Distinguishing Contextual Performance From Task Performance for Managerial Jobs

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The purpose of this study was to extend previous research on the contextual and task performance distinction to managerial jobs. It was hypothesized that, unlike results for nonmanagerial work, the job dedication facet of contextual performance would contribute uniquely to overall managerial performance. The interpersonal facilitation facet of contextual performance was expected to be redundant with leadership task performance and therefore not to make a unique contribution. A multitrait-multirater correlation matrix was developed on the basis of meta-analysis. Structural equation modeling results generally supported the hypotheses, although there was some evidence of a unique contribution by interpersonal facilitation. Results also suggested that peers paid more attention to interpersonal facilitation when making overall performance ratings, whereas supervisors paid more attention to task performance.

Borman and Motowidlo (1993) proposed expanding the job performance criterion domain to include contextual performance in addition to task performance. Task performance consists of job-specific behaviors including core job responsibilities, for which the primary antecedents are likely to be ability and experience. Contextual performance consists of non-job-specific behaviors such as cooperating with coworkers and showing dedication, for which the primary antecedents are likely to be volition and personality (Borman & Motowidlo, 1993). Contextual performance is virtually identical to Organ’s (1997) recent conception of organizational citizenship behavior. By focusing on overt behavior, however, contextual performance differs from more cognitive and attitudinal constructs such as organizational commitment and job involvement.

The rationale for the distinction was that contextual aspects of job performance, although important for organizational effectiveness, have often been ignored by researchers. However, the concept of contextual performance has recently attracted considerable research attention, probably because of changes in the nature of organizations, such as team-based work (Borman & Motowidlo, 1997a). For example, a number of studies have focused on the extent to which contextual performance contributes uniquely (over and above task performance) to an individual’s worth to the organization (Borman, White, & Dorsey, 1995; Motowidlo & Van Scotter, 1994; Van Scotter & Motowidlo, 1996).

The three studies mentioned above all focused on nonmanagerial jobs. The primary purpose of the present study was to extend previous research by focusing on the extent to which contextual performance contributes uniquely to organizational worth for managerial work. A secondary purpose was to examine whether contextual and task performance make different contributions to overall ratings by different sources (i.e., managers’ supervisors and peers as well as the managers themselves). These purposes were addressed by conducting a meta-analysis of multitrait-multirater (MTMR) matrices and subjecting the resulting correlation matrix to structural equation modeling (SEM) techniques (Viswesvaran & Ones, 1995).

Importance of Distinguishing Contextual From Task Performance

It is important to determine the extent to which contextual performance contributes uniquely to overall worth (and relatedly, the extent to which it is empirically distinct from task performance) for at least two reasons. The first reason has to do with the validity of selection measures. Borman and Motowidlo (1993) intended to further our knowledge of selection test validity by proposing that contextual performance would be better predicted by personality measures, and task performance would be better predicted by ability and experience. These hypotheses can only potentially be
confirmed to the extent that contextual performance is not redundant with task performance.

The second reason has to do with increasing organizational effectiveness. If, in fact, contextual performance does not make a unique contribution but is essentially redundant, then the organization’s focus should be on task performance. Techniques such as gainsharing, meant to increase contextual behaviors such as showing persistence and initiative, may be redundant with other techniques for increasing productivity, such as technical training. But if contextual performance can be distinguished, then these different techniques should not be seen as redundant or substitutable.

**Contribution of Contextual Performance to Organizational Worth**

Three studies have used multiple regression or SEM to evaluate the contributions of separate measures of contextual and task performance to overall performance ratings (Borman, White, & Dorsey, 1995; Motowidlo & Van Scotter, 1994; Van Scotter & Motowidlo, 1996). (Overall ratings can be taken as measures of organizational worth; Motowidlo & Van Scotter, 1994). All three studies used different raters for overall measures versus contextual and task measures to avoid same-rater bias (inflated correlations due to biases such as the halo effect; Borman et al., 1995, used a hands-on proficiency measure of task performance rather than a rating). Borman and Motowidlo (1997b) concluded that the evidence from these studies clearly shows that overall ratings are influenced uniquely by contextual performance.

Van Scotter and Motowidlo (1996) went a step further than the other studies by investigating two separate facets of contextual performance: *interpersonal facilitation* and *job dedication*. According to Van Scotter and Motowidlo, interpersonal facilitation “consists of interpersonally oriented behaviors that contribute to organizational goal accomplishment” (p. 526). These interpersonal behaviors improve morale, encourage cooperation, and generally support the social context in which task performance occurs. The behaviors in this category would be likely to correlate with personality traits such as agreeableness (Van Scotter & Motowidlo, 1996). Job dedication “centers on self-disciplined behaviors such as following rules, working hard, and taking the initiative to solve a problem at work” (p. 526). These dedication-oriented behaviors demonstrate the motivation to act in the organization’s best interest. According to Van Scotter and Motowidlo, traits such as conscientiousness should correlate with job dedication.

