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EMPLOYEE STOCK OWNERSHIP PLANS: THE ROLE OF EMPLOYEE PERCEPTIONS AS MOTIVATION

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ABSTRACT

Studies indicate that the primary reason for implementing employee stock ownership plans (ESOPs) is to increase employee motivation. However, few studies have assessed the relationship between participation in ESOPs and employees perceiving that their efforts affect their company's value. Our interest in this study is to determine whether the assumptions of management about the effectiveness of ESOPs on employee motivation prove correct. By comparing survey responses to questions concerning employee perceptions, we can determine the importance of the differences that exist between employees of small and large corporations. We find that the responses of small corporation employees are usually indistinguishable from those of large corporation employees. This result is consistent with our claim that prospect theory may help in explaining why company managers should consider adding ESOPs to their benefits packages.

INTRODUCTION

Through surveys of company managers, Rosen (1989) finds that "increased employee motivation" tends to be among the primary management objectives when implementing and maintaining employee stock ownership plans (ESOPs). Pendleton, Wilson and Wright (1998) find that higher levels of commitment and satisfaction by employees are related feelings of ownership, including opportunities for decision-making. Managers believe that participating employees may feel that their individual performance will affect the value of their company's stock. These conclusions have been reached by surveying literature regarding managerial attitudes such as Rosen and Klein (1983) and Marsh and McAllister (1981). However, little work has been done which directly surveys employee perceptions of their how their efforts affect their company's value. In this paper, we investigate the impact that ESOPs have on employee attitudes and performance by questioning employees how much they believe that their actions affect the value of the company's stock.

MOTIVATION FOR ESOPs

Employee stock ownership plans (ESOPs) have dramatically increased in popularity since they were first authorized by the Employee Retirement Income Security Act (ERISA)of 1974. Approximately 10,000 firms have ESOPs and more than 12 million employees receive part of their compensation through ESOPs (National Center for Employee Ownership, 1997). ESOPs have grown in popularity for a variety of reasons, both from financial and motivational perspectives. An overview of previous research on the subject appears in Figure 1.

Figure 1
Results of Previous Studies on ESOPs

Study	Finding
Rosen and Klein (1983)	Managers of firms with ESOPs ranked the performance of their employees higher than did managers of non-ESOP firms. However, these studies could not determine whether the ESOPs caused the change in performance or whether superior companies set up such programs in the first place.
General Accounting Office (1986)	Survey of managers indicated that providing a benefit to employees (91%) was the most common reason for starting an ESOP. Taking advantage of tax benefits (74%) and improving productivity (70%) were ranked second and third in the survey.
Rosen and Quarrey (1987)	The adoption of an ESOP alone could not explain the improved performance in a firm. In those firms in which employees were given any opportunity for participating in job-level decision making, growth figures indicate a relationship seems to exist between productivity gains and a participation/ownership system.
Bruner and Brownlee (1990)	Managerial control and altruism may be motivating factors in the establishment of an ESOP (case study of Polaroid).
Chang (1990)	Announcement of ESOP formation results in enhanced market performance of stock when used as wage concession or leveraged buyout.
Rosen (1990)	Continued growth in ESOPs is tied to the belief that ESOPs improve company performance.
Kumbhakar and Dunbar (1993)	Employee participation in an ESOP is positively associated with productivity measures. The productivity effect increase with the age of the ESOP at the rate of 1.8 to 2.7 percent per annum.
Park and Song (1995)	Firms that adopted ESOPs show significant improvement in their year-end performance. ESOPs tend to work best as employee incentive when the ownership structure of the firm serves as an efficient monitoring device.
Pendleton, Wilson, and Wright (1998)	Stock ownership through ESOP programs is associated with higher levels of commitment and satisfaction for employees based on a study of British firms.

In addition to these studies of ESOPs that focus on traditional arguments, Brickley and Hevert's (1991) investigation of the composition and distribution of direct employee stock ownership plans presents alternative speculation on the determinants of employee stock ownership. They argue that incentive benefits must exist for such programs since they continue to increase in popularity despite their cost and the impact of unresolved questions about productivity, tax benefits, and takeover likelihood. A summary of their discussions on the rationale for ESOP formation appears in Figure 2. They separate their arguments into two categories, traditional (concrete, economically based) and nontraditional (abstract, psychologically based). Our study focuses on one of these non-traditional arguments -- that of prospect theory.

AN INTRODUCTION TO PROSPECT THEORY

Imagine yourself at a carnival entering a particularly inviting looking tent. As you enter the tent, you are handed $1,000 and told you may leave the tent by one of two doors. If you leave by door number 1, you will receive an additional $500 for certain. If you exit by door number 2, you will either receive an additional $1,000 or receive no additional money. There is a 50% chance for either outcome when leaving out of door number 2. Which door would you choose to leave from?

