Is Publication of the Reputation Quotient (RQ) Sufficient to Move Stock Prices?

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ABSTRACT
Research has shown that a firm's reputation influences the amount investors are willing to pay for that firm's securities. Therefore, securities of firms with a good reputation should be valued higher than firms with a poor reputation, ceteris paribus. In this study, we use event study methodology to assess whether the public disclosure of the Reputation Quotient (RQ^{SM}) list, an index of corporate reputation, induces a change in the security prices (shareholder returns) of the firms included on that list. The results show that disclosure of the RQ does not affect firm shareholder returns. We explore reasons for this finding, suggest possible explanations and offer implications.
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INTRODUCTION

Studies have shown that company reputation affects investors' perception of company value (Freiesleben, 2006; Anderson and Smith, 2006; Cooper *et al*., 2001). Investors are willing to pay more for the stock of a company that has a good reputation, *ceteris paribus*. A question that arises, however, is how well investors know the status of a company's reputation at any point in time. While company characteristics such as profitability, assets and debt are known or are easily ascertained, reputation is not as readily apparent to investors. Since a company's reputation affects the company's security prices, an interesting research question is whether those prices reflect the company's reputation continually or whether that reputation has to be disclosed publicly (ie, in some type of reputation measure) before it becomes reflected in the company's security price. The research presented here has implications

for investment strategies that incorporate intangible factors such as corporate reputation.

Popular measures of firm reputation are published annually in *Fortune* magazine and the *Wall Street Journal*. In this study, we investigate the effects of the release of a reputation list known as the Reputation Quotient (RQ) on the security prices of the firms that are listed. According to the efficient market hypothesis (EMH), any event that impacts a company's security price will be reflected in the company's stock price immediately. Therefore, if the publication of the RQ list reveals new information to investors, its publication will induce changes in the security prices of the companies on the list. On the other hand, if publication of the RQ list reveals no new information to the market, its publication will not be associated with changes in firm security prices. To capture the announcement effects, we use event study methodology. Thus, the question investigated in this exploratory study is: *Does the publication of the RQ induce changes in the security prices of the firms on that list?* The paper proceeds as follows. In the ensuing section, we offer a literature review. Following that, we explain the RQ. The next section describes the methodology we employ and in the final section, we discuss the results and offer some explanations.

LITERATURE REVIEW

Corporate reputation has been shown to enhance operating performance (Hall, 1993), and the literature is replete with anecdotal arguments that company reputation loss is associated with loss of sales and increased costs. Company reputation also has been shown to have an effect on stock prices in the long run (Freiesleben, 2006).

A line of research known as the 'affect heuristic' links decision making to the images and feelings associated with the decision-making process (Finucane *et al.*, 2000; Slovic *et al.*, 2002). Several studies have applied the affect heuristic to understanding investor decision making. This research hypothesizes that investors' likes or dislikes of a company influence the company's stock value (MacGregor *et al.*, 2000; Lucey and Dowling, 2005).

MacGregor *et al.* (2000) asked individuals to rate 20 industries from 'highly negative' to 'highly positive.' The 20 industries selected included 10 that were high stock market performers in the previous year and 10 that were low stock market performers in the previous year. Participants also estimated the stock market performance of the industry in the previous financial year, the performance of the industry over the coming year and whether or not they would be willing to buy into an IPO from a company in the industry. The results indicated that participants were more willing to invest in an IPO if the industry had a positive image and had performed well in the past.

A study by Shefrin (2001) indicates that even market professionals are influenced by the image of a company. Shefrin concluded that traders made the mistake of believing that stocks of good companies are good investments. Shefrin's study supports the affect heuristic but not efficient equity pricing, as it resulted in the prediction that low-risk stocks would have high future returns and high-risk stocks would have low future returns.

Cooper *et al.* (2001) show that image can affect equity pricing, even when that image has no impact upon firm profitability. Examining data from 1 June, 1998 to 31 July, 1999, they report that companies which change their name to an Internet-related 'dotcom' name had a significant positive stock price reaction. The 'dotcom' effect was an astounding 74 percent average cumulative abnormal return (CAR) for the ten-day event window surrounding the announcement day. The 'dotcom' effect was similar across all firms, irrespective of the firm's level of involvement with the Internet. Stock investors appear to have been affected by the

positive reputation of the Internet and not by an analytical assessment of expected risks and returns.

