

**This is a working paper, please
do not cite without permission.**

Employee Ownership and Job Attitudes: Investigating the Moderating Effect of Occupational Characteristics

Saehee Kang, Rutgers University
saehee.kang@rutgers.edu

Douglas Kruse, Rutgers University
kruse@smlr.rutgers.edu

Acknowledgements: This research was supported by a grant from the Employee Ownership Foundation.

Abstract

Most studies find a positive association between shared capitalism (e.g., employee ownership) and attitudes toward the job and company. However, the effects of shared capitalism on employee attitudes may depend upon the types of jobs that workers are doing. This study suggests that occupational characteristics such as task interest, job autonomy, and teamwork moderate the relationship between employee ownership and job attitudes, since workers should have better attitudes when their jobs give them the opportunities as well as incentives to improve performance. We test the hypothesis specifically by analyzing a unique data set that merges 2002-2014 data from the nationally representative U.S. General Social Survey (GSS) with rich occupation-level data on teamwork, autonomy, and other important job characteristics from the Bureau of Labor Statistics' O*NET dataset. The initial results indicate that employee ownership has a stronger effect on job satisfaction in jobs with greater autonomy and teamwork, supporting the idea that having more opportunity to exercise discretion and cooperate with other workers helps create a fertile workplace environment for employee ownership to have positive effects.

Introduction

The effects of employee ownership on job attitudes has been one of the most active research areas within employee participation. Most studies, with a few exceptions, find a positive association between employee ownership and attitudes toward the job and company (Kruse, 2002). Nevertheless, existing knowledge on the relationship between employee ownership and job satisfaction remains incomplete because little is known as to what interactions of factors lead to desired outcomes. Therefore, it is important to investigate conditions under which employee stock ownership can more strongly translate into positive attitudes. Yet efforts to understand such factors have been limited in the literature.

This study suggests that the effects of employee ownership on job attitudes may depend upon the types of jobs that workers are doing. Specifically, we propose that occupational characteristics such as job autonomy and teamwork will moderate the relationship between employee ownership and job satisfaction. We test the hypotheses specifically by analyzing a unique data set that merges the nationally representative U.S. General Social Survey (GSS) with rich occupation-level data from the Bureau of Labor Statistics' O*NET dataset.

Hypotheses

Employee Ownership and Job Satisfaction

Klein (1987) suggests three models of the psychological effects of employee ownership. The first model is the intrinsic satisfaction model of employee ownership. This model predicts that ownership *per se* affects employee satisfaction. The second model is the extrinsic satisfaction model. According to this view, employee ownership is related to financial benefits, which in turn increase job satisfaction. The last model is the instrumental

satisfaction model of employee ownership, which suggests that worker participation in decisions mediates the positive relationship between ownership and satisfaction. Although these views have different assumptions, they all suggest a positive impact of employee ownership on job satisfaction.

The empirical studies of shared capitalism on job attitudes are found to be generally positive. For example, Long (1980) compared the effects on job attitudes of conversions to employee ownership at three firms. Across the different levels of employee ownership, employee owners reported significantly higher levels of job satisfaction. Similarly, Buchko (1992) examined the effects of employee ownership on job attitudes and turnover in a media and communication firm. The results showed that employee ownership is positively associated with ESOP satisfaction and organizational commitment and negatively related to turnover intention. Researchers have shown that other types of shared capitalism such as profit-sharing and gain-sharing also have a positive impact on job satisfaction (e.g., Bakan, Suseno, Pinnington, & Money, 2004; Kwon, Kim, Kang, & Kim, 2008). Considering the theoretical arguments as well as empirical evidence, we propose the following hypothesis.

Hypothesis 1. *Employee ownership is positively related to job satisfaction.*

Job autonomy

Although most studies find a significant association between shared capitalism and job attitudes, a few exceptions do exist (e.g., French & Rosenstein, 1984). Cognitive evaluation theory (Deci and Ryan, 1985) might explain why some studies found no significant relationship between employee ownership and job satisfaction. CET suggests that rewards can harm job attitudes when the rewards are interpreted as a means of control. If a task must be performed in some particular way, at some particular time, or in some particular

place in order to qualify for the rewards, the rewards tend to be experienced as controlling (Deci & Ryan, 1985). This perception of being “controlled” is assumed to be negatively related to job attitudes (Deci, 1972; Deci, Koestner, & Ryan, 1999; Fisher, 1978; Ryan, Mims, & Koestner, 1983). When job autonomy is low, some employees may interpret employee ownership as a form of management control or a device to shift income risk onto them.

