

Achieving and Relating: Validation of a Two-Factor Model of Managerial Orientation

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Abstract

This purpose of this study was to evaluate validity evidence derived from a two-factor model for describing managerial orientation. Utilizing the Leading Dimensions Profile (LDP), a global web-based psychometric survey, researchers analyzed the criterion-related validity of two factors: achievement drive and relational drive. Both individual and additive validity evidence was gathered, with factors considered in linear and nonlinear forms. The study included managers and manager trainees, along with employer-provided performance ratings and psychometric assessments of managerial potential. The results suggest a stronger correlation to performance may result from a combined two-factor model, when compared to considering the two factors independently.

Keywords: management, leadership style, achievement drive, relational drive, LDP

1. Introduction

Interest in utilizing personality measures for managerial development has remained relatively constant over several decades. More recently, there has been significant growth in the use of assessments for selecting managers as well (Robert & Smith, 2001), and for good reason. Improvements in psychometric methods and advancements in delivery technology have increased the validity and utility of commercially-available assessments. Vinchur, Schippmann, Switzer & Roth (1998) confirm that, even if accounting for only 10% of variance in work performance, personality measures provide inexpensive and objective criteria for the employment selection process. The increased utilization for selection has fueled a renewed research emphasis on personality measures that are specifically linked to managerial behaviors, with much debate as to whether broad measures or more specific factors offer a more effective approach in employment settings.

In both research and practice, broad measures of personality have been linked to job-related criteria, with a particular emphasis on predicting managerial performance.

Devine, Naidu & Kleimenhagen (1997) noted that broad measures of personality (referred to in this context as “managerial style”) have been successful in identifying the behavior-performance linkage among managers. Style appears to offer the broadest of measures, representing managers’ behavioral orientation toward common managerial activities, such as planning, organizing, directing, and controlling. In a comprehensive analysis of managerial psychology, Wofford (1967) noted that the emphasis on such activities may differ based on hierarchical level, with top managers focusing more on planning and organizing, while frontline managers tend to focus more on exercising more immediate control.

Practically speaking, all managers may perform planning, organizing, and controlling activities to varying degrees, particularly those activities involved in directing employees. Northouse (2013) contends that, regardless of the specific activity, managers generally carry out some combination of task-oriented and relationship-oriented behaviors when they exercise leadership. Further, Northouse suggests, “the key to being an effective leader often rests on how the leader balances these two behaviors. Together they form the core of the leadership process” (2003, p. 85).

Much of prevailing research in recent years has focused on developing frameworks for measuring and balancing such behaviors. In one such study, Devine, Naidu & Kleimenhagen (1997) noted that the interaction of two specific managerial behaviors not only impacted the managers’ own performance, but also the performance of their employees as well. Hence, the development of a valid and reliable predictor of managerial style offers much promise for impacting performance within and across organizational units. While the potential utility of measuring managerial style seems clear and compelling, the process of deploying a valid and reliable measure remains quite challenging. Perhaps this point is best summarized by Wofford’s (1967) contention that, “behavior style is the person’s characteristic behaviors which occur in response to broad situations as perceived. Not every behavior is included as a component of a style. It is composed of those behaviors which recur with relative consistency in a given situation. The behavior style for a person in a broad situation (such as a job) is defined in terms of specific, component behavior patterns” (p. 462).

Since the mid-20th century, a substantial body of research has focused on two specific behavior patterns that apply broadly to managerial roles. In the famed Ohio State studies, researchers found that as much as 85% of leadership behaviors recognized in the workplace reflected patterns associated with task-oriented (initiating structure) and people-oriented (consideration) approaches (Dubrin, 2010).

Since these earliest studies, there has been increasing emphasis on a two-factor approach, reflecting some form of the aforementioned behavior patterns. This emphasis extends from research into practice, with employment-related job analyses commonly structured according to task-oriented and worker-oriented factors (Blake & Mouton, 1978; Robertson & Smith, 2001). Depending on the application, these task-oriented and worker-related factors have been associated with or referred to as initiating structure, production-oriented, concern for production and consideration, employee-oriented, or concern for people, respectively (Northouse, 2013).

Regardless of the name by which they are referred, Dubrin (2010) confirms the utility of leveraging the task-related and people-related factors as a means of classifying behavior patterns. Task-related examples include behaviors such as: adaptability to the situation, direction setting, risk-taking, and hands-on guidance, whereas people-oriented behaviors include: openness to worker opinions, satisfying higher-level needs, giving emotional support/encouragement, and inspiring trustworthiness (Dubrin, 2010).

