

DO ORGANIZATIONS THAT HAVE REACHED THE EXCELLENCE LEVEL
IN THE WISCONSIN FORWARD AWARD PROCESS BENEFIT FROM AN
INCREASE IN BOTTOM LINE RESULTS?

By

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ABSTRACT

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Do Organizations That Have Reached the Excellence Level in the Wisconsin

Forward Award Process Benefit From an Increase in Bottom Line Results?
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American Psychological Association Style Manual Used in the Study

Whether it be large corporations or small companies, all organizations have and always are looking for ways to improve. In the past, improvement meant simply concentrating on production and finding ways to make it faster, more efficient, cheaper and better. Since that time, there have been many changes in the way people think about what improvement really means to an organization. The present and future of continuous improvement for companies is for them to constantly concentrate on the quality of their many operating systems to maximize the efficiency of all the criteria that makes their organization successful. Today's quality professionals from a wide range of organizations and industries use quality programs such as; Total Quality Management (TQM), the Malcom Baldrige National Quality Award program (MBNQA), the Wisconsin Forward Award program (WFA), and other state programs.

All improvement programs have in common that if they are not proven to provide bottom line results, organizations will not use them. Many researchers over the past ten years have worked to show the relationship between quality programs and bottom line results. The quality programs that have most commonly been studied are Total Quality Management (TQM) and the Malcolm Baldrige National Quality Award program.

This study is designed to show the relationship between Wisconsin's version of the Baldrige Award, the Wisconsin Forward Award program, and bottom line results.

In this research paper, the researcher will study the performance of organizations who have reached the highest level of performance in the Wisconsin Forward Award program. The results will be used to conclude whether or not their bottom line results have improved since implementing the WFA process.

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Chapter 1

INTRODUCTION

Introduction and Background of the Problem

This research paper deals with an organization named The Wisconsin Forward Award (WFA). WFA offers Wisconsin companies and organizations assistance with implementing a continuous improvement process that is similar to the Malcolm Baldrige National Quality program. There have been several successful studies of this type implemented with national programs such as the Malcolm Baldrige Program, but none have been performed on Wisconsin Forward because it has only been in existence for three years. The goal of this project is to reach a conclusions as to whether or not the WFA process has provided the companies who have excelled in the process with an increase in bottom line results. The researcher strongly believes in this process and hopes that the organization can use the results of this research paper to promote the program and increase the number of companies who take advantage of it.

Background and Introduction to the Wisconsin Forward Award

WFA Mission and History:

The Wisconsin Forward Award is a recognition and education program modeled after the Malcolm Baldrige National Quality program. It is a statewide program that serves all sectors of Wisconsin's economy, including business, education, health care, government, and nonprofit organizations.

WFA's mission is to promote and recognize the adoption of high performance, quality management principles and practices in order to help Wisconsin organizations

advance their competitive position in the world marketplace. WFA also seeks to help companies enhance learning, continuous improvement and organizational performance.

The WFA program was introduced in 1997 at the recommendation of the Governor-appointed Council on Workforce Excellence, under the leadership of Council Chair J. Michael Borden, President/CEO of HUFCOR, Inc. in Janesville. Mr. Borden reflected the view of the Council when he stated that “as responsible business people, we must make our companies globally competitive or we will get blindsided by the rest of the world. The Forward Award is a great incentive to help get us where we need to be so we can continue to grow” (Wisconsin Forward, 2000).

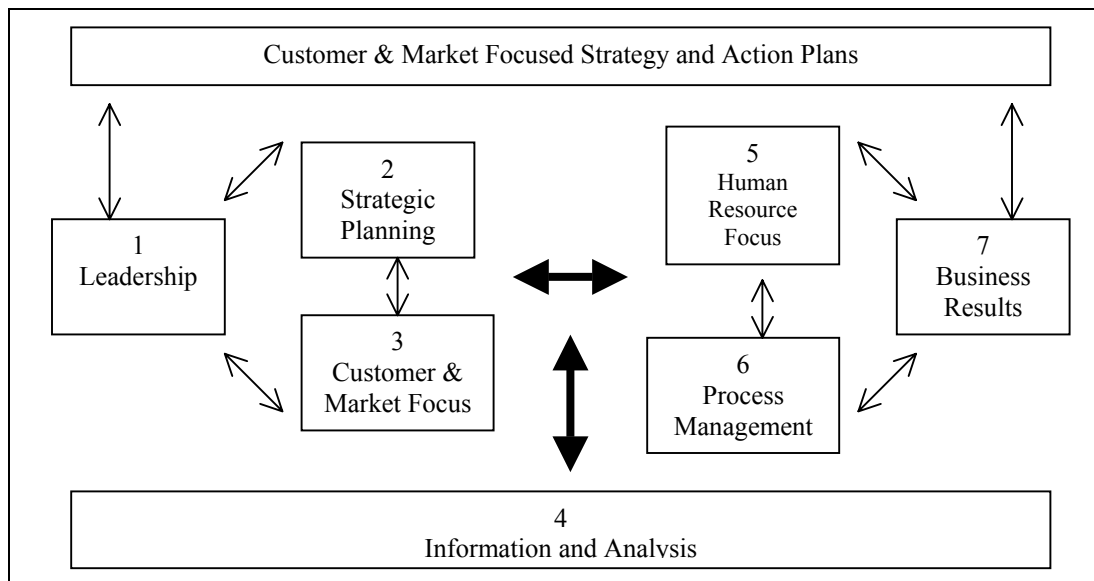
The Council recommended that state government implement the program with start-up funding and administrative support. However, it also envisioned that once established, the program would be transferred to a private non-profit corporation and funds would be obtained through a private-public partnership. This concept was formalized in Executive Order #385 and signed by Governor Tommy Thompson in November 1999.

To implement the Council’s vision and the Governor’s Executive Order, the State of Wisconsin’s Department of Workforce Development has administered the WFA program since 1997. At the same time, the Department has facilitated the development of a private nonprofit corporation to assume leadership and administrative responsibility for the WFA program. Wisconsin Forward Award, Inc. was incorporated in late 1999. The Department and this new nonprofit organization have been working in partnership to

ensure that WFA program activities continue while the new organization becomes established and is prepared to fully administer the program in 2001.

The WFA Criteria for Performance Excellence serve as the foundation for WFA recognition, as well as for various learning opportunities supported by the WFA program. The criteria represent what the best-managed companies in the world do and provide benchmarks of excellence for organizations serious about improving performance. The criteria provide consistent and rigorous standards, and a proven measurement system, used and recognized across the United States and internationally. It is important for companies to concentrate on each of the criteria, but also on how they relate to each other. The criteria structure showing the interrelation is shown below.

(Wisconsin Forward, 2000)



WFA services and program activities that flow from use of the Criteria:

- Expert external assessment conducted by a trained volunteer panel of experts, the Wisconsin Forward Award Board of Examiners. Organizations submit written reports describing organization systems and processes relative to the seven categories (and related items) that comprise the Criteria for Performance Excellence. The WFA assessment process is patterned after the Baldrige process. It incorporates independent and team review of written reports, as well as site visits in some cases, to ensure a thorough and objective review of an organization's management systems relative to the criteria.

- Feedback reports for each WFA applicant organization. At the conclusion of the assessment process outlined above, the Board of Examiner Team that conducted the assessment prepares a comprehensive feedback report for the organization. The feedback report details the organization's overall assessment score and provides detailed comments on strengths and opportunities for improvement relative to each of the seven Criteria Categories (and related items).

- Public recognition for achievements in performance management and quality. The Board of Examiners assessment of the organization against the Criteria for Performance excellence provides the basis for public recognition at one of four levels. These recognition levels represent the "journey", or developmental steps, to

performance excellence -- Commitment (the beginning level), Proficiency, Mastery, and Excellence (role model organizations).

