

**The Roles of Organizational Justice and Trust  
in a Gain-sharing Control System**

**Frances A. Kennedy**  
Assistant Professor  
Clemson University  
Accountancy & Legal Studies  
Clemson, SC  
[fkenned@clermson.edu](mailto:fkenned@clermson.edu)  
(864) 656-4712

**James M. Kohlmeyer, III \*\***  
Assistant Professor  
East Carolina University  
College of Business  
Greenville, NC 27858  
[kohlmeyerj@ecu.edu](mailto:kohlmeyerj@ecu.edu)  
(252) 737-1043

**Robert J. Parker**  
Assistant Professor  
University of New Orleans  
Accounting Department  
College of Business Administration  
2000 Lakeshore Drive  
New Orleans, LA 70148--1566  
504-280-6437 (office)  
[rjparker@uno.edu](mailto:rjparker@uno.edu)

\*\* Please direct any questions to this author:  
James M. Kohlmeyer, III

## **The Roles of Organizational Justice and Trust in a Gain-sharing Control System**

### **ABSTRACT**

This study examines the roles of organizational justice and trust in a specific type of management control system (MCS), gain-sharing. According to the proposed theory, employee perceptions involving the procedural and distributive justice of the gain-sharing plan influence employee trust in management. Positive perceptions of fairness lead to high trust, which, in turn, has positive consequences for the organization such as lower employee turnover and higher organizational performance. To investigate these issues, a survey was administered to employees of a large manufacturing company. Results of structural equation modeling indicate that employee perceptions regarding the fairness of the gain-sharing plan are positively related to employee trust in management. Further, trust is linked to employee turnover intentions. The results imply that the organizational justice of a MCS has consequences for the attitudes and behaviors of employees and thus the success or failure of the MCS.

*Key words:* Gain-sharing, organizational justice, trust, turnover

## 1. INTRODUCTION

Organizational control is a critical management function that has been extensively examined in accounting and other business literatures. In accounting, a number of researchers have emphasized that organizational control involves influencing human behavior (e.g., Ansari 1977; Flamholtz 1979; Flamholtz et al. 1985; Merchant 1985; Birnberg and Snodgrass 1988). As Merchant (1985) argues, control involves managers taking steps to help ensure that human beings do what is best for the organization (p. 4). Flamholtz (1979) defines an organizational control system as a set of mechanisms which are designed to increase the probability that people will behave in ways that lead to the attainment of organizational objectives (p. 290). The mechanisms by which organizations influence behavior are wide ranging and include a number of subsystems that involve planning, operations, performance measurement, and evaluation/rewards systems (Flamholtz 1983).

Some accounting researchers argue that management control systems (MCS) constitute a subset of organizational control systems as, in their view, MCS primarily involve the control of mid-level managers by top level executives (e.g., Fisher 1998). Other researchers (e.g., Otley 1994; Langfield-Smith 1997) propose that this definition of MCS is too narrow for contemporary organizations as lower level employees are increasingly empowered to participate in activities of strategic significance. In this broader approach, which is adopted in the current paper, the term MCS is often used interchangeably with organizational control.

As Chenhall (2003) notes, studies of MCS abound in the accounting literature and the dominant paradigm is the contingency approach. In this approach, the effectiveness of MCS is theorized to depend upon the match between system design and a variety of contingency

variables such as technology, environment, and structure. As Chenhall (2003) argues, MCS success also may depend upon a number of psychology variables, which have been relatively ignored in previous research, such as organizational justice and trust between employees and managers. Accordingly, these psychology variables may help explain how individuals react to MCS and consequently the success or failure of such systems.

The current study examines the roles of organizational justice and trust in a specific type of MCS, gain-sharing. In gain-sharing plans, workers share productivity gains with employers through a bonus system. As Chenhall and Langfield-Smith (2003) note, a gain-sharing plan involves a formal and detailed system for measuring and rewarding performance that encourages worker involvement. The current study examines employee perceptions of the fairness (i.e., organizational justice) of the gain-sharing plan. According to the proposed theory, employee perceptions regarding the procedural and distributive justice of the gain-sharing plan influence employee trust in management. No prior studies, to the knowledge of the authors, have examined how the perceived organizational justice of a MCS, such as gain-sharing, affects trust. According to the theorized framework, positive fairness perceptions of the gain-sharing plan lead to high trust in managers because workers, through an attribution process, associate plan fairness with the managers who implement the plan. High trust, in turn, has positive consequences for the organization. As Chenhall and Langfield-Smith (2003) argue, trust fosters cooperation between management and workers which leads to higher organizational performance. The results of several studies also suggest that trust has links to employee turnover (see meta-analysis by Dirks and Ferrin 2002).

To investigate the proposed research issues, a field study was conducted in a large manufacturing plant in the Southeastern United States with annual sales of approximately \$95

million. A survey was distributed to all full-time employees. There were 345 usable responses (76% of work force). Structural equation modeling was used to analyze the hypothesized relations. Results reveal that employee perceptions regarding the fairness of the gain-sharing plan are positively related to employee trust in management. Further, trust is linked to employee turnover intentions. The results imply that the organizational justice of a MCS has consequences for the attitudes and behaviors of employees and thus the success or failure of the MCS.

Accountants who are involved in the design or implementation of MCS may need to consider fairness and trust issues.

The remainder of this paper is structured as follows. Section two provides an overview of the related literature as the basis for developing three hypotheses. Section three discusses the organizational background of the company examined in this study. Then, data collection is explained in section four. Section five presents the results, and section six provides a summary and discussion.