Assessing unique contributions to overall performance by interpersonal facilitation, job dedication, and task performance for Air Force mechanics was the focus of Van Scotter and Motowidlo’s (1996) study. To avoid same-rater bias, a different supervisor rated each dimension, including overall performance, for a total of four supervisors per mechanic. Overall performance was regressed on the other three dimensions. All three dimensions accounted for significant incremental variance when no unreliability corrections were made. However, when correlations were first corrected using interrater reliabilities, job dedication no longer accounted for unique variance.

On the basis of these results, Van Scotter and Motowidlo (1996) suggested that job dedication may not be distinguishable from task performance. Motowidlo, Borman, and Schmit (1997) echoed this suggestion. Motowidlo et al. further stated that they hoped for more empirical work to help settle the issue of where motivation fits in the definitions of contextual and task performance.

One consideration that may help in sorting out the contribution of dedication is job type—for example, considering managerial versus nonmanagerial jobs. The three studies described above (including Van Scotter & Motowidlo, 1996) all involved nonmanagerial jobs. Borman and Motowidlo (1993) suggested that managerial and nonmanagerial jobs differ in terms of contextual performance, providing somewhat different categories of contextual behavior for each job type.

**Contextual and Task Performance for Managerial Versus Nonmanagerial Jobs**

Borman and Motowidlo (1993) noted that the contextual-task performance distinction differs somewhat for managers as compared to nonmanagers. I speculated that the distinction differs in two ways, leading me to predict essentially the opposite of Van Scotter and Motowidlo’s (1996) results: for managers, job dedication would make a unique contribution to overall performance, whereas interpersonal facilitation would not. The rationale for these predictions drew heavily on the work of Borman and Brush (1993), who described the domain of managerial performance.

First, I speculated that job dedication may be more important for managers than for nonmanagers. Morgan (1993) suggested that workers look to their supervisors as role models and (to some extent) emulate the supervisors’ behavior. Although Morgan was concerned with ethical behavior in particular, the point probably holds for other types of job dedication behavior as well. Because of the potential influence on subordinates’ behavior, it may be that job dedication makes a unique contribution to overall managerial performance, even if it does not contribute uniquely to nonmanagerial performance.

Second, I speculated that interpersonal facilitation may be somewhat redundant with managerial task performance. A key difference between managerial and nonmanagerial work is that managers must accomplish goals largely through the work of others. This requires leadership to ensure that subordinates know what to do and are able and
motivated to do it. It is therefore important to break managerial task performance into two components: technical-administrative task performance and leadership task performance. Technical-administrative task performance includes all non-leadership-oriented tasks such as planning and organizing, administration and paperwork, technical ability, business judgment, and so forth. Leadership task performance is represented by Borman and Brush's (1993) dimension labeled "guiding, directing, and motivating subordinates and providing feedback," which they defined as "providing guidance and direction to subordinates; motivating subordinates by providing them with recognition, encouragement, constructive criticism, and other feedback as appropriate; helping to set goals and maintaining performance standards for subordinates; and monitoring subordinate performance" (p. 11). Another example of leadership task performance was provided by Viswesvaran, Ones, and Schmidt's (1996) performance category labeled "leadership," which they defined as "the ability to inspire, to bring out extra performance in others, to motivate others to scale great heights, and professional stature" (p. 561).

Leadership, although interpersonally oriented for the most part, can be distinguished conceptually from interpersonal facilitation because leadership is more explicitly oriented toward goal achievement. Leadership focuses primarily on providing guidance and motivation, whereas interpersonal facilitation focuses more on showing personal concern and improving morale. Still, leadership may overlap empirically with interpersonal facilitation. Although technical-administrative task performance may be distinct from interpersonal facilitation, leadership task performance may not be. Inclusion of this second task performance category may therefore mean that interpersonal facilitation does not make a unique contribution to managerial performance (as compared to Van Scotter & Motowidlo's, 1996, finding that it did contribute uniquely to nonmanagerial performance).

Hypotheses

My main hypotheses (Hypotheses 1 and 2) were essentially the opposite of Van Scotter and Motowidlo's (1996) findings regarding job dedication and interpersonal facilitation. Whereas Van Scotter and Motowidlo concluded that there was substantial overlap between dedication and task performance for mechanics, I hypothesized that for managers it is interpersonal facilitation that overlaps substantially with task performance. Hypothesis 1 was that when Van Scotter and Motowidlo's hypothesis test was replicated, all three dimensions (task performance, interpersonal facilitation, and job dedication) would show unique contributions to overall performance. In the test of this hypothesis, leadership task performance was excluded. Although Van Scotter and Motowidlo did not find strong evidence for a unique contribution by job dedication, I expected a unique contribution in the present study because of the focus on managerial work.