- Three-day Examiner Training. Each year, volunteers selected to participate on the Board of Examiners receive three days of intensive training on the WFA/Baldrige Criteria for Performance Excellence and the WFA assessment process. Additional training is provided to senior examiners who help guide their examiner team's assessment process.
- Educational Events. Each year the WFA sponsors training and sharing events to promote the concepts and practices embodied in the Criteria for Performance Excellence. These have included one-day self-assessment workshops, a two-day Criteria Training workshop, and one-day "sharing" events such as "best practice" forums, during which WFA recipients discuss their criteria-based "best practices" as well as the benefits of participating in the WFA program.
- Annual Banquet. This is a "black-tie" event held each fall to announce and celebrate achievements of organizations receiving WFA recognition. Former Governor Thompson has presented awards at each of the banquets held to date. In addition, the CEO or other top executive from a recent Baldrige Award winning company has provided the keynote address.

WFA Implementation Results:

Since its first year of operation, the WFA program has generated participation from a variety of organizations across the state. Participation levels in the first two and a half years (January 1998 through June 2000) demonstrate progress in implementing this new program and in achieving its mission.

- In 1998, 1999 and 2000, approximately 60 applications were submitted and reviewed by the WFA Board of Examiners. Each of these organizations received a comprehensive feedback report.
- A total of 31 organizations were publicly recognized for their achievements in performance excellence management in 1998, 1999 and 2000, including four that received the Governor's Forward Award of Excellence (Serigraph Inc., John Deere - Horicon Works, St. Mary's Hospital Medical Center and St. Clare Hospital and Health Services). Of these, 18 (58%) were from the private for-profit sector; 3 (10%) were from the private non-profit sector; 4 (12%) were from healthcare, 3 (10%) were from government and 3 (10%) were from education. In Program Year 2000, organizations submitting applications for review were distributed equally among the manufacturing, service, government, education and healthcare industries.
- In 1998 and 1999 combined, approximately 200 individuals applied to volunteer their services as a member of the WFA Board of Examiners. Of these, approximately 150

completed three-day Examiner Training sessions and participated as reviewers in the organizational assessment process. In 2000 alone, 130 people completed three-day Examiner Training sessions and participated as reviewers.

- Excluding Examiner Training, WFA-sponsored learning events (self-assessment workshops, “best practice” seminar/forums, and criteria training) have generated approximately 600 participants. The first three annual banquets generated approximately 1,500 participants (Wisconsin Forward, 2000).

Statement of the Problem

The Wisconsin Forward Award Organization has been in existence for only three years and is hoping to increase the number of participating companies. Many Wisconsin companies who have not yet participated in the program recognize WFA only by its similarity to the MBNQA. Currently, the WFA program is using the findings of studies about the bottom line results that are achieved by Baldrige participants to promote the program. Wisconsin companies need to know what the benefits are of WFA specifically. Before Wisconsin companies will get involved, they need to be presented with proof that the WFA will increase their company’s bottom line results.

Research Question

Do organizations that have reached the Excellence Level in the WFA process benefit from an increase in bottom line results?

Purpose of the Study

The purpose of this study is to reach some conclusions as to whether or not the companies who have excelled at the WFA process have shown an increase in bottom line results. Based on the results of several studies that have been done with the MBNQA program, the researcher is optimistic that WFA organizations will be found to have also enjoyed an increase in their bottom line results. The researcher is a strong believer in this process and hopes that the WFA organization can use the results of this research paper to promote the program and increase the number of companies who take advantage of it.

Justification of Research – Importance of Topic

The researcher believes that the topic of this research paper is important because the conclusions about bottom line results that are drawn from it will be used to persuade Wisconsin companies to participate in the program. If companies do not believe that WFA will provide them with bottom line results, they will not participate. The state of Louisiana had this problem in 1999 when they implemented the Louisiana Quality Award Program. Even after heavy marketing and written letters encouraging participation from Governor Foster, not a single company applied for the award. The industry's response to the Louisiana Quality Award underlies a central problem that the promoters are facing: In tough economic times, chief executives often view quality management as a costly trifle. "Unless you can explain to them what the bottom line benefit is, they see it as a cost, not a savings," said Corinne Dupuy, a board member of the nonprofit Louisiana Quality Foundation, which administers the award (Foster, 2000). If the conclusions show that

companies will increase their bottom line results by participating in Wisconsin Forward, then more companies will follow.

The WFA process is very important because it has the ability to help Wisconsin companies advance their competitive position and achieve world-class status in the international marketplace, and enhance learning, continuous improvement and organizational performance. In return, the success of Wisconsin companies will eventually lead to improvements in the state economy and standard of living and decreases in unemployment and poverty.

Methodology

This research paper is a quantitative approach dealing with the key indicators of financial performance of the organizations who have excelled in the WFA process. Raw data dealing with profits and bottom line results will be collected from these companies. The exact details of the research design will be discussed in Chapter III.

Delimitations of Scope and Key Assumptions

Limitations of the Study:

1. Even though the study includes 100% of the study population (WFA Excellence winners), the fact that there are only four companies studied may detract from the validity of the findings.
2. Even though the study covers a time span from the inception of the organization to the present, the study only encompasses three years and this may detract from the validity of the findings.
3. This study is specific only to the WFA organization.

The limitations of the methodology:

1. The sensitivity of the financial information that was needed was a major limitation. The research design had to be catered to the information that was obtainable, which greatly limited the capabilities and the scope of the project. The analysis of the data by the researcher was also limited because of its sensitivity.
2. The short time frame in which the data was collected for some organizations may not have been long enough to record the full effects of the organizations continuous improvement processes. The time frame in which data was collected was greatly affected by the sensitivity of the data and its accessibility.
3. Each organization used different indicators of bottom line success which limited the number of correlations that could be made between the indicators of each organization.

Assumptions of the Study:

1. The study assumes that all companies who apply for the WFA use financial performance as a measure of success. This may not be the case in the education sector or other similar sectors.
2. The study assumes that an increase in profits during the application process and after achieving the Excellence level is the result of participation in the WFA. The validity of this would have to be proven over time.

Definition of Terms

Continuous Improvement

Continuous improvement is a philosophy and a set of principles by which to operate an organization. The philosophy and principles uses leadership by everyone, data-based decision making, system/process thinking, and employee involvement to continuously improve an organization's ability to meet/exceed current and future customer needs.

(Hockberg, 1996)

Bottom-line Results

Bottom-line results are what a company measures to determine financial success.

Measures include stock price, net sales, operating income, total assets, employees, return on sales and return on assets. (Singhal and Hendricks, 1999)

Quality

“Low variability outputs improved by lowering variation in the process” (Gelina, 1994)

Feedback Report

A report that identifies strengths and opportunities for improvement relative to the Award Criteria. (Wisconsin Forward, 2000)

Malcolm Baldrige National Quality Award (MBNQA)

“Program that has helped disseminate best practices across the United States and make quality a national priority” (March, 1998)

Wisconsin Forward Award (WFA)

A program modeled after the Malcolm Baldrige National Quality Award (Wisconsin Forward, 2000)

Total Quality Management (TQM)

TQM is the management paradigm based on the principles of total customer satisfaction, employee involvement, continuous improvement, and long-term partnerships with suppliers. TQM is similar to the Baldrige Award and Baldrige-type state awards in that nearly all of the principles that TQM is based on are imbedded in the Baldrige Criteria. (Singhal and Hendricks, 1999)

Chapter II

REVIEW OF LITERATURE

Introduction

This chapter provides the supporting information that is used in this research paper. The researcher's goal in this chapter is to present the findings and conclusions from all previous studies and research pertaining to the topic of proving the financial benefits of continuous improvement programs. The researcher was not able to find any research studies done on the WFA because it has only been in existence for three years. What the researcher was able to locate were several studies that have been done on other continuous improvement programs. The programs studied use processes that are very similar to the WFA process and the conclusions drawn from these studies provide evidence as to what type of results can be expected by organizations who participate in the WFA process

