# The Interactive Effects of Centralization on the Relationship Between Justice and Satisfaction 

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#### Abstract

The current study examines the effects of centralization on the relationship between organizational justice and job satisfaction using referent cognitions theory as a theoretical foundation. The sample consists of 489 members of the National Association of Purchasing Managers. Results indicate that the relationships between procedural, distributive, and interactional justice and job satisfaction are stronger under conditions of high centralization. Directions for future research and implications for managers are discussed.


Keywords: justice; satisfaction; centralization

Researchers have long acknowledged the relationship between organizational justice and a variety of outcomes. These outcomes have included increased commitment, job performance, organizational citizenship behavior, job satisfaction, and decreased turnover intentions (Cohen-Charash \& Spector, 2001). More recently, researchers have begun to expand their understanding of organizational justice by focusing their attention on identifying antecedents (e.g., Schminke, Ambrose, \& Cropanzano, 2000) and by exploring the role of justice as a moderator (e.g., Siegel, Post, Brockner, Fishman, \& Garden, 2005). For example, Schminke et al. (2000) examined elements of organizational structure as predictors of justice. They found that size, formalization, and centralization relate differently to the three types of justice: procedural, distributive, and interactional.

In recent years, decentralization has been touted as beneficial to reaching organization goals, making better use of employee skills and abilities, permitting more rapid response to environmental change, and providing greater employee development and satisfaction (Alexander, 1991; Daft, 2003). However, organizations must balance the gains and losses that come with decisions on authority delegation. With decentralization comes additional expense: more formal training for decision makers, the cost of performance and reporting systems to provide top management
with information about decision effectiveness, and possible duplication of functions. In addition, many firms have managers resist due to both loss of control and the inconsistency of firm responses that come with decentralization (Poitevin, 2000).

The primary purpose of the present study is to extend the research efforts of Schminke et al. (2000) by exploring the role of centralization as a moderator in the justice-satisfaction relationship. Specifically, it is our contention that the strength of the positive relationship between justice and satisfaction (CohenCharash \& Spector, 2001; McFarlin \& Sweeney, 1992) will vary according to the level of centralization of decision making in the organization. We begin with an overview of the justice literature and a discussion of centralization. This is followed by an introduction to referent cognitions theory (RCT), which is used as the guiding theoretical framework.

## Justice

Research generally recognizes three distinct forms of organizational justice: distributive, procedural, and interactional. Distributive justice was the first to be widely researched and refers to the perceived fairness of the distribution of outcomes (Greenberg, 1990). Procedural justice refers to the perceived fairness of the
process used to determine outcomes. These outcomes consist of organizationally prescribed benefits such as pay and promotions. Interactional, the most recently recognized form of justice, focuses on the quality of the relationship between the supervisor and the subordinate. High interactional justice reflects feelings that the subordinate is treated with respect and dignity by his or her supervisor. All three forms of justice have been found to be positively related to multiple aspects of satisfaction, including job, pay, supervisor, management, and union. Other significant attitudes include increased commitment and trust and decreased intentions to turnover (Cohen-Charash \& Spector, 2001).

Given the established relationships between all types of justice and these outcomes, much of the practical implications have focused on enhancing perceptions of justice to improve attitudes and behaviors. In a unique approach, Schminke et al. (2000) discussed the broader social context as a means of influencing perceptions of fairness. They suggested that the architectural systems within organizations can have a profound effect on perceptions of fairness. Organizations can be designed in a way that allows for participation in decision making as well as voice and due process. These organizational structures are considered systemically fair and should lead to greater levels of perceived justice (Sheppard, Lewicki, \& Minton, 1993). Specifically, Schminke et al. found that participation in decision making (i.e., low levels of centralization) lead to higher levels of procedural justice. In addition to being a predictor of justice, centralization can also be viewed as a moderator of the relationship between justice and satisfaction.