Hypothesis 2 was that when leadership task performance was included, interpersonal facilitation would no longer make a unique contribution to overall performance. This prediction, although inconsistent with Van Scotter and Motowidlo's (1996) findings, was made because of the conceptual overlap between leadership and interpersonal facilitation.

Hypotheses 3 and 4 were of secondary interest. These hypotheses concerned overall ratings by different sources and were based on the results of Borman et al. (1995). Hypothesis 3 was that peer ratings would be more strongly influenced by interpersonal facilitation than would supervisor ratings. (Borman et al., 1995, found that the interpersonal factor "obnoxious" had a larger path coefficient for peers.) Hypothesis 4 was that supervisor ratings would be more strongly influenced by technical-administrative task performance than would peer ratings (Borman et al., 1995, found a larger technical proficiency path coefficient for supervisors). Self-ratings were also included in the present study for exploratory purposes, and no specific hypotheses were made.

Method

Overview of Methodology: Structural Equation Modeling of a Meta-Analytic Correlation Matrix

The present study used a set of theory testing techniques described by Viswesvaran and Ones (1995). Two basic steps were involved. The first basic step was to conduct a meta-analysis to produce a matrix of correlations among all constructs. The second basic step was to subject the meta-analytic correlation matrix to SEM procedures. Analyzing the meta-analytic correlation matrix provides a more powerful test of the theory than analyzing data from a single study, and it allows inclusion of studies even if each individual study does not provide all necessary correlations (Viswesvaran & Ones, 1995).

Viswesvaran and Ones (1995) described seven steps in this process: (a) identify important constructs and relationships, (b) identify different measures used to operationalize each construct, (c) obtain all studies reporting correlations between conceptually distinct operational measures, (d) conduct psychometric meta-analyses and estimate correlations between measures, (e) use factor analysis to test the measurement model, (f) estimate the correlations between constructs, and (g) use path analysis with estimated true score correlations to test the proposed theory.

Identifying Constructs and Operational Measures (Steps 1 and 2)

The five relevant managerial performance constructs were described in the introduction: (a) job dedication, (b) interpersonal facilitation, (c) technical-administrative task performance, (d) leadership task performance, and (e) overall performance.
There are two issues concerning identification of operational measures. The first issue has to do with classifying dimensions. Each construct is broad enough to include many different dimension labels from existing studies. Classification of these dimensions is described below. The second issue has to do with different rating sources. To deal with the potential problem of same-rater bias noted in previous research, the present study used an MTMR framework as described by Lawler (1967). The sources included were supervisors, peers, and the managers themselves. Therefore three different operational measures of each performance construct were supervisor, peer, and self-ratings.

Locating Relevant Studies (Step 3)

A relevant study was one that provided an MTMR job performance correlation matrix for at least two dimensions and at least two of the three sources. Only studies of managerial performance were included. Second-level and higher-level supervisors were excluded because they likely have little opportunity to observe ratee performance.

The first step in the search for relevant studies was to examine studies included in previous performance meta-analyses focusing on correlations between sources (Conway & Huffcutt, 1997; Dickin-son, Hassett, & Tannenbaum, 1986; Harris & Schaubroeck, 1988; Viswesvaran, 1993). These studies should provide a good search of the literature through June 1996, the date through which Conway and Huffcutt searched. The second and third steps were intended to focus only on the time since June 1996. The second step involved a computerized literature search of PsycLIT and Dissertation Abstracts databases. Keywords included multitrait-multirater, MTMR, or multitrait-multimethod combined with job performance or work performance; the keyword 360-degree feedback was used alone. The third step was a manual search since June 1996 of the following journals: Academy of Management Journal, Human Performance, Journal of Applied Psychology, Journal of Occupational and Organizational Psychology, Journal of Vocational Behavior, Organizational Behavior and Human Decision Processes, and Personnel Psychology.

This search produced 14 relevant studies. Of these studies, 13 included supervisor ratings, 8 included peer ratings, and 12 included self-ratings. The mean and median number of dimensions per study were 5.93 and 4.50, respectively. The mean sample size was 239, and the median sample size was 174.

Classifying Dimensions

Each dimension for each MTMR matrix was classified as one of the following: (a) job dedication, (b) interpersonal facilitation, (c) technical–administrative task performance, (d) leadership task performance, (e) overall performance, or (f) unclassified. Coders used the instructions described below to classify dimensions based on dimension labels, definitions, sample items, and in some cases other relevant information. For some studies (e.g., Heneman, 1974) other sources containing information about dimensions were located as well. Only three studies provided no information beyond the dimension labels (Albrecht, Glaser, & Marks, 1964; Lawler, 1967; Steel & Ovalle, 1984). Coders judged most dimension labels for these studies to be straightforward enough to code; some dimensions were unclassified because they were not straightforward enough. Table 1 includes all dimension titles for each category.