## **2. THEORETICAL DEVELOPMENT AND HYPOTHESES**

### **2.1 Gain-sharing and organizational justice**

Gain-sharing plans are increasingly popular in the United States (Welbourne & Gomez-Mejia 1995; Mangel and Useem 2000). Historically, gain-sharing first appeared in manufacturing plants during the 1930s; subsequently, by the last decades of the twentieth century, gain-sharing had spread to a variety of service organizations (Welbourne 1998). At least one large public accounting firm has experimented with it (Bowie-McCoy et al. 1993). While plan details vary from firm to firm, several common characteristics have been identified by researchers (e.g., Welbourne and Gomez-Mejia 1995; Wellbourne et al. 1995; Gomez-Mejia

2000). Regarding compensation, gain-sharing plans involve formal and detailed bonus systems for employees (in addition to base pay.) Formulae for bonuses typically are based upon productivity measures although other measures involving quality and customer service also are used. Financial gains that accrue to the organization from improvements in performance measures are shared with employees through the bonus system. Another distinguishing feature of gain-sharing is the use of group rewards. Improvements in performance measures result in bonuses for all employees in the gain-sharing unit.

As gain-sharing involves performance measurement and employee rewards, issues of organizational justice may be relevant in understanding the impact of gain-sharing on employee attitudes and behavior (Welbourn et al. 1995; Welbourn 1998). According to a number of researchers (e.g., Brockner and Wiesenfeld, 1996; Welbourn et al. 1995; Folger and Cropanzano 1998; Welbourn 1998), the organizational justice literature demonstrates that employees care deeply about the fairness of how their organizations evaluate and reward performance. Regarding evaluation and rewards, many researchers differentiate between two types of fairness or justice: procedural justice and distributive justice. Procedural justice involves the perceived fairness of the procedures or process through which the organization evaluates and rewards employees. The fairness of the decision-making process shapes employee judgments of the trustworthiness of the decision-maker and the long-term prospects for fair treatment (Tyler and Lind, 1992). Distributive justice, grounded in equity theory (Adams, 1965), involves the perceived fairness of the outcomes. In assessing distributive justice, individuals evaluate their work inputs (e.g., skills and motivation) relative to the outcomes received from the organization (e.g., pay and promotions). Research has shown that perceptions of distributive justice are linked to a number of employee related outcomes such as: pay satisfaction (Folger and Konovsky 1989;

McFarlin and Sweeney 1992); satisfaction with leaders (Tyler and Caine 1981); and employee turnover intentions (Foley et al. 2002).

A few studies (Wellbourne et al. 1995; Welbourne 1998) have investigated the procedural and distributive justice of gain-sharing plans and their impact on employees. Welbourne et al. (1995) examine the relation between fairness perceptions of gain-sharing plans and mutual monitoring among employees. Using an agency perspective, they argue that, in a gain-sharing plan, employees often monitor the efforts of their co-workers as bonuses are based upon group performance. The extent of monitoring is dependent upon the perceived organizational justice of the gain-sharing plan. If employees believe that the plan has low procedural or distributive justice, employees will engage in less monitoring as the link between monitoring and rewards is weakened. Welbourne (1998) investigates the relation between fairness perceptions of the gain-sharing plan and employee satisfaction with the plan. Survey results at two companies suggest that perceptions of both procedural and distributive justice influence employee satisfaction. The current study extends this stream of research by examining the relation between the organizational justice of the gain-sharing plan and trust in management.

## **2.2 Trust in Management**

Employee trust in organizational leaders and managers has been acknowledged as a critical variable in the effective functioning of the workplace by numerous researchers in management and applied psychology. (See Dirks and Ferrin (2002) for a good overview of these studies.) Although the topic appears less frequently in the accounting literature, several researchers in the field also have noted its importance (e.g., Ross 1994; Chenhall and Langfield-Smith 2003). As discussed in several studies (e.g., Bigley and Pearce 1998; Dirks and Ferrin

2002), trust has been defined in many ways by different researchers. Bigley and Pearce (1998), in a review of studies examining trust within organizations, argue that common to trust conceptualizations is the idea of actor vulnerability (p. 407). Dirks and Ferrin (2002), in a meta-analysis of employee trust in leadership, reach a similar conclusion. They define trust in the workplace as the willingness of employees to accept vulnerability in their relations with their managers.

As Dirks and Ferrin (2002) argue, prior studies have employed two differing theoretical frameworks to explain how employee trust forms and how it affects workplace outcomes: (1) the relationship-based perspective; and (2), character-based perspective. In the relationship-based perspective, social exchange theory is used to examine the relation between subordinate and manager. Regarding trust, issues of care and consideration in the relationship are central (Dirks and Ferrin 2002, 612). In the character-based perspective, which is more relevant to the current study, the character of the manager is paramount. Accordingly, manager characteristics such as integrity and fairness are critical in the development of employee trust.

Several studies report evidence suggesting that organizational justice influences employee trust in management (e.g., Alexander and Ruderman 1987; Folger and Konovsky 1989; Konovsky and Pugh 1994; Korsgaard and Roberson 1995; Cohen-Charash and Spector 2001; Cropanzano et al. 2002; Ambrose and Schminke 2003). These results are congruent with the character-based perspective of trust according to Dirks and Ferrin (2002). Employees may believe that the fairness of organizational practices reflects the collective character of organizational leadership which, in turn, influences employee trust in management. Further, in the minds of employees, the fairness of organizational practices may reflect upon the character of the employee's immediate or direct superior. As argued in Dirks and Ferrin (2002), based upon

attribution theory, employees may attribute the fairness of organizational practices to the direct supervisor who implements the practices even when this supervisor has no involvement in the formulation of the practice. As noted in their subsequent study (Ferrin and Dirks 2003, 19), trust development can be viewed as an attributional process. In this process, an individual infers the trustworthiness of another person based upon that person's behavior. In interpreting the behavior of another person, the individual must assess whether the behavior reflects that person's character (and hence trustworthiness) or the influence of external forces beyond the control of the person. Prior studies suggest that individuals, in assessing the behaviors of others, routinely bias their assessment and attribute behavior to character when external forces are responsible for the behavior (Ferrin and Dirks 2003).