Indeed, many scholars suggest that residual return and control rights should be combined to have a significant motivational effect (Ben-Ner & Jones, 1995; Kruse et al., 2010). To the best of our knowledge, however, no research to date has examined the interaction effects of job autonomy in the relationship between employee ownership and job satisfaction. Some empirical studies suggest that job autonomy may moderate the relationship between employee ownership and job attitudes. For example, Blasi, Freeman, & Kruse (2016) examined how shared capitalism and managerial practices affect employee turnover. They found that an index of shared capitalism practices has a significant interaction with a measure of empowerment (reflecting job autonomy among other practices) on turnover intention and voluntary turnover. Drawing on the theoretical rationales and anecdotal evidence, we suggest that employee ownership without job autonomy may have little or no effect on job satisfaction. Therefore, we propose the following hypothesis.

Hypothesis 2. *Autonomy moderates the relationship between employee ownership and job satisfaction in such a way that the positive relationship is stronger for those higher in job autonomy.*

Teamwork

Scholars have recognized that employee owners can suffer from the free rider problem because of the weak link between individual effort and rewards. Since individuals gain only $1/N$ th (N =number of group members) of the payoff from their effort, employees may want to make sure that their co-workers also do their jobs well. Indeed, Kruse et al. (2010) found that employee ownership increases the likelihood that employees will respond to a shirking co-worker by speaking to the shirker or reporting the behavior to a supervisor. An employee might intervene when another employee is not working hard because the employee's pay depends on the performance of the work group. Thus, workers may want to monitor their co-workers and discourage shirkers through peer pressure or punishing behavior (Carpenter, 2004; Gomez-Mejia, Welbourne, & Wiseman, 2000; Kandel & Lazear, 1992).

Teamwork provides a good environment for employee owners to monitor their co-workers. As team members work together, individuals are able to observe the behavior and performance of co-workers, which is a prerequisite for mutual monitoring and peer pressure (Kruse et al., 2010). Individuals are likely to be more satisfied and motivated by a group incentive like employee ownership when there is less opportunity for free riders to escape detection. The team environment may not only increase mutual monitoring and peer pressure, but also help to overcome the stress of these activities since employee behaviors are more visible to all workers. Indeed, prior studies found that shared capitalism programs are more effective in small firms where mutual monitoring is feasible (Bayo-Moriones & Larraza-Kintana, 2009; Kim and Ouimet, 2014; Robinson and Wilson, 2006). We suggest that teamwork allows employees to monitor their co-workers even in large firms and reduces the stress of monitoring and peer pressure. Therefore, we propose the following hypothesis.

Hypothesis 3. *Teamwork moderates the relationship between employee ownership and job satisfaction in such a way that the relationship is stronger for those in jobs with more teamwork.*

Insert Figure 1 about Here

Method

Sample

To test the hypotheses proposed, the nationally representative General Social Survey (GSS) was chosen as a sample for this study. We used GSS 2002, 2006, 2010, and 2014 as they have questions about whether individuals own shares of stock in the company where they work. Consistent with prior research, roughly one-fifth (21%) of employees in the U.S. reported that they own some company stock (Kruse et al., 2010). A respondent was excluded if the employee works for a company that does not have stock. We merged this data with rich occupation-level data on teamwork, autonomy, and other important job characteristics from the Bureau of Labor Statistics' O*NET dataset. O*NET contains information on hundreds of standardized and occupation-specific descriptors. Through this procedure, a final sample dataset of 1,041 observations on individuals matched to their occupation-level information was used in this study.

Variables

Employee stock ownership. We used a dummy variable provided in the GSS. Respondents were asked if they own any shares of stock in the company where they work. Those who answered yes were coded 1 and those who answered no were coded 0.