The definition of job dedication included the first, second, and fourth categories on page 82 of Borman and Motowidlo (1993): “persisting with enthusiasm and extra effort as necessary to complete own task activities successfully;” “volunteering to carry out task activities that are not formally part of own job;” and “following organizational rules and procedures.” Job dedication also included the managerial megadimensions “organizational commit-

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>Dimension Title</th>
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<tbody>
<tr>
<td>Job dedication</td>
<td>Doing whatever it takes; confronting problem subordinates; self-awareness; lack of follow-through; initiative; commitment; effort put forth on the job; motivation; ethics; amount of effort put forth on the job</td>
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<td>Interpersonal facilitation</td>
<td>Effectiveness in interpersonal relations; building and mending relationships; compassion and sensitivity; putting people at ease; problems with interpersonal relations; cooperation; consideration; interpersonal relations</td>
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<tr>
<td>Technical–administrative task performance</td>
<td>Forecasting and budgeting effectiveness; sales performance; resourcefulness; being a quick study; hiring a talented staff; acting with flexibility; difficulty in molding a staff; difficulty in making strategic decisions; planning; investigating; quality; quality of job performance; ability to perform the job; know-how; administration; innovation; administrative; applying business judgement; initiating structure; quantity of output; staffing; negotiating; planning; productivity; quality of output; efficiency of resource utilization; problem-solving capacity</td>
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<td>Leadership task performance</td>
<td>Leading employees; setting a developmental climate; work team orientation; evaluating; supervising; leadership; work direction; feedback; motivating; human relations; power; dynamism; people management</td>
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<tr>
<td>Unclassified (samples)</td>
<td>Balance between personal life and work; strategic differences with management; control; security; adaptability</td>
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Note. Dimensions in the Overall Performance category are not shown because almost all were labeled merely overall performance.

* This dimension label was provided by two separate studies.
ment" and "persisting to reach goals" from page 86 of Borman and Motowidlo. These categories are all consistent with Van Scotter and Motowidlo's (1996) definition of job dedication as including self-disciplined behaviors. Furthermore, they are all likely to be a function of volitional personality traits such as conscientiousness (Van Scotter & Motowidlo, 1996).

The definition of interpersonal facilitation was a combination of Borman and Motowidlo's (1993) third major area of contextual performance described on page 82, "helping and cooperating with others," and their third managerial megadimension described on page 86, "maintaining good working relationships." Although not completely distinct from leadership task performance, the coding instructions for interpersonal facilitation focused primarily on showing personal concern and building relationships rather than on explicit goal achievement. This is consistent with Van Scotter and Motowidlo's (1996) statement that interpersonal facilitation includes "interpersonal acts that help maintain the interpersonal and social context" (p. 526) of an organization.

The definition of technical-administrative task performance included all non-leadership-oriented tasks of managers' jobs, and was based largely on categories used by Viswesvaran et al. (1996) as well as Borman and Brush's (1993) managerial megadimensions. This category included job knowledge, technical skill, administrative competence, planning and organizing, and any other tasks specific to managerial work (e.g., hiring a talented staff). These somewhat diverse dimensions were combined into one task performance category because they are all (a) fairly job-specific, and (b) likely to be functions primarily of ability and experience rather than of personality traits (as is true of contextual performance). Also included were fairly generically labeled dimensions falling into Viswesvaran et al.'s (1996) "quality" and "productivity" categories. There were a total of six such dimensions in four studies. It might be argued that these dimensions are too vague to fit neatly into the technical-administrative category. The MTMR correlation matrix was recomputed without these dimensions and the analyses reported below were rerun. There were only minor differences in results and no differences in conclusions, so all dimensions were included.

The definition of leadership task performance was a combination of Viswesvaran et al.'s (1996) "leadership" category and Borman and Brush's (1993) megadimension "guiding, directing, and motivating subordinates and providing feedback." As compared to interpersonal facilitation, the focus of leadership coding instructions was explicitly on goal achievement.

Overall performance was merely defined as overall, global performance. Overall measures that were composites of other dimensions in the MTMR matrix were excluded.

There were 83 dimensions in the 14 studies. The author classified each dimension, as did another coder with a Ph.D. in industrial-organizational (I/O) psychology. Coders agreed for 66 (80%) of the dimensions. Most of the disagreements (12 of 17) involved a code of "unclassified" by one coder; there were few dimensions classified into different dimensions by the two coders. Disagreements were resolved through discussion. Agreement could not be reached for seven dimensions and these were left as "unclassified." The numbers of dimensions in each category were: 9 interpersonal facilitation, 10 job dedication, 28 technical-administrative, 14 leadership, 5 overall, and 17 unclassified dimensions.