Background of the Malcolm Baldrige National Quality Award

The WFA Program is very similar to the Malcolm Baldrige National Quality Award Program (MBNQA). In fact, the WFA program is modeled after the MBNQA program, which was established by Congress in 1987. Wisconsin is one of over 40 states that have a program that models the Baldrige program. The Baldrige program is coveted and copied because of the benefits that it provides to companies who use it. Steven George, a well known author on quality said: "a Baldrige-based quality system can transform your business" (George, 1992). WFA is nearly identical to the Baldrige program. Small variations were made in the WFA program because program founders

felt that the changes would increase the benefits to Wisconsin companies. National studies conducted on Baldrige Award winners demonstrate that effective application of the high performance management practices embodied in the Baldrige Criteria for Performance Excellence improve bottom line results, enhance worker skills and productivity, and improve quality of life in the workplace and the community. These are the types of gains that the WFA is intended to help promote in Wisconsin. They are the results that will help Wisconsin businesses compete effectively in the global economy and that will promote a “culture of excellence” that will sustain the state’s economy and improve the workforce, the workplace, and the quality of life for all Wisconsin citizens (Wisconsin Forward, 1999).

Stock Studies of Baldrige Winning Companies

With WFA being so similar to MBNQA, the most relevant studies to this research paper are those that deal with the stock performance of companies who have won the Malcolm Baldrige National Quality Award. This type of study began when quality guru Joseph M. Juran made hypothetical investments in Baldrige winning companies from 1988 to 1992. The purpose of the study was to draw a conclusion from stock performance as to whether or not companies who win the Malcolm Baldrige National Quality Award have achieved financial performance that is greater than that of companies who have not won the award. The results showed that Baldrige winning companies yielded a cumulative 89.2% gain compared to a 33.1% gain by the Standard & Poor’s 500 Index (Light, 1993).

The U.S. Department of Commerce, National Institute of Standards and Technology (NIST) continues Juran's work and conducts an annual stock study of Baldrige winners to develop the annual "Baldrige Index" to assess "bottom line" results. The methodology of the NIST study included a hypothetical \$1,000 invested in each of the 1988-1998, publicly traded Baldrige Award recipient's common stock in the year they applied for the Award. The money was invested on the first business day of the month following the announcement of the award and was tracked through December 1, 1999. The full \$1,000 was invested in each whole company, and for subsidiary companies, the sum invested was \$1,000 multiplied by the percent of the whole company's employee base. For a comparison, the same amount of money for each company was also invested in the Standard & Poor's Index (S&P 500) on the same day. Adjusting for stock splits, the value on December 1, 1999 was calculated. Information was reported in two ways: all publicly-traded Award recipients and only whole company Baldrige Award recipients. The 24 publicly-traded Award recipients, as a group outperformed the S&P 500 by approximately 3.8 to 1, achieving a 841.29% return compared to a 221.55% return for the S&P 500. The group of six, publicly traded, whole company Award recipients outperformed the S&P 500 by 4.8 to 1, achieving a 1100.727% return compared to a 227.56% return for the S&P 500.

Anyone who has invested in the stock market comes to the same conclusion from the stock study. The S&P 500 has always been a benchmark for stock performance and investors have always believed that exceptional companies are those whose stocks either match or outperform this benchmark. The fact that Baldrige Award winners surpassed

the earnings of the S&P 500 benchmark by over four times as much proves that Baldrige Award winners are exceptional times four.

Quality professionals and investment professionals alike have all acknowledged that the results of the NIST Stock study really do prove that Baldrige Award winning companies enjoy increases in their bottom line results. “While stock market performance is only one indicator of business success, this study demonstrates that a quality approach to running a business can be financially profitable and can lead to increased productivity, satisfied employees and customers, and a competitive advantage,” said Harry Hertz, director of the NIST Baldrige National Quality Program (“One More Time”, 1997). “Baldrige Award-winning organizations build excellence into every aspect of the way they do business and this study shows that is good for business. Customers are delighted, employees are enthusiastic and empowered, and it shows in the bottom line and in all other aspects of their business,” said Commerce Secretary William M. Daley (“Think Baldrige”, 2000).

The Immediate Stock Price Impact of Quality Awards

To further the conclusions made by the NIST study, Adams, McQueen and Seawright examined the question of whether or not quality awards improved company profits from a different angle. Adams *et al* looked at what happens to stock prices on the day that awards are announced. They concluded that except for three isolated instances, there is not a statistically significant response to stock prices on the day of announcing national quality awards. In regards to the winners of state quality awards, such WFA, there is no affect to stock prices on the day of announcements. Adams *et al* conclude,

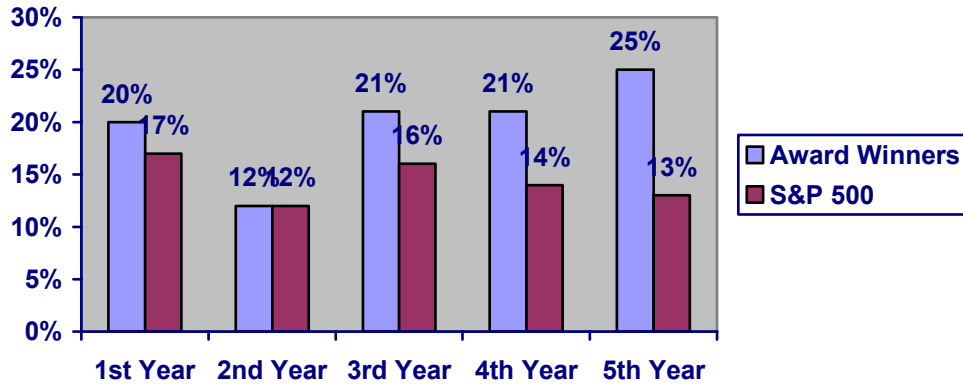
“Quality matters, but it will be factored into a firm’s market cap, so don’t expect to retire on the day your firm’s Baldrige win is announced” (Baldrige Plus, 2000).

A study that dealt with the effect of consumer perceptions on firm stock returns was conducted by David Aaker and Robert Jacobsen and is applicable to this subject. The study reported a positive relationship between changes in consumer perceptions of brand quality and firm stock returns in 34 companies from 1990 to 1992 (Aaker & Jacobson, 1994).

The Quality Awards Impact on Different Measures of Financial Performance

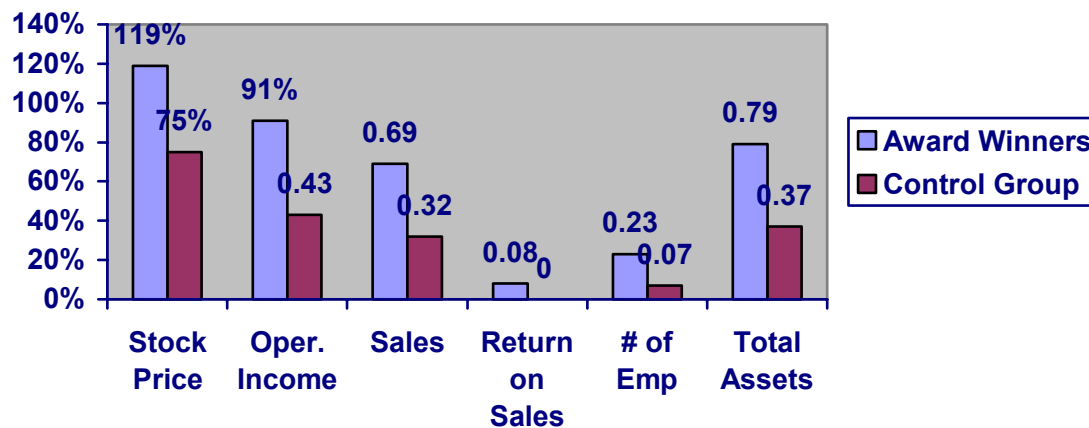
In 1999, Vinhod Singhhal and Kevin Hendricks conducted an in-depth study of Award Winning Companies. The five-year study examined 600 publicly traded companies that had received quality awards, including companies receiving the Baldrige Award and state Baldrige-based quality awards such as the WFA. The study showed that, as a whole, these companies had significantly greater improvements than an equivalent control group in operating income; sales, asset and employee growth; and return on sales and assets. Additionally, the study demonstrated that while both large and small firms benefit, small firms benefit the most (Singhal & Hendricks, 1999). The following graphics show the results of the Singhal and Hendricks study that are the most relevant to the researcher’s topic.