The current study extends prior studies that have examined the link between organizational justice and employee trust in management. Regarding this link, prior studies have examined the organizational justice of organizational decisions such as pay raises (e.g., Folger and Konovsky 1989) and performance appraisals (e.g., Korsgaard and Roberson 1995); however, no studies (to the knowledge of the authors) have examined the relation between the organizational justice of a gain-sharing plan and employee trust. In a gain-sharing plan, managers administer the plan to employees. Through the attribution process discussed by Dirks and Ferrin (Dirks and Ferrin 2002; Ferrin and Dirks 2003), the fairness of the plan influences employee perceptions of the manager's character and therefore the manager's trustworthiness.

The following hypotheses summarize these arguments:

- H1:** The perceived distributional justice of the gain-sharing plan is linked to employee trust in their managers.
- H2:** The perceived procedural justice of the gain-sharing plan is linked to employee trust in their managers.

## 2.3 Consequences of Employee Trust

In the management and applied psychology literatures, researchers have theorized that employee trust in management influences workplace outcomes such as: job performance; organizational citizenship behaviors; job satisfaction; organizational commitment; and turnover intentions (see meta analysis by Dirks and Ferrin, 2002). In the accounting literature, Chenhall and Langfield-Smith (2003) emphasize that trust is pivotal in promoting cooperation between employees and managers, which, in turn is critical to strategy formulation and execution. Hofstede (1968), in a seminal study of budgetary control, argues that the most important characteristic for the manager is perhaps trust, which creates the atmosphere of safety in which the team spirit can operate (p. 266).

The current study focuses on the relation between trust and turnover intentions. Results of prior studies suggest a strong relation between them (see meta-analysis by Dirks and Ferrin, 2002). As Dirks and Ferrin (2002) argue, given the nature of organizational hierarchies, employees are vulnerable to the actions of their managers, i.e., employees are at risk regarding their managers. Individuals who do not trust their managers are likely to leave their jobs, presumably to find more trustworthy bosses who will not put them at risk. The related hypothesis appears below:

**H3:** Employee trust in their managers is linked to turnover intentions.

-- Insert Figure 1 about here --

The model that corresponds to the hypotheses appears in Figure 1. As illustrated in the figure, H1 and H2 propose that distributive and procedural justice influence employee trust in managers while H3 proposes that trust influences turnover. Within this framework, the effect of

organization justice on turnover is mediated by trust. Most studies in the organizational justice literature have theorized that organization justice directly affects turnover intentions; further, the results of several meta-analyses indicate a strong correlation between justice and turnover (Cohen-Charash and Spector 2001; Colquitt et al. 2001). This study explores the potential role of trust in explaining the strong association between justice and turnover reported in prior studies.

### **3. ORGANIZATIONAL BACKGROUND**

#### **3.1 Introduction**

The manufacturing plant examined in this study was established in the 1950's by a global Fortune 500 company. This plant manufactures utility hardware. In 2003, the company intended to shut down the facility because of a history of losses. Instead, they sold the plant to the principals of an organization consulting firm. These two principals had established a relationship with the employees through several training initiatives over a number of years. They changed the name of the company and continued production of utility hardware. The principals believed that their consulting firm could provide the experience necessary to assist in the transition. Planned initiatives included establishing teams, implementing 5S and visual factory concepts,<sup>1</sup> reorganizing into manufacturing cells and using kaizen blitzes to incorporate continuous improvement and JIT techniques.

Production averages 180,000 units per year of four main products, totaling \$94.5 million in sales. The cycle times to complete one unit range from 3 to 6 days, depending on the product. The plant consists of over 677,000 square feet and employs 461 people (380 hourly and 81 salaried and a temporary force). Seventy-seven percent of hourly employees belong to the IBEW

---

<sup>1</sup> 5S is a visual management technique that relies on a process of Sort, Shine, Set in order, Standardize, and Sustain (Galsworth, 1997).

union in this right-to-work state and the non-exempt employees belong to the AWEA union. There has been no work stoppage for either union in over 25 years. A new collective bargaining agreement was negotiated that included annual increases, gain-sharing and a five-year agreement to establish stability.

Although the new owners had no experience with managing a manufacturing facility, they were experienced change consultants. One of their key concerns was turning a consistent loss position into profit. They implemented the gain-sharing program in order to create an environment in which the employees were more involved and motivated. The owners believed that the goals in the gain-sharing plan would help to both increase workplace stability and leverage employees' work efforts most effectively.

### **3.2 Turnaround Strategy: Gain-sharing Program**

In order to focus on key areas, the principals enacted a gain-sharing program designed to involve employees in on-going improvement efforts and to share in the rewards. A team of managers, hourly employees and a union representative identified five key result areas: Customer, financial health, people, continuous improvement/process control and revolution.<sup>2</sup> Multiple measurements were identified to monitor progress in these areas and became the performance measures used in establishing gain-sharing targets. Table 1 illustrates the key result areas and measures.

-- Insert Table 1 about here --

---

<sup>2</sup> Revolution was added as a key result area in January 2005. This area's focus is to create alternative materials, products and services with outside resources and grants.

The gain-sharing team consists of the two principal owners, managers of human resources, operations, quality and continuous improvement and maintenance. Other members include representatives from major plant areas such as manufacturing support, 5S auditor, union representative, finance, two line workers and two supervisors from both first and second shifts. The team meets monthly to review results and set the gain-sharing targets for the following month.

### **3.2.1 Setting Goals**

At monthly meetings, the gain-sharing team reviews the prior months' results and sets the targets and pay-out amounts for the following month. The team has flexibility to change or add goals as the business climate warrants. For example, during 2004, the four metrics used consistently through the year were man-hours per unit, end of line defects (EOL), test failures and on-time complete orders. During April and May, EOL defects were replaced with overdue shipments. The team met in January 2005 and established a revised set of base measures for the new year: Scrap dollars per unit, meeting daily required production, speed (measured as inventory turns and order-to-invoice time), and cash flow (measured as meeting budgeted net cash generated by operations). The goals are set using a process called 'continuous improvement goal setting' (CIGS). During this process, goal setters are provided with the lowest, highest and average performance on the target metric. The goal selected is purposely between the highest and the average score. This goal setting process is used because it is transparent in that workers can see that they not only have achieved the target before, but that they have exceeded it.