Srivastava *et al*. (1997) find that investors require a lower required return from companies that have a good reputation. Since 1983, *Fortune* magazine has published a list of the most admired companies in the United States, based upon a survey of thousands of executives, directors and security analysts. Companies were rated on eight dimensions including innovation, financial soundness, use of corporate assets, long-term investment, people and management quality of products or services. Using companies from the 1990 *Fortune* list, Srivastava *et al*. (1997) calculate the effect that inclusion on the list has upon the firm's required return. They find that firms on the list have a lower than expected risk-adjusted required return, leading to a higher level of shareholder value.

Finally, a study by Anderson and Smith (2006) supports the argument that investors are attracted to companies with a good reputations. Anderson and Smith use the *Fortune* list to construct equal dollar portfolios following the annual publication from 1983 to 2004. They use a matched-pairs test to compare the performance of the most admired companies to the performance of the Standard & Poor (S&P) 500 over a 250-day trading period following their inclusion on the list. They find that the portfolios consisting of the most admired companies had an annual average return of 17.7 percent, compared to the average annual return of 13.0 percent for the S&P 500 overall.

Based on the studies just discussed, there is a great deal of support for the fact that corporate reputation impacts the amount investors are willing to pay for a firm's securities. An interesting question, however, is whether investors are aware of firms' reputations at all times or whether those reputations need to be disclosed publicly before investors adjust their estimates of firm value based on the reputation disclosure. In other words, will public disclosure of a firm's reputation affect the amount investors are willing to pay for the firm's securities. There are persuasive arguments for both views.

The EMH posits that security prices reflect all publicly available information about firms' profitability (Fama, 1970). Furthermore, firm security prices respond immediately to events that affect the firm's profitability. In light of the discussion above, there are reasons to believe that publication of a firm's reputation will induce a response in the security prices of the firm. While the literature just discussed indicates that reputation affects firm security prices, reputation itself is an abstract concept, rather than an event. It is only after the firm's reputation is quantified and published that it becomes an 'event' that will induce investors to adjust the amount they are willing to pay for the firm's securities. Were this not the case, then there would be no reason for firms' reputation to be disclosed. Therefore, publication of the RQ may be an event that induces movement in firm security prices because the generation of the list is an event.

Institutional theory suggests another reason why publication of the RQ will induce security prices to respond. According to institutional theory, organizations that are able to develop 'legitimacy' enjoy more favorable treatment from the market and therefore enjoy advantages over organizations that have not been successful in achieving legitimacy (DiMaggio and Powell, 1983). Legitimacy is attained by mimicking successful organizations. Institutional theory shows how symbolic properties of organizations help them to secure support from external sources (Clegg and Hardy, 1999). The announcement of the RQ in the *Wall Street Journal* could signal the success or failure of the organization to the market. In other words, organizations scoring high on the RQ could be rewarded with legitimacy, while the ones ranked low could face a loss of legitimacy.

On the other hand, there are reasons why publication of firm reputation would not be associated with changes in security prices. As stated above, reputation is not an event, in and of itself. Rather, a firm's reputation is made up of facts or 'events' about a firm (eg, the decision to increase employees' wages, the decision to offer benefits to members of the community and product recalls). Therefore, according to the EMH, each of these 'events' would have induced changes in the security prices of firms affected by those events if those events would have impacted the future profitability of the firms. On the other hand, since the firm's reputation is not an event on its own, its publication would not be an event either.

A study by Hannon and Milkovich (1996) supports the view that publication of reputation measures will have no affect on security prices. In that study, the authors use event study methodology to assess the impact that various human resource (HR) reputation measures have upon security prices (shareholder returns). The HR reputation signals they used included 'best for blacks,' 'most preferred,' '100 best to work for,' 'best for working mothers,' 'best for women' and 'best for black engineers.' They assessed whether there was any change in the companies' shareholder returns when the lists were released. According to their results, five out of the six measures showed no abnormal returns (ARs) in response to the release of the reputation measures. This seems to indicate that the public disclosure of the fact that a company was on one of these lists revealed no new information to investors.