Stock Returns



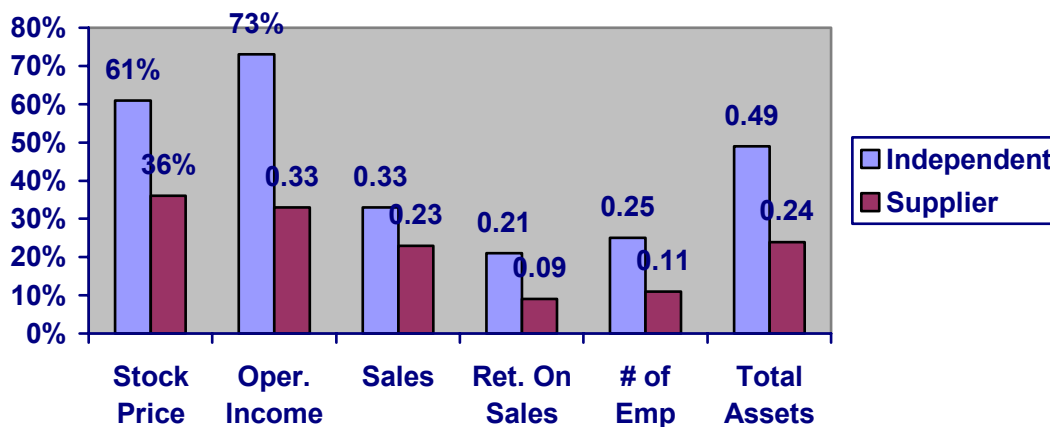
The stock price performance of award winners and the S&P 500 were compared on an annual basis. The results depict the changes in performance over the five-year post implementation period which starts one year prior and ends four years after the date the winners won their first award.

Performance Measure



The stock performance of the nearly 600 quality award winning firms was compared against a control sample of firms similar in size and operating in the same industry. Both groups were tracked over a five-year period starting one year before to four years after the award winners won their first award. The award winners experienced a 44% higher stock price return, a 48% higher growth in operating income and 37% higher growth in sales compared to the control group. Award winners also outperformed the controls on return on sales, growth in employees and growth in assets.

Performance Measure



It was found that companies who win state awards (such as the Oklahoma Quality Award) or other independent quality awards, experienced better results than those winning supplier awards only. The independent award winners had a greater percent of increase in every area than those companies who won supplier awards only.

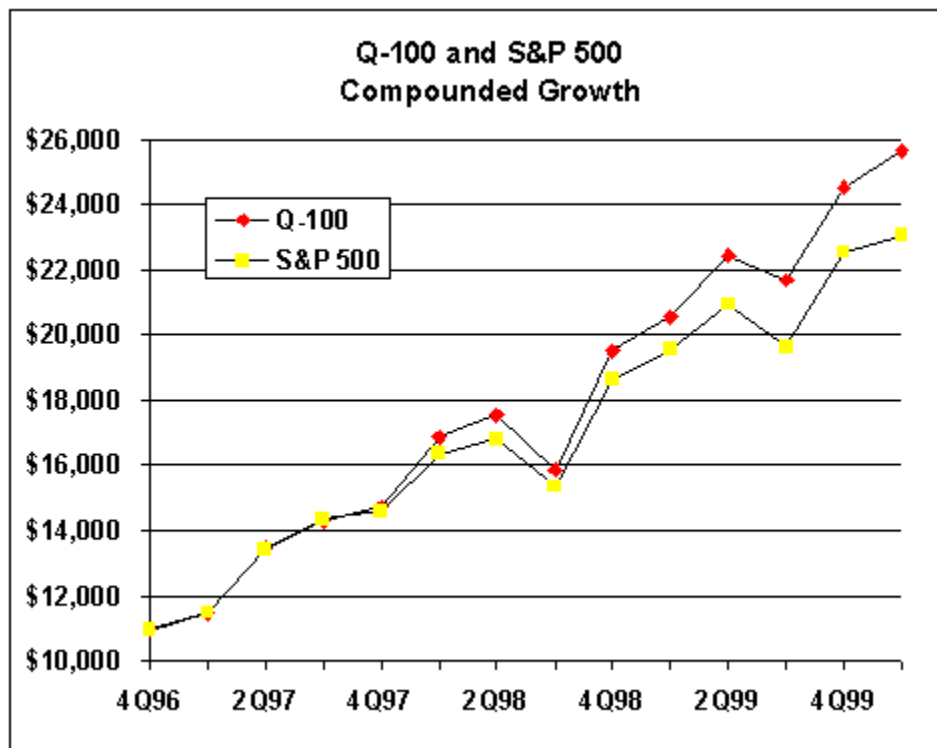
In summary, the results of the Singhal and Hendricks study indicate that effective adoption of performance excellence principles embedded in various quality award criteria do make good economic sense (Singhal & Hendricks, 1999). “It is not a far reach to conclude that the business excellence model being followed by these companies has demonstrated an ability to deliver exceptional results. With these kind of results, working toward “world-class” caliber can only help you with your customers, employees, and shareholders” (Book & Taschler, 2000).

Quality Awards Used as Tools for Investing

Following the results from the NIST stock study and the findings of Singhal and Hendricks, people started to really think about the Baldrige Award and other quality awards as a stock investing strategy. If there was strong evidence to show that companies who won awards would have great increases in their stock price, then it would make sense that these companies would be smart investments. With this thinking in mind, Rosenberg Capital Management developed what they call the Quality Index (Q-100). The book Invest in the Best by Stephen George is devoted to the Quality Index and this new investment philosophy.

The index is made up of 100 companies that represent the leaders in management quality, weighted in the same way Standard & Poor's weights its companies and diversified to align with the sectors in the S&P 500. Comparing the Q-100 to the S&P 500 supports the study of Kevin Hendricks and Vinod Singhal and the NIST stock study by showing once again that there is a correlation between award winning quality and increases in stock prices. Just as the S&P 500 Index is used by investors to determine what stocks to invest in, the Quality Index can be used by quality-oriented investors who believe that companies who possess award winning quality in their systems, are wise investment opportunities (George, 2000).

By charting the comparison between the performance of the S&P 500 and the Q-100 Index, investors can clearly see which investment choices will give them the greatest returns.



Using a measure of management quality as the primary factor, the 100 best-managed companies in the S&P 500 would have paid an investor 22% more over the 18-month period shown in the chart below than he or she would have received on an S&P 500 index fund (George, 2000).

The Effect of Total Quality Management on Financial Performance

TQM is similar to the Baldrige Award and Baldrige-type state awards in that nearly all of the principles that TQM is based on are imbedded in the Baldrige Criteria. The most widely known study of the financial benefits of TQM is the study by George Easton and Sherry Jarrell. This 1998 study examined the impact of TQM on the performance of 108 firms that began TQM implementation between 1981 and 1991. Methodology for studying stock performance (National Institute, 1998) as well as accounting variables (Singal & Hendricks, 1999) were used. The impact of TQM was measured by comparing each firm's performance to a control benchmark designed to capture what the performance would have been without TQM. The findings indicate that the long-term performance, measured by both accounting variables and stock returns, is improved for the firms adopting TQM. The improvement is consistently stronger for firms with more advanced TQM systems (Easton & Jarrell, 1998).