Results

Estimating Correlations Between Operational Measures (Step 4)

There were 15 separate operational measures: 5 dimension categories crossed with 3 rating sources. A separate meta-analysis of correlations was conducted for each of the 105 pairs of operational measures. The operational measures from different sources were used as separate indicators of each performance construct. Typically, meta-analysis involves correction for artifacts such as unreliability (Viswesvaran & Ones, 1995). The SEM analysis includes estimation of relationships among factors corrected for unreliability in the operational measures (i.e., unreliability correction is implicitly conducted as part of SEM), so I did not need to correct relationships before SEM. Therefore, what I desired at this step were precise estimates of correlations among the imperfect operational measures to use as input to SEM.

Viswesvaran and Ones (1995) recommended using correlations among linear composites when a study had multiple dimensions with the same classification. For example, a study could have two dimensions classified as leadership task dimensions and one overall performance dimension. To produce one leadership-overall correlation for inclusion in the meta-analysis, Viswesvaran and Ones recommended using Nunnally's (1978) formulas to compute the correlation between the overall measure and the linear composite of the two leadership measures. An alternative would be to average the two separate leadership-overall correlations to produce a single value. Linear composites were recommended because they are more construct valid (Viswesvaran & Ones, 1995).

However, the increase in reliability due to use of linear composites would mean an increase in the size of correlations among operational measures. Some studies in the meta-analysis would involve use of linear composites and others would not, so some coefficients would increase and others would not. The result would be heterogeneity in the distributions of correlations, which was not desired. Therefore, in the present study I averaged the separate correlations rather than using linear composites.

The meta-analytic MTMR correlation matrix is shown in Table 2. In computing the mean correlation for each pair of measures, cases were weighted by sample size. Variances of the separate distributions on which mean correlations were based tended to be small. The median variance was .0016 (median standard deviation of .04) for the 98 distributions including more than one coefficient, indicating that the distributions were quite homogeneous. This is consistent
Table 2
Meta-Analytic Multitrait–Multirater (MTMR) Correlation Matrix

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<td>11. Job dedication</td>
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Note. Harmonic mean sample sizes across values in the correlation matrix were 427 including all variables and 463 excluding leadership task performance. Within-source correlations are intrarater correlations, whereas between-source correlations are interrater correlations. Tech–admin = Technical-administrative task performance.

* Convergent validities (correlations for the same dimension rated by different sources).

with Conway and Huffcutt’s (1997) finding that variation was relatively small for managerial jobs. The sample sizes used for SEM analyses were the harmonic means of the sample sizes for the individual mean correlations (Viswesvaran & Ones, 1995). The harmonic means were 427 including leadership (all 105 mean correlations) and 463 excluding leadership (66 mean correlations).

Testing the Measurement Model (Step 5) for Hypothesis 1

Hypothesis 1 (excluding leadership task performance) stated that interpersonal facilitation, job dedication, and technical–administrative task performance would all contribute uniquely to overall performance. The meta-analytic MTMR matrix in Table 2 was subjected to confirmatory factor analysis (CFA). The CFA model included four correlated dimension factors (overall performance in addition to the three hypothesized causes) and each factor had three indicators (supervisor, peer, and self-ratings). Method variance due to rater was estimated using correlated uniquenesses (Kenny & Kashy, 1992; Marsh, 1989). In other words, for the four separate measures from each source, correlations were allowed among the uniquenesses, or error terms (variance in the measures not shared with the factors). These correlated uniquenesses represent variance due to rater biases such as the halo effect.

Adequacy of fit was assessed in two ways. First, two model fit indexes, the chi-square goodness-of-fit test and the root-mean-square error of approximation (RMSEA; MacCallum, Browne, & Sugawara, 1996), were used to assess whether additional parameters were needed to achieve good fit. Good fit is demonstrated by a nonsignificant chi-square and an RMSEA less than .050. The correlated uniqueness CFA model fit the data very well, $\chi^2(30, N = 463) = 35.99, ns$, and an RMSEA of .021. Standard errors for all parameter estimates were less than .10.

Second, to determine whether all estimated parameters were necessary, a series of nested models was estimated as recommended by Widaman (1985) and Marsh (1989). The fit of the model with trait and method effects (the hypothesized model) was compared to the fit of a model with traits but no methods to evaluate the need for method effects, and to a model with methods but no traits to evaluate the need for trait effects. To further evaluate the need for trait effects, another comparison was made with a model including method effects plus one general trait factor. Differences in chi-squares between models, evaluated using the differences in degrees of freedom, were all highly significant ($p < .05$), indicating the hypothesized model fit best, and that both trait and method effects were needed.

