

Talking of Malcolm Baldrige National Quality Award

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ABSTRACT

Taking a look at recent business activities, many companies have been contributing to unethical business practices, the distribution of children's toys containing mercury, the illegal dumping of toxic waste, and fraudulent financial reporting. These are some issues that society has encountered with harmful business activities. The award was named after a Malcolm Baldrige the 26th Secretary of Commerce. According to NIST (2011)" Malcolm was a proponent of quality management as a key to U.S prosperity and long-term strength. In recognition of his contributions, Congress named the award in his honor". The award is the highest level of national recognition for performance excellence that a U.S. organization can receive; it promotes performance excellence of private and public organizations.

The focus of this study is to review the types of organizations that are the recent recipients of the award. The focal point is the four organizations that received this award for the year 2011. This will find what these companies did to receive recognition versus other companies in the same industry of competition who failed to meet the expectation. The research will show how some industries have poor business practices that are affecting society negatively and what could be done in order to change their business perspective.

Keywords: Baldrige, award, Cadillac, credibility, organizations, National, Quality

Introduction - History

In the midst of the 1980's, leaders of the United States' Congress established the Malcolm Baldrige National Quality Award named in honor of former U.S. Secretary of Commerce Malcolm Baldrige. Realizing the importance of quality among businesses, the Congress used the concept of quality as an entryway to establish a presence in the global market. Through his work and accomplishments toward improving governmental efficiency, Baldrige has been recognized for his managerial and performance excellence (Premier Inc., 2011, para. 2). Following Baldrige's death, the Malcolm Baldrige National Quality Improvement Act of 1987 was established by Congress and signed into law on August 20, 1987 by former U.S. President Ronald Regan (Garvin, 1991, p. 81). The objective of the act was to "enhance the competitiveness of U.S. businesses." In addition, its purpose has since extended to the institutions of education and health care as well as government and nonprofit organizations (NIST, 2012, para. 3).

According to the National Institute of Standards and Technology (NIST, 2012), a federal agency under the U.S. Department of Commerce, there are three main reasons that prompted Congress to develop the Malcolm Baldrige Quality Award Program, more formally known as the Baldrige Performance Excellence Program. The three reasons include: (a) to identify and recognize role-model businesses; (b) to establish the standard criteria for

evaluating improvement efforts; and (c) to disseminate and share preeminent practices identified. Simply put, the Baldrige Performance Excellence Program is the country's public-private partnership devoted to accomplishing a number of goals such as to raise national awareness of performance excellence among the U.S. global economy while at the same time, provide the necessary organizational tools and criteria. Furthermore, they seek to educate leaders of key institutions including for-profit, not-for-profit, education, and health care organizations about leading organizational practices. Lastly, they acknowledge role-model business organizations by granting the Presidential Award, a national award for recognizing performance excellence (para. 1).

The purpose of this paper is to conduct an in-depth analysis of the Malcolm Baldrige National Quality Award. The researcher will identify what the Award is, who administers it, and its criticisms. In addition, the researcher will present a case analysis of the 1990 Baldrige Award recipient, Cadillac, and will provide recommendations on how the Award can be improved.

Background

The goals stated above are the major building blocks of the Program's mission statement. NIST (2012) presents the Program's mission statement as of that to enhance competition and performance among U.S. organizations "for the benefit of all U.S. residents." In order to accomplish their overall goal, the Program must first succeed in executing their short-term goals. On top of that, another significant objective of theirs is to become the top pick as a partner to other organizations in their efforts to strive towards excellence, which is stated in the Baldrige Program's vision statement. Not to mention, the program partnership does indeed uphold its core values of: delivering consistent, positive consumer experiences, valuing and empowering their workforce, and thinking and acting ethically as well as strategically (para. 4).

To the researcher understanding, the Baldrige Performance Excellence Program has made the year 2012, the transition year of executing their sustainable business model. Under the sustainable business model platform, the program intends to administer the 2012 Award program in which they will assess organizations for performance excellence. Other duties on their agenda include implementing their business plan that will engage the Baldrige community, meanwhile, develop both extrinsic and intrinsic value for the U.S. global economy. The partnership will also partake in the management of six different task forces and will be making adjustments to processes as well as redirecting resources to appropriate areas.