Figure 2
Summary of Rationales for ESOP Formation
Brickley and Hevert (1991)

TRADITIONAL ARGUMENTS

- Increased conscientiousness
- Fewer security leaks
- Higher respect for property
- Increased suggestive participation
- Higher awareness of shirking

NON-TRADITIONAL ARGUMENTS

- Group identification
- Prospect theory implications
- Better informed employees

Now suppose you go back to the carnival the following year and see this tent again and decide to enter. This time you are given $2,000 upon entering. You are then told that it will cost you $500 to exit from door number 1. If you leave by door number 2, there a 50% chance that it will cost you nothing to leave and a 50% chance it will cost you $1,000 to leave. Which door would you leave from?

If you are like most people, you chose door number 1 in the first case and door number 2 in the second case. But as reported by Kahneman and Tversky (1979), the choice between which door to exit from is the same in both tents. In each case, you are faced with a certain $1,500 by going through door 1 or a 50-50 chance of a total of either $1,000 or $2,000 by going through door 2. What seems to fool most people is that the first scenario was presented in terms of an extra gain after receiving $1,000, while the second scenario was presented in terms of losses after receiving $2,000.

Experiments such as these have led some researchers to conclude that people treat gains much differently from losses and people make different choices in what are essentially identical opportunities, simply because of the way the problem is presented. In prospect theory, this is called the "framing effect."

Prospect theory is part of a burgeoning literature in behavioral economics (see e.g. Thaler, 1992). Whereas traditional economic theory assumes that people are super rational and selfish decision makers, prospect theory observes that people do not always make choices that are consistent and predictable. Prospect theory, as explained by Kahneman and Tversky (1979), was recently summarized in a Wall Street Journal article on November 28, 1995. Figure 3 presents some of the highlights of prospect theory.

Figure 3
Prospect Theory:
Observations of Human Behavior
Summary of Wall Street Journal article (November 28, 1995)

- ***We hate to lose.*** People are more risk averse than most economic models assume. There is often more pain from losing than pleasure from gain. There is evidence that people tend to sell their winning stocks too early and hold onto their losers for too long to avoid the recognition that they have lost money in the market. This also explains why some people never invest in stocks at all in spite of their superior long-term returns.
- ***We lack self-control.*** Anyone observing the annual rite of making New Year's resolutions sees evidence of our lack of self-control. Signing up for automatic reinvestment plans so we won't be tempted to squander this money made from our investments is seen by some as a recognition by investors of their lack of self-control.
- ***We often misread the past.*** Many investors often overweight recent performance as they make financial decisions. The billions of dollars currently being invested in mutual funds while the market is at an all time high with a historically high price to earnings may be evidence of this phenomenon.
- ***We don't see the big picture.*** Investors tend to divide their money into different mental accounts. They may keep large balances on their credit card accounts while maintaining a savings account earning a minuscule return.
- ***We overweight low probability events.*** The popularity of lottery tickets and the purchase of accident insurance are both consistent with this assertion.

MOTIVATIONAL ASPECTS OF PROSPECT THEORY

Applying these ideas to ESOPs, Brickley and Hevert suggest "that employees might systematically overweight the likelihood that their actions will affect firm value." In other words, ESOP participants will be less likely to take self-serving actions that increase their personal wealth because of the possible expense such an action could have on firm value. For example, careless or inattentive work on an assembly line that might make the day pass more pleasantly for employees could result in shoddy products that eventually decrease the value of the firm. Since ESOP participants have a direct stake in the value of the firm, they may be less likely to take such actions. However, would this assumption apply across all companies in all situations?

This question may be answered by an application of prospect theory. It seems reasonable to assume that the ESOP is likely to be an effective motivational tool only to the extent that employees of large corporations feel that their actions affect firm performance as significantly as the actions of employees in small corporations. While the organizational behavior literature remains relatively silent as to the relationship between company size and employee motivation, the labor economics literature indicates that based on company size and empirical observations (Brown, 1990), incentive structures of companies differ, and, therefore, affect employee attitudes.