A slightly different study by Lemak and Read was developed to determine if firms that implement TQM will experience a significant increase in their financial performance. The study includes 60 firms that have shown a commitment to TQM by remaining with the strategy for five years or more. The analysis focuses on the firm's long-term stock market performance and their accounting performance. The results of stock market performance analysis paralleled the results of the 1996 NIST stock study of Malcolm Baldrige winners and showed that the 60 sample companies also outperformed the S&P 500 over the 5 year time line of the study. The results of accounting

performance of the sample showed most impressively that profit margin increased significantly for these firms after the adoption of TQM.

The unique part of the Lemak & Read study was that there was an attempt to find a correlation between financial performance for companies who were successful before implementing TQM and companies who were not successful before implementing TQM. In summary, the findings provide support for the broad argument that TQM improves the financial performance of firms (Lemak & Reed, 1997).

The Shea and Gobeli Study also supports TQM's ability to improve financial performance. This study used semi-structured interviews with 10 managers in small firms (fewer than 50 employees) to discover why such firms adopt TQM practices and what the benefits were that accrued to them from such use. The managers reported that they implemented various TQM practices to improve performance while remaining consistent with their prevailing management styles. They also reported benefits exceeding costs in terms of improved performance and customer satisfaction, but without revealing any quantitative data (Shea & Gobeli 1995).

The Effect of Quality Programs on Financial Performance in Other Countries

This research paper is concerned with the affects of quality programs in Wisconsin, but it is important to note that studies of quality programs around the world are also finding that quality increases financial results. The international Quality Study (IQS), a joint project of the American Quality Foundation and Ernst & Young, is a survey of quality management practices in Japan, Germany, the United States and Canada. The first industries selected for examination were automobile manufacturing,

computer/telecommunications equipment manufacturing, financial services, and acute health care services (hospitals). IQS seeks not only to define the quality improvement process, but also to reveal the correlation between quality and profitability. A total of 585 companies participated in IQS through a written survey. The survey took a team of executives at each participating business from as little as 16 hours to as long as 400 hours to complete. Nevertheless, an overwhelming 84 percent of businesses invited to participate chose to do so. The IQS questionnaire evaluated 102 assessment areas within 5 broad categories: business organization, product/service development, delivery process and customer satisfaction, quality and strategic positioning, and culture. Data was collected from March through August 1991. The resulting database contains more than 1.5 million pieces of information. The results of IQS served as the empirical basis for a comprehensive series of published reports, which revealed that the adoption of TQM provides the greatest benefit for firms that are already performing well. The survey also showed that using the TQM strategy for poor performing companies could make their performance even worse (Green, 1992).

A study by Zhihai Zhang, a faculty of Management and Organizations at the University in Groningen, The Netherlands, used previous research to create a model of 83 quality management methods (QMM) that are part of the 11 TQM elements which companies seek to improve. The researcher then interviewed employees from 10 of the top TQM companies in The Netherlands about the 83 QMMs. The results showed that the majority of the companies had an increase in all of the business performance indicators including an increase in sales and profits. Although this study does not give

empirical data to support the business performance of TQM companies, it does show that it's perceived effects are favorable (Zhang, 2000).

Can the Cost of Quality Programs Outweigh the Financial Benefits

All of the literature to this point spoke of the financial gains that are achieved because of the implementation of a continuous improvement or quality program. Very few studies have mentioned what it costs to implement such programs. Some corporations have forgotten that quality improvements can only be justified if they eventually lead to the coin of the corporate realm – higher profits (Quality, 1994). For example, the Wallace Company spent so much on winning the MBNQA in 1990 that they sustained extreme losses and were bankrupt in two years (Hill, 1993). Similarly, Florida Power & Light spent millions to compete for Japan's prestigious Deming Prize (Wiesendanger, 1993). Inattention to rising costs caused a backlash by rate payers, resulting in its quality program being dismantled (Training, 1991).

An article by Roland Rust and Anthony Zahorik entitled: Return On Quality (ROQ): Making Service Quality Financially Accountable, suggests that companies think of the return on quality expenditures the same way that they think of the return on any other investment (ROI). The authors (Rust & Zahorik) developed equations necessary to project market share, net present value of quality improvement effort, and return on investment of a quality improvement effort (ROQ) (Rust & Zahorik, 1995).

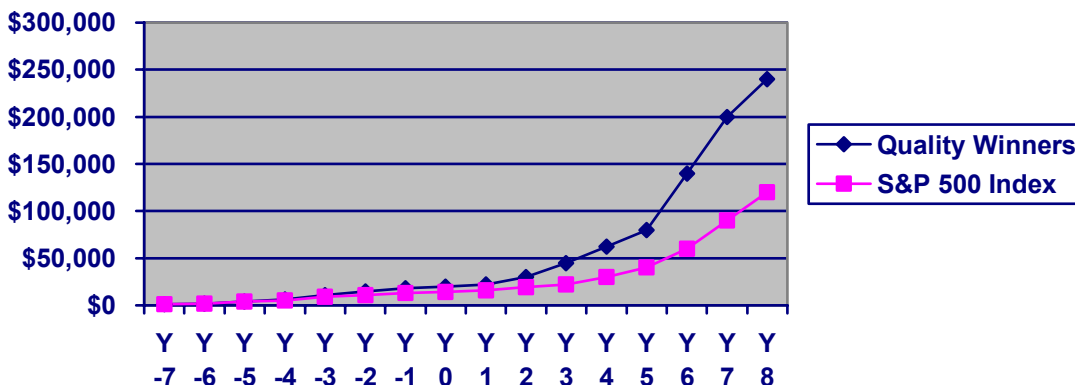
There is substantial evidence that companies who excel at quality programs such as TQM or the MBNQA, achieve financial success. Even with this evidence, it is

important for companies to make sure that the cost of implementing your quality program does not bankrupt your business before the quality program can grow financial results.

The Impact of Quality on Performance in Specific Industries

A study by Andreas Soteriou and Stavros Zenios, looked at the topic of how quality management affects bottom line performance in the financial industry alone. The study is very similar to the NIST stock study in that a hypothetical \$1,000 dollars was invested in the stocks of award winning companies and the same amount was placed in the S&P 500 on the same day. The major way that this study differs is that the sampling of award winning companies used in the study are exclusively financial companies who won either the Baldrige Award or similar awards. The study also differs because it invests in the award winning companies eight years prior to receiving the award. The performance is then tracked from that point up to the end of the eighth year after they won the award. Just as the methodology was very similar to the NIST study, the results are also very similar (Soteriou & Zenios, 2000). The results of the study are presented in the chart that follows.

Impact of Quality on Bottom Line Results in the Financial Industry



As you can see from the chart, the stock results of Award Winning Quality Financial companies well outperformed the S&P 500 Index just like in the NIST study. What this study shows, that the NIST study did not show, is how the implementation of the award winning processes gradually improved the company's performance in the stock market before the award and then drastically improved it after winning the award.

A study of the financial effects of quality was also done for the dental industry. Three hundred and sixty-nine randomly selected dentists in the state of Oregon filled out a survey that included 31 items that were derived from the Baldrige Award Criteria. Responses to the questions were given in the form of a standard 5-point likert scale. Current outcome data was obtained using questions measuring total yearly revenue, total yearly profit, and total number of new customers in a year. The comparative historical items asked the respondents to evaluate changes in revenue, profitability, and new patient numbers over the past three years. Results demonstrated that TQM management practices are positively related to organizational performance over the long term. Revenue, profitability, and new patients were higher in those practices in which the

dentist reported using total quality principles longer than one year (Kaldenberg & Gobeli, 1995).

The Impact of Individual Baldrige Criteria on Financial Performance.

It makes sense that if the entire quality process of Malcolm Baldrige and WFA is to affect financial performance, then each individual criteria that make up the process should also effect financial performance. To prove this, studies have been conducted on the financial benefit of improvements in customer satisfaction and employee satisfaction.