Aside from the previously mentioned responsibilities and near-future endeavors, the Program is currently recognized for their educational services to the business community in addition to a number of other things. Today, the program provides award recipients with feedback reports that highlight strengths to capitalize on and weaknesses to improve on. The program also schedules year-round presentations and workshops for the purpose of improving the criteria used. Finally, the program does host a number of events and conferences that recognize outstanding organizations with management practices for others to emulate (NIST, 2012 para. 2).

Literature Review

In an article published in the Harvard Business Review entitled "How the Baldrige Award Really Works" author David A. Garvin (1991) provides an in-depth discussion on the Malcolm Baldrige Award and elucidates on the prestigious (and sometimes contentious) award's real purpose and operations. In another article entitled "Viewpoint: Time for U.S. Companies to refocus on the Malcolm Baldrige Award?" found in the online magazine publication IndustryWeek.com, author Andy Tannen (2011) gives his honest viewpoint on the Baldrige Award and its fading importance in today's industries.

According to Garvin (1991), currently the C. Roland Christensen Professor of Business Administration at the Harvard Business School, the Malcolm Baldrige Award is "an agent of transforming U.S. business" (p. 80). He reasons that despite the criticisms it has received, the award has reshaped managers' thinking and behavior. One, the award codifies the principles of quality management, and two, the award provides organizations with a comprehensive framework to assess their progress towards achieving their goals. The award has gained popularity and wide acceptance, but at the same time, has received serious criticisms for three major deficiencies.

The first major deficiency, according to Garvin, comes from reports that the Baldrige Award "could be bought" by companies who invest enormous amount of money simply to win the award. For instance, Xerox, a 1989 winner, and Corning, a 1989 finalist, admitted to spending \$800,000 and 14,000 labor hours respectively to prepare applications and prepare site visits inspected by Baldrige examiners.

The second major deficiency refers to the award's failure to reflect outstanding product quality. Gavin uses Cadillac as an example after it won an award in 1990 when it had yet to "crack the top ranks" of automobile quality (p. 80).

The third major deficiency of the Baldrige Award is the poor performance and earnings of some past winners, which has concerned critics whether the award is an "accurate gauge of a company's competitiveness and profit potential" (p. 81). Gavin mentions Cadillac again, as well as Motorola and Federal Express, in illustrating this point.

These three major deficiencies have been brought up by critics, leading them to question the credibility of the Baldrige Award. Gavin, however, contends that this is a matter of deep misunderstanding. The primary reason is the award's strict confidentiality policy, keeping critical comparative data of both winners and non-winners unavailable. The author suggests that to address this issue, the National Institute of Standards and Technology must find a way to keep confidentiality and, at the same time, make data available as a reference on the Baldrige Award and as a guide for companies to improve their quality. Otherwise, Gavin suggests, companies may seek the views of people most familiar with the award, such as the judges, the senior examiners, and the examiners because their comments and observations can provide "an accurate and sophisticated understanding of what the Baldrige Award is and, equally important, what it is not" (p. 81). Gavin, who himself was a member of the Board of Overseers of the Malcolm Baldrige National Quality Award from 1988 to 1990, concludes that the Baldrige process is actually simple, but has caused both a misreading of the criteria and a flawed conception of the award.

In order to clarify some misconceptions and paint a clearer picture of what the Baldrige Award is, Gavin debunks three very common myths: 1) the Baldrige Award requires

large expenditures on the application and preparation of site visits, 2) the Baldrige Award is flawed because it fails to predict a company's financial success, and 3) the Baldrige Award does not honor superior product or service quality (p. 81-83).

For the first myth, Gavin argues that the award criteria cannot be bought because the criteria are strongly regulatory on philosophy and values. The award is open-minded about practices and procedures, allowing companies to freely choose its own techniques to achieve goals. Moreover, the award tells companies that they must demonstrate proficiency, not how to do so.

Gavin debunks the second myth that the Baldrige is doing little to enhance competitiveness or improve corporate performance, evidenced by several companies' poor financial performance. Gavin contends this myth by asserting that financial performance was never meant to be a basis of choosing winners. What the award looks for are companies that have good total quality management processes.

Finally, Gavin disclaims the third myth by maintaining, similar to the second myth, that the Baldrige Award was never designed to reward product or service excellence alone, which was exactly the reason Cadillac, who did not meet this standard, was criticized for winning the award. Only 250 points are for product or services, while the remaining points are focused on management systems and processes, which Cadillac exemplified.