As the two-factor model grew in prominence for managerial selection and development, practitioners formed certain assumptions regarding task-oriented and people-oriented factors. One such assumption, called the “high-high myth,” has enjoyed widespread support in managerial training programs (Waldo, Malan, & Wharton, 2014), whereby the ideal behavior pattern for effective managers would be described as a high-task and high-relationship style. Although broadly deployed across industries and geographies, the superiority of the “high-high” assumption has not been universally supported by research (Northouse, 2013), creating a potential misalignment between research and practice.

At the root of the research-practice divide may be faulty assumptions regarding the psychometric qualities of the two-factor model. While often considered to be simple linear constructs, more recent research has investigated the nonlinear nature of achievement drive and relational drive factors.

For example, Yukl (2006) reports that the association of achievement drive and manager performance is nonlinear, with the most effective managers being characterized by moderately high achievement drive, rather than the linear (very high) assumption held by many practitioners.

Just as assumptions regarding high achievement drive have been challenged, researchers have countered similar assumptions regarding elements of relational drive. Warr (2002) speculated that the relationship between an individual's job performance and their extraversion may be nonlinear. Likewise, Crant (1995) concluded that a linear association between extraversion and objective job performance could not be established. A plausible explanation was advanced regarding an employee's exhibition of "too much" of a desirable factor, which could diminish job performance. To this point, Dawson (1992) found that performance was highest when an individual's empathy levels were moderate in nature, whereas performance actually declined at either lower or higher empathy levels.

In their landmark study, Barrick & Mount (1991) suggested that the effectiveness of personality factors may be limited to specific occupational groups, such as management and sales, because of the requirements for frequent interpersonal interactions which are geared toward influencing others' behavior. In the current study, researchers sought to evaluate the validity of a combined two-factor model, derived from nonlinear measures of achievement drive and relational drive. The study seeks to expand on the findings of Brodbeck, Frese & Havidan (2002) in which the most effective managerial orientation appeared to be associated with a combination of high task-orientation and moderate people-orientation. For the purposes of this study, task-orientation is derived from a commercially-deployed measure of achievement drive, described as "the focus and intensity with which an individual approaches common activities as well as long-term goals" (Waldo, 2010, p. 13). Within the same psychometric instrument, people-orientation is derived from a measure of relational drive, described as "the extent to which an individual engages emotionally with others in common circumstances" (Waldo, 2010, p. 13). The following research questions were evaluated:

RQ1: Do achievement drive and relational drive provide independent, reliable measures?

RQ2: Is the achievement drive factor associated with propensity for managerial performance?

RQ3: Is the relational drive factor associated with propensity for managerial performance?

RQ4: Does a combined model, including achievement drive and relational drive offer a superior indicator of managerial performance propensity (when compared to the factors measured independently)?

2. Method

2.1 Participants

This study included 892 participants from multiple sources, each completing a two-factor psychometric survey. For 195 participants of these participants, their respective employers provided ratings derived from appraisals of managerial performance. Additionally, 26 participants provided self-report scores for a manager potential index, derived from another commercially-available psychometric survey. The largest percentage of participants (81%) included managers at varying levels within their respective organizations, while 19% of participants included students and trainees in management training programs. Participating managers were from the US, Europe, and Australia, while the participating trainees were from US-based programs (although students from diverse nationalities were included).

2.2 Instrumentation

All participants completed the Leading Dimensions Profile (LDP), a web-based psychometric survey yielding results based on a two-factor model. The LDP consists of 95 questions, each presented via a forced-choice methodology in which participants signify statements as "mostly true" or "mostly false" based on their behavior preferences. Results are presented for two factors: achievement drive and relational drive, as well as multiple secondary and interactive dimensions.

All factors and dimensions are reported in comparison to a distribution of participants (collected during the formation of the survey), providing 1-100% scores for interpretation and analysis (Waldo, 2010). While the factors are estimated and reported independently, this study explores the validity of a combined two-factor model derived using a combination of achievement drive and relational drive factors. Broadly speaking, these factors are presented as linear measures, meaning higher outcomes are scored preferentially.

Within the context of specific professional applications, the factors are converted to nonlinear measures, whereby moderate outcomes (as opposed to lower or higher outcomes) may be scored preferentially, based on the job analysis and local validation results.

2.3 Procedure

Participants completed the LDP during management training programs, ranging from formal courses to informal one-on-one coaching sessions. Participants completed the LDP without collaborating with other participants, and they were not assisted during completion of the surveys. Participants were not given an explanation of the theory or underlying constructs being measured prior to completing the survey. Later, detailed interpretive reports were provided to participants as part of their respective training programs.