Proportions of trait variance for each operational measure were computed by squaring factor loadings, and these were averaged to obtain a summary proportion of trait variance for each rating source. Summary proportions of method variance for each source were computed by averaging each source’s correlated uniquenesses (Conway, 1998). Mean proportions of trait variance were .39 for supervisor, .28 for peer, and .17 for self-ratings. Mean proportions of method variance were .31 for supervisor, .41 for peer, and .34 for self-ratings. These proportions of variance are comparable.
to previously published estimates using CFA (e.g., Conway, 1996; Cote & Buckley, 1987).

**Structural Equation Modeling (Steps 6 and 7) for Hypothesis 1**

Viswesvaran and Ones (1995) separately described estimating relationships among constructs (Step 6) and path analysis (Step 7). The SEM accomplished both steps at the same time. The structural model for Hypothesis 1 included the three hypothesized causes, all of which were allowed to correlate with each other. The structural model's fit can be evaluated independently of the measurement model's fit (Anderson & Gerbing, 1988). This fit assessment indicates whether additional structural parameters should be estimated. However, the current structural model was just-identified, meaning no additional structural parameters could be estimated given the number of factors (i.e., the structural model had no degrees of freedom). The fit of the just-identified structural model is always perfect, so there is no point in assessing it. Rather, individual path coefficients can be evaluated for statistical significance.

Path coefficients are shown in Figure 1. All three hypothesized causes showed significant ($p < .05$) path coefficients, with $r$ values greater than 1.96. This result showed that each cause contributed uniquely to overall performance. Technical–administrative task performance showed the largest path coefficient at .48.

![Figure 1. Path coefficients for models with overall performance as the hypothesized effect, both excluding leadership (coefficients to the left of slashes) and including leadership (coefficients to the right of slashes). Tech/Admin = Technical–Administrative task performance. * $p < .05$.](image)

**Testing the Measurement Model (Step 5) for Hypothesis 2**

Hypothesis 2 was that when leadership task performance was included, interpersonal facilitation would no longer make a unique contribution to overall performance. The measurement model was identical to that for Hypothesis 1 except for the additional factor (leadership task performance) and the corresponding three additional measures (ratings of leadership by the three sources). For the Hypothesis 2 measurement model, $\chi^2(50, N = 427) = 71.66$, $p < .05$, and RMSEA was only .032. Standard errors were all less than .10. Comparisons of nested models indicated the need for both trait and method effects, and proportions of trait and method variance were almost identical to those from the analysis of Hypothesis 1. Fit was slightly poorer with leadership included than when it was excluded, possibly because of an increase in variation in sample sizes across mean correlations when leadership was included. Still, fit was good overall and no problems with the solution were apparent.

**Structural Equation Modeling (Steps 6 and 7) for Hypothesis 2**

The structural model was identical to the one for Hypothesis 1 except for inclusion of the fourth hypothesized cause, leadership task performance. Path coefficients are shown in Figure 1. Factor loadings and correlations between factors are shown in Table 3. Results were fairly consistent with Hypothesis 2. The path coefficient for interpersonal facilitation dropped from .21 to .15 as compared to the analysis excluding leadership, and it was only marginally significant ($p < .10$). The leadership path coefficient of .16 was not significant. It is worth noting that the job dedication path coefficient dropped from .31 to .24 (still significant, $p < .05$), whereas the technical–administrative path coefficient remained almost identical at .46 ($p < .05$).

**Testing the Measurement Model (Step 5) for Hypotheses 3 and 4**

Hypothesis 3 was that peer ratings would be more strongly influenced by interpersonal facilitation than would supervisor ratings. Hypothesis 4 was that supervisor ratings would be more strongly influenced by technical–administrative task performance than would peer ratings. These hypotheses were tested twice, once excluding leadership from the analysis and once including leadership. The two measurement models were similar to those for the first and second hypotheses. The main difference was that instead of a single overall performance factor with three measures, there were three separate overall factors (one for each rating source), each with a single measure.
Table 3  
**Standardized Parameter Estimates for Structural Equation Models**  
*With a Single Overall Performance Factor*

<table>
<thead>
<tr>
<th>Performance factor</th>
<th>Dedication</th>
<th>Interpersonal</th>
<th>Tech–Admin</th>
<th>Leadership</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
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<td></td>
<td>.54</td>
<td>.59</td>
<td>.59</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td>.61</td>
</tr>
<tr>
<td>Tech–admin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td>.53</td>
<td></td>
<td>.51</td>
<td>.52</td>
<td>.54</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech–admin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td>.38</td>
<td></td>
<td>.30</td>
<td>.36</td>
<td>.40</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech–admin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Factor loadings**  