Job satisfaction. We measured job satisfaction with two items in the GSS. Respondents were asked to rate their job satisfaction on four-point scale ranging from 1, “very satisfied,” to 4, “very dissatisfied”. The variable was reverse-coded to facilitate interpretation of the regression results. The items were “On the whole, how satisfied are you with the work you do?” and “All in all, how satisfied would you say you are with your job?” The mean of the responses of the two items were used for job satisfaction. The Cronbach’s alpha was .80.

Autonomy. Job autonomy was measured using the one-item scale developed by O*NET (McCloy, Waugh, Medsker, Wall, Rivkin, & Lewis, 1999). The subject matter experts (SMEs) were asked, “to what extent does this occupation satisfy this work value (autonomy)?” SMEs were provided the definition of autonomy: “Occupations that satisfy this work value allow employees to develop their own ideas and make their own decisions, and also place responsibility on the employee. Corresponding needs are creativity, responsibility, and autonomy.” While the original scale ranged from 1, “very small extent,” to 7, “great extent,” O*NET converted it to a 100-point scale.

Teamwork. To measure the level of teamwork, we used the variable provided by O*NET dataset. Respondents were asked to rate teamwork on a five-point scale ranging from 1, “never,” to 5, “every day.” The question was “how important is it to work with others in a group or team in this job?” The scale was converted to a 100-point scale.

Control variables. In order to account for demographic characteristics, we included two control variables: age and gender (0=male; 1=female).

Results

Table 1 summarizes the means, standard deviations, and correlations for the variables in this study. Results of the regression analyses are shown in Table 2. Hypothesis 1 predicted that employee stock ownership would positively related to job satisfaction. As shown in Model 2 in Table 2, employee stock ownership had a significant and positive relationship with job satisfaction ($B = .10, p < .05$). Therefore, Hypothesis 1 was supported.

Hypothesis 2 predicted that job autonomy would moderate the relation between employee stock ownership and job satisfaction in such a way that the relationship will be stronger when autonomy is high than when it is low. In keeping with this hypothesis, the employee stock ownership by autonomy two-way interaction entered in Model 3 was marginally significant ($B = .003, p < .10$). Thus, Hypothesis 2 was partially supported. To further illustrate the pattern of the interactive effect, we plotted the interaction effect in Figure 2.

 Insert Table 1 and 2 about Here

Hypothesis 3 suggested that teamwork would moderate the relation between employee stock ownership and job satisfaction in such a way the relationship will be stronger in a team setting. Consistent with this expectation, Model 4 in Table 2 show that the moderating effects of teamwork on the relationship between employee stock ownership and job satisfaction was positive and statistically significant ($B = .01, p < .05$). Providing initial support for Hypothesis 3, simple-slope analyses further indicated that the relation between stock ownership and job satisfaction was stronger in a team setting.

Conclusion

This study makes a contribution toward understanding the conditions under which employee stock ownership can more strongly translate into positive job attitudes. We expected that job autonomy and teamwork will moderate the relationship between employee ownership and job satisfaction. The empirical result using a unique data set from the nationally representative GSS with occupation-level data from the Bureau of Labor Statistics' O*NET dataset supported the suggested hypotheses. In further work on this project we will explore other dependent variables such as turnover intention and worker responses to co-worker shirking and investigate the potential role of other O*Net occupational characteristics such as work conditions and frequency of decision making. We believe this offers good promise for needed advancement in the literature on employee ownership and will shed light on the conditions under which employee ownership can improve employee attitudes and outcomes.

Table 1. Means, standard deviations, and correlations among variables

Variables	Mean	s.d.	1	2	3	4	5
1. Employee stock ownership	.60	.49					
2. Job satisfaction	3.31	.68	.10*				
3. Age	42.11	12.55	.18*	.17*			
4. Gender	.44	.50	-.07*	-.05	.04		
5. Autonomy	56.01	21.66	.19*	.17*	.07*	-.12*	
6. Teamwork	82.72	10.99	.07*	.03	-.01	.05*	.34*