### **3.2.2 Setting Pay-Out Values**

The gain-sharing team also adjusts the dollar amount of the monthly pay-outs to employees. During 2004, the maximum amount of monthly payout per employee was set at \$200 and was established with consideration of budget restrictions and employee impact. This was raised in 2005 to \$225. Dollar amounts were set for each targeted goal to add to \$225. In this way, the gain-sharing team was able to weight various factors considered key in the current business environment and employees earn the payout amount for each target separately. Therefore, if only one goal is met, they still receive a payout.

Potentially, a production floor employee on the base pay scale could earn an additional 20% of their base salary in gain-sharing. This assumes all goals and gates are met and they are awarded a maximum payout of \$200 per month. Actual performance, however, fell short of this level. The total payout per employee during 2004 was \$695. Over a period of 20 months, there were 12 payouts ranging from \$25 to \$125.

In addition to meeting these goals, there is a gate the plant must also meet to be eligible for a payout. Fifty unexcused days (excused days include jury duty, sick days, vacation and personal days) plantwide is the threshold. In other words, 51 days of unexcused absences results in no payout for anyone for the month. Targets were reached during the first month of gain-sharing. There was no pay-out, however, because the attendance gate was not met. Further analysis indicated the cause was from a small handful of employees. Consequently the rules for the attendance gate were tweaked in order to ‘punish the few rather than the many.’

### **3.2.3 Plan Administration**

Supervisors communicate to plant employees the monthly performance targets and payout values. At the beginning of each shift, the supervisor and employees meet for five minutes to review any production issues as well as communicate any other necessary information including the gain-sharing plan. It is at this time that payout values, performance targets and progress are shared and the supervisor fields questions. The gain-sharing team provides the supervisor with a sheet of talking points from which to work.

## **4. RESEARCH METHOD**

### **4.1 Sample and Procedure**

We used a survey to collect data within one manufacturing facility to address our hypotheses. Employees were asked to meet in the cafeteria near the beginning or end of their shift to complete the survey during their paid work hours. We were present to administer the survey, answer any questions about how the data would be used and to ensure the complete anonymity of their responses. When finished, each employee inserted their own survey in a large envelope in the researcher's possession.

The survey was completed by 404 of the 453 full-time employees. For the analyses, we eliminated 59 respondents due to missing responses which resulted in 345 respondents in the final sample (76% of work force). Two-thirds of the sample is male and one-third is female. The majority of the sample employees work on first shift (56%), while the remaining employees work on second and third shift, 28%, 16%, respectively. This is a mature workforce with 41% of the employees having worked at this facility for more than 20 years, 11% between 11 and 20 years, 21% between 5 and 10 years and only 26% having been there less than 5 years. The

highest educational degree attained by 58% of the sample is high school, 21% have some college while 11% have college degrees. Advanced degrees are held by 4% and the remaining 6% hold technical degrees.

## **4.2 Variable Measurement**

This study assesses the impact of three latent variables on the intent of employees to leave the company. All four variables were measured with scales that have been used in previous studies. All items were measured on a seven-point scale (1=strongly disagree and 7=strongly agree), with higher values indicating a higher level of the construct. Scale items may be found in Table 2.

The dependent variable, 'intentions to leave,' was measured using a four-item scale developed by Rosin and Korabik (1991). Trust in manager was measured with a four-item scale that Korsgard and Roberson (1995) adapted from Cook and Wall (1980). The six-item procedural justice scale was developed by Welbourne et al. (1995) to specifically assess the general rules and administration of a gain-sharing plan. Similarly, for distributive justice, we used a five-item scale developed by Welbourne et al. (1995) who adapted items previously used by Alexander and Ruderman (1987) and Folger and Konovsky (1989).<sup>3</sup>

We used EQS 6.1 to conduct confirmatory factor analysis (CFA) to determine the reliability of the measures used in this study. We use this approach to assess whether the measurement model fits the data and to assess the reliability of constructs of the measurement instrument (Anderson and Gerbing 1988; Campbell and Fisk 1959). The goodness of fit indices, CFI and RMSEA, recommended by Kline (2005) and Hu and Bentler (1999), were used to assess

---

<sup>3</sup>The Cronbach alpha scores indicating the reliability of these scales in these prior studies were: Intentions to Leave .82, Trust in manager .95, Procedural Justice .90, and Distributive Justice .86.

the measurement model fit. The results indicate that the measurement model fits the data reasonably well, with a CFI of .96 and a RMSEA of .059.

Internal consistency reliability of the scales was assessed by examining Cronbach alpha scores (Cronbach 1951; DeVellis 1991). The lowest score of .74 was for the ‘intent to leave’ scale, with the remaining three constructs scoring at approximately .90. Also, all factor loadings for the indicator variables were significant at the .01 level. This finding supports the convergent validity of the indicators (Anderson and Gerbing 1988). Table 2 presents the items along with the results of maximum likelihood estimation of the measurement model for the latent variables.

-- Insert Table 2 about here --

Table 3 presents descriptive statistics as well as Pearson correlations and Cronbach Alpha statistics for each variable. All variables are significantly correlated with the highest correlation of .76 between procedural justice and distributive justice. Variance inflation factors (VIF) and tolerance statistics were used to test for multicollinearity among the variables. VIF measures the ratio of total standard variance to unique variance. Kline (2005) suggests that a VIF greater than 10 indicates redundancy in the measures. The maximum VIF for the variables is 2.4 which is well below this limit. The tolerance statistic is an alternative measure that assesses the proportion of total standard variance that is unique. Kline (2005) suggests that a tolerance statistic lower than .10 would indicate potential multicollinearity. The minimum tolerance statistic for the variables is .42 which is well above the .10 threshold. Both the VIF and tolerance statistics indicate that there is no multicollinearity among these variables. In order to further demonstrate that each dimension is distinct, the coefficient alpha in the diagonal should be greater than the

correlation coefficients within a column (Churchill, 1979). Table 3 clearly shows that the internal reliability of each latent dimension (Cronbach Alpha) is higher than the inter-item reliability (correlation coefficients).