A study was conducted using the American Customer Satisfaction Index (ACSI) satisfaction database of 200 US companies in 40 industries during the time period of 1994 to 1997. Calculating the data showed a strong association between customer satisfaction and long-term firm value. Communicated in dollars, for a Business Week 1000 company with average assets of about \$10 billion, a one-unit improvement in satisfaction should be associated with an increase in the firm's value of approximately \$275 Million (Mazvancheryl et al, 1999).

Using cross-sectional data on a sample of more than 500 department stores, the study by Banker, Konstans and Mashruwala, provides empirical evidence on the effects of employee satisfaction and turnover on customer satisfaction and, in turn, on revenue and cost measures. Calculating the results showed that the direct effect of a unit increase in the employee satisfaction score is an increase in average profit per square foot of floor space of 17.1% (Banker et al, 2000).

A study by Griffin, Gleason, Preiss, & Shevenaugh used secondary data to explore the financial performance of four firms (relative to their respective industries)

using customer service practices as part of their corporate strategies. The results suggested that the four firms outperformed the industry in asset utilization and profitability after adopting their particular practices (Griffin et al, 1995).

Conclusion

Each of the studies explained in this chapter, concentrated on different aspects and used different types of methodology to determine if quality programs deliver bottom line results. The results of each study provided strong evidence that companies who undergo a process to improve their operating systems enjoy many benefits including an increase in bottom line results.

Chapter 3

RESEARCH METHODS

Introduction

This chapter presents the methods and procedures used in this study of the ability of the WFA process to deliver bottom line results.

Overview of Study

This study is focused on finding out if the organizations that have reached the Excellence Level in the WFA organization have benefited from an increase in bottom line results. The goal of this study is to determine what the financial benefits are to companies who commit to, and excel at, the WFA process. The results of the study will hopefully be used to promote WFA and to help encourage Wisconsin companies to participate.

Research Design

The research design of this report has two components. First, the researcher conducted an informal interview of the key quality professionals of each of the award winning companies. The interviews included a series of questions (Appendix A) that were designed to determine what each company considered to be their indicators of bottom line success. The indicators are what each company measures and looks at when they monitor their bottom line performance. Once the indicators of bottom line results were identified, the researcher then needed to find out the performance of each of those indicators. The second part of the research design, was the collection of quantitative data that showed the performance of the identified indicators of bottom line results for each

organization. All of the performance data collected from each company was then analyzed and conclusions were drawn from it.

Population and Sample

The sample for this research is the four organizations that have reached the excellence level of achievement in the WFA process between 1998 and 2000. This research study is ideal because it represents 100% of the companies who have ever reached this level during the entire three-year history of the WFA. The researcher chose to use only the excellence level achieving organizations in the study not because they achieved recognition, but because they spent years working with and perfecting the criteria and the process within their organizations. The quality professionals from each of the sample organizations said that the long continuous improvement journey is the true benefit of the WFA process. The timeline on the following page shows each organizations progressive implementation of their continuous improvement processes.

Continuous Quality Improvement Timeline for Wisconsin Forward Award Excellence Achievers

| Date | St. Mary's | St. Clare | Serigraph | John Deere - Horicon |
|-------------|--|---|--|---|
| 2000 | -MBNQA efforts continue | -WFA Excellence Level -MBNQA efforts continue -Campus shared leadership | -Initiated 6 Sigma quality | -Applied for Baldrige Award |
| 1999 | -Achieved WFA Excellence Level -SSM wins Missouri Award -MBNQA efforts begin system wide | -Achieved WFA Mastery Level -SSM wins Missouri Award -MBNQA efforts begin system wide | -Initiated the Lessons Learned processes | -Achieved WFA Excellence Level Customer Focus/Geared to the Customer |
| 1998 | ↑ | | -Achieved WFA Excellence Level -MBNQA application | -Achieved WFA Proficiency level Business Process Excel. Initiative |
| 1997 | -IHI collaborative -Missouri Award -JCAHO accreditation with commendation | -JCAHO Accreditation with commendation | -Maytag dependable supplier award | ↑ |
| 1996 | ↑ | ↑ | -Achieved QS / ISO 9001 | |
| 1995 | -SSM Baldrige self-assessment | -SSM Baldrige self-assessment | -Implemented TRIZ | |
| 1994 | ↑ | -Statewide improvement collaborative | -Supplier Initiatives developed based on MBNQA | -Achieving Excellence Initiative |
| 1993 | -Nursing shared governance | ↑ | -Benchmarking & balanced score card systemized | ↑ |
| 1992 | ↑ | | -Lean Manufacturing & Kaisan | -Reengineering, RCI, Growth Initiative |
| 1991 | -3 pilot projects -Quality training | -Quality training -Quality Teams | -Initiated DOE training and work cells | ↑ |
| 1990 | Continuous Quality Improvement (CQI) | Continuous Quality Improvement (CQI) | -Applied to MBNQA achieved Vendor Partner status | -Total Quality Awareness Initiative- Customer service |
| 1989 | -SSM Health Care Benchmarks FPL, a Baldrige winner | -SSM Health Care benchmarks FPL, a Baldrige winner | -Began MBNQA process | |

As the timeline shows, the excellence level achieving companies represent true commitment to the quality processes. It was reported in Fortune (Hammonds & De George, 1991), that executives get frustrated with TQM when benefits are not quick to appear and, as pointed out in the Economist (1992), many western firms have only used the strategy for about two years before abandonment. It is for these reasons that the decision was made to focus on only those companies who have demonstrated a continued commitment to continuous improvement processes.

History and Information About the Sample Population

St. Mary's Hospital Medical Center

St. Mary's Hospital and Medical Center is a 340-bed nonprofit, Catholic, acute care hospital located in Madison, Wisconsin and owned by SSM Health Care based in St. Louis, Missouri. St. Mary's offers a wide range of inpatient and outpatient health care services. The hospital's primary market includes Dane County (70% of patients) and 14 surrounding counties (26% of patients). St. Mary's has a total of 1,900 employees who each have a direct relationship with the hospital. St. Mary's hospital reached the excellence level in WFA in 1999, but as shown earlier, their continuous improvement process started way before that. Today, St. Mary's is still very much devoted to the criteria driven continuous improvement process and currently are involved in the SSM Health Care System's application process for the MBNQA

St. Clare Hospital and Health Services

St. Clare Hospital and Health Services located in Baraboo, Wisconsin, is a rural not-for-profit, privately-owned Catholic acute care hospital providing inpatient and outpatient health care services. St. Clare Hospital is also owned by SSM Health Care. St. Clare hospital serves the five counties of Sauk, Columbia, Juneau, Adams and Marquette. It's primary market composes seven ZIP codes including Baraboo, Lake Delton and Wisconsin Dells, Wisconsin. Because of Wisconsin Dells which attracts 2-3 million visitors every year, St. Clare Hospital sees 20-50% more emergency patients than it's closest competitors. St. Clare Hospital employs approximately 383 employees and has reached the excellence level in WFA in 2000, but as shown earlier, their continuous improvement process also has a long history and is ongoing.

With the quality success of both St. Clare and St. Mary's Hospitals, the researcher felt that it was important to also introduce the company who owns them, SSM Health Care, based in St. Louis, Missouri. Both Laura Jelle (St. Clare) and Tim Hallock (St. Mary's) acknowledged that SSM has played a huge role in helping both hospitals implement Continuous Quality Improvement (CQI). SSM Health Care owns and operates 21 acute care hospitals and three long-term care facilities in Oklahoma, Missouri, Illinois and Wisconsin. SSM has a 125-year history, and is among the ten largest Catholic health care systems in the United States.