The study by Anderson and Smith (2006), discussed above, also supports the view that the publication of firm reputation will not induce changes in firm security prices. While the authors in that study found that firms with good reputations according to the *Fortune* list outperformed firms on the S&P 500, they also found no significant announcement effect for the actual publication of the *Fortune* list. That is, there was no significant gain to investors if they purchased the stock on the day the list was published or if they waited 5, 10, 15 or 20 trading days following publication of the list. This also seems to indicate that, while corporate reputation affects firm security prices, publication of a reputation list does not induce movement in security prices.

Based on the above discussion, it can be argued that publication of the RQ will induce the firm security prices to respond but it can also be argued that security prices will not respond. Hence, the question presented above: (Does the publication of the RQ induce changes in the security prices of the firms on that list?) is an empirical question that will be tested in this paper. In the next section, we describe the RQ and discuss how it is generated.

THE REPUTATION QUOTIENT

Since 1999, the *Wall Street Journal* and Harris Interactive have measured corporate reputation annually. Harris Interactive employs a two-phase methodology to measure reputation. In phase one, respondents are asked via interviews and online surveys to nominate companies that stand out as having the best and worst overall reputations, respectively. Respondents are asked to identify the two companies with the 'best reputations overall' and the two companies with the 'worst reputations overall.' In 2006, 7,886 randomly chosen individuals participated in phase one. The companies nominated most frequently serve as the input for phase two. In phase two, an in-depth survey with 20 items (RQ^{SM}) measures seven dimensions of corporate reputation: emotional appeal, products and services, financial performance, social responsibility, workplace environment, and vision and leadership (Harris Interactive, 2006). For example, respondents indicate the extent to which

each company 'treats their employees well' (workplace environment), and the extent to which each company's products and services are of high quality (products and services). A seven-point rating scale is used, where '7' equals 'describes very well' and '1' equals 'does not describe well.' As in phase one, members of the public in the United States respond to the survey utilizing an interview methodology. In 2006, 22,480 individuals participated in phase two. The overall RQ index is the average rating over 20 questionnaire items. Harris Interactive offers a comprehensive description of the RQ methodology (Harris Interactive, 2005). Ultimately, the RQ list is released to the public in an issue of the *Wall Street Journal*. In the next section, we discuss the methodology we use to test whether publication of the RQ is associated with changes in firm security prices.

METHODOLOGY

Sample

The sample for this study consists of firms that appeared in the *Wall Street Journal* on the RQ list, as reported by Harris Interactive. Our sample looks at a five-year period from 2001 to 2005. The RQ list for each year consists of 60 firms and there are 83 distinct firms represented in the entire sample. The firms in our sample represent a variety of industries; there are 48 distinct industries at the 4-digit SIC and 14 industries at the 2-digit SIC level. The firm data for this study were extracted from Compustat and the Center for Research on Security Prices (CRSP), while the RQ list and release dates were obtained from Harris Interactive.

According to the procedure used by the Harris Interactive to calculate the RQ, the list in each year should contain the 30 firms identified as having the 'best reputations overall' and the 30 firms identified as having the 'worst reputations overall.' For our analysis, the list was divided into quartiles. Quartile 1 represents the highest rated companies while quartile 4 represents the lowest rated. We chose the quartile approach to capture better the differences between firms with the best and worst reputations, respectively.

PRELIMINARY ANALYSIS

A preliminary analysis was conducted using variables that are commonly used as controls in management research, to see if there were obvious differences between the firms in the different quartiles. We examined firm size using total assets and number of employees. For performance, we used share price, sales and holding period returns. Summary statistics for the quartiles are provided in Table 1 and the results of *t*-tests comparing the means for the different quartiles are provided in Table 2. The summary statistics in Table 1 provide some interesting information. The data show that the companies ranked higher on the RQ are, on average, smaller in size in terms of total assets, sales and number of employees. In another interesting result, it seems that the higher ranked companies spend, on average, more on advertising in absolute dollars as well as a percentage of sales, despite the difference in size. The advertising expense raises an interesting question for future research. Is the better reputation merely a result of improved visibility?