**Factor correlations**

<table>
<thead>
<tr>
<th></th>
<th>Dedication</th>
<th>Interpersonal</th>
<th>Tech–admin</th>
<th>Leadership</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>—</td>
<td>.47</td>
<td>—</td>
<td>—</td>
<td></td>
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<tr>
<td>Interpersonal</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Tech–admin</td>
<td>.68</td>
<td>.47</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>.60</td>
<td>.66</td>
<td>.59</td>
<td>—</td>
<td>.68</td>
</tr>
<tr>
<td>Overall</td>
<td>.72</td>
<td>.58</td>
<td>.79</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*Note.* Factor loadings and correlations are from the measurement model including the Leadership factor. Measurement model estimates with Leadership excluded were almost identical. Only hypothesized factor loadings are shown because all other loadings were fixed at zero. Factor correlations are corrected by structural equation modeling for unreliability in the operational measures. All factor loadings and factor correlations were significant, $p < .05$. Tech–admin = Technical–administrative task performance.

Because each overall performance factor had only one measure, measurement error could not be estimated. Therefore reliabilities were fixed before analysis. Interrater reliabilities of .44 for supervisors and .36 for peers were used on the basis of Conway and Huffcutt’s (1997) meta-analysis results for managerial jobs. Interrater reliability was not appropriate for self-ratings. One study included in the present meta-analysis (Center for Creative Leadership, 1997) provided data for an appropriate self-reliability. This study had essentially two self-rated measures of overall performance from the Benchmarks instrument: the mean rating on the section titled “Handling Challenging Jobs” and the mean rating for the 22 managerial skills, perspectives, and flaws scales. The correlation between these two overall measures ($N = 204$) was .60, and this was used as the self-reliability. Fit indexes, standard errors, and proportions of trait and method variance for these two measurement models were very similar to those for measurement models for Hypotheses 1 and 2.

**Structural Equation Modeling (Steps 6 and 7) for Hypotheses 3 and 4**

To test Hypotheses 3 and 4, task and contextual performance dimensions were all hypothesized as causes of each source’s overall factor. Analyses excluding and including leadership both supported Hypotheses 3 and 4. Table 4 shows the path coefficients for each source for both analyses. The peer path coefficient for interpersonal facilitation was larger than the supervisor coefficient, and the difference was larger when leadership was included. The supervisor path coefficient for technical–administrative performance was larger than the peer coefficient and the difference was about the same regardless of whether leadership was included. Exploratory analyses of self-ratings showed results similar to supervisor ratings; technical–administrative performance had the largest coefficient and interpersonal performance had a very low coefficient (virtually zero).
Table 4  
Standardized Parameter Estimates for Structural Equation Models With Separate Overall Performance Factors for Each Source  

<table>
<thead>
<tr>
<th>Source</th>
<th>Dedication</th>
<th>Interpersonal</th>
<th>Tech-Admin</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor</td>
<td>.26*</td>
<td>.13</td>
<td>.55*</td>
<td>.27*</td>
</tr>
<tr>
<td>Excluding Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer</td>
<td>.30*</td>
<td>.26*</td>
<td>.34*</td>
<td>.03</td>
</tr>
<tr>
<td>Excluding Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>.16</td>
<td>.07</td>
<td>.27*</td>
<td>.23</td>
</tr>
<tr>
<td>Excluding Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Overall performance was the hypothesized effect, or endogenous variable, for these analyses. Tech-Admin = Technical-Administrative task performance.  
* p < .05.

Discussion

The number and content of contextual performance categories that can be distinguished from task performance is an important matter (Motowidlo et al., 1997; Organ, 1997; Van Scotter & Motowidlo, 1996). Making a unique contribution to overall performance is a key issue in distinguishing aspects of performance. Previous research by Van Scotter and Motowidlo (1996) suggested that the interpersonal facilitation but not the job dedication aspect of contextual performance could be distinguished from task performance.

The present study on managerial work replicated the finding that interpersonal facilitation made a unique contribution to overall performance. Additionally, the present study found evidence that job dedication also contributed uniquely for managers. Further, the inclusion of leadership task performance muddied the waters somewhat. Finally, results for different sources suggested that peers paid more attention to interpersonal facilitation while supervisors paid more attention to task performance.

Implications for the Distinction Between Contextual and Task Performance

One implication of the present study for the contextual–task performance distinction is that it appears hasty to conclude that job dedication cannot be distinguished from task performance. For managers the distinction is apparently an important one, even if it is not so important for nonmanagers. Also, further research may find that more specific aspects of job dedication are distinguishable even for nonmanagers. For example, it seems logical that “persisting with extra enthusiasm and effort” (Borman & Motowidlo’s, 1993, first category of contextual performance, and part of Van Scotter and Motowidlo’s, 1996, job dedication) will promote task performance to the point that it may not be distinguishable. But other parts of job dedication, such as volunteering for extra work and following organizational rules, may still contribute to overall worth beyond task performance.