## Centralization

Centralization refers to the hierarchical level in the organization at which decisions are made (Childs, 1973). Centralization differs from formalization in that the latter refers to the extent to which rules, policies, and procedures exist and guide employee behavior (Hodge, Anthony, \& Gales, 1996). In highly centralized organizations, decision-making power is concentrated at the upper levels, thereby reducing each member's level of authority (Childs, 1973). In highly decentralized organizations, the power to make decisions is relegated to the lower levels, and employees have discretion in their activities. Accordingly, the importance of subordinates would be increased through decentralization and would be decreased through centralization (Fayol, 1916). As a core
management principle, Fayol viewed centralization as the degree to which it occurs in organizations but did not make a judgment as to whether more or less centralization was appropriate; rather, the challenge for managers was to find the right degree of centralization that best maximized the organization's outcomes and provided satisfaction for the employees. Over time, management theorists began to advocate decentralization, and empowering employees was seen as a structural method for improving motivation as well as firm performance (McGregor, 1960). The underlying assumption was that by removing tight controls and allowing employees to make decisions regarding their own activities, they would be satisfying social and egoistic needs. Furthermore, their energies would be directed toward the goals of the organization. Although some contemporary research supports the links between decentralization and firm performance (Chang \& Harrington, 2000) and employee satisfaction (Bhargava \& Kelkar, 2000), other research has demonstrated that under certain conditions, centralization is positively related to firm performance (Richardson, Vandenberg, Blum, \& Roman, 2002) and managerial performance (Chang \& Harrington, 2000). For example, taking a contextual approach, Richardson et al. examined the relationship between centralization and firm performance under a variety of conditions using a sample consisting of more than 400 health care treatment centers. They used a longitudinal design and found that the condition (i.e., growing or shrinking) and percentage of professionals employed moderated the centralization-firm performance relationship such that the highest level of financial performance occurred for centers in a growth phase with high centralization. Growing centers with low centralization had the lowest financial performance. Furthermore, treatment centers with a high degree of professionals performed better in a centralized environment than in a decentralized environment. Giving professionals too much decision making latitude had a negative effect on performance. In terms of employee attitudes, their post hoc analyses revealed no significant relationship between decentralization and satisfaction. Hence, as suggested by Richardson et al. recently and Fayol (1916) historically, no one best way exists in terms of centralization, and a contingency approach may be most appropriate (Fleurke \& Hulst, 2006).

## RCT

Folger (1986) suggested RCT as a substitute for equity theory, which better explains the processes by
which individuals both evaluate and respond to organizational justice and injustice. The basic premise underlying RCT is that people make comparisons between what actually is and what might have been under different circumstances. These imagined alternatives can be better than reality (i.e., high referent cognition) or perhaps worse (i.e., low referent cognition) than reality. Resentment exists under a high referent cognition situation (e.g., when an individual believes he or she could have done a far superior job if he or she were in charge). Resentment is minimized if the individual believes that he or she would have been no better off regardless of who was in charge. A second element of RCT is the likelihood of amelioration (Folger, 1986). If the individual believes that things will get better in the future, he or she will not be as upset. Finally, RCT also recognizes the reason for the current state of reality. Folger refers to this element as justifications. Perhaps the poor work performance was because the supervisor was new or inexperienced. Assuming this is a good reason (i.e., high justification), less resentment would occur. Hence, resentment would be maximized when there is low justification combined with high referent cognition. Resentment is minimized when there is high justification and low referent cognition ("I could not have done better, and there is a good reason why this level of performance occurred"). RCT incorporates both outcome (i.e., distributive) and process (i.e., procedural and interactional) components of justice. RCT has been used as an explanation in research examining the relationship between justice and turnover (Aquino, Griffith, Allen, \& Hom, 1997; Goldman, 2003) as well as justice and satisfaction (McFarlin \& Sweeney, 1992). RCT can also be used to explain the interactive effects of justice and centralization on job satisfaction.

## Current Study

We sought to explore the extent to which the relationship between justice and satisfaction might differ across different levels of centralization. The first element of RCT, referent cognitions, posits that individuals make comparisons between what is and what could have been under different circumstances. If individuals are dissatisfied with their outcomes (e.g., pay, rewards, and recognition), they will form high referent cognitions. Hence, a discrepancy exists between what they are receiving and what they believe they should be receiving in terms of rewards. In this instance, decentralization may be viewed as one
mechanism for reducing the discrepancy (e.g., if they believe their performance would have been superior if they had more decision-making authority and the outcomes or rewards that individuals receive are linked to their performance). In contrast, if individuals are satisfied with their outcomes, their imagined alternatives are not really any better than reality. They will likely form low referent cognitions as they believe these outcomes are fair. In this instance, employees may be content under conditions of high centralization as the decisions made by the organization have resulted in fair outcomes for employees.