Table 2 displays the results for the comparison of the means of the different quartiles. As expected, the mean RQ is significantly different at the 0.001 level. The companies in the different quartiles are also significantly different based on size, both in terms of total assets and employees. The share prices are significantly higher for the upper quartiles, but there is no significant difference between the lowest two quartiles (3 and 4). Even though the means in the summary statistics showed a difference between absolute levels of advertising and advertising intensity between the different

Table 1: Control Variable Mean and Standard Deviation for Each RQ Quartile

Variable	*Quartile*	*Mean*	*SD*
Reputation quotient	1	78.02	1.60
	2	73.40	1.51
	3	67.60	1.88
	4	59.21	5.19
Holding period return	1	0.01	0.05
	2	−0.01	0.07
	3	−0.01	0.08
	4	0.01	0.10
Total assets (million $)	1	50,700	68,900
	2	88,000	154,000
	3	146,000	270,000
	4	165,000	289,000
Sales (million $)	1	40,500	33,000
	2	58,600	60,900
	3	61,000	66,300
	4	62,300	71,500
Common shares out (million)	1	2,340	2,560
	2	2,400	2,710
	3	1,610	1,760
	4	1,860	1,840
Employees (000)	1	125.09	103.59
	2	212.36	313.75
	3	201.18	241.70
	4	115.63	104.30
Advertising expense (million $)	1	1,620	1,400
	2	1,390	964.36
	3	1,480	1,450
	4	1,260	1,450
Advertising intensity	1	0.04	0.03
	2	0.03	0.03
	3	0.03	0.0
	4	0.03	0.03
Price ($)	1	58.30	50.52
	2	42.90	20.31
	3	34.89	18.11
	4	31.90	20.42

quartiles, the *t*-test shows no significant differences for these variables.

EVENT STUDY ANALYSIS

Event study methodology was used to assess how the announcement of firms' RQ affected the returns on the firms' securities. Event studies estimate the effect of an event on stock prices (shareholder returns) to discern the economic impact of that event. Any event study rests on the EMH, which states that any event that affects the future profitability of a firm is immediately reflected in security prices. While there are critics of event studies and the EMH that underlies this type of research who draw on models of herd behavior and social dynamics (Banerjee, 1992; Bikhchandani *et al*. 1991), most scholars who have investigated the subject of market efficiency in detail provide evidence in support of the concept (Gilson and Kraakman, 2003; Malkiel, 2003).

In event studies, the actual returns to shareholders given an event are compared to a prediction of what those returns would have been absent the event; in this case, the announcement of the RQ is the event. Any difference is referred to as an 'AR' and the ARs are attributed to the event under investigation. The sum of the ARs over a number of days is referred to as the CAR. Thus, if the CAR given the event is positive and statistically significant (ie, greater than predicted to have been absent the event), the event study allows the researcher to conclude that the event benefited the shareholders of the corporations affected by the event. The model used in this paper is the standard one that is also used in those studies.

The Formal Model

The effect of the RQ on security returns on any particular day is estimated by examining the equation

$$AR_{id} = R_{id} - E(R_{id} \mid \text{No RQ announcement}) \quad (1)$$

Table 2: *T*-Tests Comparing the Means of Different Quartile Groups

	Mean differences					
	Goups					
Variables	*1 and 2*	*1 and 3*	*1 and 4*	*2 and 3*	*2 and 4*	*3 and 4*
Reputation quotient	4.62★★★	10.42★★★	18.81★★★	5.80★★★	14.19★★★	8.39★★★
Holding period return	0.02	0.02	0.00	0.00	−0.02	−0.02
Total assets (million $)	−37,300	−95,000★★	−11,400★★	−57,700	−77,100	−19,400
Sales (million $)	−18,100★	−20,500★	−21,900★	−2,350	−3,740	−13,90
Common shares out (million)	−60.08	725.92	476.94	786.00★	537.02	−248.98
Employees (000)	−87.27★	−76.08★	9.46	11.18	96.73★	85.54★
Advertising expense (million $)	226.43	137.72	360.27	−88.72	133.83	222.55
Advertising intensity	0.01	0.01	0.01	0.00	0.00	0.00
Share price ($)	15.40★	23.41★★★	26.39★★★	8.01★	10.99★★	2.98

★$p < 0.05$; ★★$p < 0.01$; ★★★$p < 0.001$

where AR*id* is the abnormal return to firm '*i*' on day '*d*' due to the announcement, *Rid* is the actual return to firm '*i*' on day '*d*' and *E*(*Rid*|No RQ announcement) is the expected return to firm '*i*' on day '*d*' had there been no announcement.[1] *Rid* is readily available.[2] *E*(*Rid*|No announcement) must be predicted by the researcher. In this paper, ARs are predicted using both market model prediction errors and market-adjusted returns.