Note. N=1,041. * $p < .05$

Table 2. Results of OLS predicting job satisfaction

	Job satisfaction			
	Model 1	Model 2	Model 3	Model 4
(Constant)	3.01**	2.98**	2.72**	2.83**
Age	.01**	.01**	.01**	.01**
Gender	-.06	-.05	-.03	-.05
Stock ownership		.10*	.06	.10*
Autonomy			.005**	
Stock ownership x Autonomy			.003†	
Teamwork				.002
Stock ownership x Teamwork				.01*
R ²	.029	.033	.058	.040

Note. N=1,041. † $p < .1$, * $p < .05$, ** $p < .01$

Figure 1. Research model

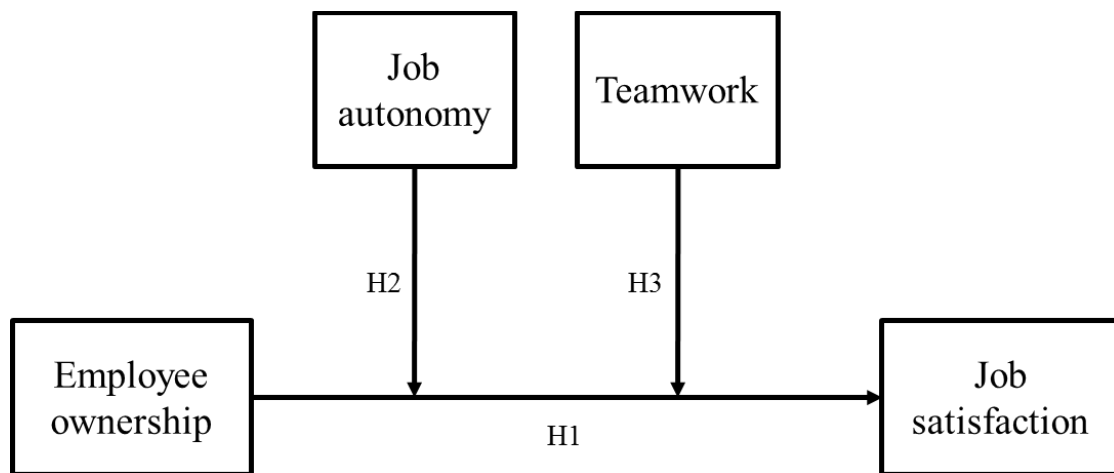
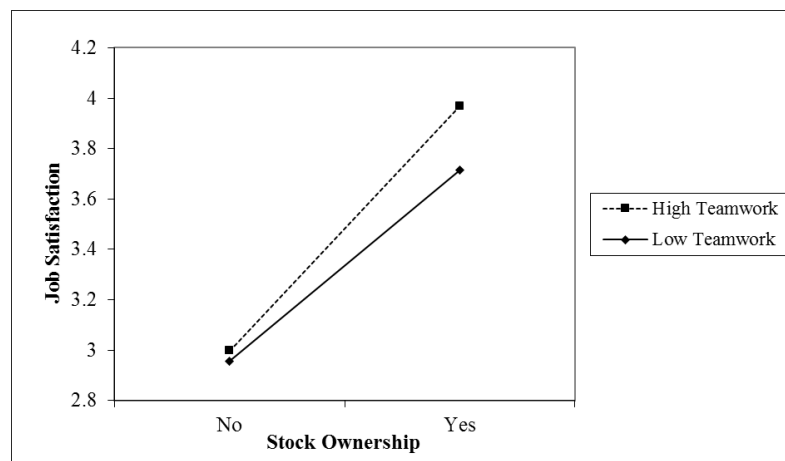
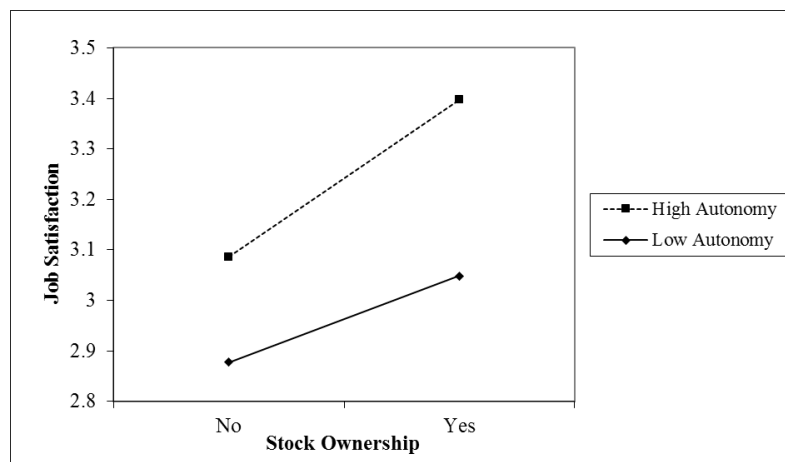