Serigraph

Serigraph Incorporated is one of the nations leading suppliers of screen and offset-printed graphics for plastic decorating. Product lines include automotive printing, specialty graphics, sports and outdoor graphics, appliance graphics, computer electronics and in-mold decorating. The company was started by an entrepreneur in his garage in 1949 and has grown to become one the largest industrial printers in the world. The company employs 1,100 people in West Bend, Wisconsin and operates out of seven manufacturing facilities. Serigraph is a growth-oriented company, shipping products to over 30 countries worldwide. Serigraph reached the excellence level in WFA in 1998, but as shown earlier, their continuous improvement process also has a long history and is ongoing.

John Deere - Horicon Works

John Deere - Horicon Works is a global leader in design, production, and assembly of lawn equipment and related attachments and service parts. They are made up of four production units. This focus factory concept allows them to gain synergy with a family of products. John Deere - Horicon Works employs 1,833 people in Horicon, Wisconsin and is one of two factories that make up the John Deere Lawn and Garden Products Group. The other facility is located in Greeneville, Tennessee. Products are distributed through the Central Consolidated Distribution Center (CCDC) and the European Distribution Center (EDC). Their vision is to have a “John Deere on Every Landscape” by the year 2006. John Deere reached the excellence level in WFA in 1999,

but as shown earlier, their continuous improvement process also has a long history and is ongoing.

Data Collection and Recording

During the interviews with quality representatives from each organization, the indicators of financial performance were discussed and documented. This was very easy because each organization needed to fully understand what their indicators were as part of the WFA Process. Once the indicators were identified, the researcher requested data that would show the performance of each of the indicators. Data was either received in person or mailed to the researcher. Some data on indicators were of an extremely confidential nature and the organizations preferred to identify the trends themselves and present those trends to the researcher.

Data Processing and Analysis

The data for each organization was kept separate and the researcher analyzed the supplied data to determine the actual performance of each of the indicators of financial performance. Some of the data was supplied in chart form, which made it very easy to identify the trends and draw conclusions about each indicator. Once the performance of each indicator was identified, the researcher determined if the performance of the individual indicators would support any conclusions about the overall bottom line performance of the organization. After conclusions had been made about each organizations overall bottom line performance, that performance was compared between all four organizations. This final step would reveal more trends and would allow the researcher to make a conclusion as to what type of bottom line performance has been

achieved by every organization that has ever reached the excellence level in the WFA process.

Chapter 4

FINDINGS AND ANALYSIS OF RESULTS

Introduction

The purpose of this study was to determine if organizations that reach the excellence level in the Wisconsin Forward Award Process benefited from an increase in bottom line results. This chapter analyzes the results of the study.

Due to the sensitivity of the information that was supplied for this study, the four sample organizations and the researcher were very particular about how the results could be presented. Tables or charts are not presented in this study because the actual data could not be revealed in any way. It is important to note that the researcher's inability to present the actual data will not adversely affect the study because the study only intended to state if organizations had seen increases in their main indicators of bottom line performance and not the amount of the increases that they saw.

The organizations supplied select data on their indicators of bottom line results to the researcher. The data was analyzed and determinations were made about whether or not increases had been realized.

The chapter is separated into four sections, one for each organization sampled. For each organization, there are three parts:

1. Identification of the organization and an explanation of the supplied data.
2. Listing of the organization's indicators of bottom line results.
3. Summary of the results derived from the analysis.

St. Mary's Hospital Medical Center

St. Mary's Hospital supplied data on each of their indicators for the years 1996 through 2000. Their indicators of success include not only financial, but also, operational and clinical performance, in addition to, customer, employee and physician satisfaction. Tim Hallock, CQI Facilitator at St. Mary's said: "We provide top quality care, at a low cost with high satisfaction. My point is that a lot of places provide good quality but do it without regard to cost or efficient operation and this drives up cost to customers and/or drives down their profit. It can also drive down satisfaction." Tim went on to say; "We feel the need to balance these indicators because driving down cost can drive down satisfaction, quality of care and ultimately drive down profit. Likewise, focusing on satisfaction only can drive up cost without improving quality of care, effecting profit and eventually leading to poor satisfaction. It is a fine balance."

The indicators of success listed below include not only financial indicators, but also indicators that measure operational and clinical performance, customer, employee and physician satisfaction. This was done because St. Mary's considers all of these to be there key indicators.

Because of the focus of this report, the data that was supplied and then analyzed was for the financial indicators only. Data for customer and employee satisfaction was supplied and analyzed also because organizations feel that these indicators directly affect their financial results and research has proven this to be true (Mazvancheryl et al, 1999;/Rust & Zahorik, 1995).

St. Mary's Hospital Medical Center's key indicators of success are listed under four main categories which are: financial performance, customer satisfaction, growth and development, and quality of care.

Key Indicators of Bottom Line Success:

Financial Indicators

- Operating Margin
- Operating Revenue
- Operating Expenses
- Days Cash on Hand
- Supply/Total Operating Revenue%
- Days in Accounts Receivable
- Customer Satisfaction
- Employee Satisfaction

Customer Satisfaction (includes employees)

- Inpatient Loyalty
- ER Loyalty
- Outpatient/Ambulance Surgery Loyalty
- Employee Satisfaction

Quality of Care

- Surgical Site Infections in Coronary Artery Bypass Graft Patients
- Inpatient Mortality Rates
- Readmission Rate

- C-Section Rate
- Percent Admissions on a CARE PATHWAY

Growth and Development

- Total Discharge
- Newborns
- Emergency Room Visits
- Outpatient Visits
- Inpatient Market Share

Summary of Results:

Analyzing the data on indicators of financial performance for St. Mary's Hospital revealed several trends:

- Financial indicators were consistently better than local and state comparisons and showed a steady increase between 1996 and 2000.
- Almost every financial indicator increased from year to year.
- In most cases, when a financial indicator did not increase, it rebounded in the following year.
- Indicators dealing with expenses negatively increased from year to year but were always substantially lower than the competition.
- Measures of customer satisfaction increased from year to year for nearly every division and service within the hospital.
- Measures of employee satisfaction increased or remained the same throughout the specified time period.

St. Clare Hospital & Health Services

St. Clare Hospital looked at data on each of their indicators for the time period of 1996 through 2000. Laura Jelle, Ph.D., Director of Quality & PI at St. Clare, stressed that the hospital follows the criteria within the process and does not concentrate on financial success alone but works to continuously improve all areas of the hospital.

As part of the SSM health care system, St. Clare follows the same guiding principles as the other hospitals in the system. Likewise, St. Clare Hospital shares the same key indicators for success as the other members of the system. These key indicators were previously listed for St. Mary's Hospital.

The trends that were supplied by St. Clare Hospital dealt with financial indicators, and customer and employee satisfaction only because of the focus of this report.

Summary of Results:

Analyzing the data on indicators of financial performance for St. Clare Hospital and Health Services, revealed several trends.

- Market share continues to expand.
- Employee turnover is steady & well below the average for all industries.
- Supply expenses per adjusted patient day continued to decrease.
- Measures of customer satisfaction increased from year to year for nearly every division and service within the hospital.
- Measures of employee satisfaction increased or remained the same throughout the time period.

Serigraph Incorporated

Serigraph supplied data on indicators of financial performance for the years 1996 to 2000 and for the years 1990 to 2000 for sales performance. The indicators of bottom line success are directly related to financial performance. Serigraph also considers customer and employee satisfaction to be directly related to their bottom line success and they included them as financial indicators.

Key Indicators of Bottom Line Success:

- Sales per Employee
- Sales Growth
- Return on Net Assets
- MCE (Manufacturing Cycle Effectiveness – labor hours worked on job versus total time job is in plant)
- Employee Turnover
- Scrap as a Percent of Sales
- Yields
- Customer Parts Per Million
- Customer Satisfaction
- Employee Satisfaction

Summary of Results:

Analyzing the data on indicators of financial performance for Serigraph, revealed several trends.