The market model posits that the return to any security on day '*d*' is a function of the market as a whole and the risk of investing in that security relative to the risk of investing in the market as a whole. The *ex ante* return to security '*i*' in any time period '*t*' equals

$$R_{it} = \alpha_i + \beta_i(R_{mt}) + \varepsilon_{it} \qquad (2)$$

where *Rit* is the return to security '*i*' in time '*t*,' *Rmt* is the return on the CRSP value-weighted index of all publicly traded stocks in time '*t*' and αi and βi are parameters. Both firm and market returns were transformed by a natural logarithm, ln(1 + returns) before estimation. The log transformation converts the returns from discrete to continuously compounded returns and this simplifies the summation of returns over multiple periods. The parameters in equation (2) for each firm were estimated for each sample of firms using data from day −200 to day −100, treating the day the announcement of the RQ in the *Wall Street Journal* as day 0. Data from clearly outside the event period were used to minimize the possibility of the firms' parameters having been affected by the event in question (Peterson, 1989).

According to the market model, εit is a fair game variable with mean of 0. Therefore, equation (1) (the AR to firm '*i*' on day '*d*' due to the RQ^{SM} announcement) is tested by examining the equation

$$AR_{id} = R_{id} - (\alpha_i + \beta_i(R_{md})) \qquad (3)$$

where AR*id* is the abnormal return to security '*i*' on day '*d*' and $Rid - (\alpha i + \beta i(Rmd))$ is the return to security '*i*' on day '*d*' that is

predicted to have occurred absent the event being investigated (in this case, the release of the RQ).

In the market model procedure, each abnormal return (AR*id*) is referred to as a prediction error. The average effect of the event on day '*d*' for the sample of the firms is computed as

$$AR_d = 1/n \sum AR_{id} \quad (4)$$

where AR*d* is the abnormal return to each firm *d* and *n* is the number of firms in the sample. The quantity computed in equation (4) is an estimate of the effect of the event on all the firms on day '*d*.' If more than one event day is used, because the researcher hypothesizes that shareholders capitalized the effects of the event being investigated on more than one day or because there is uncertainty about the actual day 0, the average ARs computed for each day are summed over all the event days to estimate the average *total* effect of the event under investigation. This total effect is known as the 'CAR':

$$CAR = \sum ARd \quad (5)$$

In other words, the CAR is the sum of the average AR for the sample over all the event days.

The impact of the RQ on firm value is estimated by testing whether the CAR computed in equation (5) is statistically different from zero. In order to make this determination, the CAR must be standardized to account for the possibility of statistical error in the determination of the ARs. In this case, the ARs and CARs for each firm are standardized by the standard error of the forecast of that firm's return in the model estimation period to obtain the following test statistic:

$$\frac{CAR}{\sigma(CAR)} \quad (6)$$

where CAR is the cumulative abnormal return and σ(CAR) is the standard error of the cumulative normal return.

In this paper, since the RQ is announced for all of the firms in the sample on the same day, all firms share the same event days. This makes it possible that something other than the announcement of the RQ caused the firms' actual returns to be different from those predicted by the market model on these particular days (Binder, 1985). Several procedures for dealing with this problem have been employed, each of which uses the variance–covariance matrix of the residuals from the model estimation periods to correct the standard errors for the 'usual' correlation in the ARs across firms in the sample on any given day. In this paper, the Burgstahler and Noreen's (1986) 'H-statistic' is used to assess statistical significance – a method specifically designed to correct for the 'usual' correlation of ARs across firms.

In this case, using the market model could be problematic. If news of the RQ ranking were leaked to investors during the model estimation period, that news will bias the firm's model parameters. As a result, any CARs in response to the RQ announcement would be incorrect. Therefore, this paper also estimates AR*id* with market-adjusted returns. Using market-adjusted returns enables the researcher to avoid estimating market model parameters that may be biased by the anticipation or ex-post effect of the disclosure of the RQ (Crawford and Franz, 2001; Asquith *et al.*, 1989). Market-adjusted returns are computed similarly to market model prediction errors with $\alpha i = 0$ and $\beta i = 1$ for each firm. Thus, equation (3) above becomes

$$AR_{id} = R_{id} - R_{md} \quad (7)$$

To test the hypotheses stated above, the quartiles and each combination of two quartiles were compared by using a zero-investment difference portfolio approach.