Gavin wraps up by stressing that the award is neither too narrow nor too broad as many critics have claimed. It is exactly where it should be – in the middle ground. Moreover, the award is not a complete award for corporate excellence. It is definitely not limited to product or service excellence or traditional quality control. It also considers employee morale, public responsibility, and business ethics. However, it omits other areas of great importance such as innovativeness, organizational design, financial performance, and more. The Baldrige Award may have flaws but it remains top in many managers' lists of award-giving bodies because it provides a framework for assessing management processes. For Gavin, the Baldrige Award remains an important "catalyst for transforming U.S. business" (p. 80).

While Gavin stands his ground on the effectiveness of the Baldrige Award as an award-giving body on quality management, Tannen provides a more objective viewpoint of American industries and their failing relationship with the Baldrige Award.

Tannen (2011), the Director of Strategy & Development in the Corporate Practice division of MSLGroup, provides numerous cases where manufacturers failed to deliver quality standards, hurting their reputation and financial performance. For instance, Tannen uses Toyota, Johnson & Johnson, and GlaxoSmithKline as cases in point of companies that failed to meet customer expectations and certain quality standards.

Tannen illustrates Toyota's mass recall of 11 million vehicles and payment of fine to the U.S. government after some of its cars' unintended acceleration resulted in deaths. For Johnson & Johnson, some impurities ended up in a number of products manufactured in a Pennsylvania plant. As for GlaxoSmithKline, different doses of prescription drugs were intermingled in the same container, shipped from a Puerto Rico plant to U.S. pharmacies.

In response to these issues, Tannen recommends that U.S. companies pay more attention to the Baldrige Award. If U.S. companies integrated the Baldrige model to their organizations and met the Baldrige Award's standards, then these companies could become more competitive, which is primarily why the award was established to begin with. However, the Baldrige Award has unfortunately lost its luster with the media and the general public. Tannen asserts that the Baldrige Award had better resurge and focus on one aspect of its model: quality management because the award does have the potential to transform U.S. industries, such as manufacturers, service companies, and health and educational institutions, into more competitive and effective organizations.

Theoretical Framework and Hypothesis

The Malcolm Baldrige National Quality Award is an annual award that is presented by the United States government to both profit and non-profit organizations that have displayed and practiced exceptional performance and excellence (Risvank, 2010, para.1). Like the Deming award, the Baldrige award promotes recognition of quality achievements and raises awareness of the importance and techniques of quality improvement. However, unlike other organizations, the Baldrige award focuses more on results and service. The Baldrige award also relies upon the involvement of many different professional and trade groups, provides special credits for innovative approaches to quality, includes a strong customer and human resource focus, and stresses the importance of sharing information. (University of Wisconsin, 2011).

With its focus on results and services, the Baldrige Criteria for Performance Excellence is composed of seven different categories, as known as the Seven Pillars of Malcolm Baldrige, which guide an organization in assessing their performance. Various U.S. organizations—ranging from manufacturing, small business, service, education, health care, and nonprofit—have used this set of criteria in order to consider the different aspects that help run their organization and to find alternatives and solutions to maintain continuous improvement. These seven criteria assist business leaders in aligning processes and resources, improving communication, productivity, and effectiveness, as well as achieving strategic goals. In addition, these seven criteria are focused on the management efforts and effects on a company's success.

The first criterion of the Seven Pillars is leadership, which is composed of two different parts known as “items.” The first item is the role of senior leadership in the development of an organization’s goals, vision, and values and in the execution of ensuring that all employees and subordinates are fully aware of these goals. The second item is the role of leadership in a company’s governance and societal responsibilities. Proper and effective communication is an important aspect of leadership because it allows senior leaders to “convey their organizations’ visions and values in the face of expanding or converging relations with partners, subunits, suppliers, and new stakeholders, and amid mergers, acquisitions, and shifting alliances in the global economy” (National Institute of Standards and Technology [NIST], 2011, pg. 82). The second criterion is strategic planning, which examines whether a company has successfully developed strategic goals and action plans. The evaluation committee also reviews the actions a company has taken in order to administer and measure the progress on the company’s plans and objectives, to maintain a balance of all the stakeholders’ needs, to adapt to sudden shifts in the market, and to create an equal proportion of all short-term and long-term challenges and opportunities (NIST, 2011, pg. 87). The third criterion—Customer focus—guides a company to evaluate the steps they

have used to develop customer relationships, which includes receiving and viewing their input as an opportunity for innovation and a chance to improve business practices or products. This area also analyzes how a company retains their customers, increases engagement with their customers, and considers the overall satisfaction or dissatisfaction of their customers.