Hypothesis la: The positive relationship between distributive justice and satisfaction will become stronger as the level of centralization increases.

RCT suggests that in addition to forming referent cognitions, individuals perform two mental simulations to assist them in reconciling any discrepancy in their imagined versus actual outcomes. These include assessing the likelihood of amelioration and justifications. Both can serve to explain responses to process aspects of justice (i.e., procedural and interactional).

For example, a company might announce that all locations nationwide must cut expenses $10 \%$ due to losses from a natural disaster. It is likely that employees believe the decision is reasonable as high justifications for the current decisions exist (i.e., a natural disaster). Provided that employees firmly believe that these short-term cutbacks will result in gains in the long run, there will be a high likelihood of amelioration as they expect things to get better. Under these circumstances negative responses should be minimized as high justifications exist and the cutbacks are only temporary. This centralized decision can be construed as high procedural justice because all of the company is asked to cut expenses. Fair decisions made at the top of the organization serve to strengthen the relationship between justice and satisfaction.

Hypothesis 1b: The positive relationship between procedural justice and satisfaction will become stronger as the level of centralization increases.

Supervisors are often considered agents of the organization and act as messengers when they communicate decisions set at the top to lower level employees. The way in which decisions are conveyed by one's supervisor indicates the level of interactional justice. When supervisors are considerate and empathetic and treat their subordinates with dignity and respect, high interactional justice should result. This may be further
enhanced when they also relay procedural aspects of the decision. In highly centralized organizations, where there is less input into the process, employees rely heavily on their supervisors to communicate important information and decisions regarding their work. When forming evaluations regarding the fairness of organizational actions, they may tend to place greater emphasis on the role of the supervisor as he or she is the source of the information. However, in less centralized organizations in which employees are allowed more decision-making input, there is less reliance on the supervisor as a key source of information.

Hypothesis 1c: The positive relationship between interactional justice and satisfaction will become stronger as the level of centralization increases.

## Method

## Data Collection

The data were collected from a large regional chapter of the National Association of Purchasing Managers. This particular chapter includes members from three eastern states, and at the time of our study, the membership list included 2,718 names. From this group, we randomly chose 1,500 members to include in our study. One week prior to the mailing of the survey, we mailed a letter from the president of the regional chapter to each potential respondent. The purpose of this letter was to (a) provide prenotification of the survey and (b) let each member know that the regional chapter's president and board of directors were supporting the research. One week later, a second mailing was sent to each member. This mailing included a letter from the researchers that provided more details concerning the research project, the questionnaire, and a postage-paid reply envelope. One month after this, a final mailing was sent to all respondents. This mailing included another letter from the researchers requesting that those who had not yet responded to please do so, a second copy of the questionnaire, and a postage-paid return envelope.

A total of 489 useable surveys were returned for a response rate of $32.6 \%$. Nonresponse bias was estimated by comparing early respondents to late respondents as per Armstrong and Overton (1977), who showed that late respondents are similar to nonrespondents. Those who responded before the second mailing were included in the early respondent group, whereas those responding after the second mailing were considered late respondents (cf. Sethi, 2000). To examine the differences
between the groups, $t$ tests were conducted across age and tenure with the company. There were no significant differences between the groups for any of these tests, which provide some assurance that nonresponse bias was not a concern. Approximately two thirds of the respondents were males ( $64.4 \%$ ). The median age for the respondents was 46 years and the median tenure with the current employer was 9 years. Finally, $62 \%$ of the respondents were employed by private organizations with the rest being employed in the public sector.

## Measures

The constructs used in the study were measured by multi-item scales that have been used in previously published research studies. All constructs were measured using a 7 -point scale anchored by strongly disagree (1) and strongly agree (7). All items used in the research can be found in the appendix.