Brown points out that one of the critical size-related variables affecting incentive structure is monitoring costs. Employees of larger firms can "hide" more easily than those in a smaller firm, so it is more difficult to monitor them. Conversely, a hard-working employee in a larger firm has a more difficult time demonstrating superior effort and feeling rewarded for that extra effort. Thus, we contend that employees of smaller corporations would be expected to perceive that they have a greater influence than employees of larger corporations on the success of the firm, and hence firm value. With the inclusion of the ESOP, the perceptions of the employees of larger corporation might more resemble that of the smaller corporations because they now have their personal wealth at stake. If there are no significant differences in the survey responses based on firm size, then this should constitute evidence that prospect theory may be part of the explanation for the success of ESOPs as a motivational tool in a large corporation.

SURVEY CHARACTERISTICS

To study the impact of prospect theory on incentive implications of stock ownership, we used a survey similar to that of Marsh and McAllister (1981) to question the rank-and-file employees and top management concerning their attitudes toward ESOPs. Our survey sample significantly differs from that of Marsh and McAllister, since we are including rank-and-file employees. Marsh and McAllister's survey was restricted only to top management perceptions of employees' attitudes toward ESOPs, rather than directly surveying employee attitudes. Specific information about the survey and methodology appears in Figure 4.

Figure 4 - Survey and Methodology Characteristics

- 150 companies with ESOPs were randomly selected from the National Center for Employee Ownership data base.
- For each company, six survey forms were mailed: one to be completed by a company contact person, usually the CEO or owner, and five to be completed by employees designated by the contact person.
- Pre-stamped, addressed response envelopes distributed to assure confidentiality.
- Thirty-three surveys were returned because the contact person had left the company, company had been dissolved, or company had been purchased by another company. 14 companies returned the surveys indicating unwillingness to participate in study.
- As a result, 103 valid mailings of type 1 surveys (contact person) and 515 type 2 surveys (employees) remain.
- A total of 168 valid responses were received for a 27.2% response rate.
- Firms were divided by size into three categories: small, 1 – 100 employees; medium, 101 – 500 employees; and large, greater than 500 employees. 47 responses were from small firms, 53 responses were from medium firms, and 68 responses were from large firms.
- Participants responded on a five-point scale with "5" representing "strong agreement" with a question to "1" indicating "strong disagreement" with a question.
- A chi-square (X^2) test of independence (e.g., Winkler and Hays, 1981) was used to test for differences between the firm size and level of agreement among questions.

RESULTS

The survey is divided into two parts. The first portion reports on issues related to the perceived reasons for implementing the ESOP, while the second portion reports issues about the effects of the ESOP on attitudes. In each case, these responses are subdivided into three categories based on firm size (small, medium, and large) for the employers (i.e., CEO or owner), employees, and the total sample. Nationally, 86% of all businesses have fewer than 20 employees, 11% have between 20 and 100 employees, 2% have between 100 and 500, while only fewer than 1% have more than 500 (U.S. Bureau of the Census, 1993).

Table 1 denotes those questions where statistical differences in the chi-square tests exist in the responses (by company size) to the survey related to perceived reasons for the ESOPs. Results are reported for both the employers and employees responses, as well as for the combined sample. Among the seven questions listed, there appears to be an overwhelming difference in how both employers and employees of firms of different size perceive the rationales for the ESOP. While this data is interesting, our focus is on the effects of the ESOP on attitudes within the firms.

Table 1 - Statistical Differences in Chi-Square Tests for Survey Questions
Section I – Perceived Reasons for the ESOP

How important was each of the following motivation in your company's decision to have an ESOP:	**Employers**	**Employees**	**Total**
1. *to finance an employee purchase of the company?*	*-	*-	*-
2 *to provide a private market for stock of existing shareholders?*	*-	*-	*-
3. *to improve the productivity of employees?*	*	*-	*-
4. *to minimize the potential of unionization or strikes?*	*-	*-	*-
5. *to provide a benefit for employees?*			*
6. *to finance the growth of the company?*	*-	*-	*-
7 *to avoid a merger or shut-down?*	*-	*+	*-
Section I - Total significant	6	6	7

*- *Denotes **significant difference** exists in responses **by company size** at the five percent level and that **smaller firms responded more favorably** than larger firms.*
*+ *Denotes **significant difference** exists in responses **by company size** at the five percent level and that larger firms responded more favorably than smaller firms.*
* *Denotes **significant difference** exists in responses **by company size** at the five percent level with **no difference between larger firms responses and smaller firm** responses.*

We tested the hypothesis that the attitudes of survey participants toward the ESOP is unrelated to the size of their firm. Accepting this hypothesis would be consistent with a prospect theory contention that individuals tend to overweight the importance of their actions since individual employees in large companies are likely to have less influence on the stock price. If the employee perception is unaffected by firm size, then employees of larger companies may be under the mistaken assumption that they have more influence than they really do. This similarity in response between large and small companies is consistent with prospect theory. Table 2 denotes those questions where statistical differences in the chi-square tests exist in the responses (by company size) to the survey related the effects of the ESOP on attitudes. Results are reported for both the employers and employees responses, as well as for the combined sample. Note the instances in which the employees provide different answers based on company size compared to employers. Figure 5 lists the areas of significant differences.