The zero-investment difference portfolio approach creates a long position in the set of firms in one quartile and an equally valued short position in another portfolio. If the market reaction to the one group was greater (less) than the reaction to the second, then the return on the zero-investment difference portfolio should be positive (negative) and significant. In other words, if firms with good reputations had higher ARs and CARs than firms with poor reputations in response to the release of the RQ, the return on the zero-investment difference portfolio comprising groups 1 and 3, 2 and 3, 1 and 4, and 2 and 4 would be positive and significant. Tests for significance in the returns of the zero-investment difference portfolios are performed using a weighted standardized residual technique which is a variant of the test statistic described by Patell (1976).

Event Periods

This research examined and tested shareholder returns over several event windows. One test consisted of examining the returns for each firm on the date the RQ was announced (day 0). Then, for each year (the RQ was announced on a different date in each year of our study), shareholder returns were examined for two days prior to the announcement, two days after the announcement and a window consisting of the announcement date through 250 days after the RQ was announced. Event study research typically uses event windows surrounding the event date to allow for two possibilities. First, information about the event may have been leaked to the market before the event occurred, making it necessary to examine shareholder returns one day prior to each event date. Secondly, the market might have had a delayed reaction, particularly if the event took place so late in the day that its effect was not reflected in security prices until the next day, making it necessary to examine shareholder returns one day after the event date. Shareholder returns were examined for two days prior to and two days following the event date to allow the results from this study to be compared with Hannon and Milkovich (1996) and for 250 days after the announcement date for comparison with Anderson and Smith (2006).

RESULTS AND DISCUSSION

The event study results from the various event periods used are presented in Table 3.[3] According to those results, the announcement of firms' RQ induces no change in the shareholder wealth of those firms. On the day the RQ was announced, shareholder returns fell by 1.02 percent (p-value < 0.05) among the third quartile of firms, but none of the other quartiles of firms had statistically significant changes in their shareholder returns in response to the announcement of the RQ. The zero-investment portfolios show, however, that the returns for this quartile were no different from the returns for any of the other quartiles. For example, the return on the portfolio combining the third with the top quartile was 0.43 percent and this was not statistically significant.

When the window was expanded to include the day the RQ was announced plus the next day, returns fell by 1.1 percent in the bottom quartile and 1.08 percent in the third quartile (p-value < 0.05) but again, neither of these groups was statistically different from either of the other groups. In fact, 24 event periods were examined (six event windows, four quartiles) and in only seven were shareholder returns statistically significant from zero. Not one of the zero-investment difference portfolios had statistically significant returns, however. Even though shareholder returns were examined over six different event windows, there was no difference in the shareholder returns between any two quartiles of firms in response to the announcement of the RQ. In other words, the announcement of a positive RQ was no

Table 3: Abnormal Returns

	Day 0	*0 to +1*	*0 to +2*	*0 to +250*	*−1 to +1*	*−2 to +2*
Top quartile	−0.00583	−0.00442	−0.00124	0.003891	−0.00227	0.004168
Second quartile	−0.00265	−0.00443	−0.001354	0.009176⋆	0.000811	0.009093⋆
Third quartile	−0.01017⋆	−0.01079⋆	−0.00132	0.003182	−0.00933⋆	0.001304
Bottom	−0.00606	−0.01132⋆	0.001651	0.003863	−0.00701	0.010575⋆

Day 0=day RQ released
⋆$p < 0.05$

different from the announcement of a negative RQ on the shareholder returns to firms.

In sum, the results show that publication of the RQ does not induce a change in the shareholder returns to firms included on the list. Furthermore, firms identified as having 'the best reputations overall' do not have greater ARs or CARs than firms identified as having 'the worst reputations overall.' Thus, the question presented by this study can be answered in the negative: publication of the RQ does *not* induce changes in the security prices of the firms on that list. The results are consistent with Hannon and Milkovich (1996) who found that the publication of reputation measures had no affect on security prices and with the finding in Anderson and Smith (2006) that the release of the *Fortune Most Admired* list did not result in an immediate AR.