The measure for general job satisfaction consisted of six items from Brayfield and Roth (1951). The items assessed satisfaction with the job in a general fashion rather than focusing on specific elements of the job. Three items presented in Ferrell and Skinner (1988) were used to measure centralization. These three items were designed to assess the level within the organization that is responsible for decision making and is in keeping with Schminke et al.'s (2000) idea of hierarchy of authority. The measures for distributive, procedural, and interactional justice were taken from the research of Niehoff and Moorman (1993) and consisted of five, six, and nine items, respectively. Table 1 presents means, standard deviations, composite reliability, and correlations for all of the constructs.

Although the items used came from previous research, scale validity was assessed using LISREL 8.51 (Joreskog \& Sorbom, 2001). As is common practice, we chose to use measures in addition to the chi-square statistic to assess the model fit due to the influence of sample size on the chi-square statistic. Hu and Bentler (1999) suggest that both incremental and absolute fit measures be used to assess the fit of a model. We chose to use Comparative Fit Index (CFI) and Incremental Fit Index (IFI) as incremental fit measures and Root Mean Square Error of Approximation (RMSEA) as a measure of absolute fit. All of these measures have been widely reported in the marketing literature. Generally, CFI and IFI values of greater than .9 and RMSEA values of less than .06 (Hu \& Bentler, 1999) are indicators of good fit of the data to the model being tested.

The items measuring each of the constructs were submitted to a confirmatory factor analysis, which

Table 1
Means and Correlations for Constructs

|  | $M$ | $S D$ | Composite <br> Reliability | Satisfaction | Distributive <br> Justice | Procedural <br> Justice | Interactional <br> Justice | Centralization |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Satisfaction | 5.26 | 1.20 | .86 | 1.00 |  |  |  |  |
| Distributive justice | 5.20 | 1.42 | .70 | $.336^{*}$ | 1.00 |  |  |  |
| Procedural justice | 4.54 | 1.61 | .94 | $.459^{*}$ | $.404^{*}$ | 1.00 |  |  |
| Interactional justice | 5.15 | 1.49 | .95 | $.449^{*}$ | $.351^{*}$ | $.839^{*}$ | 1.00 |  |
| Centralization | 2.59 | 1.52 | .91 | $-.374^{*}$ | $-.098^{*}$ | $-.187^{*}$ | $-.211^{*}$ | 1.00 |

* $p<.05$.
did not provide a good initial fit to the data ( $\mathrm{c}^{2}=$ $\left.1835.31_{(3677}, \mathrm{RMSEA}=.098, \mathrm{CFI}=.891, \mathrm{IFI}=.891\right)$. Following procedures outlined by Anderson and Gerbing (1988) and MacCallum (1986), poor performing items were deleted based on standardized residuals as well as cross-loadings (i.e., values in the $\ddagger$ matrix). This process was done sequentially with the poorest performing item being removed and the model respecified with the process continuing until an appropriate level of fit was identified. It should be pointed out that in keeping with MacCullum's recommendations, in addition to using the diagnostics in LISREL, items were also assessed for their conceptual contribution to the construct being measured prior to their being removed from further analysis. This process eventually led to a model that provided an excellent fit to the data $\left(\mathrm{c}^{2}=460.84_{(199)}\right.$, RMSEA $=$ $.050, \mathrm{CFI}=.968, \mathrm{IFI}=.968)$.