Table 3 about here --

There is a concern that the data may suffer from common method variance since self-report data is used exclusively in this study (Campbell and Fiske 1959; Podsakoff and Organ 1986). Because these constructs are perceptions, no alternative sources may be used to validate the data. An exploratory factor analysis using an oblique rotation and including all variables in this study yielded four distinct factors with eigenvalues greater than one. If the majority of variance is explained by the first factor, then there is significant bias (Podsakoff and Organ 1986). In this analysis, 32.1% of the variance is explained by the first factor and would indicate that any effects of common method variance are minimal. Table 4 presents the results of the exploratory factor analysis. These analyses indicated that all four constructs are separate and distinct.

-- Insert Table 4 about here --

## **5. RESULTS**

We estimate the model depicted in Figure 1 using structural equation modeling (SEM) software, EQS 6.1. A review of kurtosis and skewness reveals that all indicator variables are well below the thresholds recommended by Kline (2005) (10.0 and 3.0, respectively), indicating univariate normality. Multivariate normality is necessary for maximum likelihood estimation of SEM and is assessed with Mardia's normalized estimate of 24.6, which is below the

recommended threshold of 30 (Kline 2005). We conclude that the data is both univariate and multivariate normal.<sup>4</sup>

In Figure 2, we report the results of the SEM analysis testing the hypotheses. The overall fit statistics of the hypothesized structural model are good with a CFI of .96 and an RMSEA of .06. The standardized coefficients support hypotheses 1 and 2 that predict that employee perceptions of distributive justice and procedural justice positively influence trust in managers ( $p < .01$ ). Hypothesis 3 predicting a negative relationship between trust in managers and turnover intentions is also supported ( $p < .001$ ).

-- Insert Figure 2 about here --

To examine the strength of this model, we compare the hypothesized model to the full model which includes direct paths from the two exogenous variables to the dependent variable. The three hypothesized paths remain significant while the two additional paths are not significant. There is virtually no change in the fit statistics (CFI=.96; RMSEA=.06). This further supports the significance of the strong relations in the hypothesized model.

This study suggests a mediating relationship between exogenous variables and the dependent variable. Table 5 presents the decomposition of the direct and indirect effects of the full model. Sobel Tests were performed to determine the significance of the independent variable upon the dependent variable through the mediator (Baron and Kenny 1986). Results indicate that the indirect effects of both procedural justice and distributive justice on intent to leave are significant while the direct effects are not significant. This pattern is the strongest evidence of

---

<sup>4</sup> A plot of residuals was examined for heteroskedasticity and determined that the data was normal.

mediation (Kline 2005). This supports the proposition that employees' trust in managers mediates the effects of justice perceptions on their intentions to leave employment.

-- Insert Table 5 about here --

## **6. SUMMARY**

In this paper, we examine the roles of organizational justice and trust in a specific type of management control system (MCS), gain-sharing. According to the proposed theory, employee perceptions involving the procedural and distributive justice of the gain-sharing plan influence employee trust in management. Positive perceptions of fairness lead to high trust, which, in turn, has positive consequences for the organization (e.g., low employee turnover).

The results of this study indicate that employee perceptions involving the fairness of the gain-sharing plan are positively related to employee trust in management. Further, the level of employee trust is negatively associated with turnover intentions, indicating a greater level of workforce stability. The relationships of procedural and distributive justice to workforce stability appear to be completely mediated by the degree of employees' trust in managers. Most prior research has theorized and found direct effects between organizational justice and employee outcomes such as turnover intentions. We find, however, no such direct effects.

The current study focuses on the perceived fairness of one type of MCS, gain-sharing. The results may be applicable to other performance measurement and reward systems (e.g., piece-rate systems). If so, accountants should be aware of fairness issues in the design and implementation of MCS as fairness perceptions influence employees and therefore the organization. As several researchers argue (e.g., Flamholtz 1979; Merchant 1985), one of the

fundamental objectives of organizational control is to influence employee behavior so that the organization benefits.

Among the limitations of the current study is the use of a survey in only one company. Results may be specific to this company and its gain-sharing plan. Another limitation is that all the variables are reported by the individual employee and, therefore, are subject to same source bias. Because this study examines the effects of employee perceptions on the employee's turnover intentions, the implications of this bias are most likely minimal.

A possible factor that may influence the findings of this study are the variations and frequent changes to the gain-sharing measures and targets. Because the company established a flexible system that has the ability to change targets and payouts according to economic and customer needs, the frequent payouts and changes may affect employee outcomes. The results in this study reflect the joint effects of many plan variations. Future research examining the individual effects of these changes (e.g., payout frequency, amount, levels and gates) may begin to partition out the impacts of these plan elements.

The current study could be extended in a number of ways. The current study examines the impact of justice perceptions and employee trust upon only one employee outcome, turnover intentions. Other employee outcomes could be investigated such as job satisfaction, organizational commitment, and organizational citizenship behaviors. Another potential outcome is organizational performance. As Chenhall and Langfield-Smith (2003) argue, employee trust fosters cooperation between management and employees which, in turn, fosters high organizational performance. If justice perceptions influence employee trust, which the results of the current study suggest, and trust influences performance as suggested by Chenhall and Langfield-Smith (2003), then justice perceptions may affect performance via trust.