Measurement, Analysis, and Knowledge Management is the fourth criterion that examines how companies “select, gather, analyze, manage, and improve [their] organization’s data, information, and knowledge assets” (NIST, 2011, pg. 88). Other questions under this category include how an organization is able to manage information technology, to use data and information to support decision making, and to improve its overall performance. The Workforce focus, the fifth criterion, determines whether a company has built the proper working environment that encourages high performance from its employees, while working in alignment with the company’s mission and implemented strategy. Operations focus is the sixth criterion, which was formally known as the Process Management category until it was revised in the 2011-2012. This criterion examines the design and management of the system that is used to achieve a company’s workload with the use of both external and internal resources. The action plans instilled for overcoming emergencies, for delivering quality service, and for maintaining sustainability are also addressed in this section. Lastly, results—the seventh criterion—guides a company in “analyzing and reviewing results data and information in all key areas of your organization—product performance and process effectiveness, customers, workforce, leadership and governance, and financial and market performance” (NIST, 2011, pg.90). In addition, the questions asked in this section are addressed to compare the results of a company with a competitor’s performance, as well as to analyze the company’s overall performance.

There is no doubt that in order for a company to function properly, it must be led by ethical, visionary leaders. These leaders understand that in order to be successful with other aspects of the organization, they must first practice ethical behavior and gain stakeholder trust. The Malcolm Baldrige award winners constantly look for ways to exceed the requirements of the seven criteria and to practice strong legal and ethical behavior, ranging in areas of integrity among upper management and their subordinates, codes of conduct, and compliance with rules and regulations. In addition to practicing ethical behavior, award winners contribute to environmental, social, and economic sustainability by reducing energy use and chemical usage and by implementing ways to recycle.

Research Method

In conducting the research, the researcher used the Internet and EBSCOhost as the primary sources of information. Research on the Baldrige Award’s history and background, literature and articles on it, the theoretical framework of the award, and a discussion on Cadillac, a Baldrige Award winner, were conducted.

Data Analysis and Discussion

In the analysis section of this paper, the researcher will address some of the criticisms of the Malcolm Baldrige National Quality Award. The analysis will focus on the negative aspects of the award based on one of its chosen winners during the early 1990’s—Cadillac, a division of General Motors. As the researcher has realized through the research on what the Malcolm Baldrige National Quality Award is all about, it gave the impression that the award

is the business equivalent of the Academy Award or the Pulitzer Prize. According to Smith (2006), the Malcolm Baldrige Award is considered as the highest recognition of quality in the United States. He also mentioned that business experts in quality agree that the Malcolm Baldrige National Quality Award Program is not only beneficial to individual organizations seeking excellence in quality, but also believed to boost the quality and economic levels of the entire country. Garvin (1991) adds that the Baldrige Award not only codifies the principles of quality management in clear and accessible language, but also goes further by providing companies with a comprehensive framework for assessing their progress toward the new paradigm of management and commonly acknowledged goals, such as customer satisfaction and increased employee involvement. The award encourages businesses to be more aware of the importance of Total Quality Management (TQM) in all business processes. Winning the Malcolm Baldrige National Quality Award has become a goal that many businesses strive to obtain. The award demands instant respect and admiration from others in the industry.

Many companies apply for an assessment from the Baldrige committee hoping that they successfully meet each of the seven criteria that the awarding body abides to. If a company achieves the Baldrige award through its commitment to applying total quality management in their business process, it would be considered exemplary in quality performance. Winning the award becomes beneficial to the organization because it boosts its image in the market and increases its financial performance.

However, when the time came for the Malcolm Baldrige Award Committee to announce Cadillac as its winner in 1990, much criticism came from business professionals. Hart (1993) explains in his article that for one thing, Cadillac's products failed to garner the highest ratings in some automobile-quality surveys the year the company won. In addition, Hart says that conventional wisdom has long held that the quality of American cars is inferior, and that General Motors in particular is a problem-ridden organization. To further strengthen this reproach of the Baldrige award, Garvin (1991) also explained that some critics of Baldrige note that the award does not reflect outstanding or even exceptionally good, product quality in which the winning of Cadillac was the best example to portray this. Moreover, Garvin (1991) revealed that poor sales and earnings growth of some past winners have led critics to question whether the award is in fact an accurate gauge of a company's competitiveness and profit potential. Cadillac again was named one of the companies who exemplified this idea. To simply reiterate what earlier mentioned authors have said, Main (1991) said that quality experts were taken aback when Cadillac won. That Award did not mean that Cadillac made the best cars. The judges recognized that Cadillac developed a quality process that transformed every part of its business, from product design to customer service. The process was judged, not the product itself.