Unexpectedly, the inclusion of leadership reduced the unique contribution for job dedication. (A similar reduction for interpersonal facilitation was expected.) This finding may be due to “leading by example”: Being a dedicated manager who serves as a positive role model for subordinates may be part of what earns high ratings on leadership dimensions.

A second implication is that the contextual–task distinction differs by rating source. Peers showed strong evidence of distinguishing both aspects of contextual performance from task performance. The distinction held up even when leadership was included. Supervisors and the rates themselves showed less strong evidence, particularly when leadership was included.

The larger supervisor path coefficient for leadership as compared to contextual performance aspects suggests that leadership task performance is more important to supervisors than is contextual performance. For peers the situation is reversed: Results suggest that contextual performance is more important than leadership task performance. This may be due in part to differences in opportunity to observe managerial behavior. Peers may have more opportunity to observe interpersonal behavior, and managers may display more typical levels of dedication in the presence of peers than in the presence of supervisors (Murphy & Cleveland, 1995). Peers may therefore pay more attention to these two factors. Supervisors may have to rely more on results than on actual observed behavior (Murphy & Cleveland, 1995), and leadership may be more easily inferred from results such as unit productivity data. For that reason supervisors may give more weight to leadership.

Self-ratings were somewhat puzzling. Technical–administrative performance was the only dimension category to show a unique contribution to overall ratings. Interpersonal facilitation showed virtually a zero coefficient, even though the rates had complete opportunity to observe their own interpersonal behavior. A possible explanation is that workers consider their interpersonal behavior to be their own business and not particularly job-related, so they do not take it into account when rating themselves.

A third implication deals with the validity of selection measures. Borman and Motowidlo (1993) proposed the contextual–task performance distinction as a way to increase our understanding of selection test validities. Specifically, they hypothesized that personality measures would correlate more strongly with contextual performance than with task performance (Borman & Motowidlo, 1997b). If this is true, the contextual–task performance distinction
makes an important contribution to personnel selection theory. However, the hypothesis can only be confirmed if contextual performance aspects are empirically distinct from task performance.

Van Scotter and Motowidlo (1996) showed evidence of distinctiveness for interpersonal facilitation but not for job dedication. These results suggest that personality measures may show higher validities for interpersonal facilitation criteria but not for job dedication criteria. The present study provides evidence that both interpersonal facilitation and job dedication are empirically distinct for managerial work. This means that personality measures for managerial selection may show higher validities for job dedication as well as interpersonal facilitation.

A final, tentative implication deals with increasing organizational effectiveness. George and Jones (1997) considered organizational context factors that may influence the level of "organizational spontaneity," a concept closely related to contextual performance. For example, reward systems such as an organization-wide gainsharing program may tend to promote initiative and dedication. If job dedication were redundant with task performance then gainsharing might be at least partially redundant with interventions aimed directly at improving task performance, such as technical training. The interventions might therefore be considered alternative and fairly interchangeable means of reaching the same goal: higher task performance. However, the finding here that job dedication clearly made a unique contribution to overall effectiveness suggests that these interventions are not interchangeable, but would likely each make a unique contribution to organizational effectiveness.

Future Research and the Number of Contextual and Task Performance Dimensions

The present study involved analysis of two contextual performance dimensions (interpersonal facilitation and job dedication) and two managerial task performance dimensions (technical–administrative performance and leadership). This study is part of a gradual trend toward examining more complex performance models. Historically I/O psychologists have tended implicitly to conceptualize performance unidimensionally (i.e., focusing on overall performance; Campbell, McCloy, Oppler, & Sager, 1993). Borman and Motowidlo’s contextual–task performance distinction provided a somewhat more complex conceptual performance model. Van Scotter and Motowidlo (1996) along with the present study focused on more specific aspects of contextual performance, and the present study broke the managerial task performance domain into two categories.

It is desirable that this trend continues until research determines that no more performance categories can be usefully distinguished. As mentioned earlier, it would be interesting to separate different aspects of job dedication—for example, separating persistence from volunteering for extra work. While they share a common focus on motivated, conscientious behavior aimed at improving organizational functioning, volunteering may be more likely to contribute uniquely, even for nonmanagers.

Another example concerns the technical–administrative task category for managers. Technical performance and administrative performance arguably are different categories, because some managerial jobs focus primarily on one or the other (thanks to an anonymous reviewer for suggesting this). I believe it was sensible to combine them in the present study because they share a job-specific focus and probably share ability and experience as antecedents (even administration, such as scheduling and planning, requires information processing such as considering and deciding among alternative strategies). However, future research may find that separating them provides a more detailed understanding of managers’ work.

References

References marked with an asterisk indicate studies included in the meta-analysis.

Conway, J. M. (1998). Estimation and uses of the proportion of
method variance for multitrait–multimethod data. Organizational Research Methods, 1, 209–222.

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