned from them. But in a trusting atmosphere, this kind of sharing can occur, and it contributes to the growth and increasing competence of the firm.<sup>29</sup>

## **I. Point 9. Optimize the efforts of teams.**

Teamwork helps to break down the barriers between departments and individuals. Perhaps the biggest barrier to team efforts in the United States is between union and management. The history of management-labor relations in U.S. firms has been largely adversarial. To counter the historic trend in management-labor relations, training and employee involvement are used.<sup>30</sup>

The first of four limitations of traditional employee involvement (EI) programs are that only a small number of employees are involved. American Productivity Center surveys have found that in most companies with EI programs less than 15 percent of the employees are active participants. Most firms with quality circles have fewer than 10 percent of their employees involved. Secondly, most of the people who are involved are shop floor and office personnel with no organizational clout. They have to accept the current operating system as given, because they have little power to change them. The third limitation of traditional EI groups is that they tend to be process-driven rather than business-driven. It is not uncommon to ask for EI volunteers, train them in structured problem-solving, then say "work on whatever you think is important." The last and perhaps the biggest flaw in traditional EI is the way that the process is divorced from day-to-day operations. Groups meet once a week, and the rest of the time it's business as usual.<sup>31</sup>

To get the full benefit from employee involvement, the traditional approach to EI must be avoided. To expand employee involvement beyond the traditional state, there must be two preconditions. First is a willingness to give employees a role in helping with real business problems, either because of prior success with EI groups or because managers think employees can help solve one of management's pressing problems. The second

precondition necessary for successful employee involvement is that there must be a compelling need. Three of the most common needs are: a crisis, problem, or opportunity needing immediate attention; a major overhaul of the operating system or organizational structure; or the design of such new human resource approaches as gain sharing plans, employment stability strategies, problem-solving systems, and quality programs.<sup>32</sup>

**J. Point 10. Eliminate exhortations.**

Posters, slogans, and motivational programs calling for "Zero Defects," "Do It Right the First Time," etc., are aimed at the wrong people. These motivational programs assume that all quality problems are behavioral in nature, and that employees can improve simply through motivational methods. Motivation can be better achieved from trust and leadership than from slogans and goals.<sup>33</sup>

Eliminating numerical goals for the workforce is a strong statement that signals management's commitment to the never-ending improvement of quality. Management must demonstrate a long-term perspective and a constancy of purpose by unifying the entire organization around this larger goal. Replacing arbitrary goals with the use of statistical methods, particularly control charts, will also aid in the strengthening of management's credibility. Workers will begin to believe that they are not being pushed to produce, penalized for variation, or expected to bear the burden of management for taking responsibility for the system.<sup>34</sup>



**K. Point 11. Eliminate numerical quotas and management by objectives.**

Measurement has been often used as punishment. Standards and quotas are born of short-term perspectives and create fear. They do not encourage improvement. Workers may cut quality to reach the goal. In addition, quotas don't encourage the workers to continue production if they surpass the goal.<sup>35</sup>

Work standards, measures day work, and piece work are names given to a practice in American industry that is contributing greatly to the demise of quality, productivity, and competitive position. Work standards and quotas consider only quantity, not quality, so they are at odds with Deming's philosophy. Management's reliance on work standards and quotas implies a lack of proper supervision and training. Supervisory relationships are hampered because of employees' fears of not reaching quotas, and barriers are created between managers, supervisors, employees, and unions because standards do not encourage meaningful communication. Through the use of control charts that are created by the employees a common ground for communication can be established, fears and barriers would diminish, the quality of work would improve, and there would be no need for quotas.<sup>36</sup>

**L. Point 12. Remove barriers to pride in workmanship.**

People are often considered to be a commodity. Factory workers are given monotonous tasks, provided with inferior machines, tools, or materials, told to run defective items to meet sales pressures, and report to supervisors that know nothing about the job. Deming feels that one of the biggest barriers to pride in workmanship is the performance appraisal. Performance appraisal destroys teamwork by promoting

competition for limited resources; fosters mediocrity since objectives typically are driven by numbers and by what the boss wants, not by quality; focuses on the short-term and discourages risk-taking; and confounds "people resources" with the other resources.<sup>37</sup>

National Steel President, Robert D. McBride commented on the improving communication in its Detroit Plant with help from its partner Nippon Koban. "We build too many walls: comments like, This is my turf ... stay the hell out, were common in the past. But the Japanese, with their culture of consensus -building, take naturally to strong horizontal communication among peers, and the Americans have much to learn on that score."<sup>38</sup>

McBride stated, "Breaking down those walls is the biggest challenge we have, whether the walls divide union and management or managers with different responsibilities. It is my belief that American steelmakers, raised in a culture of individualism, should be able to build a better top-to-bottom communication process than the Japanese. Obviously, somewhere the decisions have to be made, but we're more participative now. It means a lot of listening and taking more time in the decision-making process."<sup>39</sup>

#### **M. Point 13. Encourage education and self-improvement.**

Education and self-improvement refers to continuing, broad education for self-development. Organizations must invest in their people at all levels for the long term. A fundamental mission of business is to provide people with jobs, but business and society also have the responsibility to improve the value of the individual. Developing the worth of the individual is a powerful motivation method.<sup>40</sup>

To thrive in the future organizations must create mutual benefit for all stakeholders by the fulfillment of each individual as well as the organization. Leaders can satisfy the desire and needs of individual stakeholders in the corporate environment while meeting the performance demands and expectations of the corporate entity. However, most managers agree that it will often be difficult to establish and maintain a balance between individual and the collective well-being of the organization.<sup>41</sup>

**N. Point 14. Take action.**

The transformation must begin with top management and include everyone. Applying the Deming philosophy represents a major cultural change that many firms find difficult, particularly since many of the traditional management practices that Deming feels must be eliminated have been ingrained in the organizational culture for decades.<sup>42</sup>

Top management has to accept the responsibility for the never-ending improvement of quality in organizations and has to create a structure conducive to the implementation of this philosophy. Without top management's realization that it is in deep trouble and that it must make a commitment to change, frustration at the lower levels is inevitable, and workers will labor in an atmosphere full of inconsistencies, inequities, needless competition, and fear. Changing the structure of an organization necessitates a long-term perspective because the short-term effects may be somewhat chaotic and unsettling. Management must be prepared to allow enough time for people to adapt to the new structure and methods. Patience and an understanding of the process of change will enable management to see the company through its metamorphosis.<sup>43</sup>

### III. Conclusion

Dr. W. Edwards Deming's philosophy and his 14 Points are based on the premise that managerial practices are in need of a radical overhaul. Deming's tough all-or-nothing approach strikes fear into many American managers who owe their current successes and positions to the traditional methods of management. This fact makes implementing the Deming philosophy of total quality management difficult. Many of the authors whose thoughts are listed in this paper share many of Deming's views. However, the majority of the authors fail to take such a desperate approach to improving quality. Deming's philosophy is filled with mandates that state that unless you follow my directives to the letter, management is merely paying lip service to total quality improvement. However, Deming's emphasis on strong commitment by management, the need for continuous customer-driven improvement, the utilization of teamwork, employee empowerment, and the use of statistical tools for quality improvement provides a firm foundation for corporations to succeed in improving quality.

## NOTES

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