After identifying items that appeared to have the requisite degree of validity, additional tests were conducted to further assess the usefulness of the items for the hypothesis-testing procedure. Convergent validity was assessed by using $t$ values where values of greater than 2.00 provide evidence of convergent validity (Segars, 1996). The values ranged from 8.57 to 30.52 (see appendix), providing evidence of convergent validity. In addition, average variance extracted values were calculated. Fornell and Larker (1981) indicate that values above .5 provide evidence of convergent validity. In our case, the average variance extracted values ranged from .55 to .78 . To assess discriminant validity, the procedure suggested by Bagozzi, Yi, and Phillips (1991) was followed. This calls for two models to be estimated for each pair of constructs-one in which the correlation between the two variables is allowed to be freely estimated and one in which the correlation is constrained to be equal to 0 . If the $c^{2}$ value of the constrained model is more than 3.84 greater than that of the freely estimated model (where 3.84 is the critical value for one degree of freedom), there is evidence of discriminant validity. In all cases, the $c^{2}$ for the
constrained model was significantly greater than that for the freely estimated model, providing support for discriminant validity. In addition, because all constructs were measured using 7-point Likert-type scales, a test was done to assess common method variance. Podsakoff, MacKenzie, Lee, and Podsakoff (2003) identify a number of methods that can be used for common method variance. Since we had not a priori included a method factor in our data collection, we were limited as to the methods available. We initially attempted to follow a procedure whereby a method factor would be modeled with the other factors (see Podsakoff et al., 2003). However, because the number of indicators in our model was low compared to the number of constructs, our model was underidentified. Podsakoff et al. suggest as a possible remedy, constraining the factor loadings to be equal, but this significantly reduces the efficacy of the technique. Therefore, we followed the procedure known as the Harmon one-factor test in which a model was estimated and where all indicators were constrained to load on a single factor. The chi-square value for this model was $3074.76_{(212)}$. This value can be compared to the chisquare for the model where the indicators are allowed to load on a particular construct with differences in the chi-square values representing a test of the significance between the models. The difference between the constrained and the one-factor model is 2613.92 $\left(3074.76_{\text {one-factor }}-460.84_{\text {constrained }}\right)$. The chi-square critical value with 13 degrees of freedom at the .05 level is 22.36 . As can be seen, the difference between the two models is much more than 26.31, providing evidence that the constrained model provides a better fit to the data, thus providing some evidence that relations among variables exist beyond the potential influence of common method variance.

## Analyses

To test the hypotheses, moderated regression analysis (Sharma, Durand, \& Gur-Arie, 1981) was

Table 2
Moderated Regression Analysis Results

| Construct | Hypothesis 1a | Hypothesis 1b | Hypothesis 1c |
| :--- | :---: | :---: | :---: |
| Procedural justice | $.385^{*}$ |  |  |
| Interactional justice |  | $.403^{*}$ |  |
| Distributive justice | $-.318^{*}$ | $-.284^{*}$ | $.380^{*}$ |
| Centralization | -.005 | $.084^{*}$ | $-.29^{*}$ |
| Interaction term $^{\text {a }}$ | .263 | .306 | $.121^{*}$ |
| $R^{2}$ |  | .300 |  |

Note: Values in cells are beta coefficients for the construct included in the regression of the test of each hypothesis.
a. The interaction term is the multiplicative interaction between the dependent variable (one of three types of justice) and the moderator variable (centralization).

* $p<.05$.
used. This procedure tests for moderating effects by including a cross-product term in a regression equation with the dependent variable and the moderating variable. To reduce potential problems associated with multicollinearity, the three forms of justice and centralization were mean centered (Aiken \& West, 1991; Cronbach, 1987; Yi, 1989).


## Results

The results of the moderated regression analyses are presented in Table 2. The table presents the coefficients for the independent variables (procedural, distributive, and interactional justice), the proposed moderator (centralization), and the multiplicative interaction term. For two of the three proposed moderator effects (procedural and interactional justice), the coefficient for the interaction term is significant, indicating a moderating effect. Furthermore, for both of those moderator effects, the coefficient is positive, indicating that the relationship between justice (procedural and interactional) and satisfaction is stronger as the level of centralization increases. By definition a significant interaction would imply differences in slopes for different levels of the moderator, but to ensure this supposition tests of the slopes were conducted using a procedure described by Preacher, Curran, and Bauer (2006). This procedure results in the calculation of simple slopes for low ( -1 $S D$ ), medium (mean), and high ( $+1 S D$ ) levels of the moderator, which in this case is centralization. For interactional justice, the simple slopes were .222 for the low group and .392 for the high group. For procedural justice the simple slopes were .246 for the low group and .358 for the high group. All of the slopes were significant at $p<.05$. It should be noted that the slopes of the lines are significant and positive indicating that at both levels of the moderators there is a positive impact of centralization on the relationship between justice
(both interactional and procedural) and satisfaction. However, as indicated in the tests described above the simple slopes are significantly greater for the high group indicating the relationship is stronger as centralization increases. In other words, the relationship between justice and satisfaction is stronger as centralization is higher. Figures 1 and 2 present the plots of the significant interactions for procedural and interactional justice.