Table 2 – Statistical Differences in Chi-Square Tests for Survey Questions
Section II – Effects of the ESOP on attitudes

Questions	Emp-loyers	Emp-loyees	Total
9. Do you think that the ESOP has resulted in ***reduced employee absenteeism***?	*-	*-	*-
10. Do you think that the ESOP has resulted in ***reduced employee tardiness?***	*-		*-
11. Do you think that the ESOP has resulted in ***reduced employee turnover?***	*-		
18. Because of the ESOP, how do you ***perceive higher employee morale?***	*-	*+	*-
19. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP – ***because of employee ownership, my work is more satisfying?***	*-		
20. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP – ***employee ownership at this company makes my day-to-day work more enjoyable?***	*-		
21. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***owning stock in this company makes me more interested in the company's financial success?***	*-		
26. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***I feel that I have job security?***	*-	*-	
27. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***the work I do on my job is meaningful to me?***	*-		
28. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***a portion of my pay should be based on how I perform?***	*-	*+	
33. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP – ***coming to work is a pleasure?***		*+	
36. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***if I could begin working over again in the same field as I am now, I would choose the same company as a place to work?***	*-		
37. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***if another company offered me more money (with no ESOP) for the same kind of work, I would almost certainly accept?***	*+		*+
38. What is your reaction to the following statement concerning the impact of your company's decision to have an ESOP - ***on occasion, I have been angered by attempts made by this company to influence my attitudes and beliefs?***			*-
39. Please indicate the extent to which you agree with the following statement because your company has an ESOP - ***I am more careful not to have accidents?***	*-		
40. Please indicate the extent to which you agree with the following statement because your company has an ESOP - ***I tend to endorse our products more?***	*-		
43. Please indicate the extent to which you agree with the following statement because your company has an ESOP - ***it is more important for me to keep up on news about my company?***	*+		
47. Please indicate the extent to which you agree with the following statement because your company has an ESOP - ***I am more likely to volunteer for activities sponsored by my company?***		*-	*-

*- *Denotes* ***significant difference*** *exists in responses* ***by company size*** *at the five percent level and that* ***smaller firms responded more favorably than larger firms.***

*+ *Denotes* ***significant difference*** *exists in responses* ***by company size*** *at the five percent level and that* ***larger firms responded more favorably than smaller firms.***

* *Denotes* ***significant difference*** *exists in responses* ***by company size*** *at the five percent level with* ***no difference between larger firms responses and smaller firm*** *responses*

Figure 5 - Differences in Employer and Employee Responses on Perceived Reasons for the ESOP Based on Firm Size

- Employee absenteeism (question 9)
- Morale (question 18)
- Pay based on performance (question 28)
- Pleasure of working (question 33)
- Volunteer activities (question 47)

Of these questions, question 28 probably relates most strongly to the concept of an ESOP as a motivational device. However, we can see from Table 2 that, for question 28, the employees from the largest firms were more in agreement with the notion that pay should be based on performance compared to employees from the smallest firms, a complete reversal from what we should expect. In fact, on 22 of the 40 questions relating to employee motivation, employees from the largest firms were more in agreement with the statements than employees from the smallest firms. This constitutes further evidence for the idea that employees tend to overweight the value of their actions.

Overall, 94 out of 120 statements (78%) do not have statistically significant chi-square statistics (i.e. there is no statistically significant difference between groups). For the employee surveys, 35 out of the 40 (88%) "attitude" questions do not have significant statistics. This general lack of a significant difference provides further support for a prospect theory explanation for ESOPs. For the employer surveys, 24 out of 40 (60%) of these same questions do not have significant statistics; in the combined sample, 34 out of 40 (85%) are also not significant. Perhaps surprisingly, employers may actually underestimate the degree to which employees feel that their performance affects firm value.