Figure 2. Interaction effects



References

- Bakan, I., Suseno, Y., Pinnington, A., & Money, A. 2004. The influence of financial participation and participation in decision-making on employee job attitudes. *International Journal of Human Resource Management*, 15(3): 587-616.
- Bayo-Moriones, A., & Larraza-Kintana, M. (2009). Profit-sharing plans and affective commitment: Does the context matter?. *Human Resource Management*, 48(2), 207-226.
- Ben-Ner, A., & Jones, D. C. 1995. Employee participation, ownership, and productivity: A theoretical framework. *Industrial Relations*, 34(4): 532-554.
- Blasi, J., Freeman, R., & Kruse, D. (2016). Do Broad-Based Employee Ownership, Profit Sharing and Stock Options Help the Best Firms Do Even Better?. *British Journal Of Industrial Relations*, 54(1), 55-82.
- Buchko, A. A. 1992. Employee ownership, attitudes, and turnover: an empirical assessment. *Human Relations*, 45(7): 711-733.
- Carpenter, J. P. (2007). Punishing free-riders: How group size affects mutual monitoring and the provision of public goods. *Games and Economic Behavior*, 60(1), 31-51.
- Deci, E.L. (1972). The effects of contingent and noncontingent rewards and controls on intrinsic motivation. *Organizational Behavior and Human Performance*, 8, 217-229.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological bulletin*, 125(6), 627.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, 19(2), 109-134.
- Fisher, C. D. (1978). The effects of personal control, competence, and extrinsic reward systems on intrinsic motivation. *Organizational behavior and human performance*, 21(3), 273-288.
- Gomez-Mejia, L. R., Welbourne, T. M., & Wiseman, R. M. (2000). The Role of Risk Sharing and Risk Taking Under Gainsharing. *Academy of Management Review*, 25(3), 492-507.
- Kandel, E., & Lazear, E. P. (1992). Peer pressure and partnerships. *Journal of political Economy*, 801-817.
- Klein, K. J. 1987. Employee stock ownership and employee attitudes: A test of three models. *Journal of Applied Psychology*, 72(2): 319-332.
- Kim, E., & Ouimet, P. (2014). Broad-Based Employee Stock Ownership: Motives and

Outcomes. *The Journal of Finance*, 69(3), 1273-1319.

Kruse, D. L. 2002. Research evidence on the prevalence and effects of employee ownership. *Journal of Employee Ownership Law and Finance*, 14(4): 65-90.

Kruse, D. L., Freeman, R. B., & Blasi, J. R. 2010. *Shared Capitalism at Work: Employee Ownership, Profit Sharing, Gainsharing, and Broad-based Stock Options*. Chicago, IL: University of Chicago Press.

Kwon, S., Kim, M. S., Kang, S., & Kim, M. U. 2008. Employee reactions to gainsharing under seniority pay systems: The mediating effect of distributive, procedural, and interactional justice. *Human Resource Management*, 47(4): 757-775.

Long, R. J. 1980. Job attitudes and organizational performance under employee ownership. *Academy of Management Journal*, 23(4): 726-737.

McCloy, R.A., Waugh, G., Medsker, G., Wall, J., Rivkin, D., & Lewis, P. (1999). *Determining the Occupational Reinforcer Patterns for O*NET occupational units* (Vols. I & II). Raleigh, NC: National Center for O*NET Development

Robinson, A., & Wilson, N. 2006. Employee financial participation and productivity: An empirical reappraisal. *British Journal of Industrial Relations*, 44(1): 31-50.

Ryan, R. M., Mims, V., & Koestner, R. (1983). Relation of reward contingency and interpersonal context to intrinsic motivation: A review and test using cognitive evaluation theory. *Journal of personality and Social Psychology*, 45(4), 736.