To evaluate the criterion validity associated with the two-factor model, researchers requested performance measures from the participants' employers. Three employers, representing 195 participants, provided a single performance criterion based on a 3-tier rating (indicating higher, moderate, or lower performance in the managerial role). This 3-tier rating was utilized in evaluating the correlation between the two-factor model and managerial performance.

3. Results

3.1 Independent Factors

Descriptive statistics for the two independent factors are shown in Table 1. The original LDP survey was normed to establish mean scores of 50% for both achievement drive and relational drive (Parks, 2010). The sample included in this study indicated a similar mean score for achievement drive and a higher mean score for relational drive.

As indicated in Table 2, internal consistency for the achievement drive factor was high, with a Cronbach's Alpha of .83 ($n=892$). Similarly, Table 3 reveals high internal consistency for the relational drive factor, indicated by a Cronbach's Alpha of .73 ($n=892$). Prior analyses conducted during the formation of the survey found Cronbach's Alphas of .84 and .80 for the achievement drive and relational drive factors, respectively (Parks, 2010). Further, the correlation matrix in Table 4 reveals that no correlation is exhibited between the achievement drive and relational drive factors, supporting their independence as psychometric factors.

Table 5 reveals the degree to which achievement drive and relational drive (as independent factors) may be linearly associated with specific indicators of managerial performance, including: manager performance ratings and a psychometric survey of managerial potential. The performance ratings, provided by the managers' respective employers, exhibited positive correlation with achievement drive ($r=.17$, $p<.05$) and negative, although non-significant correlation with relational drive ($r=-.11$, ns). Although not statistically significant, both achievement drive ($r=.20$, ns) and relational drive ($r=.25$, ns) demonstrated positive association with the psychometric survey of managerial potential.

3.2 Combined Two-Factor Model

As described in the Method section, a two-factor model was derived using a combination of achievement drive and relational drive factors. The results in Table 6 reveal no correlation was found between the model and either performance criterion ($r=.03$, ns for performance ratings and $r=.21$, ns for the psychometric survey of managerial potential).

An alternative model was derived based on a nonlinear application of each factor, whereby maximum points were assigned to moderately high achievement drive and moderately low relational drive outcomes. This nonlinear model was evaluated for association with the performance criteria, as reflected in Table 6. The nonlinear two-factor model was significantly, positively associated with both performance ratings ($r=.20$, $p<.01$) and the psychometric survey of managerial potential ($r=.39$, $p<.05$).

4. Discussion

As observed in the Results section, the achievement drive and relational drive factors demonstrated both psychometric independence and reliability, confirming the first research question (RQ1) posed.

The results indicate that achievement drive is positively associated with broad aspects of managerial performance, offering support for RQ2.

This is consistent with Yukl's (2006) assertions regarding the link between leadership effectiveness and higher levels of achievement motivation. Brewer & Gardner (1996) earlier made this point in suggesting that managers with higher achievement drive may express their desire for accomplishment via goal attainment, thus encouraging stronger managerial performance.

In addressing RQ3, the relational drive factor did not exhibit consistent association with managerial performance, given a negative (but non-significant) correlation to performance ratings and a positive (but non-significant) correlation to managerial propensity. Such a finding may be attributed to a nonlinear association between relational drive and managerial effectiveness, especially pertaining to addressing employee needs (such as building rapport, team-building, gaining consensus maintaining cohesion).

The combined model, leveraging linear applications of achievement drive and relational drive (meaning, higher outcomes on each factor were scored preferentially), did not reveal a significant association with managerial performance or propensity. Such a finding would deny RQ4, however, the alternative model (with nonlinear applications of achievement drive and relational drive), did show positive correlation with both managerial performance and propensity. The association between a nonlinear two-factor model and performance offers support for Devine's (1992) conclusion that work unit performance may be positively associated with managers who exhibit a leadership style characterized by higher-task, lower-relationship orientations.

5. Conclusion

The process of deploying a valid and reliable measure of managerial orientation remains quite challenging, particularly given the need to balance psychometric rigor with brevity and utility. Wofford (1967) posited that a manager's focus on achieving performance outcomes, while addressing employee needs, may be essential to leadership effectiveness. And yet, decades later there remains a lack of universal understanding regarding how managers strike the most effective balance between task/goals and people. The current study demonstrated that a superior prediction of managerial performance was derived from a model reflecting such a balance, specifically focusing on higher levels of achievement drive and lower to moderate levels of relational drive.

While structures, processes, and technology changes may impact certain managerial job requirements, the essential elements remain largely unchanged. That is, effective managers are those who can advance a course of action, while skillfully engaging both resources and human capital in that pursuit. Although a strong drive for achievement appears to offer much promise this regard, perhaps a strong drive for relationships may be "too much of a good thing" within a typical managerial role. Leveraging both drive factors in a single measure of managerial orientation, while recognizing their nonlinear alignment with certain aspects of the job, may present a very promising opportunity to guide managerial selection, development, and coaching in a meaningful way.