CONCLUSION

The results from this survey have a potentially far-reaching implications for compensation managers when recommending the implementation or maintenance of an ESOP. It appears that companies that establish an ESOP as a motivational device will find it works equally well in large and small companies. Figure 6 highlights some of the areas of agreement and disagreement in attitudes of employees in large and small companies. The areas of agreement far outweigh those of disagreement. However, it is interesting to note that employees of smaller firms are more agreeable to the effects of ESOPs as a motivational tool than employees of larger firms on a number of points. In particular, employees of smaller firms believe that ESOPs serve as a motivational tool in such direct areas of job satisfaction and performance-based pay. Benefits are also observed in indirect ways. Employees of smaller firms tend to find work more pleasurable and are more likely to engage in volunteer work as a result of an ESOP. Smaller firms seeking an edge over larger firms in employee motivation might well consider the impact that an ESOPs has in these areas. This by no means "proves" that the existence of ESOPs can be explained entirely by prospect theory or that prospect theory is the only perspective to consider when implementing an ESOP. However, we do feel that prospect theory adds an important piece to the puzzle that explains ESOPs.

This research also helps to clarify and illustrate the incentive impact of ESOPs. Employee stock ownership plans are costly, yet firms continue to use them as a part of the employee benefits/retirement package. Tax-based, takeover-based, and traditional incentive arguments

Figure 6 - Implications for Managers
Effects of ESOPs on Attitudes

Employees of smaller firms with ESOPs have indistinguishable views from that of larger firms with ESOPs with respect to the following points:

- Reduced employee grievances
- Improved quality of work
- Enhanced cooperation among employees
- Improved communication between workers and management
- More satisfying and enjoyable work
- Greater willingness for effort beyond expectation
- Recognition of hard work well done
- Loyalty and confidentiality
- Likelihood of endorsement and purchase of company products
- More interested in company affairs

However, employees of smaller firms are statistically more agreeable compared to employees of larger firms regarding the effects of ESOPs as a motivational tool.

- Job security
- Performance-based pay
- Work viewed as pleasurable
- Increased likelihood for volunteer work

may be incomplete explanations. They do not individually or collectively explain the motives for and the consequences of ESOPs (although they certainly help to explain the popularity of ESOPs). Brickley and Hevert (1991) state that "employees who are basically indifferent between alternative behaviors will tend to choose value-enhancing activity when they own stock in the firm." Our research shows that whether employees actually affect stock performance or not may not be as initially essential as their perception of their influence on the company's success. As a non-traditional incentive explanation, prospect theory helps us to understand why these employee perceptions prove valuable to the inclusion of ESOPs in company packages, and why they, in turn, may provide positive performance motivation across all sizes of companies.

REFERENCES

Behavior specialists put investors on the couch (1995). Wall Street Journal, November 28.

Brickley, J., & Hevert, K. (1991). Direct employee stock ownership: An empirical investigation., Financial Management, 20 (2), 70-84.

Brown, C. (1990). Firms' choice of method of payment. Industrial and Labor Relations, 43 (3), 165-182.

Bruner, R. F. and Brownlee, E.R. (1990), Leveraged ESOPs, Wealth Transfer, and Shareholder Neutrality, Financial Management, 19 (1) 59-74.

Employee Ownership Report, (1997), National Center for Employee Ownership, Inc., Volume XVII.

Chang, S. (1990). Employee stock ownership plans and shareholder wealth: An empirical investigation. Financial Management, 19 (1), 48-58.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47 (2), 263-291.

Kumbhakar, S., & Dunbar, A. (1993). The elusive ESOP-productivity link: Evidence from U.S. firm-level data. Journal of Public Economics, 52 (2), 273-283.

Marsh, T., & McAllister, D. (1981). ESOPs tables: A survey of companies with ESOPs, Journal of Corporation Law, Spring, 521-623.

Park, S., & Song, M. (1995). Employee stock ownership plans, firm performance, and monitoring by outside blockholders. Financial Management, 24 (4), 52-65.

Pendleton, A., Wilson, N., & Wright M. (1998). The perception and effects of share ownership: Empirical evidence from employee buy-outs. British Journal of Industrial Relations, 36 (1), 99-123.

Rosen, C. (1989). Employee stock ownership plans: Myths, magic, and measures, Employee Relations Today, 16 (3), 189-195.

Rosen, C. (1990). The record of employee ownership, Financial Management, 19 (1), 39-47.

Rosen. C. (1997). Employee owner's page, National Center for Employee Ownership, 17 (2), 10.

Rosen, C. & Klein, K. (1983). Job generating performance of employee owned companies, Monthly Labor Review, 106 (8), 15-19.

Rosen, C. & Quarrey M. (1987). How well is employee ownership working? Harvard Business Review, 65 (5), 126-132.

Thaler, R.H. (1992). The winner's curse. Princeton: Princeton University Press.

U.S. Government Accounting Office, (1986). Employee Stock Ownership Plans, (GAO-EMD-86-4BR), February.

Winkler, R. & Hayes, W. (1975) Statistics: probability, inference, and decision. New York: Holt, Rinehardt and Winston.

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