Hence to say, the Baldrige Award lost its integrity when they had decided that Cadillac was a winner. Gorelick (2004) strengthens this view by saying that during that time, it was evident in reports that Cadillac was losing market share and failed to distinguish itself in customer-satisfaction ratings — Lexus, Infiniti and other competitors had come on stronger than Cadillac. The lesson here is that customers, not manufacturers or engineers, still and will always define what is "quality."

In general, critics contend that companies who apply for the award, place a focus on winning, instead of on achieving quality. On the other hand, there are some supporters of the award and they argue that it does not matter how intent companies are on winning as long as

they put a meaningful quality program in place. In any event, however, executives should be careful to not mistake the Award for a company cure-all. It does not address some key elements of business success--innovation, financial performance, and long-term planning (Main, 1991).

Some people feel that the Baldrige Award is flawed because it fails to predict a company's financial success. This criticism was made because several Baldrige winners experienced financial problems after winning the award. Another criticism is that the "Baldrige can be bought." These claims arise from reports of large expenditures being made by companies who seek the Award. For example, Everett (1990) disclosed that big companies are spending thousands of dollars to seek the award, that former judges are highly paid consultants to applicants and that smaller companies are griping about the award's complexity. He also included that there were complaints that came in a survey of medium-size businesses that showed a majority will not enter the Baldrige contest because they believe it is mostly for big firms or too costly and time-consuming.

The Baldrige Award also has been criticized on grounds that it does not fit service companies very well. Many service companies believe that the criteria for the Award are too stringent and primarily oriented toward manufacturing organizations. As a result, less than 20% of the applications for the Baldrige Award in its first three years were from service organizations, even though the service sector accounts for more than half of the U.S. economy. David Nadler, a leading quality expert, thinks that the service companies' lack of success can be justified because service companies are far behind manufacturing companies in terms of quality (Main, 1990). Two main reasons explain this lag. First, U.S. service companies have much less exposure to foreign competition than do manufacturing companies. Second, the intangible nature of services makes it more difficult for service companies to quantify their measures of quality. For example, service companies have little quantifiable information on how many customers were lost because of dissatisfaction with the quality of their services, whereas manufacturers can easily count the number of defective products returned by their customers.

Recommendation

Based on the findings, the researcher has come up with two recommendations to improve Baldrige Award's integrity.

First, the Baldrige Award must find a good balance between respecting confidential information and providing information to companies about what the award is all about and how companies can improve quality. The Baldrige Award has been criticized for being too secretive that as a result, many companies fail to recognize the importance of the award to their company. For instance, in the last year, only fifteen companies applied for the award. The Baldrige Award can look into how Deming markets itself in Japan and how it is televised nationwide.

Second, the researcher gathered from the research that the Baldrige Award definitely needs stricter regulations and more thorough examinations. For example, the researcher feels that a weighted average and percentage system should be put in place in addition to merely having a point system for each criterion. Moreover, in part of having stricter regulations, the award must impose penalties on companies that fail to maintain quality in their organizations.

One penalty that the Award may impose is a fine for every malpractice suit that they receive. If in the case that the violation is more severe, then the award can be revoked.

Conclusion

The Baldrige Quality Award has been a reputable award-giving organizations that gives recognition to companies in the manufacturing, education, healthcare, nonprofit, and government industries that exemplify quality in management. The award selects its winners based on seven criteria that companies must meet in order to qualify and be selected as the award recipient. Unfortunately, the Baldrige Award has been heavily criticized with claims that it can easily be bought, that it is a poor indicator of financial performance and earnings, and that it does not reflect outstanding product quality.

One recipient that made critics question the award's credibility is Cadillac. At the time when Cadillac won the award, it was not at par with top-ranking automobile companies in terms of product quality. Given these research findings, the researcher has come up with recommendations to improve the integrity and credibility of the Malcolm Baldrige Quality Award.