- All indicators of sales performance steadily increased every year from 1990 to 2000 without exception.
- Measures of 38 different aspects of customer satisfaction from 1996 to 1999 remained constant or increased from year to year with some exceptions.
- Measures of customer satisfaction that did not increase almost always increased the following year.
- Employee turnover has improved.
- MCE has improved over the past three years.
- Scrap has been reduced.
- Yields have improved.

John Deere – Horicon Works

John Deere – Horicon Works, supplied data on indicators of financial performance for the years 1994 to 1999. John Deere's amount of sales and other financial indicators are greatly affected by the economy. When asked if the WFA process had helped John Deere to increase their profits, Cheryl Zuhlke (Master Process Pro at John Deere – Horicon Works) replied: "It can, and I am confident that it will, but currently John Deere Horicon attributes their financial performance to the condition of the economy."

Similarly to the other organizations, John Deere – Horicon Works also considers customer and employee satisfaction to be directly related to their bottom line success and they included them as financial indicators.

Key Indicators of Bottom Line Success:

- Return on Assets
- Net Sales
- Riding Lawn Equipment Market Share
- Customer Satisfaction
- Employee Satisfaction

Summary of Results:

Analyzing the data on indicators of financial performance for John Deere - Horicon Works, revealed several trends.

- The increase of Return on Assets was due, in large part, to the Order Fulfillment implementation, which greatly reduced complete goods inventory.
- Over the five year data points, the Net Sales dropped slightly in 1996 and 1997 due to the Order Fulfillment implementation, which was a planned reduction in dealer inventories. In 1998 and 1999, Net Sales grew 20%.
- Market Share information shows a continued growing upward trend over the five years and projects a continued upward trend through 2006. One spike in 1999 is attributed to John Deere – Horicon Works entering the mid-priced riding lawn equipment market sold through the mass channels versus dealers.

- Customer Satisfaction information demonstrates that, for Product Satisfaction, John Deere – Horicon Works branded products have maintained a high level of customer satisfaction.
- Employee satisfaction numbers between 1995 and 1999 show we maintained a level of employee satisfaction that is slightly above the national norm. However, John Deere - Horicon Works is dedicated to continually improving employee satisfaction and has put together task teams to address all areas of employee satisfaction. They believe employees are their greatest assets.

Discussion

The collection of the data for this report started with the quality contacts from each organization answering questions (Appendix A) during an informal interview. Each contact was more than willing to answer the questions and seemed to be very excited about their jobs and the topic of continuous improvement. Although several of the contacts were hesitant to answer questions about guarded financial information, the researcher was able to work with the organizations in order to get the information needed to draw conclusions.

The analyses of the indicators of bottom line results for the organizations and the identification of trends was done by either the researcher or by representatives of the organizations. The researcher could not analyze all the data himself, because some of it was unavailable to the researcher.

Comparing the trends in the indicators of bottom line results for each of the sample organizations showed many similarities. The researcher found it easy to identify

the reason for these similarities because they are a direct result of implementation of the WFA process by the organizations. The similarities included:

1. Each organization showed that their key financial indicators had either increased or had remained the same over the majority of the specified time frame. The performance of several of the indicators did fluctuate, but as a whole the financial indicators improved. The researcher realizes that a number of uncontrollable outside factors can affect financial performance in any time frame. These outside factors could include such things as the condition of the economy, shifts in the market or natural disasters. All four organizations overcame these outside influences (most likely marked by the fluctuations in performance) and achieved sustained increases throughout the time frame.
2. Each organization showed that their measures of customer and employee satisfaction either increased or remained the same throughout the specified time frame. The WFA process identifies customer and employee satisfaction as a major necessity and as a major contributor to the bottom line success of an organization. For this reason, customer and employee satisfaction is the focus of two of the seven criteria in the WFA process. Increases to these indicators are a direct result of the continuous improvement that the process provides.
3. All four organizations showed that they did not have a single indicator that substantially decreased during the time period. This is understandable because a major goal of the WFA process is to identify, continually monitor and improve the things that are important to an organization. The ability of the four sample

- organizations to avoid substantial decreases in their indicators of financial performance shows that they are successful using their approach.
4. The organizations showed that the performance of their indicators of bottom line results were consistently better than the average for their industry. This could be the result of each organization's goal not only to be the best in their industry, but the best in any industry. Nearly every one of the quality contacts told the researcher that their organizations continually strive towards this goal.
 5. Several of the organizations reported trends that showed reductions in indicators that would be detrimental to their financial results. These indicators included such things as expenses, cost per patient, scrap reduction and employee turnover. This is again the result of the WFA process and the criteria for performance excellence. The process allowed each organization to identify what was important for their organization. Once identified, the organizations worked to continually improve and reduce expenses and other things that are detrimental to their business.

Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Introduction

The purpose of this study was to determine if the organizations that have reached the excellence level in the WFA process have benefited from an increase in bottom line results. The focus of this final chapter is summarizing what the research has found and stating what conclusions have been made based on those significant findings. The chapter concluded with the researcher making recommendations about how the research report can be used for a worthwhile purpose.

Summary

The goal of the study was to collect financial data on the organizations that reached the excellence level in order to show if they have enjoyed an increase in bottom line results. The study began with a face-to-face interview with quality professionals from each organization. Each organization was asked to explain what they use for their indicators of bottom line success and then to present data or information that would indicate the performance of each of those indicators. The information and supplied data from each organization made it possible to analyze and identify any apparent trends in bottom line performance. These trends were then compared between each of the four sample companies and the researcher then drew conclusions about what type of bottom line results were achieved by all of the excellence level achieving organizations.

Conclusions

The researcher was able to draw several conclusions from the analysis and comparison of each organization's trends in their indicators of bottom line success. The conclusions include:

1. The organizations showed that their key financial indicators had either increased or remained the same over the majority of the specified time frames. The performance of some of the indicators did fluctuate, but as a whole the financial indicators improved.
2. The organizations showed that their measures of customer and employee satisfaction either increased or remained the same throughout the specified time frame.
3. The organizations did not report that any indicators substantially decreased during the time period.
4. The organizations showed that the performance of their indicators of bottom line results were consistently better than the average for their industry.
5. The organizations showed reductions in indicators that would be detrimental to their financial results. These indicators included such things as expenses, cost per patient, scrap, and employee turnover.

All the conclusions combined, lead the researcher to the answer that this report was striving to find. It appears that the companies that have reached the Excellence level in the WFA process have achieved an increase in their bottom line results.

The conclusions of this report do not allow the researcher to conclude that the WFA process is solely responsible for these increases. What is important is that they did happen. The goal of the WFA process is to help organizations continuously improve all aspects of their business. Wisconsin organizations that are contemplating participation in the WFA program should be encouraged to know that organizations that have participated and excelled in the program are continuously improving and are also achieving bottom line results.

Recommendations

Based on the conclusions that have been drawn from this report, the researcher makes the following recommendations:

1. The Wisconsin Forward Award Process should continue to help organizations implement the criteria for performance excellence. The financial gains of the four organizations in the study show that the program provides bottom line benefits in addition to the continuous improvement opportunities that the program is best known for.
2. This study and the conclusions drawn from it should be used to market the Wisconsin Forward Award Program in order to increase the number of organizations that participate.

3. Future studies of this type should be conducted that would further show the correlation between the WFA program and the achievement of sustained bottom line results.

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Appendix A

FACE-TO-FACE INTERVIEW QUESTIONS

Face-to-Face Interview Questions

1. Could you please supply general information about your company?
2. Could you please provide a timeline of your companies continuous improvement programs and initiatives including your involvement in the Wisconsin Forward Award Program?
3. What do you consider to be the most important benefit of the Wisconsin Forward Award to organizations that participate in it?
4. What does your organization consider to be your key indicators of bottom line success?
5. Could you supply me with data showing the performance of any or all of your indicators of bottom line success for the past several years?
6. What trends in your indicators of bottom line success have you already determined from the data you have collected?