## Discussion

Findings of the present study shed new light on the desirability of decentralization in organizations as two of the three hypotheses were supported. Overwhelmingly, in the past 25 years, textbooks and the popular business press have strongly advocated employee empowerment and the use of decentralized structures across all organizations. Yet a subset of research addressing the role of centralization has suggested that a contingency approach may be more appropriate and centralization can be superior in certain situations (Chang \& Harrington, 2000; Espino-Rodriguez \& Taylor, 2006; Fleurke \& Hulst, 2006; Richardson et al., 2002). Our results are consistent with this line of research. It is intriguing that the strength of the jus-tice-satisfaction relationship increases markedly when centralization increases. In situations where perceptions of procedural and interactional justice are high, there is support for the idea of a more centralized structure. As suggested by RCT theory (Folger, 1986), if individuals perceive high levels of process fairness, there will be less discrepancy between reality and imagined alternatives as no better (or more fair) decision could have been made. Hence, resentment is minimized and overall job satisfaction should be high. However, these results did not provide support for centralization as a moderator of the distributive

Figure 1
Plot of Interactive Effect of Procedural Justice and Centralization on Satisfaction


Figure 2
Plot of Interactive Effect of Interactional Justice and Centralization on Satisfaction

justice-satisfaction relationship. Apparently, the role of centralization is irrelevant in determining the strength of this relationship.

According to our findings, once justice is in place, centralization may be better. This situational approach is consistent with past findings by Richardson et al.
(2002) as well as Fleurke and Hulst (2006). The present findings suggest that researchers reconsider whether decentralization is always advisable. The belief that employees should or want to be involved in much of the decision making may be false. Perhaps decentralized decision making and empowerment makes sense in situations in which employees truly care about the outcome of the decision. For example, in making decisions that affect one's work schedule, workload, or ways in which work is performed, it may be advantageous to involve the employee. However, when making decisions that only peripherally affect an employee or are well beyond the scope of the employee's job, centralized decisions may be more appealing and more efficient. In a decentralized environment, managers might believe that inviting employees to attend meetings makes them feel involved and appreciated. However, employees may feel that attending lengthy meetings to discuss topics that are unimportant to them is simply a waste of time and frustrating. These findings suggest that researchers should take a fresh look at the exact role of centralization in organizations and when it is and is not advantageous.

## Future Research

The present study identified a fair and just work environment as one context in which centralization may be advisable. Other contexts are worth exploring in which centralization may also have a positive influence on employee attitudes. These include determining whether the present results hold across different cultures, organizations, and occupational groups. For example, businesses in which the work is stable and repetitive may benefit from centralization. Companies with a history of unethical behaviors may benefit from centralized decision making as well, as it may prevent discretionary situations in which inappropriate behaviors occur. Finally, other structural aspects such as formalization and size could be examined for their effects on the justice-satisfaction relationship. The additional insight gained from future research could provide both practitioners and researchers necessary information to determine the best unique structure in which each organization should operate.

## Limitations and Strengths

With any research endeavors, there are limitations to acknowledge. First, this study reports a subset of findings from a sample of professional purchasing
managers across many organizations. Future studies may wish to survey more respondents representing diverse tasks across organizations. Second, our study included only one element of structure. Additional research can be conducted that examines other structural variables such as size and level of formalization. Third, all items were measured using a 7-point Likerttype scale that contributes to the influence of common method variance. However, it should be noted as previously described that several steps were taken to investigate and deal with the issue of common method variance, including a Harmon one-factor test and elimination of cross-loading items. Finally, given that scale items that did not perform adequately in the scale validity process were dropped from the scales, it is possible that some of the construct domain may have been lost.

The current study also has several strengths. First, the response rate was strong for this type of field study. Second, our results confirm the positive relationship between procedural, distributive, and interactional justice and job satisfaction. Finally, results of this study heighten our understanding of the justice- satisfaction relationship in two ways: by demonstrating the positive moderating effects of centralization and by applying a newer theory (i.e., RCT) as a theoretical foundation. Most important, we learn that each organization must be studied within its unique parameters before adapting structural variables such as centralization or decentralization.