In looking at the research findings, the criticisms, and the highly criticized Cadillac case, the researcher has come to realize the value placed on these awards and how these awards are not the end-all and be-all of optimum product quality. Indeed, awards such as the Malcolm Baldrige Award and the Deming Award were primarily established with the purpose to promote quality and encourage competitiveness among companies. However, the researcher feel that these awards nowadays seem to merely end up as appendages to companies' names to improve their brand name, their reputation, and the customers' perception of them.

The truth is, no matter how well-endowed with awards a company may be, the company is not invulnerable to product failures and faulty product quality. Many companies have won the award but years later had recalls and complaints about their products. Thus, being an award winner of "high" quality does not mean that all of its products are of perfect quality. Organizations, even award-giving bodies, have their own missions, visions, and unfortunately agenda. Thus, the researcher stress, consumers must be smart consumers. They must think about the products they buy not only because everyone else is using it or because its brand name is luxurious or because the company won an award. Many award-winning companies may be spending too much money in order to win an award or to boost their brand name. Unfortunately, in the mean time some companies may overlook the design stage of their process or fail to focus on the quality of their product while they are boosting their image. As smart consumers, individuals must think twice about the product they are buying and not be blinded by luxury or by false impressions of a "high quality" product.

References

- [1] Everett, D. (1990, December 16). Sought after Baldrige award draws fire. *Chicago Tribune*. Retrieved on May 3, 2012 from http://articles.chicagotribune.com/19901216/business/9004130938_1_baldrige-cadillac-motor-car-division-quality

- [2] Garvin, D. A. (1991, November). How the Baldrige award really works. *Harvard Business Review*, 69(6), 80-93. Retrieved on April 30, 2012 from http://www.feg.unesp.br/dpd/cegp/2010/GQ/2S_5%20Garvin%20Baldrige.pdf
- [3] Gorelick, D. (2004, June 4). Putting meaning into the q word. American Printer. Retrieved on May 1, 2012 from http://digital-edition.americanprinter.com/how-to/printing_putting_meaning_word/
- [4] Hart, C.W. (1993, December). What's wrong – and right – with the Baldrige award – management. *Business Library*. Retrieved on May 1, 2012 from http://findarticles.com/p/articles/mi_m4070/is_n90/ai_14606078/pg_2/
- [5] Main, J. (1991, July 1). Is the Baldrige overblown? *CNN Money*. Retrieved on May 3, 2012 from http://money.cnn.com/magazines/fortune/fortune_archive/1991/07/01/75204/index.htm
- [6] Main, J. (1990, April 23). How to win the Baldrige award. *CNN Money*. Retrieved on May 4, 2012 from http://money.cnn.com/magazines/fortune/fortune_archive/1990/04/23/73432/index.htm
- [7] National Institute of Standards and Technology. (2011). Baldrige 20/20: An executive's guide to the criteria for performance excellence. Retrieved from http://www.nist.gov/baldrige/publications/upload/Baldrige_20_20.pdf
- [8] NIST. (2012, April 30). History. *Baldrige Performance Excellence Program*. Retrieved on May 1, 2012 from <http://www.nist.gov/baldrige/about/history.cfm>
- [9] Premier Inc. (2011). History of the award. *Premier*. Retrieved on May 1, 2012 from http://www.premierbaldrige.com/history_of_the_award.html

- [10] Risvank. (2010, Nov. 16). 7 criteria of the malcolm baldrige national quality award. [Blog]. Retrieved from <http://www.mightymikerichards.com/2010/11/16/7-criteria-of-the-malcolm-baldrige-national-quality-award/>
- [11] Smith, K. (2006). The Baldrige revisited. *Quality Digest Magazine*. Retrieved on May 4, 2012 from http://www.qualitydigest.com/mar04/articles/02_article.shtml
- [12] Tannen, A. (2011, March 25). Viewpoint: Time for U.S. companies to refocus on the Malcolm Bridge award? *IndustryWeek/IW*. Retrieved on April 30, 2012 from http://www.industryweek.com/articles/viewpoint_time_for_u-s-companies_to_refocus_on_the_malcolm_baldrige_award_24247.aspx?Page=1
- [13] University of Wisconsin. (2011). Malcolm Baldrige Award frequently asked questions. Retrieved from <http://www.uwstout.edu/about/mba/faq.cfm#24>