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Table 1: Descriptive Statistics for Independent Factors within the Two-Factor Model (N=892)

| | Achievement Drive | Relational Drive |
|--------------------|-------------------|------------------|
| Mean | 48.16 | 60.31 |
| Std. Error of Mean | .93 | .88 |
| Median | 48.00 | 65.00 |
| Std. Deviation | 29.26 | 27.75 |
| Minimum | 1.00 | 1.00 |
| Maximum | 100.00 | 100.00 |

Table 2: Internal Consistency, Item-Total Correlation and Descriptive Statistics of the Achievement Drive Factor (N=892)

| Item No. | Item-total correlation | Mean | SD |
|----------|------------------------|------|-----|
| 1 | .27 | .73 | .45 |
| 2 | .52 | .53 | .50 |
| 3 | .23 | .59 | .59 |
| 4 | .23 | .75 | .43 |
| 5 | .42 | .48 | .50 |
| 6 | .31 | .56 | .50 |
| 7 | .09 | .66 | .47 |
| 8 | .40 | .57 | .50 |
| 9 | .11 | .62 | .49 |
| 10 | .36 | .65 | .47 |
| 11 | .37 | .61 | .49 |
| 12 | .22 | .66 | .48 |
| 13 | .46 | .75 | .44 |
| 14 | .34 | .66 | .48 |
| 15 | .32 | .88 | .33 |
| 16 | .39 | .64 | .48 |
| 17 | .18 | .52 | .50 |
| 18 | .15 | .56 | .50 |
| 19 | .40 | .58 | .49 |
| 20 | .53 | .42 | .49 |
| 21 | .20 | .54 | .50 |
| 22 | .30 | .50 | .49 |
| 23 | .39 | .58 | .49 |
| 24 | .33 | .86 | .34 |
| 25 | .32 | .49 | .50 |
| 26 | .33 | .54 | .50 |
| 27 | .33 | .72 | .45 |
| 28 | .48 | .64 | .48 |
| 29 | .35 | .73 | .45 |
| 30 | .42 | .61 | .49 |
| 31 | .54 | .57 | .50 |
| 32 | .32 | .53 | .50 |
| 33 | .45 | .73 | .44 |

Table 3: Internal Consistency, Item-Total Correlation and Descriptive Statistics of the Relational Drive Factor (N=892)

| Item No. | Item-total correlation | Mean | SD |
|----------|------------------------|------|-----|
| 1 | .36 | .82 | .38 |
| 2 | .43 | .68 | .47 |
| 3 | .21 | .85 | .36 |
| 4 | .22 | .85 | .36 |
| 5 | .38 | .74 | .44 |
| 6 | .34 | .76 | .43 |
| 7 | .17 | .60 | .49 |
| 8 | .22 | .56 | .50 |
| 9 | .34 | .82 | .39 |
| 10 | .37 | .67 | .47 |
| 11 | .35 | .64 | .48 |
| 12 | .38 | .50 | .50 |
| 13 | .27 | .67 | .47 |
| 14 | .25 | .51 | .50 |
| 15 | .23 | .91 | .29 |
| 16 | .30 | .66 | .47 |
| 17 | .41 | .80 | .40 |
| 18 | .33 | .55 | .50 |

Table 4: Correlation Matrix for the Primary Factors (N=892)

| | 1 | 2 |
|-----------------------------|-----|---|
| 1. Achievement Drive Factor | 1 | |
| 2. Relational Drive Factor | .02 | 1 |

Table 5: Correlation Matrix for the Primary Factors and Managerial Performance Indicators (N=195 for Performance Rating; N=26 for Managerial Potential Survey)

| | 1 | 2 | 3 | 4 |
|-----------------------------|------|------|---|---|
| 1. Achievement Drive Factor | 1 | | | |
| 2. Relational Drive Factor | .02 | 1 | | |
| 3. Performance Rating | .17* | -.11 | 1 | |
| 4. Managerial Potential | .20 | .25 | - | 1 |

Table 6: Correlation Matrix for the Combined Two-Factor Models and Managerial Performance Indicators (N=195 for Performance Rating; N=26 for Managerial Potential Survey)

| | 1 | 2 | 3 | 4 |
|-------------------------------|-------|------|---|---|
| 1. Two-Factor Linear Model | 1 | | | |
| 2. Two-Factor Nonlinear Model | .47** | 1 | | |
| 3. Performance Rating | .03 | .18* | 1 | |
| 4. Managerial Potential | .21 | .39* | - | 1 |