Study Shows that Quality Pays Winners

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Investors have been told for years that quality can be profitable. Most of the articles and studies concerning the financial success of quality award winners have been written about the winners of the prestigious Malcolm Baldrige National Quality Award (MBNQA). The prestige of the award is a function of two factors (1) it is a national quality award and (2) the artificial scarcity created by awarding only two or less awards in a category (small business, service, and manufacturing) each year.

State award winners

We decided to test the assertion that quality pays by analyzing the performance of state quality award winners. Since dozens of state quality awards are awarded each year, most people accurately assume that they are easier to win than the MBNQA. Investors trying to invest in quality oriented firms have probably wondered about the levels of achievement required for winning a state award as compared to the MBNQA. In addition to investors concerns, corporate managers have probably wondered about possible financial benefits of pursuing state quality awards. Our goal was to shed some light on these questions with this study.

State quality awards are typically very similar in content and approach to the MBNQA. A common change that states have made is to modify the all or nothing approach of the MBNQA. Many of the state awards have a number of different levels of achievement. This allows nearly all applicant companies to achieve at least some level of recognition. The top level of achievement corresponds to what formerly was called winning the award. Other award levels are typically labeled things like silver level, bronze level, achievement, etc. In those states where there were different levels of achievement possible, only companies winning the top level honors were used for this study.

Financial statements show superior improvement

We chose a sample of 25 state quality award winners that had won awards between 1988 and 1996. The award winners were matched up with similar size and SIC code firms not winning quality awards. Table 1 shows the changes in average calculated financial ratios over approximately a four year period. For an award won in 1990, the comparison would be between the ratios calculated from the 1988 and 1992 annual reports. As you can see, there is a clear difference in average relative improvement between the two groups of companies over the four year period. Quality enthusiasts would probably attribute the changes in performance to changes in the culture and internal processes of the award winners. Table 1 also shows that in all cases the award winning firms made superior progress in improving their performance measures. Especially dramatic was the change in the return on equity which was an 18.73% improvement versus a negative 5.91% for the matched firms. Another significant difference in relative performance was the dramatic improvement in operating profit margin improvement of 46.77% for the award winners versus the 2.69% improvement for matched companies.

Market performance is also superior

We also wanted to look at how the stock market responded to state quality award winning efforts. We compared the market performance of state award winners to the matched firms during the single year two years before winning the award, during the year of the award, and during the single year two years after winning the award. As you can see, the award winners did better than the S&P 500 but more poorly than the matched firms during the year two years before the award. During the year of the award, the award winners did better than the S&P 500 again and much better than the matched firms. During the year two years after the award, the award winners again out-performed both the matched firms and the S&P 500. During the entire 5 years period, we found that the award winner portfolio earned stockholders a 18.1% return compared to 16.2% for the matched firms and 13.0 for the S&P 500.

Let people know

As in Helton's study of MBNQA winners, state quality award winners seem to do better than average. Helton found that his portfolio of award winners returned 99.0% on principal while the Dow Jones Industrials returned 41.9% and the Standard and Poor's 500 returned only 34.1%. During the entire five year period, we found that investors bid up the amount paid for shares issued by award-winning firms by 18.1 percent annually, compared to 16.2 percent for the matched firms, and 13.0 percent for the Standard & Poor's 500.

References

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2. U.S. General Accounting Office (GAO), *Management Practices: U.S. companies Improve Performance Through Quality Efforts* (GAO/NSID-91-190), GAO, Gaithersburg, MN, 1991.
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TABLE 1

Percent Changes Over Four Year Period*		
Measure	**Award Winners**	**Match Companies**
Operating Margin (NI/Sales)	1.13%	-1.71%
Operating Margin (EBIT/Sales)	46.77%	2.69%
Return On Assets	10.28%	-5.50%
Return On Equity	18.73%	-5.91%

* Average change in calculated ratios

Table 2

Changing Market Values*			
Period	**Award Winners**	**Matched Firms**	**S & P 500**
Two years before award	16.8	25.1	7.8
Year of award	18.9	7.2	13.8
Two years after award	29.4	20.3	18.4
Total five year period	18.1	16.2	13.0

* Average annualized percentage change in outstanding market value (share price times number of shares outstanding).