## Appendix

## Measures

| Constructs and Items | Standardized <br> Loading <br> $(t$ Value $)$ |
| :--- | :---: |
| Satisfaction | .807 |
| 1. I feel fairly well satisfied with my <br> present job. | $(\mathrm{a})$ |$.^{\text {2. I am satisfied with my job for the }}$| time being. |
| :--- |$\quad$| $(15.07)$ |
| :---: |
| 3. I definitely dislike my work. |
| 4. I feel that I am happier in my work than |
| most other people. |

## Appendix (continued)

| 3. To make job decisions, my supervisor collects accurate and complete information. | $\begin{array}{r} .899 \\ (28.52) \end{array}$ |
| :---: | :---: |
| 4. My supervisor clarifies decisions and provides additional information when requested by employees. | $\begin{array}{r} .864 \\ (26.30) \end{array}$ |
| 5. All job decisions are applied consistently across all affected employees. | $\begin{array}{r} .845 \\ (25.14) \end{array}$ |
| 6. Employees are allowed to challenge or appeal job decisions made by my supervisor. | $\begin{array}{r} .684 \\ (17.80) \end{array}$ |
| Interactional justice |  |
| 1. When decisions are made about my job, my supervisor treats me with kindness and consideration. | ${ }_{\text {(a) }} .873$ |
| 2. When decisions are made about my job, my supervisor treats me with respect and dignity. | b |
| 3. When decisions are made about my job, my supervisor is sensitive to my personal needs. | $\begin{array}{r} .874 \\ (27.11) \end{array}$ |
| 4. When decisions are made about my job, my supervisor deals with me in a truthful manner. | $\begin{array}{r} .881 \\ (27.60) \end{array}$ |
| 5. When decisions are made about my job, my supervisor shows concerns for my rights as an employee. | $\begin{array}{r} .923 \\ (30.52) \end{array}$ |
| 6. When decisions are made about my job, my supervisor discusses the implications of the decisions with me. | $\begin{array}{r} .865 \\ (26.58) \end{array}$ |
| 7. When decisions are made about my job, my supervisor offers adequate justification for decisions. | b |
| 8. When decisions are made about my job, my supervisor offers explanations that make sense to me. | b |
| 9. When decisions are made about my job, my supervisor explains the decisions very clearly. | b |
| Distributive justice |  |
| 1. My work schedule is fair. | . 551 |
|  | (a) |
| 2. I think that my level of pay is fair. | $\begin{gathered} .492 \\ (8.56) \end{gathered}$ |
| 3. I consider my workload to be quite fair. | b |
| 4. Overall, the rewards I receive here are quite fair. | b |
| 5. I feel that my job responsibilities are fair. | $\begin{array}{r} .901 \\ (10.50) \end{array}$ |
| Centralization |  |
| 1. In my dealings with this company, even quite small matters have to be referred to someone higher up for a final answer. | $\text { (a) } 764$ |
| 2. I have to ask my managers before I do almost anything in my business. | $\begin{array}{r} .947 \\ (22.21) \end{array}$ |
| 3. I can take very little action on my own until this company or its managers approve it. | $\begin{array}{r} .908 \\ (21.77) \end{array}$ |

a. Items were fixed to 1 set the metric.
b. Item was deleted during scale validation procedure.