## References

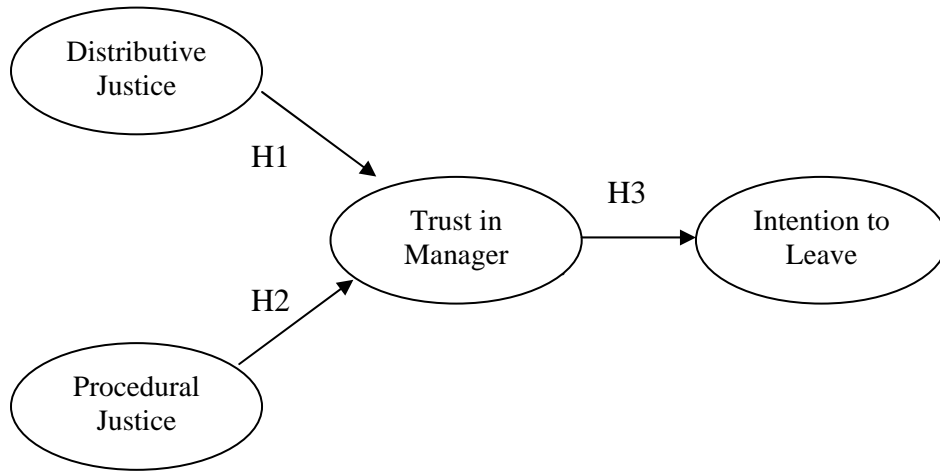
- Adams, J. S. 1965. Injustice in social exchange. In L. Berkowitz (Ed.). *Advances in Experimental Social Psychology*. Vol. 2. New York: Academic Press.
- Alexander, S., and M. Ruderman. 1987. The role of procedural and distributive justice in organizational behavior. *Social Justice Research* 1 (2): 177-198.
- Ambrose, M., and M. Schminke. 2003. Organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. *Journal of Applied Psychology* 88 (2): 295-305.
- Anderson, J. C., and D. W. Gerbing. 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*. 103: 411-423.
- Ansari, S. 1977. An integrated approach to control system design. *Accounting, Organizations and Society* 2 (2): 101-112.
- Baron, R. M., and D. A. Kenny. 1986. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, December, 51 (6): 1173-1182.
- Bigley, G., and J. Pearce. 1998. Straining for shared meaning in organization science: Problems of trust and distrust. *Academy of Management Review* 23 (3): 405-421.
- Birnberg, J., and C. Snodgrass. 1988. Culture and control: A field study. *Accounting, Organizations and Society* 13 (5): 447-464.
- Bowie-McCoy, S., A. Wendt, and R. Chope. 1993. Gainsharing in public accounting: Working smarter and harder. *Industrial Relations* 32 (3): 432-445.
- Brockner, J., and B. M. Wiesenfeld. 1996. An integrative framework for explaining reactions to decisions: the interactive effects of outcomes and procedures. *Psychological Bulletin*, 120: 189-208.
- Campbell, D. T., and D. W. Fiske. 1959. Convergent and discriminate validation by the multitrait-multimethod matrix. *Psychological Bulletin*. 56: 81-105.
- Chenhall, R. 2003. Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society* 28: 127-168.
- Chenhall, R., and K. Langfield-Smith. 2003. Performance measurement and reward systems, trust and strategic change. *Journal of Management Accounting Research* 15: 117-143.

- Churchill, G. A. 1979. A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research* XVI: 64-73.
- Cohen-Charash, Y., and P. Spector. 2001. The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes* 86 (2): 278-321.
- Colquitt, J., D. Conlon, M. Wesson, C. Porter, and K. Ng. 2001. Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology* 86 (3): 425-445.
- Cook, J., and T. Wall. 1980. New work attitude measures of trust, organizational commitment and personal need non-fulfillment. *Journal of Occupational Psychology* 53: 39-52.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* 16: 297-334.
- Cropanzano, R., C. Prehar, and P. Chen. 2002. Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management* 27 (3): 324-351.
- DeVellis, R. 1991. Scale Development. Newbury Park, NJ: Sage Publications.
- Dirks, K., and D. Ferrin. 2002. Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology* 87 (4): 611-628.
- Ferrin, D., and K. Dirks. 2003. The use of rewards to increase and decrease trust: Mediating processes and differential effects. *Organization Science* 14 (1): 18-31.
- Fisher, J. 1998. Contingency theory, management control systems and firm outcomes: Past results and future directions. *Behavioral Research in Accounting* 10 (supplement): 47-65.
- Flamholtz, E. 1979. Behavioral aspects of accounting/control systems. In *Organizational Behavior*, edited by S. Kerr, 289-316. Columbus, OH: Grid Publishing.
- Flamholtz, E. 1983. Accounting, budgeting and control systems in their organizational context: Theoretical and empirical perspectives. *Accounting, Organizations and Society* 8 (2/3): 153-169.
- Flamholtz, E., T. Das, and A. Tsui. 1985. Toward an integrative framework of organizational control. *Accounting, Organizations and Society* 10 (1): 35-50.
- Foley, S., D. L. Kidder, and G. N. Powell. 2002. The Perceived Glass Ceiling and Justice Perceptions: An Investigation of Hispanic Law Associates. *Journal of Management* 28 (4): 471-496.