While the question examined in this paper was answered in the negative, it is important to discuss the implications of that finding. In addition, these results need to be explained in light of the literature discussed in earlier sections of the paper. In other words, while it is true that the release of the RQ did not induce any change in the security prices of the firms on that list, we must discuss what can and what cannot be concluded from that finding.

First, we must stress that our findings do not challenge previous findings that corporate reputation is an important component of firm value or negate the fact that corporate reputation is an important research domain. Our findings show merely that the publication of this specific measure of reputation (the RQ) does not influence firm security prices or the stock market. The results seem to show that events that make up firms' reputations are impounded into firm security prices at the time the events occur. The publication of a reputation measure provides no new information to investors; therefore that publication does not move security prices. Since the EMH states that only new information about a firm will impact what investors are willing to pay for that firm's securities, if no new information is revealed by the RQ, there would be no change in the firm security prices in response.

Another explanation for these results relates to the firms that comprise the RQ list. According to the Harris Interactive website, the final published RQ list contains the 60 most visible companies in the country. It is highly likely that investors are acutely aware of the reputations of the most visible firms in the country, further confirming the likelihood that publication of the RQ provides no new information to investors. Thus, the lack of significant findings therefore can be attributed to the visibility of the firms on the RQ list.

In addition to the RQ methodology, and the particulars of the firms on the RQ list, other factors may also help explain the

results of this study. Research shows that institutions now own over 55 percent of all shares outstanding (Securities Industry Association, 1999). In larger organizations, the ownership stake of institutional investors exceeds 60 percent (Useem, 1996). These institutional owners have more power and expertise individually and collectively than individual stockholders (Cubbin and Leech, 1983). They hire managers to monitor their investments in other companies and these managers have more knowledge of the activities of these target firms. In light of this investment environment, the RQ may not provide any new information; rather, it may merely confirm what the investors know already. While institutional investors will be aware of the firms' reputation constantly, the individual investor might be less aware of that reputation. Since these results seem to show that security prices do not respond to publication of a reputation measure such as the RQ, investors would be well advised to research a firm thoroughly before making investment decisions.

While the publication of the RQ induced no change in security prices, the RQ is still an important piece of information. The announcement of the RQ may serve to formalize the positive or negative aspects of an organization for the market. A positive RQ may earn the organization legitimacy (DiMaggio and Powell, 1983). According to the resource-based view of the firm, a positive reputation is an intangible asset that may translate into a competitive advantage (Barney, 1991). Therefore, a positive RQ may allow an organization to draw positive rents from suppliers, creditors and business partners. A positive RQ may also serve as an asset in recruiting new employees. Therefore, it is important that further research be conducted on reputation in general and the efficacy of the RQ in particular, even though our findings highlight the weakness of the RQ in moving the market.

Regarding alternative research models, future research should continue to utilize methodologies other than the event study to ascertain the relationship between corporate reputation and important outcomes. The creation of a positive corporate reputation may be an incremental phenomenon that may escape detection using short-term event windows. Comparing the risk-adjusted returns of a portfolio consisting of companies with the 'best overall reputations' to a portfolio consisting of companies with the 'worst overall reputations' and to the market portfolio would be an alternative methodology to measure the investment value of the RQ. Anderson and Smith (2006) found that investing in firms on the *Fortune Most Admired Companies* list resulted in superior returns. Regression analyses using multiple time periods is an alternative research methodology that can be a focus for future research (Rose and Thomsen, 2004; Granger, 1969).

Finally, this study indicates that security prices already embody information compiled from polling. It would be interesting to see whether this is a consistent phenomenon in other contexts. For example, the Iowa Electronic Markets offer contracts on political race outcomes and studies have shown that the contracts are an efficient predictor of election results. An event study measuring the impact of opinion poll results on contract prices would replicate this study in a different context.

Notes

1 When the effect of the announcement of the RQ is tested over more than one day, the symbol CAR is used to denote the cumulative abnormal return to the sample of firms.

2 Data on firm returns are maintained by 'CRSP' connected with the University of Chicago School of Business.

3 Table 3 presents the results from the estimates using market-adjusted returns. As predicted, the results when the market model was used were even less

significant than the results presented here. Results from the market model estimates are available on request from the authors.

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