## References

Aiken, L. S., \& West, S. G. (1991). Multiple regression: Testing and interpreting interactions. London: Sage.
Alexander, J. A. (1991). Adaptive change in corporate control processes. Academy of Management Journal, 34, 162-193.
Anderson, J. C., \& Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103, 411-423.
Aquino, K., Griffith, R. W., Allen, D. G., \& Hom, P. W. (1997). Integrating justice constructs into the turnover process: A test of a referent cognitions model. Academy of Management Journal, 40, 1208-1227.
Armstrong, J. S., \& Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. Journal of Marketing Research, 14, 396-402.
Bagozzi, R. P., Yi, Y., \& Phillips, L. W. (1991). Assessing construct validity in organizational research. Administrative Science Quarterly, 36, 421-458.
Bhargava, S., \& Kelkar, A. (2000). Prediction of job involvement, job satisfaction, and empowerment from organizational structure and corporate culture. Psychological Studies, 45, 43-50.
Brayfield, A. H., \& Roth, H. F. (1951). An index of job satisfaction. Journal of Applied Psychology, 35, 307-311.
Chang, M. H., \& Harrington, J. E., Jr. (2000). Centralization vs. decentralization in a multi-unit organization: A computational model of a retail chain as a multi-agent adaptive system. Management Science, 46, 1427-1440.
Childs, J. (1973). Strategies of control and organizational behavior. Administrative Science Quarterly, 18, 1-17.
Cohen-Charash, Y., \& Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. Organizational Behavior and Human Decision Processes, 86, 278-321.
Cronbach, L. J. (1987). Statistical tests for moderator variables: Flaws in analyses recently proposed. Psychological Bulletin, 102, 414-417.
Daft, R. L. (2003). Management (6th ed.). Mason, OH: Thomson Learning-Southwestern.
Espino-Rodriguez, T. F., \& Taylor, J. S. (2006). The perceived influence of centralizing operations in chain hotels. Tourism and Hospitality Research, 6(4), 251-266.
Fayol, H. (1916). General and industrial management. London: Pitman.
Ferrell, O. C., \& Skinner, S. J. (1988). Ethical behavior and bureaucratic structure in marketing research organizations. Journal of Marketing Research, 25, 103-109.
Fleurke, F., \& Hulst, R. (2006). A contingency approach to decentralization. Public Organization Review, 6, 37-56.
Folger, R. (1986). Rethinking equity theory: A referent cognitions model. In H. W. Biefhoff, R. L. Cohen, \& J. Greenberg (Eds.), Justice in social relations (pp. 145-162). New York: Plenum.
Fornell, C., \& Larker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 28, 39-50.
Goldman, B. M. (2003). The application of referent cognitions theory to legal-claiming by terminated workers: The role of organizational justice and anger. Journal of Management, 29, 705-728.
Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. Journal of Management, 16, 399-432.

Hodge, B. J., Anthony, W. P., \& Gales, L. M. (1996). Organization theory. Upper Saddle River, NJ: Prentice Hall.
Hu, L., \& Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6, 1-55.
Joreskog, K. G., \& Sorbom, D. (2001). LISREL 8.51: Analysis of linear structural relationships by maximum likelihood, instrumental variables, and least squares methods. Mooresville, IN: Scientific Software.
MacCallum, R. C. (1986). Specification searches in covariance structure modeling. Psychological Bulletin, 100, 107-120.
McFarlin, D. B., \& Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. Academy of Management Journal, 35, 626-637.
McGregor, D. M. (1960). The human side of enterprise. New York: McGraw-Hill.
Niehoff, B. P., \& Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. Academy of Management Journal, 36, 527-557.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., \& Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88, 879-904.
Poitevin, M. (2000). Can the theory of incentives explain decentralization? Canadian Journal of Economics, 33(4), 878-906.
Preacher, K. J., Curran, P. J., \& Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. Journal of Educational and Behavioral Statistics, 31, 437-448.
Richardson, H. A., Vandenberg, R. J., Blum, T. C., \& Roman, P. M. (2002). Does decentralization make a difference for the organization? An examination of the boundary conditions circumscribing decentralized decision-making and organizational financial performance. Journal of Management, 28, 217-244.
Schminke, M., Ambrose, M. L., \& Cropanzano, R. S. (2000). The effect of organizational structure on perceptions of procedural fairness. Journal of Applied Psychology, 85, 294-304.
Segars, A. (1996). Assessing the unidimensionality of measurement: A paradigm and illustration within the context of information systems research. Omega, 25, 107-121.
Sethi, R. (2000). New product quality and product development teams. Journal of Marketing, 64, 1-14.
Sharma, S., Durand, R. M., \& Gur-Arie, O. (1981). Identification and analysis of moderator variables. Journal of Marketing Research, 28, 291-300.
Sheppard, B. H., Lewicki, R. J., \& Minton, J. W. (1993). Organizational justice: The search for fairness in the workplace. New York: Lexington Books.
Siegel, P. A., Post, C., Brockner, J., Fishman, A. Y., \& Garden, C. (2005). The moderating influence of procedural fairness on the relationship between work-life conflict and organizational commitment. Journal of Applied Psychology, 90, 13-24.
Yi, Y. (1989). On the evaluation of main effects in multiplicative regression models. Journal of the Market Research Society, 31, 133-138.

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