- Folger, R., and R. Cropanzano. 1998. *Organizational Justice and Human Resource Management*. Thousand Oaks, CA: Sage Publications.
- Folger, R., and M. Konovsky. 1989. Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal* 32 (1): 115-130.
- Galsworth, G.D. 1997. *Visual Systems: Harnessing the Power of the Visual Workplace*. AMACOM, N.Y.
- Gomez-Mejia, L. 2000. The role of risk sharing and risk taking under gainsharing. *Academy of Management Review* 25 (3): 492-508.
- Hofstede, G. 1968. *The Game of Budget Control*. London: Tavistock.
- Hu, L. T., and P. Bentler. 1999. Cutoff Criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal* 6: 1-55.
- Kline, R. B. 2005. *Principles and Practice of Structural Equation Modeling*. NY: Guilford Press.
- Konovsky, M., and S. Pugh. 1994. Citizenship behavior and social exchange. *Academy of Management Journal* 37 (3): 656-669.
- Korsgaard, M., and L. Roberson. 1995. Procedural justice in performance evaluation: The role of instrumental and non-instrumental voice in performance appraisal discussions. *Journal of Management* 21 (4): 657-669.
- Langfield-Smith, K. 1997. Management control systems and strategy: A critical review. *Accounting, Organizations and Society* 22 (2): 207-232.
- Mangel, R., and M. Useem. 2000. The strategic role of gainsharing. *Journal of Labor Research* 21 (2): 327-344.
- McFarlin, D. B., and P. D. Sweeney. 1992. Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal*. 35: 626-637.
- Merchant, K. 1985. *Control in Business Organizations*. Marshfield, MA: Pitman Publishing.
- Otley, D. 1994. Management control in contemporary organizations: Toward a wider framework. *Management Accounting Research* 5: 289-299.
- Podsakoff, P. M., and D. W. Organ. 1986. Self-reports in organizational research: problems and prospects. *Journal of Management* Winter 12 (4): 531-544.

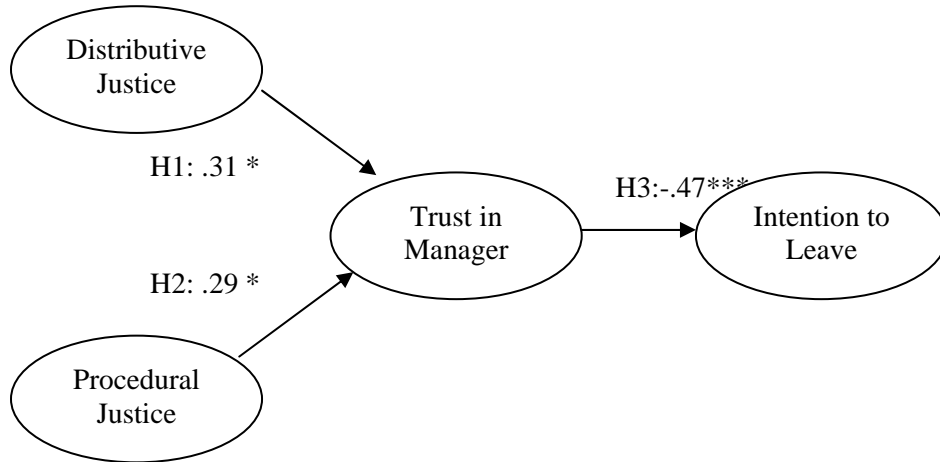
- Rosin, H. M., and K. Korabik. 1991. Workplace variables, affective responses, and intentions to leave among women managers, *Journal of Occupational Psychology* 64: 317-330.
- Ross, A. 1994. Trust as a moderator of the effect of performance evaluation style on job-related tension: A research note. *Accounting, Organizations and Society* 19 (7): 629-635.
- Tyler, T. R., and A. Caine. 1981. The role of distributional and procedural fairness in the endorsement of formal leaders. *Journal of Personality and Social Psychology* 41: 642-655.
- Tyler, T. R., and E. Lind. 1992. A relational model of authority in groups. *Advances in Experimental Social Psychology* 25: 115-191.
- Welbourne, T. 1998. Untangling procedural and distributive justice: Their relative effects on gainsharing satisfaction. *Group & Organization Management* 23 (4): 325-346.
- Welbourne, T., D. Balkin, and L. Gomez-Mejia. 1995. Gainsharing and mutual monitoring: A combined agency-organizational justice interpretation. *Academy of Management Journal* 38 (3): 881-899.
- Welbourne, T., and L. Gomez-Mejia. 1995. Gainsharing: A critical review and a future research agenda. *Journal of Management* 21 (3): 559-609.

**Figure 1**  
**Hypothesized Model**

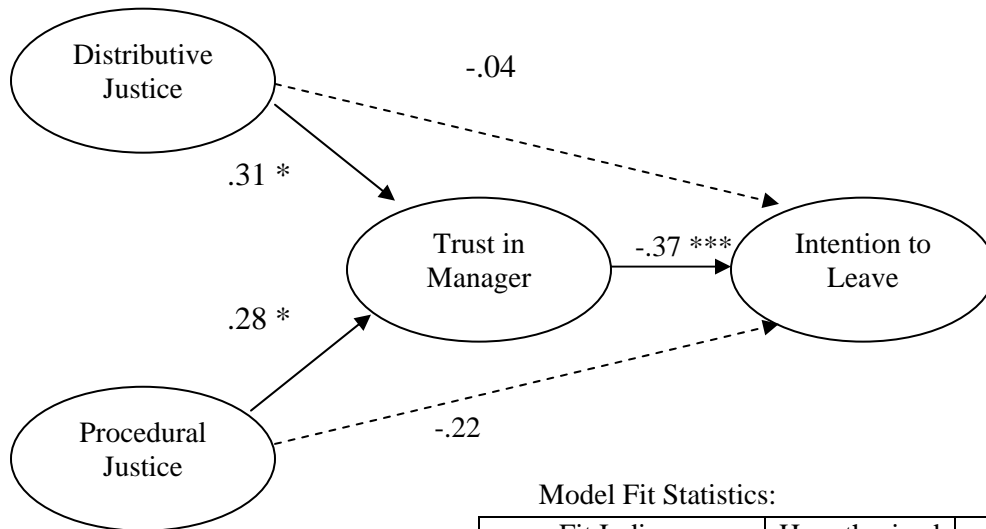


**Figure 2**  
**Results of Structural Model Analyses**  
**Hypotheses, standardized coefficients and fit indices**  
**N=345**

MODEL: Hypothesized



MODEL: Full



Model Fit Statistics:

Fit Indices	Hypothesized Model	Full Model
Chi-Squared	329	324
Degrees of Freedom	148	146
CFI	.96	.96
RMSEA	.06	.06

\* p < .01  
 \*\* p < .05  
 \*\*\* p < .001

**Table 1**  
**Key result areas and performance measurements**

Key Result Area and Objectives	Performance Measurements
<p><i>Customer:</i>  Results that will reflect customer delight</p>	<ul style="list-style-type: none"> <li>• Ship on time and complete</li> <li>• Filed incident rate</li> <li>• Overdue shipments</li> </ul>
<p><i>Financial Health:</i>  Ensure viability of company</p>	<ul style="list-style-type: none"> <li>• Material cost</li> <li>• Cash flow</li> <li>• Inventory turns</li> </ul>
<p><i>People:</i>  We are a team oriented, continuous learning environment that is safe and health for all of our employees</p>	<ul style="list-style-type: none"> <li>• Injury incident rate</li> <li>• Visual systems</li> <li>• Hours/unit</li> </ul>
<p><i>Continuous Improvement/Process Control:</i>  Conformance to a continuous improvement of processes by eliminating non-value adding activities in order to meet profit objectives and customer specifications.</p>	<ul style="list-style-type: none"> <li>• Overdue shipments</li> <li>• Throughput dollars per employee</li> <li>• Documented cost reductions</li> </ul>
<p><i>Revolution:</i>  Creating alternative materials products and services with outside resources and grants.</p>	<ul style="list-style-type: none"> <li>• Cost neutral alternative oil</li> <li>• Profitable new products</li> <li>• Profitable new services</li> </ul>

**Table 2**  
**Measurement Model**

This table reports the results of maximum likelihood estimation of the measurement model for the latent variables used in Figure 1.

Latent Variable	Standardized Factor Loading
<b>Distributive Justice</b>	
D1: The size of our bonus is fair.	0.770
D2: The bonus we receive is fair.	0.898
D3: All in all, the bonus payment is what it ought to be.	0.834
D4: Our bonus is fair compared to what others are getting.	0.813
D5: The extent to which the bonus gives us the full amount we deserve is fair.	0.786
<b>Procedural Justice</b>	
P1: The design of the gain-sharing plan seems fair.	0.808
P2: The gain-sharing plan formula is fair to all employees.	0.851
P3: The gain-sharing plan is administered fairly.	0.860
P4: The rules used for sharing the gain-sharing bonus with all employees are fair.	0.780
P5: When determining whether a gain-sharing bonus will be paid, the company uses accurate information about the department's performance.	0.762
P6: the performance level required to receive a gain-sharing bonus is clear to me.	0.589
<b>Trust in Management</b>	
T1: Taking all things into consideration, I am satisfied with my manager.	0.778
T2: My manager is honest in his/her dealings with me.	0.863
T3: I trust my manager.	0.871
T4: My manager is sincere in his/her attempt to meet my point of view.	0.808
<b>Intent to Leave</b>	
L1: At this time in my career, I would quit my job if it were feasible.	0.589
L2: I am actually planning to leave my job within the next six months.	0.688
L3: I am actively searching for another job right now.	0.729
L4: I have had thoughts about leaving my job.	0.578

**Table 3**  
**Descriptive Statistics and Correlations among Study Variables\***  
**N=345**

VARIABLE		Mean	S.D.	DJ	PJ	TR	LV
DJ	Distributive Justice	4.06	1.59	<b>.91</b>			
PJ	Procedural Justice	4.00	1.65	.76**	<b>.90</b>		
TR	Trust in Managers	4.39	1.67	.49**	.50**	<b>.91</b>	
LV	Intent to Leave	3.40	1.62	-.30**	-.33**	-.40**	<b>.74</b>

\* Coefficient Alpha statistics in bold

\*\* p = <.001

**Table 4**  
**Results of Exploratory Factor Analysis**  
**Oblique Rotation**

Item	Factor 1	Factor 2	Factor 3	Factor 4
PJ1	-.001	<b>.850</b>	.007	.027
PJ2	.338	<b>.590</b>	-.065	-.056
PJ3	.081	<b>.808</b>	.038	.007
PJ4	.321	<b>.535</b>	-.024	.002
PJ5	.265	<b>.505</b>	.050	-.070
PJ6	.137	<b>.426</b>	.146	.044
DJ1	<b>.735</b>	.020	.041	.011
DJ2	<b>.780</b>	.121	.040	-.011
DJ3	<b>.777</b>	.074	.043	.043
DJ4	<b>.748</b>	.076	-.005	-.006
DJ5	<b>.748</b>	.098	-.028	.035
TRUST1	.050	.014	<b>.689</b>	-.110
TRUST2	-.009	-.028	<b>.928</b>	.064
TRUST3	.013	.065	<b>.813</b>	-.027
TRUST4	.017	.038	<b>.775</b>	-.014
LV1	.015	-.127	-.014	<b>.541</b>
LV2	.090	-.019	.018	<b>.734</b>
LV3	.060	-.042	-.025	<b>.711</b>
LV4	-.240	.189	-.040	<b>.556</b>

Percent Variance Explained by Each Factor:

Factor 1	Factor 2	Factor 3	Factor 4
32.1%	29.0%	23.9%	15.0%

Table 5  
Decomposition into Direct and Indirect Effects

	Endogenous Variables			
	<i>Trust in Managers</i>		<i>Intentions to Leave</i>	
Exogenous Variables	S.E.	Std.	S.E.	Std.
<i>Procedural Justice</i>				
Direct effect	.16	.28***	.17	-.22
Indirect effects	--	--	.01	-.09***
Total effect	.16	.28***	.18	-.31*
<i>Distributive Justice</i>				
Direct effect	.16	.31**	.17	-.04
Indirect effects	--	--	.01	-.11***
Total effect	.16	.31**	.18	-.15
<i>Trust in Managers</i>				
Direct effect	--	--	.02	-.37***
Indirect effects	--	--	--	--
Total effect	--	--	.02	-.37

Note: Significance of standardized effects was tested using unstandardized errors.

- \*p < .05
- \*\*p < .01
- \*\*\*p < .001